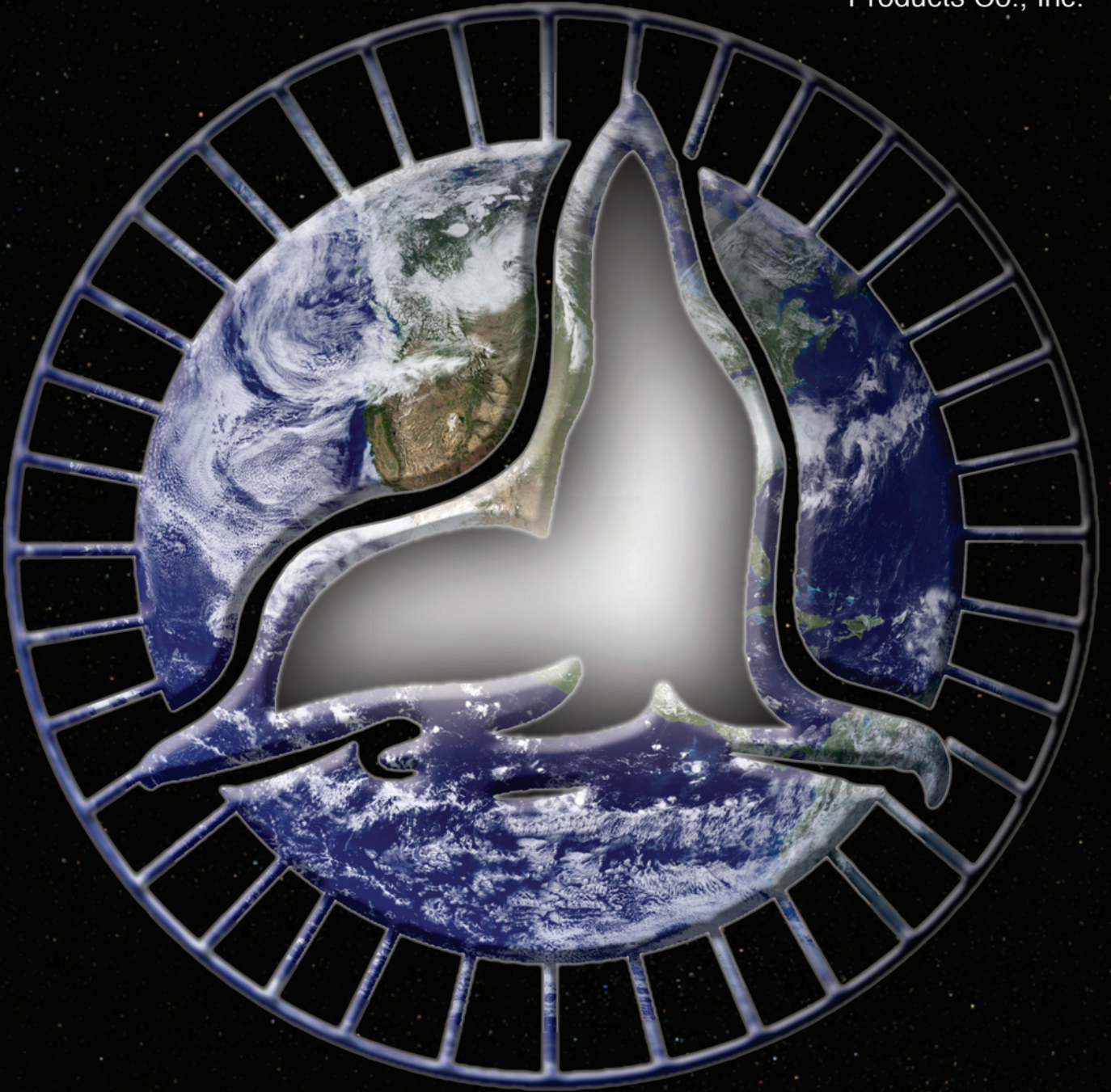


# SILVER SEAL

Products Co., Inc.



**Engine Parts & Shop Supplies Catalog**  
Phone: 800-521-2936 • [www.silver-seal.com](http://www.silver-seal.com) • Fax: 800-521-0580





# SILVER SEAL

Products Co., Inc.

## Quality Engine Parts & Shop Supplies Since 1959



In 1959, E.L. "Spike" Havens understood the need for a product that would enable engine builders to renew the life of worn valve springs. Spike invented, patented, and launched the manufacturing of the VSI®, the Valve Spring Insert. Designed with heat slashing serrations, VSI® still remains a truly unique product in today's market. It is the primary element on which Silver Seal Products Co. has advanced to the forefront.

- 💰 **No Minimum Order!**
- 💰 **World Wide Locations for Fast Service!**
- 💰 **Same Day Shipping!**
- 💰 **Expedited Air Services Available!**
- 💰 **Highly Knowledgeable Tech Support!**
- 💰 **Drop Ship Service Available**



Silver Seal  
is a Proud  
Member of



### Hours

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Sundays-Holidays	Closed

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**800-521-0580 Toll Free Fax (USA/Canada)**  
**www.silver-seal.com**

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## Mission Statement

The Team of Silver Seal Products Co., Inc. remains dedicated in providing our customers with the best in customer service with accurate and fast same-day order fill. We are committed to develop and offer the widest selection of the finest quality shop supplies and engine parts in the industry for today's everchanging engine designs.

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- Valve Seat Tooling (Pg. 11-21)
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# New Products

Silver Seal is constantly expanding it's product lines and introducing innovative products to the Aftermarket. Here's just a sample of what's new.

## FEATURING OVER 500 NEW PARTS!

Including:

**Oil Pans**

**Valve Stem Seals**

**Shop Essentials**

**Manifolds**

**Axle Shafts**

**Harmonic Balancers**

**Headers**

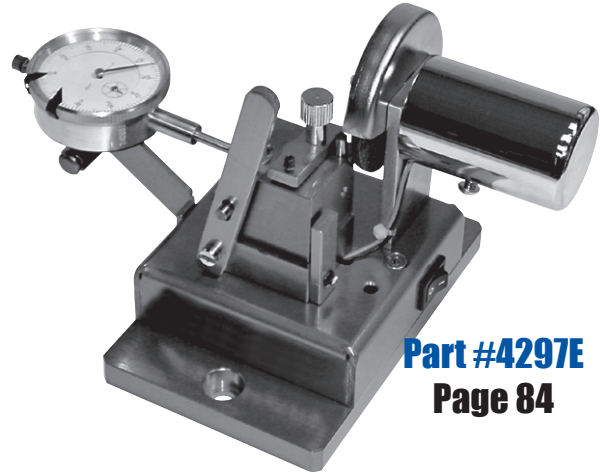
**Head Shims**

**Timing Covers**

**And More!**



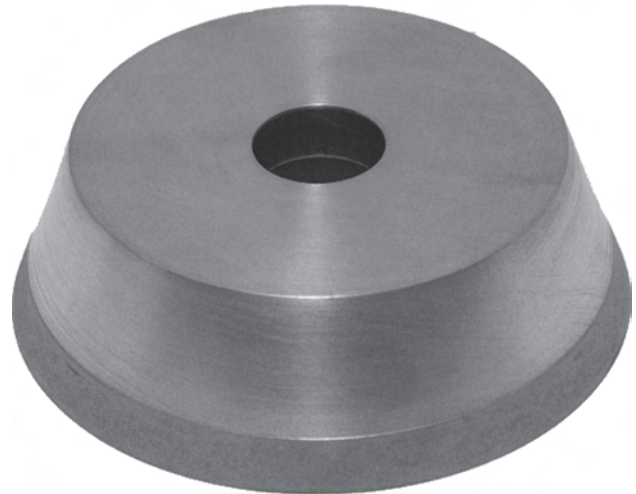
## Electric Piston Ring Filer



**Part #4297E**  
**Page 84**

## CBN Flywheel Grinding Wheel

*An Efficient Alternative  
to Conventional Abrasives*



**Part #CBN600F**  
**Page 95**

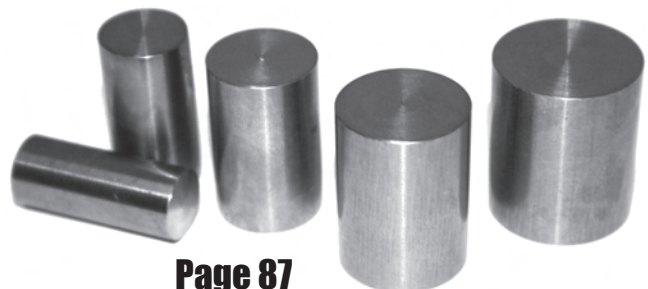
## Hylomar® Quick Fix Kit

*All Your Hylomar® Needs In One Box!*



**Part #HPL1000**  
**Page 48**

## Heavy Metal For Internal Crank Balancing



**Page 87**

## Heavy Duty Rod Splitting Fixture



**Part #KK649**  
**Page 86**



## Plastic Intake Manifolds

*Includes Gasket & O-Rings*



Make	Engine	Year	Part #
Ford	4.6L	1999-04	<b>IN281L</b>
		1996-00	<b>IN281E</b>
GM	3.8L V6	1995-05	<b>IN231L</b>

## Piston Ring Compressors



Page 85

**NEW**

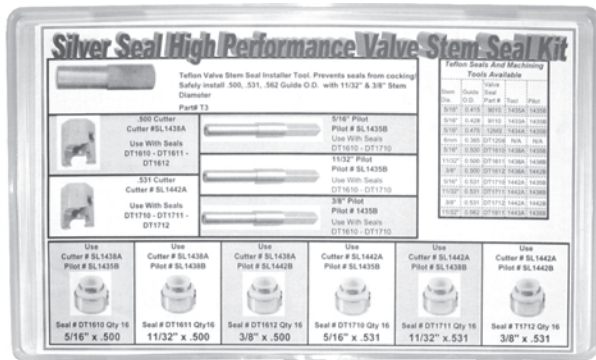


## Digital Valve Spring Tester

**1,200 Lb. Capacity**

Part #  
**05071E**  
Page 37

## High Performance Valve Stem Seal Kit



Part #**VS1000K**  
Page 109

## Variable Angle Valve Stem Seal Pliers



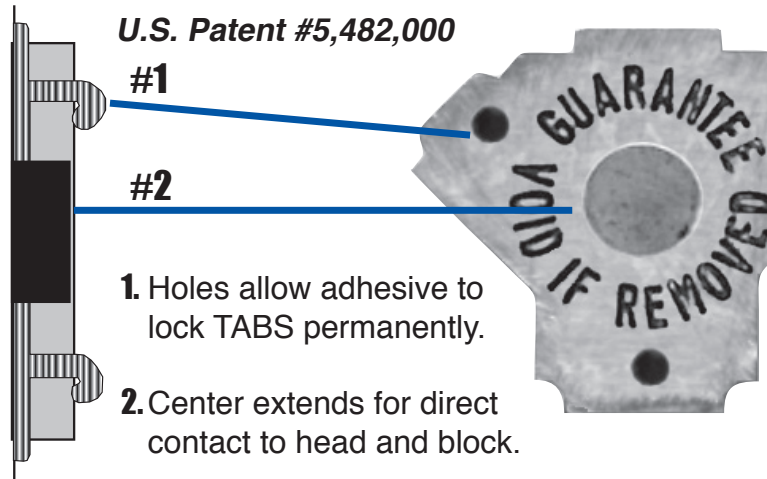
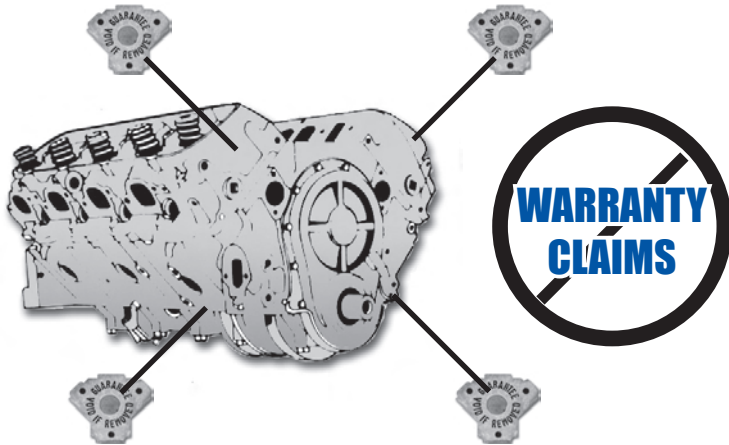
Part #**4609**  
Page 31





# Heat Tabs & Adhesive

## The Only U.S. Made Patented, Certified Heat Tab Available Your Protection Against Warranty Claims



U.S. Patent #5,482,000

#1

#2

1. Holes allow adhesive to lock TABS permanently.
2. Center extends for direct contact to head and block.

### "For Complete Protection"

#### Attach On Each Head & Both Sides of Block

When an engine reaches the temperature of the heat tab that is installed, the center will melt out, providing fast visual evidence!

- » **Certification of Center Melt Material**
- » **A MUST for Engine Builders - Large or Small**
- » **Court Cases Won w/100% Results**
- » **DO NOT Risk Your Hard Work Using Off Shore Imitations with NO CERTIFICATION**

### Heat Tab Kit

#### Part #HTP SPECIAL

(Special package saves you 15%)

**Includes:** 200 Premium Heat Tabs

1 3oz. Tube of Adhesive (HTA)

1 Tube-Grip Applicator (V200)

6 Extra Tube Tips (V052)



### Heat Tabs

#### 3 Temperatures



#### High-Temp Gas Engine 250-255°F (121-124°C)

Quantity	Round Heat Tab	Prem. Heat Tab
1 Bag (100 Tabs)	HT1	HTP1
5 Bags (500 Tabs)	HT5	HTP5
10 Bags (1000 Tabs)	HT10	HTP10

#### Low-Temp Diesel Engine 225-230°F (107-110°C)

Quantity	Round Heat Tab
1 Bag (100 Tabs)	HT1L
5 Bags (500 Tabs)	HT5L
10 Bags (1000 Tabs)	HT10L

#### Marine Heat Tabs 187-192°F (86-89°C)

Quantity	Round Heat Tab
1 Bag (50 Tabs)	HTM1

### Heat Tab Adhesive

#### Exclusive Formula!

Premium grade Heat Tab Adhesive provides proper heat transfer to the heat tab to get an accurate melt if the engine overheats past the temperature of the heat tab that is installed. Formulated for long-term holding strength under all engine operating conditions.

**Effective Temperature Range: -76° to +350°F**

**Tack free in 10-15 minutes. Fully cured in 24 hours.**



**3 oz. (85 gram) Tube**

(Approx. 200 Tabs)

**Part #HTA**



**10.5 oz. (283 gram) Cartridge**

(Approx. 700-750 Tabs)

**Part #HTAP10**

#### WARNING!

Previously suggested Devcon Adhesive is now a water based formula and is no longer recommended.

### Personalized Heat Tabs Available!

5,000 Piece minimum order, with one time letter detail charge. Personalize with up to nine letters or numbers. Call for details.



### 2 Part Adhesive

#### 1 oz. Tube

Attaches approximately 200 Heat Tabs.

**Part #DV11**

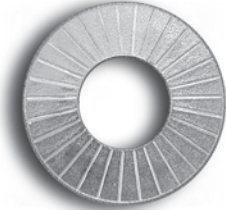




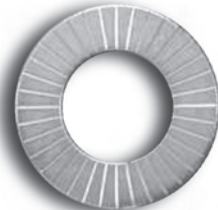
# VSI® Valve Spring Inserts

The Original VSI®

Individually Engineered, Tested, and Proven Superior!



**.060 Type "A"**  
For Serviceable Springs  
Std. - Copper Color  
HP - Blue, Case Hardened  
**PATENTED SERRATIONS**



**.030 Type "B"**  
For New Springs  
Std. - Silver Color  
HP - Blue, Case Hardened  
**PATENTED SERRATIONS**



**.015 Type "C"**  
For Balancing  
Std. - Black Color  
HP - Blue Tempered  
Spring Steel



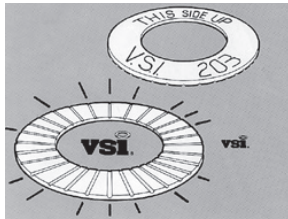
**.060 Cup A500 Series**  
For Step/Flush Spring Pads  
Std. - Copper Color  
HP - Blue, Case Hardened  
Helps Control Spring Walk  
**PATENTED SERRATIONS**

**Remember, Only VSI® Offers The Full Line, Don't Be Fooled By Imitations!**



## Patented Design

For decades, engine builders have been installing VSI inserts/adjusters on all valve jobs. Why? Because they are superior to plain shims. Only VSI has patented heat-retarding serrations. Whether you're a PER or CER (Custom Engine Rebuilder), VSI completes the valve job, building your reputation while doing a complete job for your customer.



**High-Performance Series VSI®** are the preferred valve spring insert when assembling High-Performance cylinder heads. Aluminum heads require the installation of inserts to prevent the valve spring from damaging the aluminum spring seat. Standard shims are unable to handle the stress of racing spring pressures.

Plain shims are NOT designed for the stresses of high valve spring pressure.

**VSI HP Series**  
Corrects & protects. Patented serrations dissipate heat.

- Patented Heat-Shaking Serrations.
- Equalizes the Installed Height & Pressure Among Springs.
- Type A (.060) & B (.030) HP Series are Case Hardened.
- Type C (.015) HP Series are Blue Tempered Spring Steel

## Free Cabinet Dispenser

with purchase of 30 box (#20000) or 50 box (#50000) assortment, or order separately (#5000MT)

### 30 Box Assortment

**Part #20000** (30 Boxes Type A & B)  
Provides 80% Coverage on Pass. Cars, Trucks, Tractors, & Industrial Engines.

A100	A105	A202	A301	A502
B100	B105	B202	B301	A503
A102	A200	A203	A302	A801
B102	B200	B203	B302	A810
A103	A201	A300	A303	A820
B103	B201	B300	B303	821

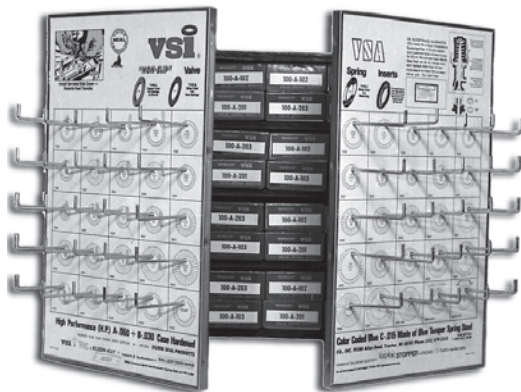
### 50 Box Assortment

**Part #50000** (1 Box Ea. - 50 Boxes)  
Provides 98% Coverage on Pass. Cars, Trucks, Tractors, & Industrial Engines.

A100	A106	A204	A305	A407
A101	A107	A300	B305	A408
B101	A200	B300	A306	A409
A102	B200	A301	A400	A502
B102	A201	B301	A401	A503
A103	B201	A302	A402	A506
B103	A202	B302	A403	A600
A104	B202	A303	A404	C601HP
A105	A203	B303	A405	A810
B105	B203	A304	A406	821

## 50 Hook Cabinet Dispenser

Easy-To-Store Boxes



24" Wide x 18" High x 4-1/2" Deep

**Part #5000MT**

5 FREE boxes of VSI with every 5000R cabinet.

See Page 2 of Price Sheet.

## Economy-Size Boxes



Save 10%

Add Suffix **RS** to the Part #





# Valve Spring Inserts **VSI**



## VSI "Cup Style" Valve Spring Inserts

Application (Refer to I.D./O.D. for proper fit)	VSI O.D.	Spring Pad O.D.	Spring Pad I.D.	Part #	Type
Same Application as 102 Series	1.542	1.390	1.000	A502(HP)	.060
Same Application as 103 Series	1.640	1.520	1.031	A503(HP)	.060
Same Application as 306 Series	1.650	1.530	0.645	A506(HP)	.060
SB Chevy w/remachined Spring Pad	1.400	1.265	0.821	A505	.060
Crane 1.460 O.D. Spring	1.600	1.475	0.645	A507HP	.060
SB Cylinder Head - Aluminum	1.613	1.470	0.570	A512(HP)	.060
BB Cylinder Head - Aluminum	1.700	1.550	0.570	A514	.060



Outside Cup  
helps  
control  
spring walk

A512/A514  
Style



## VSI "Inside Cup Style" Valve Spring Inserts

Application (Refer to I.D./O.D. for proper fit)	Spring Pad O.D.	Spring Pad I.D.	Part #	Type
Mazda	1.265	0.675	A860	.060
Audi, VW, Dodge	1.280	0.920	A850	.060
Ford, Mercury, Volvo	1.350	0.545	A810	.090
Chrysler 2.6L, Mitsubishi	1.370	0.942	821	.060
Cummins OE#3042745/172034	1.250	0.940	B812	.030



## VSI Special Applications

Application (Refer to I.D./O.D. for proper fit)	Spring Pad O.D.	Spring Pad I.D.	Part #	Type
Detroit Diesel, 92 Series	0.920	0.520	A802	.060
			B802	.030
Toyota	1.170	0.600	A880	.060
Datsun	1.200	0.523	830	.070
Datsun	1.218	0.875	836	.070
Honda	1.250	0.625	B840	.030
Chevrolet, Buick, Cadillac, Pontiac	1.250	0.812	A801	.060
Toyota	1.260	0.590	A881	.060
Toyota	1.335	0.795	883	.050
Chevy Luv	1.355	0.485	805	.070
Chrysler 2.2L, 2.5L	1.360	1.000	A820	.060
			B820	.030
			C820	.015
Toyota	1.385	0.565	882	.070
Ford 351 SVO	1.500	0.562	B603HP	.030
#3309-Diamond H.P. Spring	1.500	0.765	C603HP	.015
			C602HP	.015
Datsun (Set) Outer & Inner	Outer	0.995	831	.070
	Inner	0.490		
Chevy, Chrysler, Ford w/remachined guide	1.640	0.635	A601HP	.060
			B601HP	.030
			C601HP	.015
Caterpillar Md. #D-7 and D-8	1.937	1.250	A600	.060



We Accept These Major  
Credit Cards



Note: All 800 Series VSI are Case-Hardened



# VSI Valve Spring Inserts



## vsi Application Chart

AMC (Reference Only)				
Engine	Year	.060	.030	.015
121(2.0L)	1977-79	A201(HP)	B201(HP)	C201(HP)
134(2.2L) F-Head	1950-73	A203(HP)	B203(HP)	C203(HP)
134(2.2L) L-Head	1941-65	A203(HP)	B203(HP)	C203(HP)
151(2.5L) U,H,E,P	1983-96	A201(HP)	B201(HP)	C201(HP)
151(2.5L) Pontiac	1980-83	A201(HP)	B201(HP)	C201(HP)
173(2.8L) Chevrolet	1984-87	A203(HP)	B203(HP)	C203(HP)
196(3.2L) L-Head	1956-65	A101	B101	C101
199(3.3L) OHV	1965-70	A103(HP)	B103(HP)	C103(HP)
225(3.7L)	1966-71	A201(HP)	B201(HP)	C201(HP)
226(3.7L)	1954-65	A300(HP)	B300(HP)	C300(HP)
232(3.8L)	1964-79	A103(HP)	B103(HP)	C103(HP)
258(4.2L)	1971-90	A103(HP)	B103(HP)	C103(HP)
287(4.7L)	1963-66	A302HP	B302(HP)	C302(HP)
290(4.8L)	1966-69	A102(HP)	B102(HP)	C102(HP)
304(5.0L)	1970-83	A102(HP)	B102(HP)	C102(HP)
327(5.4L)	1957-66	A302HP	B302(HP)	C302(HP)
343(5.6L)	1967-69	A102(HP)	B102(HP)	C102(HP)
350(5.7L)	1968-71	A201(HP)	B201(HP)	C201(HP)
360(5.9L) N,P,7(Jeep)	1970-91	A102(HP)	B102(HP)	C102(HP)
390(6.4L)	1968-70	A103(HP)	B103(HP)	C103(HP)
401(6.6L)	1971-76	A103(HP)	B103(HP)	C103(HP)

Audi (Reference Only)				
Engine	Year	A106	B106	C106HP
1471cc(1.5L)	1974	A106	B106	C106HP
1588cc(1.6L)	1975-84	A107(HP)	B107(HP)	C107(HP)
390(6.4L)	1968-70	A103(HP)	B103(HP)	C103(HP)
401(6.6L)	1971-76	A103(HP)	B103(HP)	C103(HP)

Austin (Reference Only)				
Engine	Year	A302HP	B302(HP)	C302(HP)
1798cc(1.8L)	1973-75	A302HP	B302(HP)	C302(HP)

Buick (Reference Only)				
Engine	Year	A801	N/A	N/A
112(1.8L) G,J,O OHC	1982-86	A801	N/A	N/A
121(2.0L) B,P,1 OHV	1983-89	A801	N/A	N/A
151(2.5L) 5,R,U	1980-92	A201(HP)	B201(HP)	C201(HP)
173(2.8L) W,X,Y,Z	1980-90	A201(HP)	B201(HP)	C201(HP)
181(3.0L) E,L	1982-89	A203(HP)	B203(HP)	C203(HP)
196(3.2L)	1978-79	A201(HP)	B201(HP)	C201(HP)
198(3.2L)	1962-63	A201(HP)	B201(HP)	C201(HP)
215(3.5L)	1961-63	A201(HP)	B201(HP)	C201(HP)
225(3.7L)	1964-67	A201(HP)	B201(HP)	C201(HP)
231(3.8L)	1975-97	A201(HP)	B201(HP)	C201(HP)
250(4.1L)	1968-79	A201(HP)	B201(HP)	C201(HP)
252(4.1L)	1980-84	A201(HP)	B201(HP)	C201(HP)
260(4.3L)	1975-76	A303(HP)	B303(HP)	C303(HP)
260(4.3L) Diesel	1982-85	A103(HP)	B103(HP)	C103(HP)
265(4.3L)	1980-81	A203(HP)	B203(HP)	C203(HP)
267(4.4L)	1981-82	A203(HP)	B203(HP)	C203(HP)
300(4.9L)	1964-67	A201(HP)	B201(HP)	C201(HP)
301(4.9L) W,Y	1977-80	A203(HP)	B203(HP)	C203(HP)
305(5.0L)	1977-94	A203(HP)	B203(HP)	C203(HP)
307(5.0L) Y	1980-94	A303(HP)	B303(HP)	C303(HP)
340(5.6L)	1966-67	A201(HP)	B201(HP)	C201(HP)
350(5.7L) H,J,X	1968-74	A201(HP)	B201(HP)	C201(HP)
350(5.7L) H,J,X	1975-77	A203(HP)	B203(HP)	C203(HP)
350(5.7L) H,J,R,X	1977-80	A303(HP)	B303(HP)	C303(HP)
350(5.7L) L	1977-79	A203(HP)	B203(HP)	C203(HP)
350(5.7L) N Diesel	1980-85	A303(HP)	B303(HP)	C303(HP)
364(6.0L) Inner	1957-61	A201(HP)	B201(HP)	C201(HP)
364(6.0L) Outer	1957-61	A100	B100	C100
400(6.6L)	1967-69	A100	B100	C100
401(6.6L) Inner	1959-66	A202(HP)	B202(HP)	C202(HP)
401(6.6L) Outer	1959-66	A100	B100	C100
403(6.6L)	1977-80	A303(HP)	B303(HP)	C303(HP)
425(7.0L) Inner	1963-66	A202(HP)	B202(HP)	C202(HP)
425(7.0L) Outer	1963-66	A100	B100	C100
430(7.1L)	1967-69	A100	B100	C100
455(7.4L)	1970-76	A100	B100	C100

Cadillac (Reference Only)				
Engine	Year	A801	N/A	N/A
112(1.8L) G	1982	A801	N/A	N/A
121(2.0L) 1,B,P	1983-89	A801	N/A	N/A
252(4.1L)	1980-88	A201(HP)	B201(HP)	C201(HP)

Cadillac Cont. (Reference Only)				
Engine	Year	.060	.030	.015
260(4.3L) V6 Diesel	1985	A203(HP)	B203(HP)	C203(HP)
307(5.0L) Y	1980-91	A303(HP)	B303(HP)	C303(HP)
350(5.7L) B,8	1976-80	A303(HP)	B303(HP)	C303(HP)
350(5.7L) N Diesel	1978-85	A303(HP)	B303(HP)	C303(HP)
368(6.0L) 6,9	1980-84	A203(HP)	B203(HP)	C203(HP)
390(6.4L)	1959-63	A203(HP)	B203(HP)	C203(HP)
425(7.0L)	1977-79	A203(HP)	B203(HP)	C203(HP)
429(7.0L)	1964-67	A203(HP)	B203(HP)	C203(HP)
472(7.7L)	1968-74	A203(HP)	B203(HP)	C203(HP)
500(8.0L)	1970-76	A203(HP)	B203(HP)	C203(HP)

Chevrolet (Reference Only)				
Engine	Year	A302HP	B302(HP)	C302(HP)
61(1.0L) Geo	1985-94	A302HP	B302(HP)	C302(HP)
85(1.4L)	1976-77	A302HP	B302(HP)	C302(HP)
98(1.6L) C	1976-88	A302HP	B302(HP)	C302(HP)
111(1.8L) Diesel	1981-86	A801	N/A	N/A
112(1.8L) G	1982	A801	N/A	N/A
121(1.8L) 1,B,P	1983-91	A801	N/A	N/A
140(2.3L)	1971-77	A107(HP)	B107(HP)	C107(HP)
140(2.3L) Corvair	1960	A106	B106	C106HP
145(2.4L)	1961-63	A106	B106	C106HP
151(2.5L)	1977-91	A201(HP)	B201(HP)	C201(HP)
153(2.5L)	1962-70	A203(HP)	B203(HP)	C203(HP)
164(2.7L)	1960-69	A203(HP)	B203(HP)	C203(HP)
173(2.8L) W,X,Y,Z,1	1980-92	A203(HP)	B203(HP)	C203(HP)
194(3.2L)	1962-67	A203(HP)	B203(HP)	C203(HP)
196(3.2L)	1978-81	A201(HP)	B201(HP)	C201(HP)
200(3.3L)	1978-79	A203(HP)	B203(HP)	C203(HP)
229(3.8L)	1980-84	A203(HP)	B203(HP)	C203(HP)
230(3.8L)	1963-70	A203(HP)	B203(HP)	C203(HP)
231(3.8L)	1976-97	A201(HP)	B201(HP)	C201(HP)
235(3.9L)	1950-62	A200(HP)	B200(HP)	C200HP
250(4.1L)	1966-79	A203(HP)	B203(HP)	C203(HP)
262(4.3L) Z	1985-97	A203(HP)	B203(HP)	C203(HP)
265(4.4L)	1955-57	A201(HP)	B201(HP)	C201(HP)
267(4.4L)	1979-82	A203(HP)	B203(HP)	C203(HP)
283(4.6L)	1957-67	A203(HP)	B203(HP)	C203(HP)
302(5.0L)	1967-69	A203(HP)	B203(HP)	C203(HP)
305(5.0L)	1976-97	A203(HP)	B203(HP)	C203(HP)
307(5.0L)	1968-73	A203(HP)	B203(HP)	C203(HP)
327(5.4L)	1962-69	A203(HP)	B203(HP)	C203(HP)
348(5.7L)	1958-61	A200(HP)	B200(HP)	C200HP
350(5.7L)	1967-97	A203(HP)	B203(HP)	C203(HP)
350(5.7L) N Diesel	1980-85	A303(HP)	B303(HP)	C303(HP)
396(6.6L)	1965-70	A303(HP)	B303(HP)	C303(HP)
400(6.6L)	1970-71	A303(HP)	B303(HP)	C303(HP)
400(6.6L) Small Block	1970-76	A203(HP)	B203(HP)	C203(HP)
402(6.6L)	1972	A303(HP)	B303(HP)	C303(HP)
409(6.7L)	1961-65	A103(HP)	B103(HP)	C103(HP)
427(7.0L)	1966-69	A303(HP)	B303(HP)	C303(HP)
454(7.4L)	1970-76	A303(HP)	B303(HP)	C303(HP)

Chevrolet/GMC Truck (Reference Only)				
Engine	Year	A200(HP)	B200(HP)	C200HP
1817cc(1.8L) Chevy Luv	1972-75	A200(HP)	B200(HP)	C200HP
119(1.9L)	1982-85	A801	N/A	N/A
145(2.4L)	1961-63	A106	B106	C106HP
173(2.8L)	1982-94	A203(HP)	B203(HP)	C203(HP)
194(3.2L)	1963-67	A203(HP)	B203(HP)	C203(HP)
229(3.8L)	1980-84	A203(HP)	B203(HP)	C203(HP)
230(3.8L)	1963-69	A203(HP)	B203(HP)	C203(HP)
231(3.8L)	1978-84	A201(HP)	B201(HP)	C201(HP)
235(3.9L)	1941-62	A200(HP)	B200(HP)	C200HP
250(4.1L)	1966-84	A203(HP)	B203(HP)	C203(HP)
261(4.3L)	1954-62	A100	B100	C100
265(4.4L)	1955-57	A201(HP)	B201(HP)	C201(HP)
267(4.4L)	1979-82	A203(HP)	B203(HP)	C203(HP)
283(4.6L)	1957-67	A203(HP)	B203(HP)	C203(HP)
292(4.8L)	1963-91	A203(HP)	B203(HP)	C203(HP)
305(5.0L)	1977-97	A203(HP)	B203(HP)	C203(HP)
305(5.0L) C	1960-75	A403	B403	N/A
327(5.4L)	1962-68	A203(HP)	B203(HP)	C203(HP)
348(5.7L)	1958-65	A200(HP)	B200(HP)	C200HP





# Valve Spring Inserts VSI®



## VSI Application Chart

### Chevrolet/GMC Truck Cont. (Reference Only)

Engine	Year	.060	.030	.015
350(5.7L)	1969-97	A203(HP)	B203(HP)	C203(HP)
366(6.0L)	1966-97	A404	B404	N/A
379(6.2L)	1973-74	A403	B403	N/A
381(6.2L) Diesel C&J	1982-96	A203(HP)	B203(HP)	C203(HP)
396(6.6L)	1968-70	A103(HP)	B103(HP)	C103(HP)
		A404	B404	N/A
400(6.6L) Small Block	1975-80	A203(HP)	B203(HP)	C203(HP)
401(6.6L) M	1966-71	A403	B403	N/A
427(7.0L)	1968-96	A404	B404	N/A
432(7.1L) V6,M	1973-74	A403	B403	N/A
454(7.4L)	1973-97	A203(HP)	B203(HP)	C203(HP)
478(7.8L)	1966-74	A403	B403	N/A
637(10.4L)	1970-72	A404	B404	N/A

### Chrysler (Reference Only)

86(1.4L) J,2,A	1979-84	821	N/A	N/A
98(1.6L) K&Z	1971-90	821	N/A	N/A
105(1.7L)	1978-83	A107(HP)	B107(HP)	C107(HP)
122(2.0L) U	1974-82	821	N/A	N/A
135(2.2L) SOHC	1981-95	A820	B820	C820
156(2.6L) Mits.G54B	1981-89	821	N/A	N/A
170(2.8L)	1960-69	A103(HP)	B103(HP)	C103(HP)
198(3.2L)	1970-74	A103(HP)	B103(HP)	C103(HP)
225(3.7L)	1960-84	A103(HP)	B103(HP)	C103(HP)
230(3.8L)	1951-59	A300(HP)	B300(HP)	C300(HP)
273(4.5L) w/2BBL.	1965-69	A103(HP)	B103(HP)	C103(HP)
273(4.5L) w/4BBL.	1965-69	A102(HP)	B102(HP)	C102(HP)
318(5.2L)	1957-89	A103(HP)	B103(HP)	C103(HP)
340(5.6L)	1968-73	A103(HP)	B103(HP)	C103(HP)
360(5.9L)	1971-80	A102(HP)	B102(HP)	C102(HP)
361(5.9L)	1959-66	A102(HP)	B102(HP)	C102(HP)
		A103(HP)	B103(HP)	C103(HP)
383(6.3L)	1959-66	A102(HP)	B102(HP)	C102(HP)
383(6.3L)	1965-71	A103(HP)	B103(HP)	C103(HP)
400(6.6L)	1972-78	A103(HP)	B103(HP)	C103(HP)
413(6.8L)	1959-65	A102(HP)	B102(HP)	C102(HP)
		A103(HP)	B103(HP)	C103(HP)
426 Wedge Inner	1963-65	A102(HP)	B102(HP)	C102(HP)
426 Wedge Outer	1963-65	A103(HP)	B103(HP)	C103(HP)
440(7.2L)	1966-78	A103(HP)	B103(HP)	C103(HP)

### Dodge Truck (Reference Only)

105(1.7L)	1982-83	A107(HP)	B107(HP)	C107(HP)
122(2.0L)A	1983-88	821	N/A	N/A
156(2.6L)	1978-89	821	N/A	N/A
170(2.8L)	1961-70	A103(HP)	B103(HP)	C103(HP)
198(3.2L)	1970-73	A103(HP)	B103(HP)	C103(HP)
225(3.7L)	1961-91	A103(HP)	B103(HP)	C103(HP)
273(4.5L)	1965-68	A403	B403	N/A
318(5.2L)	1959-94	A403	B403	N/A
360(5.9L)	1970-97	A103(HP)	B103(HP)	C103(HP)
361(5.9L)	1960-77	A103(HP)	B103(HP)	C103(HP)
383(6.3L)	1963-71	A103(HP)	B103(HP)	C103(HP)
413(6.8L)	1960-77	A101	B101	C101
440(7.2L)	1973-79	A403	B403	N/A

### Fiat (Reference Only)

817cc(0.8L)	1968-69	A106	B106	C106HP
843cc(0.8L)	1964-68	A106	B106	C106HP
903cc(0.9L)	1970-73	A106	B106	C106HP
1290cc(1.3L)	1971-81	A106	B106	C106HP
1765cc(1.8L) Inner	1974-81	A204(HP)	B204(HP)	C204(HP)
1765cc(1.8L) Outer	1974-81	A105(HP)	B105(HP)	C105(HP)

### Ford (Reference Only)

98(1.6L) Escort	1981-85	A810	N/A	N/A
116(1.9L) J,K	1985-94	A103(HP)	B103(HP)	C103(HP)
122(2.0L)	1971-74	A105(HP)	B105(HP)	C105(HP)
140(2.3L) OHC	1974-93	A102(HP)	B102(HP)	C102(HP)
144(2.4L)	1960-64	A102(HP)	B102(HP)	C102(HP)
153(2.5L) HSC	1986-90	A103(HP)	B103(HP)	C103(HP)
170(2.8L)	1961-72	A102(HP)	B102(HP)	C102(HP)
171(2.8L)	1974-79	A102(HP)	B102(HP)	C102(HP)
200(3.3L)	1963-83	A102(HP)	B102(HP)	C102(HP)
221(3.6L)	1962-63	A102(HP)	B102(HP)	C102(HP)

### Ford Cont. (Reference Only)

Engine	Year	.060	.030	.015
223(3.7L)	1954-64	A102(HP)	B102(HP)	C102(HP)
232(3.8L)	1982-97	A103(HP)	B103(HP)	C103(HP)
240(4.0L)	1965-72	A102(HP)	B102(HP)	C102(HP)
250(4.1L)	1969-80	A102(HP)	B102(HP)	C102(HP)
255(4.2L)	1980-82	A102(HP)	B102(HP)	C102(HP)
260(4.3L)	1962-65	A102(HP)	B102(HP)	C102(HP)
272(4.5L)	1955-57	A102(HP)	B102(HP)	C102(HP)
289(4.7L)	1963-68	A102(HP)	B102(HP)	C102(HP)
292(4.8L)	1955-62	A102(HP)	B102(HP)	C102(HP)
302(5.0L)	1968-97	A102(HP)	B102(HP)	C102(HP)
312(5.1L)	1956-57	A102(HP)	B102(HP)	C102(HP)
351(5.8L) C,M,W	1970-97	A103(HP)	B103(HP)	C103(HP)
383(6.3L)	1959-60	A403	B403	N/A
390(6.4L)	1961-71	A103(HP)	B103(HP)	C103(HP)
390(6.4L) H/P	1961-62	A306(HP)	B306(HP)	C306(HP)
400(6.6L)	1971-79	A103(HP)	B103(HP)	C103(HP)
406(6.6L) w/single spring	1962	A306(HP)	B306(HP)	C306(HP)
406(6.6L)	1963-65	A103(HP)	B103(HP)	C103(HP)
410(6.7L)	1966-67	A103(HP)	B103(HP)	C103(HP)
427(7.0L)	1963-68	A103(HP)	B103(HP)	C103(HP)
		A104	B104	C104
428(7.0L) C J & S C J	1966-70	A306(HP)	B306(HP)	C306(HP)
429(7.0L)	1968-73	A103(HP)	B103(HP)	C103(HP)
430(7.0L)	1958-65	A403	B403	N/A
460(7.5L)	1972-78	A103(HP)	B103(HP)	C103(HP)

### Ford Truck (Reference Only)

110(1.8L)	1972-79	A300(HP)	B300(HP)	C300(HP)
140(2.3L) OHC	1977-94	A102(HP)	B102(HP)	C102(HP)
144(2.4L)	1961-64	A102(HP)	B102(HP)	C102(HP)
170(2.8L)	1962-72	A102(HP)	B102(HP)	C102(HP)
200(3.3L)	1973-74	A102(HP)	B102(HP)	C102(HP)
215(3.5L)	1952-53	A102(HP)	B102(HP)	C102(HP)
223(3.6L)	1954-64	A102(HP)	B102(HP)	C102(HP)
232(3.8L)	1982-83	A103(HP)	B103(HP)	C103(HP)
240(3.9L)	1965-74	A102(HP)	B102(HP)	C102(HP)
250(4.1L)	1969-74	A102(HP)	B102(HP)	C102(HP)
255(4.2L)	1981-82	A102(HP)	B102(HP)	C102(HP)
262(4.3L)	1961-64	A102(HP)	B102(HP)	C102(HP)
272(4.5L)	1956-58	A102(HP)	B102(HP)	C102(HP)
289(4.7L)	1966-68	A102(HP)	B102(HP)	C102(HP)
292(4.8L)	1958-64	A102(HP)	B102(HP)	C102(HP)
300(4.9L)	1965-96	A103(HP)	B103(HP)	C103(HP)
302(5.0L)	1968-97	A102(HP)	B102(HP)	C102(HP)
330(5.4L)	1964-78	A103(HP)	B103(HP)	C103(HP)
332(5.4L)	1956-63	A103(HP)	B103(HP)	C103(HP)
351(5.8L)	1975-97	A103(HP)	B103(HP)	C103(HP)
352(5.8L)	1965-67	A103(HP)	B103(HP)	C103(HP)
359(5.9L)	1974-78	A103(HP)	B103(HP)	C103(HP)
361(5.9L)	1964-78	A103(HP)	B103(HP)	C103(HP)
389(6.4L)	1975-78	A103(HP)	B103(HP)	C103(HP)
390(6.4L)	1968-76	A103(HP)	B103(HP)	C103(HP)
391(6.4L)	1964-78	A103(HP)	B103(HP)	C103(HP)
400(6.6L)	1977-82	A103(HP)	B103(HP)	C103(HP)
401(6.6L)	1958-75	A103(HP)	B103(HP)	C103(HP)
429(7.0L)	1979-91	A103(HP)	B103(HP)	C103(HP)
460(7.5L)	1973-97	A306(HP)	B306(HP)	C306(HP)
475(7.8L)	1973-79	A103(HP)	B103(HP)	C103(HP)
477(7.9L)	1958-81	A103(HP)	B103(HP)	C103(HP)
534(8.8L)	1958-81	A103(HP)	B103(HP)	C103(HP)

### Honda (Reference Only)

1237cc(1.2L)EB2,EB3	1973-79	A107(HP)	B107(HP)	C107(HP)
1488cc(1.5L)ED3,4,EM1	1975-86	A107(HP)	B107(HP)	C107(HP)
1599cc(1.6L)EF1 Accord	1976-78	A107(HP)	B107(HP)	C107(HP)

### Mazda (Reference Only)

1272cc(1.3L)	1976-79	A107(HP)	B107(HP)	C107(HP)
1415cc(1.4L)	1978-80	A107(HP)	B107(HP)	C107(HP)
1490cc(1.5L)	1977-85	A107(HP)	B107(HP)	C107(HP)
1586cc(1.6L)	1971-77	A203(HP)	B203(HP)	C203(HP)
1796cc(1.8L)	1972-78	A203(HP)	B203(HP)	C203(HP)
1970cc(2.0L)	1979-88	A107(HP)	B107(HP)	C107(HP)







# Valve Spring Inserts VSI®

Cylinder Head Rebuilding

## VSI Listed By Part #

TYPE A .060 Springs In Service	Type B .030 New Springs	TYPE C .015 Spring Balancing	O.D.	I.D.
A100	B100	C100	1.312	0.954
A101	B101	C101	1.000	0.688
A102(HP)	B102(HP)	C102(HP)	1.360	1.000
A103(HP)	B103(HP)	C103(HP)	1.500	1.031
*	*	C103S	1.500	1.000
A104	B104	C104	1.000	0.765
A105(HP)	B105(HP)	C105(HP)	1.218	0.875
A106	B106	C106HP	1.100	0.719
A107(HP)	B107(HP)	C107(HP)	1.250	0.625
A107S	B107S	C107S	1.250	0.680
A108HP	B108HP	C108HP	0.970	0.445
A109	B109	*	1.440	1.057
A200(HP)	B200(HP)	C200HP	1.360	0.640
A201(HP)	B201(HP)	C201(HP)	1.250	0.875
A202(HP)	B202(HP)	C202(HP)	0.915	0.640
A203(HP)	B203(HP)	C203(HP)	1.250	0.812
A203S	B203S	C203S	1.140	0.812
A204(HP)	B204(HP)	C204(HP)	0.796	0.515
A204S	B204S	C204S	0.760	0.578
A300(HP)	B300(HP)	C300(HP)	1.125	0.719
A301(HP)	B301(HP)	C301(HP)	1.375	0.765
A302HP	B302(HP)	C302(HP)	1.312	0.765
A303(HP)	B303(HP)	C303(HP)	1.480	0.703
A304	B304	*	1.500	1.156
A305(HP)	B305(HP)	C305(HP)	1.437	0.785
A306(HP)	B306(HP)	C306(HP)	1.437	0.645
A306SHP	B306SHP	C306SHP	1.500	0.645
*	B400	*	1.750	0.820
A400S	B400S	*	1.650	1.180
A401	B401	*	1.600	0.820
*	B402	*	1.687	1.281
A403	B403	*	1.375	0.781
A404	B404	*	1.500	0.875
A405	B405	*	1.750	0.890
*	B406	*	1.750	1.328
A407	B407	*	1.156	0.828
A408	B408	*	1.140	0.570
A409	*	*	1.312	0.755
*	B410	*	1.480	0.785
A600	*	*	1.937	1.250
A601HP	B601HP	C601HP	1.640	0.635
*	B602HP	C602HP	1.500	0.765
*	B603HP	C603HP	1.500	0.562

\*N/A

(HP) = Available in High Performance, Add suffix HP to part number, ex.A203HP

## VSI Listed By Outside/Inside Dia.

O.D.	I.D.	TYPE A .060 Springs In Service	Type B .030 New Springs	TYPE C .015 Spring Balancing
0.760	0.578	A204S	B204S	C204S
0.796	0.515	A204(HP)	B204(HP)	C204(HP)
0.915	0.640	A202(HP)	B202(HP)	C202(HP)
0.970	0.445	A108HP	B108HP	C108HP
1.000	0.688	A101	B101	C101
1.000	0.765	A104	B104	C104
1.100	0.719	A106	B106	C106HP
1.125	0.719	A300(HP)	B300(HP)	C300(HP)
1.140	0.570	A408	B408	*
1.140	0.812	A203S	B203S	C203S
1.156	0.828	A407	B407	*
1.218	0.875	A105(HP)	B105(HP)	C105(HP)
1.250	0.625	A107(HP)	B107(HP)	C107(HP)
1.250	0.680	A107S	B107S	C107S
1.250	0.812	A203(HP)	B203(HP)	C203(HP)
1.250	0.875	A201(HP)	B201(HP)	C201(HP)
1.312	0.755	A409	*	*
1.312	0.765	A302HP	B302(HP)	C302(HP)
1.312	0.954	A100	B100	C100
1.360	0.640	A200(HP)	B200(HP)	C200HP
1.360	1.000	A102(HP)	B102(HP)	C102(HP)
1.375	0.765	A301(HP)	B301(HP)	C301(HP)
1.375	0.781	A403	B403	*
1.437	0.645	A306(HP)	B306(HP)	C306(HP)
1.437	0.785	A305(HP)	B305(HP)	C305(HP)
1.440	1.057	A109	B109	*
1.480	0.703	A303(HP)	B303(HP)	C303(HP)
1.480	0.785	*	B410	*
1.500	0.562	*	B603HP	C603HP
1.500	0.645	A306SHP	B306SHP	C306SHP
1.500	0.765	*	B602HP	C602HP
1.500	0.875	A404	B404	*
1.500	1.000	*	*	C103S
1.500	1.031	A103(HP)	B103(HP)	C103(HP)
1.500	1.156	A304	B304	*
1.600	0.820	A401	B401	*
1.640	0.635	A601HP	B601HP	C601HP
1.650	1.180	A400S	B400S	*
1.687	1.281	*	B402	*
1.750	0.820	*	B400	*
1.750	0.890	A405	B405	*
1.750	1.328	*	B406	*
1.937	1.250	A600	*	*

## Box Quantity Legend

### Regular Serrated Steel

Series	Type	Qty.
100 - 200 - 300	A - B - C	100
400 - 500	A - B	50
600 & Specials "S"	A - B - C	25

### A & B High-Perf. Case Hardened; C (HP) Series Blue Tempered Steel

Series	Type	Qty.
100HP - 200HP - 300HP	A - B - C	50
500HP (Cup Style)	A	50
All 600HP Series	A - B - C	25
All 800 Series	A - B	48

### (RS) Rebuilders Bulk Pack - Save 10%

Add "RS" Suffix after Part Number, ex. A102RS

Series	Type	Qty.
100 - 200 - 300 Regular	A - B - C	500
400 - 500 Regular	A - B	250
600 Regular & Specials "S"	A - B - C	125
100HP - 200HP - 300HP	A - B - C	250
500HP Series (Cup Style)	A	250
601HP Series	A - B - C	125
All 800 Series	A - B - C	250

# 3-Angle Seat Cutter Kits



## Silver Seal® 3-Angle Seat Cutting System

Use your existing seat grinding pilots. Deluxe Ball Heads increase the stability of the cutting tool, allowing less chatter for a smooth finish. Kits include everything needed for a precision 3-angle job on a V8 head in less than 5 minutes!

### Kit Contents Include:

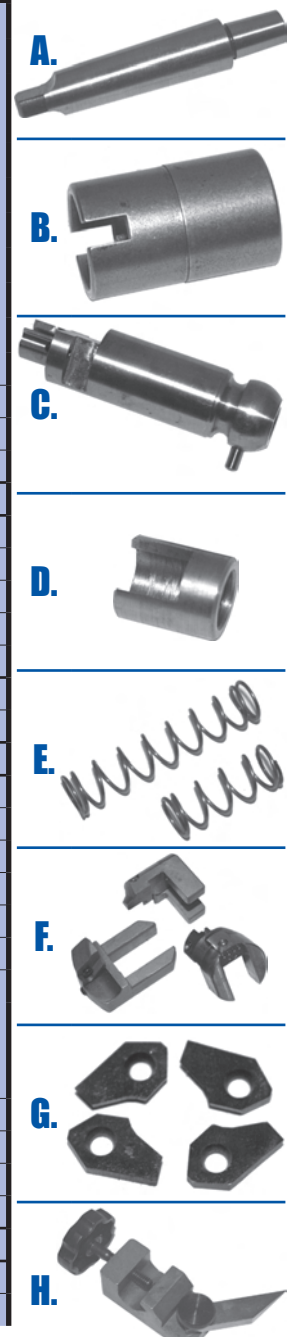
Drive Adaptor, Ball Socket Assembly, Deluxe Ball Head, 3 Tool Holders, 4 Carbide Blades, 2 Springs, Spring Bushing, Tool Setting Fixture, and Storage Case with Instructions.



Cylinder Head Rebuilding

Choose Your Kit:

Pilot Type	Adapter Type	Kit #	Includes:
For Kwik-Way Pilots (.437)	#3 Morse Taper	S503KW	
For Kwik-Way Pilots (.437)	#4 Morse Taper	S504KW	
For Sioux Pilots (.385)	#3 Morse Taper	S503SX	
For Sioux Pilots (.385)	#4 Morse Taper	S504SX	
For Neway Pilots (.375)	#3 Morse Taper	S503NEW	
For Neway Pilots (.375)	#4 Morse Taper	S504NEW	
For Sunnen Pilots (.389)	#3 Morse Taper	S503SUN	
For Sunnen Pilots (.389)	#4 Morse Taper	S504SUN	
*Specify Pilot Type	Straight Shank	S503BP	



Category	Description	Part #															
A. Drive Adapters	# 3 Morse Taper Adapter	S3M															
	# 4 Morse Taper Adapter	S4M															
	Straight Shank Adapter for Bridgeport, etc.	S3B															
	To Adapt #3 Morse Taper to IDL Drive	S3IDL															
B. Ball Socket Assy.	Ball Socket Assembly for Drive Adapters	S105															
	Ball Head for Kwik-Way Pilots	S106KW	*														
	Ball Head for Sioux Pilots	S106SX	*														
	Ball Head for Neway Pilots	S106NEW	*														
	Ball Head for Sunnen Pilots	S106SUN	*														
C. Ball Heads	Dowel Pins for Ball Heads	S106B															
	D. Spring Bushings	Spring Bushing for Sioux, Sunnen, & Neway	S107SX	*													
		Spring Bushing for Kwik-Way	S107KW	*													
	E. Springs	Springs (2 per kit)	S108														
		F. Tool Holders	Small Tool Holder (.975 - 1.195)	S102													
	Radial Adjusting Screw for S102 (hex head)		S102A														
Medium Tool Holder (1.195 - 1.600)	S103																
Radial Adjusting Screw for S103 (hex head)	S103A																
Large Tool Holder (1.550 - 2.450)	S104																
Radial Adjusting Screw for S104 (hex head)	S104A																
Lock Screws for Tool Holders (hex head)	S106A																
G. Carbide Tips	Seat Angle & Width		Top Angle/Overhang	Throat Degree	Part #												
	45° - .059	30° - .071	60°	S1													
	30° - .051	15° - .039	45°	S2													
	45° - .051	30° - .039	60°	S3													
	70° Single Angle Tool for Throating			S4													
H. Setting Fixture	Torx Screw for Carbide Inserts	S109															
	Tool Setting Fixture Assembly	S101															
Miscellaneous	T-8 Torx Screwdriver	TX8															
	Plastic Box for Kit	S100															

\*Specify Pilot Type and Bushing when ordering Kit #S503BP  
NOTE: Valve Seat Grinder Pilots available separately, see page 21.





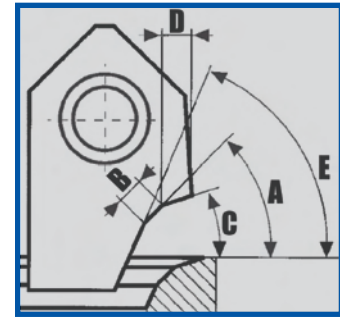
# 3-Angle Cutter Blades

Cylinder Head Rebuilding

## 3-Angle Seat Cutter Blades

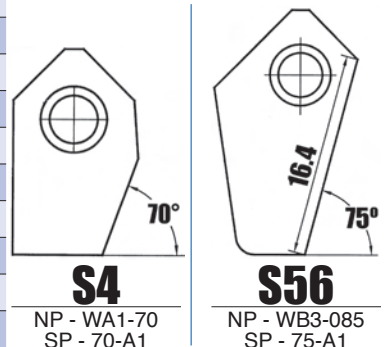
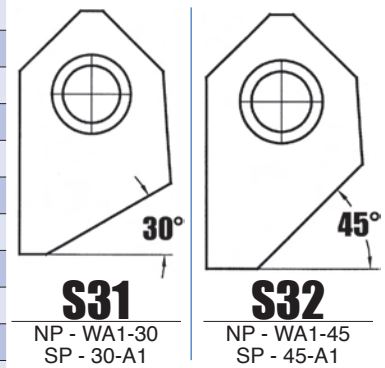
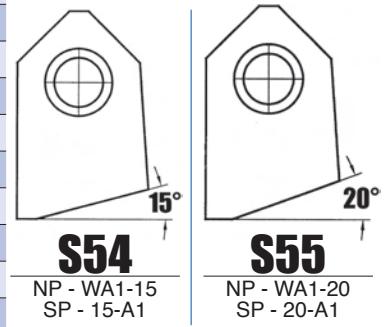
Top Quality Blades Fit All Common 3-Angle Seat Cutting Fixtures

Seat Angle (A)	Seat Width (B)		Top Angle (C)	Top Width (D)		Throat Angle (E)	Newen Profile #	Serdil Profile #	Silver Seal Part #
	Inches	mm		Inches	mm				
30°	.039"	1.0mm	20°	.063"	1.6mm	52°	WA1-3062	10H30D52-A1	S19
	.051"	1.3mm	15°	.039"	1.0mm	45°	WA1-3023	13E30U45-A1	S2
	.059"	1.5mm	15°	.055"	1.4mm	60°	WA1-5152	15G30U60-A1	S36
			20°	.071"	1.8mm	60°	WA1-2153	15J30U60-A1	S40
	.063"	1.6mm	15°	.079"	2.0mm	45°	WA1-3026	16K30U45-A1	S28
	.071"	1.8mm	15°	.055"	1.4mm	60°	WA1-3027	18G30U60-A1	S16
	.075"	1.9mm	15°	.079"	2.0mm	60°	WA1-3029	19K30U60-A1	S17
	.079"	2.0mm	15°	.055"	1.4mm	60°	WA1-2202	20G30U60-A1	S22
	.098"	2.5mm	15°	.055"	1.4mm	60°	WA1-2252	25G30U60-A1	S18
	.150"	3.8mm	20°	.118"	3.0mm	45°	WA1-3199	.	S72
37.5°	.063"	1.6mm	30°	.055"	1.4mm	60°	WA1-5414	16G37.5X60-A1	S41
	.071"	1.8mm	20°	.047"	1.2mm	52°	WA1-5006	18F37.5D52	S33
45°	.039"	1.0mm	25°	.039"	1.0mm	60°	WA1-1101	.	S73
			25°	.055"	1.4mm	60°	WA1-1102	10G45V60-A1	S39
			25°	.063"	1.6mm	52°	WA1-4588	.	S77
			25°	.071"	1.8mm	60°	WA1-1103	10J45V60-A1	S43
			25°	.118"	3.0mm	60°	WA1-1105	10Q45V60-A1	S44
			30°	.047"	1.2mm	60°	WA1-4028	10F45X60-A1	S11
			30°	.071"	1.8mm	60°	WA1-4090	10J45X60-A1	S46
			30°	.079"	2.0mm	60°	WA1-4303	10K45X60-A1	S47
			35°	.063"	1.6mm	52°	WA1-4029	10H45F52-A1	S23
			35°	.063"	1.6mm	55°	WA1-4030	10H45F55-A1	S10
	35°	.063"	1.6mm	60°	WA1-4031	10H45F60-A1	S9		
	.047"	1.2mm	30°	.047"	1.2mm	60°	WA1-4182	12F45X60-A1	S48
	.051"	1.3mm	30°	.039"	1.0mm	60°	WA1-4032	13E45X60-A1	S3
			30°	.079"	2.0mm	52°	WA1-4034	13K45X52-A1	S8
			30°	.079"	2.0mm	60°	WA1-4035	13K45X60-A1	S27
.055"	1.4mm	37°	.079"	2.0mm	52°	WA1-4033	13K45G52-A1	S26	
		30°	.039"	1.0mm	60°	WA1-4036	14E45X60-A1	S13	
0.59"	1.5mm	25°	.055"	1.4mm	52°	WA1-4241	.	S42	
		25°	.055"	1.4mm	60°	WA1-4003	15G45V60-A1	S35	
		30°	.055"	1.4mm	60°	WA1-4216	15G45X60-A1	S49	
		30°	.071"	1.8mm	60°	WA1-4038	15J45X60-A1	S1	
		37°	.071"	1.8mm	52°	WA1-4037	15J45G52-A1	S6	
.063"	1.6mm	30°	.039"	1.0mm	60°	WA1-4039	16E45X60-A1	S12	
		30°	.047"	1.2mm	60°	WA1-4136	16F45X60-A1	S50	
		30°	.079"	2.0mm	60°	WA1-4040	16K45X60-A1	S29	
.071"	1.8mm	30°	.063"	1.6mm	60°	WA1-4041	18H45X60-A1	S14	
		30°	.071"	1.8mm	52°	WA1-4146	19J45X52-A1	S45	
.075"	1.9mm	30°	.079"	2.0mm	60°	WA1-4042	19K45X60-A1	S15	
		25°	.055"	1.4mm	60°	WA1-1202	20G45V60-A1	S37	
.079"	2.0mm	30°	.047"	1.2mm	60°	WA1-4043	20F45X60-A1	S7	
		25°	.055"	1.4mm	60°	WA1-1252	25G45V60-A1	S38	



## Single Angle Straight Cutters

Angle	Part #
15° Straight	S54
20° Straight	S55
30° Straight	S31
45° Straight	S32
70° Straight	S4
75° Straight	S56

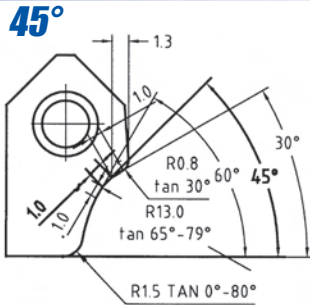


# 3-Angle Cutter Blades

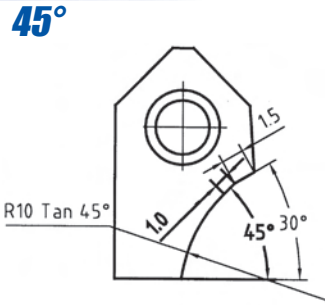


Cylinder Head Rebuilding

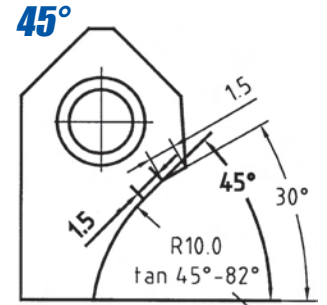
**High Performance And Special Profile Tips**



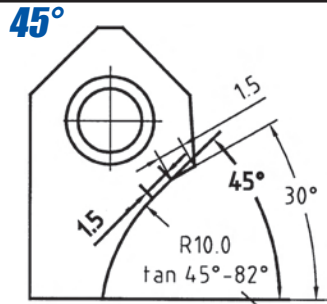
**S51** NP - WA1-5118  
SP - HP1096-A1



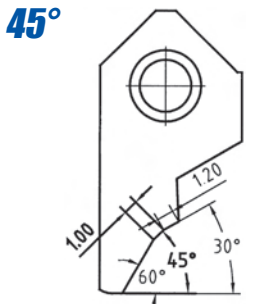
**S52** NP - WA1-5120  
SP - 451015R10S-A1



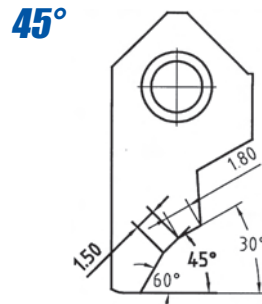
**S53** NP - WA1-5119  
SP - 451515R10S-AL



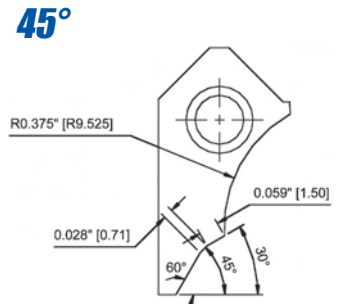
**S57** NP - WB4-90-20  
SP - 75-B3



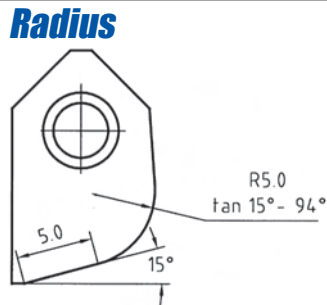
**S68** NP - WB4-4028  
SP - 10F45X60-B4



**S69** NP - WB4-4038  
SP - N/A



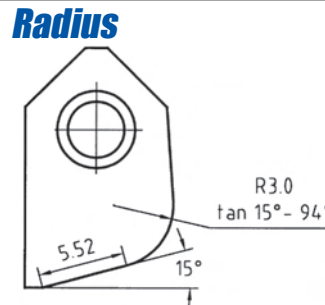
**S78** NP - WB4-4006  
SP - N/A



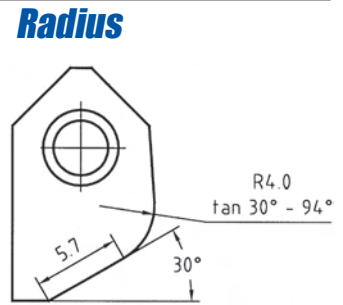
**S5** NP - WA1-5428  
SP - R5-15



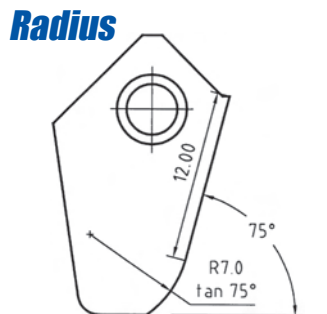
**S24** NP - WA1-90-16  
SP - L-12



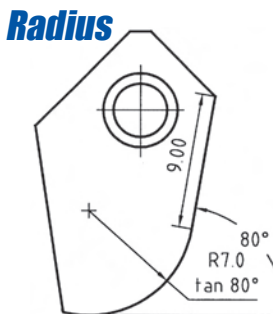
**S58** NP - WA1-5121  
SP - R4-15



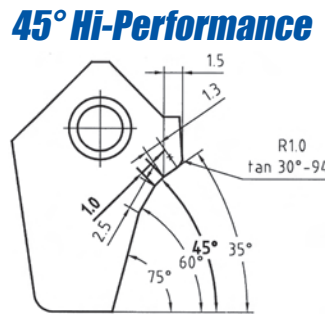
**S59** NP - WA1-5168  
SP - R4-30



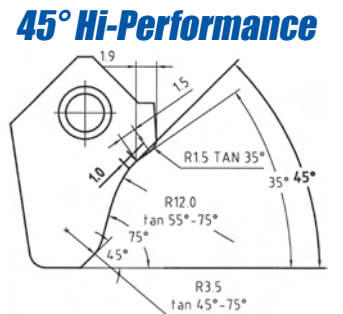
**S60** NP - WB3-002  
SP - R7-75



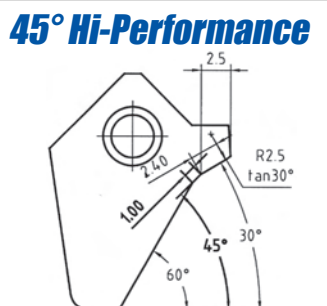
**S61** NP - WB3-033  
SP - 80-R7



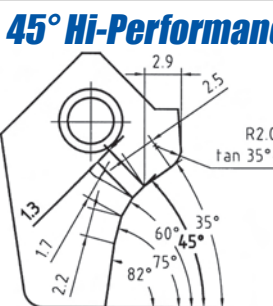
**S62** NP - WB1-069  
SP - HIN1-B1



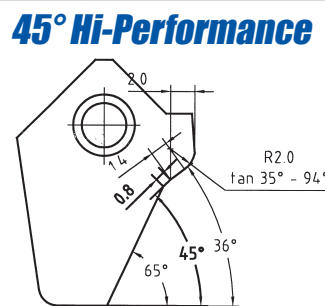
**S63** NP - WB3-005  
SP - S9026-B1



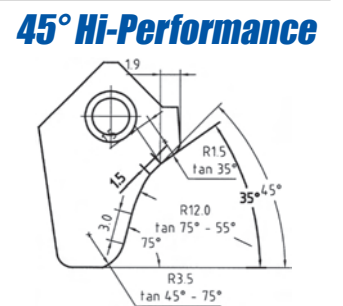
**S64** NP - WB1-068  
SP - HI-IN1-B1



**S65** NP - WB1-072  
SP - HP2028-B1



**S66** NP - WB1-079  
SP - 09G45F65R2-B1



**S67** NP - WB3-003  
SP - S9024-B1





# Mira® Cutter Bits

Cylinder Head Rebuilding

## Mira® Tri-Cut Cutter Bits

Original Mira® Bits available in 3-Angle, Single Angle, & 90° Counterbore.

### 3-Angle Cutters

Seat Angle	Body Size	Seat Width	Top Angle	Throat Angle	Part #
30°	Long	.040"	15°	60°	M210B
	Long	.060"	15°	60°	M215B
	Medium	.060"	15°	60°	M215A
	Long	.060"	23°	52°	M4515B(X)
	Medium	.060"	23°	52°	M4515A(X)
	Long	.080"	15°	60°	M220B
	Long	.080"	23°	52°	M4516B(X)
35.7°	Long	.080"	15°	60°	M4558B
	Medium	.040"	25°	60°	M110A
	Long	.040"	25°	60°	M110B
	Medium	.040"	30°	55°	M4004A
	Medium	.040"	35°	53°	M4037A(X)
	Long	.040"	35°	53°	M4037B(X)
	Short	.060"	25°	60°	M115C
	Medium	.060"	25°	60°	M115A
	Long	.060"	25°	60°	M115B
	Long	.060"	30°	55°	M4005B
	Long	.060"	30°	60°	M4033B
	Short	.060"	35°	53°	M4038C(X)
	Medium	.060"	35°	53°	M4038A(X)
	Long	.060"	35°	53°	M4038B(X)
	Long	.080"	25°	60°	M120B
Long	.080"	30°	55°	M4006B	
Long	.080"	35°	53°	M4039B	

### Single Angle Cutters

Seat Angle	Body Size	Part #
15°	Long	M352B
20°	Medium	M306A
30°	Medium	M302A
	Long	M302B
45°	Medium	M301A
	Long	M301B
60°	Long	M362B
	Short	M351C
75°	Medium	M351A
	Long	M351B
80°	Long	M363B

### 90° Counterbore Cutters

Range	Part #
.950" - 1.500"	M390C
1.100"-1.650"	M390A(X)
1.350"-2.500"	M390B(X)

**Note:** 3-angle & counterbore cutters designated with (X) are available with premium carbide. To order, simply use the Part # followed by an "X".

**Example:** M4037AX

**3 Lengths Are Available & Designated by a Suffix Letter**  
**A - Medium 0.95"-1.95"**  
**B - Long 1.25"-2.75"**  
**C - Short 0.80"-1.00"**  
**I.E. M210B = Long**

**Mira® Accessories are also available from Silver Seal, call for details!**



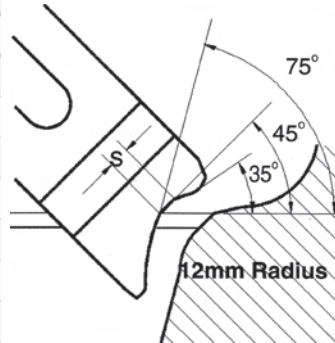
**M4037AX**



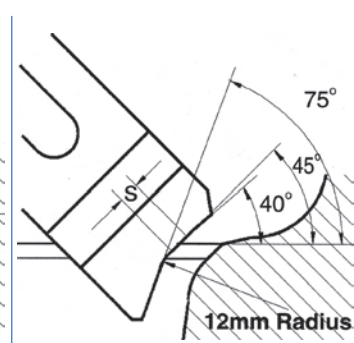
**M220B**



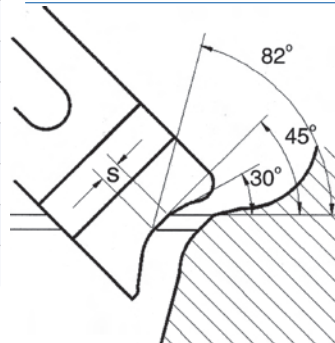
**M390BX**



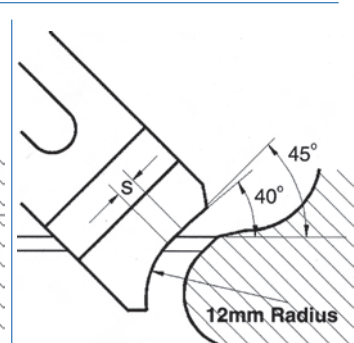
Angle	Seat Width	Part #
45°	.039/1mm	M4043B



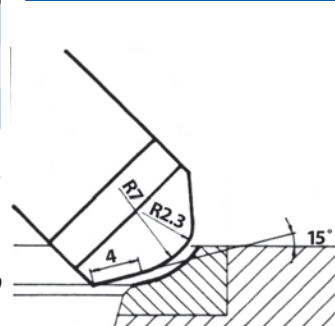
Angle	Seat Width	Part #
45°	.039/1mm	M4048B



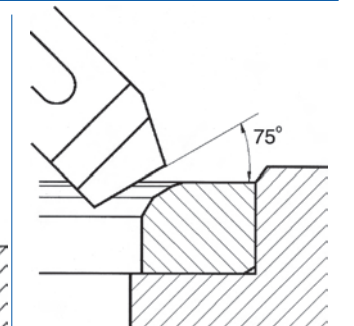
Angle	Seat Width	Part #
45°	.039/1mm	M4041B



Angle	Seat Width	Part #
45°	.039/1mm	M4047B



Angle	Seat Width	Part #
15°	R.276"/R7mm	M354B



Angle	Seat Width	Part #
75°	R.276"/R7mm	M353A

Angle	Seat Width	Part #
75°	R.276"/R7mm	M353B

## Mira® Pilots

Genuine Mira® Pilots are available in both screw-in (std. & long) and plug-in styles.



Cylinder Head Rebuilding

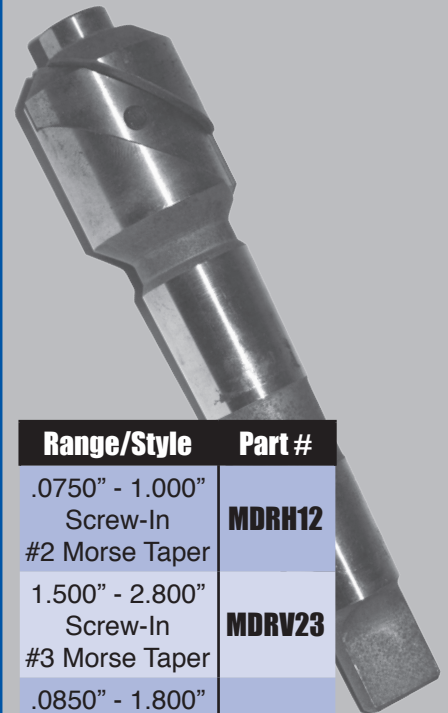
Plug-In Style		
Guide Size	Dec. Size	Plug-in Part #
5.5mm	.2150"	MFD546
6.5mm	.2559"	MFD650
6.6mm	.2598"	MFD660
7mm	.2748"	MFD698
	.2752"	MFD699
	.2756"	MFD700
5/16"	.3098"	MFD787
	.3106"	MFD789
	.3114"	MFD791
	.3122"	MFD793
	.3126"	MFD794
8mm	.3142"	MFD798
	.3146"	MFD799
	.3150"	MFD800
11/32"	.3406"	MFD865
	.3413"	MFD867
	.3417"	MFD868
	.3421"	MFD869
	.3429"	MFD871
	.3437"	MFD873
11/32" +.015	.3571"	MFD907
3/8"	.3720"	MFD945
	.3724"	MFD946
	.3728"	MFD947
	.3732"	MFD948
	.3740"	MFD950
	.3744"	MFD951
3/8" +.010	.3831"	MFD973
	.3862"	MFD981

Screw-In Style		
Guide Size	Dec. Size	Screw-in Part #
6.5mm	.2555"	MFK649
6.6mm	.2591"	MFK658
	.2595"	MFK659
	.2602"	MFK661
	.3106"	MFK789
5/16"	.3114"	MFK791
	.3118"	MFK792
	.3126"	MFK794
	.3138"	MFK797
8mm	.3146"	MFK799
	.3158"	MFK802
	.3169"	MFK805
	.3173"	MFK806
11/32"	.3181"	MFK808
	.3406"	MFK865
	.3429"	MFK871
	.3433"	MFK872
9mm	.3457"	MFK878
	.3539"	MFK899
	.3543"	MFK900
	.3705"	MFK941
3/8"	.3709"	MFK942
	.3736"	MFK949
	.3744"	MFK951
13/32"	.4043"	MFK1027
11mm	.4323"	MFK1098
1/2"	.4992"	MFK1268

Screw-In Style (Long)		
Guide Size	Dec. Size	Screw-In (Long) Part #
5/16"	.3114"	MFN791
	.3122"	MFN793
11/32"	.3421"	MFN869
3/8"	.3724"	MFN946
	.3732"	MFN948
	.3740"	MFN950
10.5mm	.4126"	MFN1048
7/16"	.4362"	MFN1108
	.4366"	MFN1109
1/2"	.4988"	MFN1267
	.5000"	MFN1270

## Mira® Tool-Heads

### Fixed Style



Range/Style	Part #
.0750" - 1.000" Screw-In #2 Morse Taper	<b>MDRH12</b>
1.500" - 2.800" Screw-In #3 Morse Taper	<b>MDRV23</b>
.0850" - 1.800" Plug-In #3 Morse Taper	<b>MDRM51</b>





# Neway® Valve Seat Cutters

Cylinder Head Rebuilding

## Neway® Cutter Bodies, & Blades

Hand operated valve seat cutters provide an accurate, high quality repair method at a low cost.

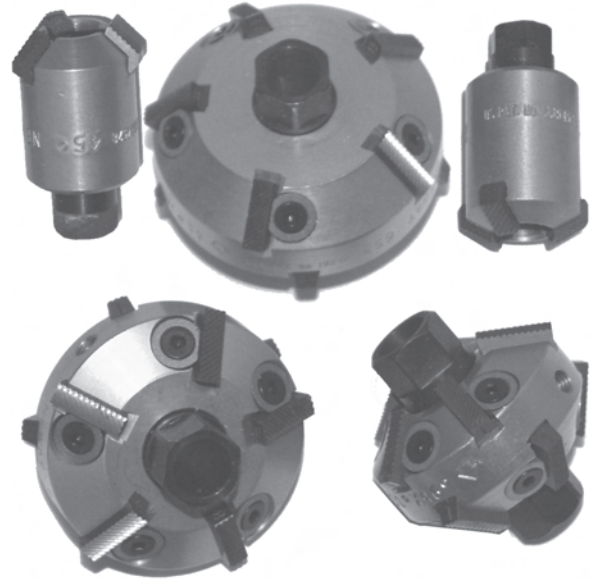
### Std. Series Cutter Bodies (Use .375 Top Pilots)

Diameter	Blade Angle	Qty.	Repl. Blade #	Cutter Part #
1.125" (28.6mm)	30°	3	SL6250	SL6278
	45°	3	SL6250	SL6268
	60°	3	SL6252	SL6269
1.250" (31.8mm)	30°/45°	3	SL6250	SL6230
	75°	3	SL6254	SL6206
	60°	3	SL6252	SL6270
	31°	3	SL6250	SL6602
	46°	3	SL6250	SL6609
1.375" (34.9mm)	30°/45°	3/3	SL6251/ SL6254	SL6232
	60°	3	SL6254	SL6205
1.500" (38.1mm)	15°/60°	5/5	SL6251/ SL6254	SL6619
	31°/46°	10	SL6251	SL6622
	60°	3	SL6254	SL6293
1.750" (44.5mm)	31°/46°	10	SL6251	SL6642
	15°/60°	5/5	SL6251/ SL6254	SL6643
	31°/46°	10	SL6251	SL6652
2.000" (50.8mm)	15°/60°	5/5	SL6251/ SL6254	SL6653

**Standard Series Pilots - .375 Top (for above cutters)**  
See Page 21 for a complete listing.

### Small Series Cutter Bodies (Use .297 Top Pilots)

Diameter	Blade Angle	Qty.	Repl. Blade #	Cutter Part #
.830" (21.1mm)	32°	3	Fixed	SL6132
.850" (21.6mm)	45°	3	Fixed	SL6131
.874" (22.2mm)	60°	3	Fixed	SL6133
.925" (23.5mm)	45°	3	Fixed	SL6143
.975" (24.8mm)	31°	3	SL6250	SL6115
	31°	3	SL6253	SL6123
	45°	3	SL6253	SL6122
1.000" (25.4mm)	15°	3	SL6253	SL6120
	30°	3	SL6250	SL6126
	60°	3	SL6252	SL6111
	75°	3	SL6254	SL6125
1.125" (28.6mm)	31°/46°	3/3	SL6253	SL6103
1.312" (33.3mm)	31°/46°	3/3	SL6251	SL6102



## Neway® Tungsten-Carbide Blades

Original replacement carbide cutters & screws.

	Angle	Length	Part #
<b>Standard Cutter Blades</b>			
	0°-46°	5/16" (7.9mm)	SL6253
	0°-46°	3/8" (9.5mm)	SL6250
	0°-46°	1/2" (12.7mm)	SL6251
<b>Hard Seat Cutter Blades</b>			
	0°-46°	3/8" (9.5mm)	SL6250LC
	0°-46°	1/2" (12.7mm)	SL6251LC
<b>Correction Cutters</b>			
	60°-80°	1/2" (12.7mm)	SL6252
	60°-80°	3/4" (19mm)	SL6254
	60°-80°	1/2" (12.7mm)	SL6152*
	60°-80°	3/4" (19mm)	SL6154*

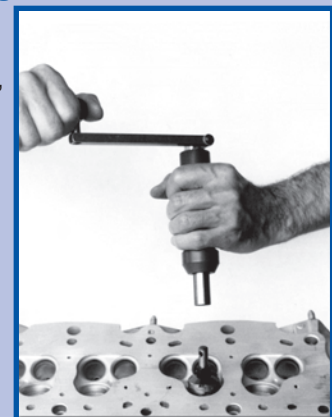
### Replacement Screws

10 - 32 Set Screw for Cutter Bodies	SL6262
5 - 40 Flat Head Screw for Wedges	SL6260

\*Non-Serrated Blades

## Easy Turn Wrench

Allows continuous control of material removal. Comes complete with 1/2" to 3/8" Drive Adaptor.



**Part #SL6261**

# Valve Seat Tools



Cylinder Head Rebuilding

## Fixed Carbide Valve Seat Cutters

Replacement valve seat cutters for all popular guide & seat machines. High-grade carbide inserts are spaced for chatter free cutting. Recommended speed: 80-160 RPM.

Size	Kwik-Way, Peterson 5/8" Arbor	Winona, DCM 9/16" Arbor	IDL 5/8" Arbor
1"	K1000C	W1000	.
1-1/16"	K1062	W1062	.
1-1/8"	K1125	W1125	.
1-1/4"	K1250	W1250	.
1-5/16"	K1312	W1312	I1312
1-3/8"	K1375	W1375	I1375
1-7/16"	K1437	W1437	I1437
1-1/2"	K1500	W1500	I1500
1-9/16"	K1562	W1562	I1562
1-5/8"	K1625	W1625	I1625
1-11/16"	K1687	W1687	I1687
1-3/4"	K1750	W1750	I1750
1-13/16"	K1812	W1812	I1812
1-7/8"	K1875	W1875	.
1-15/16"	K1937	W1937	.
2"	K2000	W2000	I2000
2-1/16"	K2063	W2063	I2063
2-1/8"	K2125	W2125	I2125
2-3/16"	K2187	W2187	I2187
2-1/4"	K2250	W2250	I2250
2-5/16"	K2312	W2312	I2312
2-3/8"	K2375	W2375	I2375
2-7/16"	K2437	W2437	I2437
2-1/2"	K2500	W2500	I2500



## Bowl Hogs

These carbide cutters will enlarge the valve bowl area fast and with little wear to the cutter. Ideal for High Performance applications. Use your standard driver from your seat & guide machine.



Throat°	Range	Kwik-Way, Peterson 5/8" Arbor	Winona, DCM 9/16" Arbor
70°	1.08-1.83	8004	8001
	1.62-2.38	8005	8002
	2.00-2.75	8006	8003
75°	1.02-1.51	8020	8016
	1.33-1.82	8021	8017
	1.64-2.13	8022	8018
	1.95-2.44	8023	8019
78°	1.00-1.52	8010	8015
	1.25-1.75	8011	8007
	1.52-1.99	8012	8008
	1.75-2.25	8013	8009

## Adaptor For IDL

Fits IDL driver to adapt the 5/8" arbor Kwik-Way/Peterson Seat Cutters & Bowl Hogs.



**Part #8014**

## Repl. Carbide Valve Seat Cutters

Seat cutter bodies utilize replaceable cutting inserts with four cutting edges. When one edge wears, rotate insert to a new edge. Includes two cutting inserts, insert screws, and wrench.



Size	Kwik-Way, Peterson 5/8" Arbor	Winona, DCM 9/16" Arbor	Serdi 25mm Arbor	Repl. Carbide Inserts
1.250"	RC1250KP	RC1250DW	RC1250SE	<b>RC250</b>
1.312"	RC1312KP	RC1312DW	RC1312SE	
1.375"	RC1375KP	RC1375DW	RC1375SE	
1.437"	RC1437KP	RC1437DW	RC1437SE	
1.500"	RC1500KP	RC1500DW	RC1500SE	<b>RC375</b>
1.562"	RC1562KP	RC1562DW	RC1562SE	
1.625"	RC1625KP	RC1625DW	RC1625SE	
1.687"	RC1687KP	RC1687DW	RC1687SE	
1.750"	RC1750KP	RC1750DW	RC1750SE	
1.812"	RC1812KP	RC1812DW	RC1812SE	
1.875"	RC1875KP	RC1875DW	RC1875SE	
1.937"	RC1937KP	RC1937DW	RC1937SE	
2.000"	RC2000KP	RC2000DW	RC2000SE	
2.063"	RC2063KP	RC2063DW	RC2063SE	
2.125"	RC2125KP	RC2125DW	RC2125SE	
2.187"	RC2187KP	RC2187DW	RC2187SE	
2.250"	RC2250KP	RC2250DW	RC2250SE	
2.312"	RC2312KP	RC2312DW	RC2312SE	
2.375"	RC2375KP	RC2375DW	RC2375SE	
2.437"	RC2437KP	RC2437DW	RC2437SE	
2.500"	RC2500KP	RC2500DW	RC2500SE	

## Valve Seat Ring Installation Tools

Large square contact surfaces on hardened driving washers & heavy-duty driver body transmit solid, even pressure when hammering seat rings into place. Uses standard grinder pilots for accurate line-up. Order proper driver body separately.

### Driving Washers

Size	Part#	Size	Part#
1-1/8"	SL3507	1-3/4"	SL3512
1-1/4"	SL3508	1-7/8"	SL3513
1-3/8"	SL3509	2"	SL3514
1-1/2"	SL3510	2-1/8"	SL3515
1-5/8"	SL3511	2-1/4"	SL3516

**Complete Set Of 10 SL3506**



### Driver Bodies

Description	Part #
3/8" or .375" BD, Neway, K.O. Lee Pilots	SL3520
3/8"+.010 or .385" Sioux Pilots	SL3521
7/16" or .437" Kwik-Way Pilots	SL3522

## Valve Seat Puller

Designed for quick removal of valve seat inserts with minimum effort. Also handy for removing many types & sizes of grease seals.

Description	Part #
90° Tooth	4329
100° Tooth	4343
120° Tooth	4330







# Seat Grinding Wheels

Cylinder Head Rebuilding

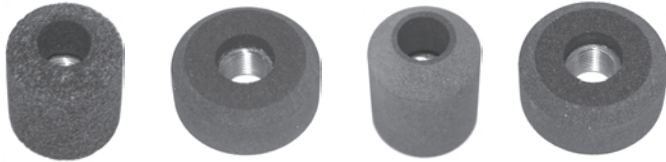
## Valve Seat Wheels

10% Discount on 15 or More, Mix N' Match!

Sioux, K.O. Lee, Keystone, U.S. Electric, Thor, Skil, Winona 11/16"-16 Thread

Wheel Size		General Purpose		Stellite		Finish		Ruby			Nickel Chrome
Inch	mm	45°	90° Flat	45°	90° Flat	45°	90° Flat	30°	45°	90° Flat	90° Flat
1-1/8"	28	SX1-1/8-45°	SX1-1/8-90°						SX1-1/8-45°R	SX1-1/8-90°R	SX1-1/8-90°NC
1-1/4"	31	SX2003	SX2103	SX2006	SX2120	SX2003F	SX2103F	SX2005R	SX2003R	SX2103R	SX2120NC
1-5/16"	33	SX2139	SX2140						SX2139R	SX2140R	
1-3/8"	35	SX2009	SX2104	SX2012	SX2121	SX2009F	SX2104F	SX2011R	SX2009R	SX2104R	SX2121NC
1-7/16"	36	SX2138	SX2118						SX2138R	SX2118R	
1-1/2"	38	SX2015	SX2105	SX2018	SX2122	SX2015F	SX2105F	SX2017R	SX2015R	SX2105R	SX2122NC
1-9/16"	39	SX2137	SX2119						SX2137R	SX2119R	
1-5/8"	41	SX2021	SX2106	SX2024	SX2123	SX2021F		SX2023R	SX2021R	SX2106R	SX2123NC
1-11/16"	42	SX2136	SX2135						SX2136R	SX2135R	
1-3/4"	44	SX2027	SX2107	SX2030	SX2124	SX2027F	SX2107F	SX2029R	SX2027R	SX2107R	SX2124NC
1-7/8"	47	SX2033	SX2108	SX2036	SX2125	SX2033F	SX2108F	SX2035R	SX2033R	SX2108R	SX2125NC
2"	50	SX2039	SX2109	SX2042	SX2126	SX2039F	SX2109F	SX2041R	SX2039R	SX2109R	SX2126NC
2-1/8"	54	SX2045	SX2110	SX2048	SX2127	SX2045F	SX2110F	SX2047R	SX2045R	SX2110R	SX2127NC
2-1/4"	57	SX2051	SX2111	SX2054	SX2128	SX2051F		SX2053R	SX2051R	SX2111R	SX2128NC
2-3/8"	60	SX2057	SX2112	SX2060	SX2129	SX2057F	SX2112F	SX2059R	SX2057R	SX2112R	SX2129NC
2-1/2"	63	SX2063	SX2113	SX2066	SX2130			SX2065R	SX2063R	SX2113R	SX2130NC
2-5/8"	66	SX2069	SX2114	SX2072	SX2131		SX2114F	SX2071R			
2-3/4"	70	SX2075	SX2115	SX2078	SX2132			SX2077R			
2-7/8"	73	SX2081	SX2116	SX2084	SX2133			SX2083R			
3"	76	SX2087	SX2117	SX2090	SX2134						

## Sioux® O.E. Seat Grinding Stones



### 1-1/2" Thickness, Small Diameter

Size Inches	Part #			
	45° Finish	45° Rough	30° Finish	30° Rough
1-1/16"	SKC1B	SKC70A	SKC32	SKC36
1-1/8"	SKC1A	SKC70	SKC33	SKC37
1-3/16"	SKC1C	SKC71A	SKC34	SKC38
1-1/4"	SKC1	SKC71	SKC401	SKC471
1-5/16"	SKC3	SKC73	SKC403	SKC473
1-3/8"	SKC5	SKC75	SKC405	SKC475
1-7/16"	SKC7	SKC77	SKC407	SKC477
1-1/2"	SKC9	SKC79	SKC409	SKC479

### 1" Thickness, Medium-Large Diameter

Size Inches	Part #			
	45° Finish	45° Rough	30° Finish	30° Rough
1-1/2"	KC9	KC79	KC409	KC479
1-9/16"	KC11	KC81	KC411	KC481
1-5/8"	KC13	KC83	KC413	KC483
1-11/16"	KC15	KC85	KC415	KC485
1-3/4"	KC17	KC87	KC417	KC487
1-7/8"	KC21	KC91	KC421	KC491
2"	KC25	KC95	KC425	KC495
2-1/16"	KC27	KC97	KC427	KC497
2-1/8"	KC28	KC98	KC428	KC498
2-1/4"	KC42	KC102	KC442	KC512
2-3/8"	KC44	KC104	KC444	KC514
2-1/2"	KC46	KC106	KC446	KC516
2-5/8"	KC629	KC569	KC749	KC759
2-3/4"	KC631	KC571	KC751	KC761
2-7/8"	KC633	KC573	KC753	KC763
3"	KC635	KC575	KC755	KC765

## Small Diameter Valve Seat Wheels

An extended hub is bonded to these small diameter wheels, eliminating interference obstacles on hard-to-reach seats.

Wheel Size	Ruby		Nickel Chrome
	Inch	mm	90° Flat
<b>Sioux, K.O. Lee, Keystone, U.S. Electric, Thor, Skil, Winona (11/16" -16 Thread)</b>			
7/8"	22	SX7/8"45R	SX7/8"90NC
15/16"	24	SX15/16"45R	SX15/16"90NC
1"	25	SX1"45R	SX1"90NC
1-1/16"	27	SX1-1/16"45R	SX1-1/16"90NC
<b>Kwik-Way (13/16"-13 Thread)</b>			
7/8"	22	KW7/8"45R	KW7/8"90NC
15/16"	24	KW15/16"45R	KW15/16"90NC
1"	25	KW1"45R	KW1"90NC
1-1/16"	27	KW1-1/16"45R	KW1-1/16"90NC



## Toolmakers Ink Layout Fluid

Use our toolmakers ink when grinding seats as a method to check proper valve face to seat contact.



Description	Color	Part #
16 oz. Aerosol Can	Blue	4409
8 oz. Brush Top Bottle	Blue	4410
8 oz. Brush Top Bottle	Red	4410R
16 oz. Bottle Odorless Layout Fluid Dye Remover		4410DR

# Seat Grinding Wheels



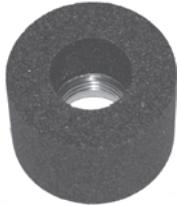
## Valve Seat Wheels

10% Discount on 15 or More, Mix N' Match!

Cylinder Head Rebuilding

### General Purpose

Recommended for roughing & finishing on cast iron seats and inserts. (Use light pressure for finishing.)



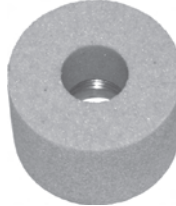
### Stellite

Designed specifically for stellite and other hardened steel seats.



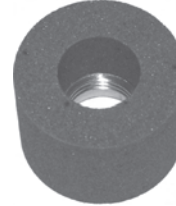
### Finish

Use this wheel to put a fine finish on your valve seat. Stock removal is very limited.



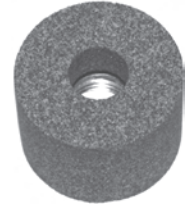
### Ruby

Removes stock fast & leaves a micro finish. Under light pressure it will leave a dull finish.



### Nickel Chrome

To be used on Nickel Chromium chromalloy type valve seats.



## Kwik-Way 13/16"-13 Thread

Wheel Size		General Purpose		Stellite		Finish		Ruby			Nickel Chrome
Inch	mm	45°	90° Flat	45°	90° Flat	45°	90° Flat	30°	45°	90° Flat	90° Flat
1-1/8"	28	KW1-1/8-45°	KW1-1/8-90°						KW1-1/8-45°R	KW1-1/8-90°R	KW1-1/8-90°NC
1-1/4"	31	KW2003	KW2103	KW2006	KW2120	KW2003F	KW2103F	KW2005R	KW2003R	KW2103R	KW2120NC
1-5/16"	33	KW2139	KW2140						KW2139R	KW2140R	
1-3/8"	35	KW2009	KW2104	KW2012	KW2121	KW2009F	KW2104F	KW2011R	KW2009R	KW2104R	KW2121NC
1-7/16"	36	KW2138	KW2118						KW2138R	KW2118R	
1-1/2"	38	KW2015	KW2105	KW2018	KW2122	KW2015F	KW2105F	KW2017R	KW2015R	KW2105R	KW2122NC
1-9/16"	39	KW2137	KW2119						KW2137R	KW2119R	
1-5/8"	41	KW2021	KW2106	KW2024	KW2123	KW2021F		KW2023R	KW2021R	KW2106R	KW2123NC
1-11/16"	42	KW2136	KW2135						KW2136R	KW2135R	
1-3/4"	44	KW2027	KW2107	KW2030	KW2124	KW2027F	KW2107F	KW2029R	KW2027R	KW2107R	KW2124NC
1-7/8"	47	KW2033	KW2108	KW2036	KW2125	KW2033F	KW2108F	KW2035R	KW2033R	KW2108R	KW2125NC
2"	50	KW2039	KW2109	KW2042	KW2126	KW2039F	KW2109F	KW2041R	KW2039R	KW2109R	KW2126NC
2-1/8"	54	KW2045	KW110	KW2048	KW2127	KW2045F	KW2110F	KW2047R	KW2045R	KW2110R	KW2127NC
2-1/4"	57	KW2051	KW2111	KW2054	KW2128	KW2051F			KW2051R	KW2111R	KW2128NC
2-3/8"	60	KW2057	KW2112	KW2060	KW2129		KW2112F		KW2057R	KW2112R	KW2129NC
2-1/2"	63	KW2063	KW2113	KW2066	KW2130				KW2063R		KW2130NC
2-5/8"	66	KW2069	KW2114	KW2072	KW2131						
2-3/4"	70	KW2075		KW2078	KW2132						
2-7/8"	73			KW2084	KW2133	KW2081F					
3"	76	KW2087	KW2117	KW2090	KW2134						

## Black & Decker, Van Dorn 9/16"-16 Thread

Wheel Size		General Purpose		Stellite		Finish		Ruby		Nickel Chrome
Inch	mm	45°	90° Flat	45°	90° Flat	45°	90° Flat	45°	90° Flat	90° Flat
1-1/8"	28	BD1-1/8-45°	BD1-1/8-90°					BD1-1/8-45°R	BD1-1/8-90°R	BD1-1/8-90°NC
1-1/4"	31		BD2103	BD2006	BD2120			BD2003R	BD2103R	BD2120NC
1-5/16"	33							BD2139R	BD2140R	
1-3/8"	35		BD2104	BD2012	BD2121	BD2009F		BD2011R	BD2104R	BD2121NC
1-7/16"	36							BD2138R	BD2118R	
1-1/2"	38			BD2018	BD2122	BD2015F		BD2015R	BD2105R	BD2122NC
1-9/16"	39		BD2119					BD2137R	BD2119R	
1-5/8"	41			BD2024	BD2123	BD2021F	BD2106F	BD2021R	BD2106R	BD2123NC
1-11/16"	42							BD2136R	BD2135R	
1-3/4"	44			BD2030	BD2124	BD2027F		BD2027R	BD2107R	BD2124NC
1-7/8"	47	BD2033		BD2036	BD2125	BD2033F		BD2033R	BD2108R	BD2125NC
2"	50			BD2042	BD2126	BD2039F	BD2109F	BD2039R	BD2109R	BD2126NC
2-1/8"	54			BD2048	BD2127	BD2045F		BD2045R	BD2110R	BD2127NC
2-1/4"	57		BD2111	BD2054	BD2128			BD2051R	BD2111R	
2-3/8"	60	BD2057						BD2057R		
2-1/2"	63	BD2063		BD2066				BD2063R		
2-5/8"	66	BD2069		BD2072					BD2114R	
2-3/4"	70	BD2075				BD2075F				
2-7/8"	73	BD2081		BD2084						
3"	76			BD2090						





# Valve Seat Grinding Equipment

Cylinder Head Rebuilding

## Replacement Sioux® Electric Seat Grinding Driver



Part #SI1710

**Features:** Spline drive 120V AC-DC, 50-60 Hz, Spring Loaded Spindle for Dual-Action Grinding.

### Replacement Parts

Description	Part #
Spindle Drive	SX22916
Bearing Cap	SX23694
Bearing Set	SX10113



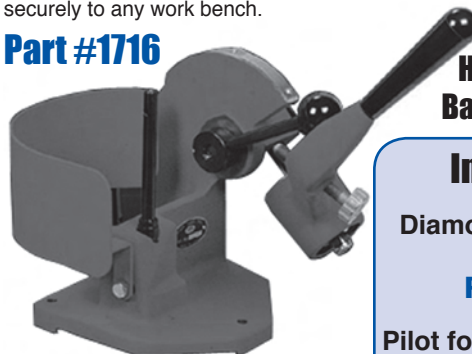
### For Sioux® #1792 Air Seat Grinder

Spindle Drive	SX22939
Bearing Cap	SX33970
Bearing Set	SX10113

## Replacement Sioux® Heavy Duty Dressing Tool

Our Replacement Sioux® valve seat wheel dresser is extremely accurate and ideal for production service. Has a capacity of up to 6" diameter and adjusts for dressing all angles from 0-90 degrees. Cast iron base bolts securely to any work bench.

Part #1716



Height: 9"  
Base: 6" x 6"

### Includes:

Diamond Adjusting Screw  
Part #1715  
Pilot for Wheel Holder  
Part #1718A

### Replacement Parts

Description	Part #
Standard Replacement Diamond	1715
.385" Pilot for Sioux (1702 Holder)	1718A
.385" Pilot for Sioux (1672 Holder)	1718C
Bushings (Use to locate SK Type Stones)	SK910

## Replacement Sioux® Vacuum Tester Kit

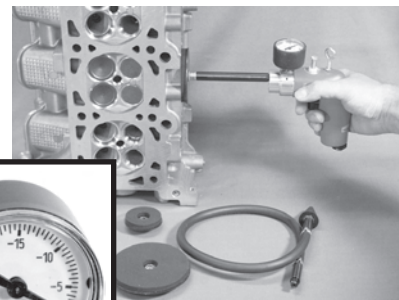
Top quality Vacuum Tester at an economical price! Easy to use hand held tester kit is designed to check valves, seats, and guides for leakage. Spark plug cone adaptor allows you to test assembled engines.

### Complete Kit - Part #S1630K

Kit Includes:	Part #
Vacuum Tester w/Gauge	S1630A
Vacuum Tester Hose	S1630B
Spark Plug Adaptor Cone	S1630C
2" Dia. Disc Pad	S16302
3" Dia. Disc Pad	S16303
4" Dia. Disc Pad	S16304
6" Dia. Disc Pad (Not In Kit)	S16306
Vacuum Tester Gauge (Only)	S1630VG



S1630VG



## Stone Holders



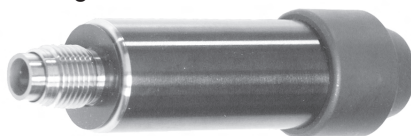
### Kwik-Way Stone Holder Part #KWH437-OE

Completely rebuildable. Accepts 13/16-13 Kwik-Way valve seat stones. Use with tapered pilots with a .437 upper end. Not for use with Model NSG stones with 21/32-18 threads.

Repl. Part	Part #
Body	KWH437-OEB
Cap	KWH437-OEC
Inner Assy.	KWH437-OEG

### Replacement Sioux Stone Holder Part #1702

Accepts 11/16-16 Sioux valve seat stones. Use with tapered pilots with a .385 upper end. "Long" 5" L. Ball Bearing Holder.



### Sioux "Short" Stone Holder Part #1672

Accepts 11/16-16 Sioux valve seat stones. Use with tapered pilots with a short .385 upper end. "Short" 3-3/16"L. Ball Bearing Holder.

### Thread Reducing Bushing Part #KWA437

For using Kwik-Way (13/16-13) valve seat stones with Sioux (11/16-16) stone holder.



# Seat Grinder Pilots



## Solid Tapered Valve Seat Pilots

Precision Ground, High-Quality Steel.  
Self Centering For Accurate Alignment.



Cylinder Head Rebuilding

Size		Part #			Size		Part #			Size		Part #		
Inch	MM	B&D	Sioux	Kwik-Way	Inch	MM	B&D	Sioux	Kwik-Way	Inch	MM	B&D	Sioux	Kwik-Way
		Neway .375"	.385"	.437"			Neway .375"	.385"	.437"			Neway .375"	.385"	.437"
.177	4.40	.	PS5177	.	.310	7.87	P1194D	PS5310	PK5310	.356	9.04	P1209E	PS5356	PK5356
.196	4.98	P1202A	PS5196	.	.311	7.90	P1194B	PS5311	PK5311	.357	9.07	.	PS5357	PK5357
.197	5.00	P1202C	PS5197	PK5197	.312	7.92	P1194A	PS5312	PK5312	.358	9.09	P1209F	PS5358	PK5358
.2157	5.48	P1203B	PS5216	PK5216	.313	7.95	P1194C	PS5313	PK5313	.359	9.12	.	PS5359	PK5359
.2165	5.50	P1203A	PS5217	PK5217	.314	7.98	P1194E	PS5314	PK5314	.370	9.40	P1197J	PS5370	PK5370
.2173	5.52	P1203C	PS5218	PK5218	.315	8.00	P1194G	PS5315	PK5315	.371	9.42	P1197H	PS5371	PK5371
.235	5.97	P1204B	PS5235	PK5235	.316	8.03	P1194I	PS5316	PK5316	.372	9.45	P1197F	PS5372	PK5372
.236	6.00	P1204A	PS5236	PK5236	.317	8.05	P1194K	PS5317	PK5317	.373	9.47	P1197D	PS5373	PK5373
.237	6.02	P1204C	PS5237	PK5237	.318	8.08	P1194M	PS5318	PK5318	.374	9.50	P1197B	PS5374	PK5374
.250	6.35	P1191A	PS5250	PK5250	.327	8.31	.	PS5327	.	.375	9.53	P1197A	PS5375	PK5375
.251	6.38	.	PS5251	PK5251	.328	8.33	.	PS5328	.	.376	9.55	P1197C	PS5376	PK5376
.258	6.55	.	PS5258	PK5258	.340	8.64	.	PS5340	PK5340	.377	9.58	.	PS5377	PK5377
.259	6.58	.	PS5259	.	.341	8.66	P1196D	PS5341	PK5341	.378	9.60	.	PS5378	PK5378
.260	6.60	P1205A	PS5260	PK5260	.342	8.69	P1196B	PS5342	PK5342	.379	9.63	.	PS5379	.
.261	6.63	.	PS5261	PK5261	.343	8.71	P1196A	PS5343	PK5343	.388	9.86	P1211B	PS5388	.
.262	6.65	.	PS5262	.	.344	8.74	P1196C	PS5344	PK5344	.393	9.98	.	PS5393	PK5393
.263	6.68	.	PS5263	.	.345	8.76	P1196E	PS5345	PK5345	.394	10.00	P1211A	PS5394	PK5394
.273	6.93	.	PS5273	PK5273	.346	8.79	P1196G	PS5346	PK5346	.433	11.00	P1212A	PS5433	.
.274	6.96	P1206B	PS5274	PK5274	.347	8.81	.	PS5347	PK5347	.434	11.02	.	PS5434	PK5434
.275	7.00	P1206A	PS5275	PK5275	.348	8.84	.	PS5348	PK5348	.435	11.05	.	PS5435	.
.276	7.01	P1206C	PS5276	PK5276	.352	8.94	.	PS5352	.	.436	11.07	.	PS5436	.
.277	7.04	P1206E	PS5277	PK5277	.353	8.97	.	PS5353	PK5353	.437	11.10	P1199A	PS5437	.
.278	7.06	.	PS5278	PK5278	.354	9.00	P1209A	PS5354	PK5354	.438	11.13	.	PS5438	.
					.355	9.02	.	PS5355	PK5355	Additional Sizes Available, See Price Sheet				

## Expandable Valve Seat Pilots (.020 Range)

Hardened Steel, Precision Ground

Size	Range	B&D Neway .375	Sioux .385	Kwik-Way .437
6 mm	.233"-.253"	P1166	P1034	P1020
1/4"/ 6.6mm	.247"-.267"	P1150	P1011	P1002
6.6 mm	.253"-.273"	P1167	P1035	P1021
7mm	.272"-.292"	P1168	P1036	P1022
9/32"	.278"-.298"	P1151	P1012	.
5/16"/ 8mm	.309"-.329"	P1152	P1013	P1004
8.5mm/11/32	.332"-.352"	P1171	P1039	P1025
11/32"/ 9mm	.340"-.360"	P1153	P1014	P1005
3/8"/ 9.5mm	.372"-.392"	P1154	P1015	P1006
25/64"/10mm	.390"-.410"	P1155	P1016	P1007
13/32"	.403"-.423"	P1156	P1017	P1008
7/16"/ 11mm	.430"-.450"	P1157	P1018	P1009

Replacement Collets & Expanders Available



## Sioux® O.E. Expanding Pilots

(.010 Range)

Pilots are self-centering in the valve guide.

Range of expansion will handle guides from **-.002 (-.05mm) to +.008 (+.20mm)** on all standard sizes.



Diameter	Inches	mm	Part #
.236	6.0	SI236	
1/4"	6.4	SI250	
.256	6.5	SI256	
.275	7.0	SI275	
9/32"	7.1	SI281	
.295	7.5	SI295	
5/16"	7.9	SI312	
.315	8.0	SI315	
21/64"	8.3	SI328	
11/32"	8.7	SI343	
.354	9.0	SI354	
23/64"	9.1	SI359	
3/8"	9.5	SI375	
.393	10.0	SI393	
13/32"	10.3	SI406	
.413	10.5	SI413	
.433	11.0	SI433	
7/16"	11.1	SI437	
29/64"	11.5	SI453	
.472	12.0	SI472	
1/2"	12.7	SI500	



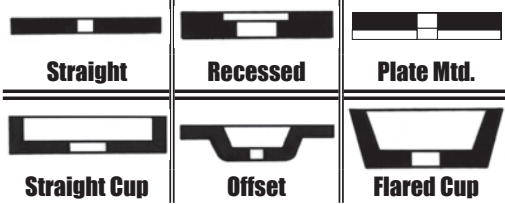


# Valve Refacer Wheels

Cylinder Head Rebuilding

## Valve Refacer Wheels

Every wheel is tested for balance, consistent quality, with a smooth, vibration-free finish!



GP = General Purpose S = Stellite R = Ruby

Make	App.	Dia. x Ht. x Arbor	Machine/Model	Shape	Type	Original #	Part #
<b>Black &amp; Decker, Thor, Van Dorn</b>	Valve	4"x1"x5/8"	A, B, C, LW, M, MW, N, NW, NWO	Offset	R	33056	2300R
		4"x1"x5/8"	A, B, C, LW, M, MW, N, NW, NWO	Offset	GP	•	2300
		4"x1"x5/8"	A, B, C, LW, M, MW, N, NW, NWO	Offset	S	16371	2302
		5"x1"x5/8"	P, PC, PCB, T, TD, TG	Offset 20°	GP	34131	2304
	Stem	4"x1-1/8"x1/2"	All Models	Cup	GP	20939	2306
<b>I.D.L., Sunnen</b>	Valve	8"x1-1/4"x1-1/2"	CG50, CG80, CG82, V90, VR7000	Flared	GP	8230	2374
<b>Kwik-Way</b>	Valve	4-1/2"x7/8"x7/8"	CV, SK, KK, VC, SV, XC	Offset	GP	010-0450-10	2308
		5"x7/8"x7/8"	EVS, VS	Offset	GP	010-0509-01	2312
		5"x7/8"x7/8"	EVS, VS	Offset	R	•	2312R
		5"x7/8"x7/8"	EVS, VS	Offset	S	010-0507-07	2316
		7"x1"x7/8"	SVS, SVS II	Offset	GP	010-0709-00	2320
		7"x1"x7/8"	SVS, SVS II	Offset	R	•	2320R
	Stem	8"x1-3/8"x7/8"	VL	Offset	GP	010-0819-04	2322
		6"x1-1/4"x3/4"	VL	Recessed	GP	010-0610-08	2317
		3"x1-1/4"x5/8"	All Models Except VL & XC	Cup	GP	010-0300-05	2324
<b>K.O. Lee</b>	Valve	5"x3/4"x5/8"	All Models	Offset 15°	GP	OV5GH60	2326
		5"x3/4"x5/8"	All Models	Offset 15°	S	OV5GH80S	2328
	Stem	4"x1"x5/8"	K500(C) & K403(C)	Cup	GP	RV4KH60	2330
		4"x1"x5/8"	K500(C) & K403(C)	Cup	R	•	2330R
		4"x1"x5/8"	All But K500(C) & K403(C)	Plt. Mtd.	GP	RV4GQKMB	2332
<b>Sioux</b>	Valve	4"x1"x5/8"	All But 680, 956, 2001, 2075	Offset	GP	78E	2300
		4"x1"x5/8"	All But 680, 956, 2001, 2075	Offset	R	•	2300R
		4"x1"x5/8"	All But 680, 956, 2001, 2075	Offset	S	83	2302
		7"x11/16"x1-3/4"	680, 956, 2001, 2075	Straight 15°	GP	173	2342
		7"x11/16"x1-3/4"	680, 956, 2001, 2075	Straight 15°	R	•	2342R
		7"x11/16"x1-3/4"	680, 956, 2001, 2075	Straight 15°	S	177	2344
	Stem	4"x1"x5/8"	All But 682, 685L	Cup	GP	81	2330
		4"x1"x5/8"	All But 682, 685L	Cup	R	•	2330R
<b>Skil, Snap-On</b>	Valve	5"x3/4"x5/8"	All Models	Offset	GP	7556/VW80	2326
		5"x3/4"x5/8"	All Models	Offset	S	VW80S	2328
	Stem	4"x1"x5/8"	All But Skil 491	Cup	GP	7557/VR2M89	2330
		4"x1"x5/8"	All But Skil 491	Cup	R	•	2330R
		4"x1"x5/8"	Skil 491	Plt. Mtd.	GP	72957	2332
<b>Sunnen, Tohin Arp, S&amp;D</b>	Valve	6"x1-3/8"x3/4"	VR6500, All S&D	Flared	GP	VR602	2356
	Stem	5"x1-3/8"x3/4"	VR6500, All S&D	Cup	GP	VR601	2358
<b>Winona, Van Norman</b>	Valve	5"x3/4"x5/8"	E, Y, YW, X, XA	Offset 15°	GP	75399	2326
		5"x3/4"x5/8"	K500HM, K403CM	Offset 15°	S	75400	2328
		12"x5/8"x3"	CRW, VR-1000	Straight 15°	GP	802003/24078	2366
	Stem	4"x1"x5/8"	E, Y, YW, X, XA	Cup	GP	40352	2330
		4"x1"x5/8"	E, Y, YW, X, XA	Cup	R	•	2330R
		10"x1-1/4"x3"	CRW	Recessed	GP	24079	2370
		10"x1-3/4"x3"	500	Recessed	GP	14384	2372

## Deluxe Valve Lapping Tool

**NEW**



This patented valve lapping tool uses a vacuum generating piston to create a suction that will not slip off the valve. It includes three interchangeable suction cups, which allows use on virtually any size valve. The tool is made from machined aluminum and also features a non-slip foam rubber grip that improves grip and comfort.

Description	Diameter	Part #
<b>Deluxe Valve Lapping Tool</b>		<b>VLS005</b>
Replacement Cups	1"	VLS007
	1-5/16"	VLS009
	1-3/4"	VLS012

## Valve Lapping Tools

Three styles to fit your needs

Description	Cup Size	Part #
<b>Economy (Hardwood)</b>	3/4" & 1-5/16"	<b>4226</b>
	1-3/16" & 1-5/16"	<b>4226A</b>
<b>Medium (Thick Hardwood)</b>	5/8" & 13/16"	<b>4480</b>
	1-1/8" & 1-3/8"	<b>4481</b>
<b>H.D. Power-Grip (Spring Loaded Plunger)</b>	3/4", 1", & 1-1/4"	<b>VLS001</b>
<b>Replacement Cups</b>	3/4" vacuum cup	<b>VLC750</b>
	1" vacuum cup	<b>VLC100</b>
	1-1/4" vacuum cup	<b>VLC125</b>



## Clover Lapping Compound

For years, Clover has been the preferred lapping compound for lapping/seating valves. Use on lapping stick for a fast, uniform finish. 1 lb. (16 oz) container.

Grade	Grit	Part #
Coarse	120	<b>4453</b>
Medium	180	<b>4454</b>
Fine	280	<b>4455</b>
Very Fine	400	<b>4457</b>
Extremely Fine	500	<b>4458</b>
<b>4 oz. Duplex Can Equal Parts (2 oz.) of 120 &amp; 280 grit.</b>		<b>4450D</b>



## Valve Refacing Grinding Oil

A premium blend of virgin based straight cutting oil with extreme pressure additives. Provides excellent surface finish and corrosion protection for valve grinding.

Size	Part #
1 Gallon	<b>4540</b>
5 Gallons	<b>4542</b>



## Valve Facer Replacement Chucks

Accuracy guaranteed to hold .0005 or better at 1-7/16" from chuck face. Chuck supplied with standard size collet (range .3149"-.3543") Optional collets also offered.

### Kwik-Way Chucks

Model	Part #
All except EVS & SVS	<b>SLW1000</b>
SVS w/serial #100-2681, threaded end on chuck shaft.	<b>SLW1001</b>

### Sioux Chucks

Model	Part #
680	<b>SLW1022</b>
2001, 2075	<b>SLW1023</b>

## Optional Collets

Fits Kwik-Way & Sioux Chucks

Decimal Range	mm Range	Part #
.120 - .160	3 - 4mm	<b>SLW1004</b>
.160 - .200	4 - 5mm	<b>SLW1005</b>
.200 - .236	5 - 6mm	<b>SLW1006</b>
.236 - .275	6 - 7mm	<b>SLW1007</b>
.275 - .315	7 - 8mm	<b>SLW1008</b>
.315 - .354	8 - 9mm	<b>SLW1009</b>
.354 - .393	9 - 10mm	<b>SLW1010</b>
.393 - .433	10 - 11mm	<b>SLW1011</b>
.433 - .472	11 - 12mm	<b>SLW1012</b>
.472 - .511	12 - 13mm	<b>SLW1013</b>
.511 - .551	13 - 14mm	<b>SLW1014</b>

Spanner Wrench	Part #
For Valves Under 5.5mm	<b>SLW1021</b>



## Collet Valve Holders

1/2" Adaptor chucks for small valves. Valve holder collets allow you to grind small valves using 1/2" adaptor chucks.



Size	Inches	Metric	Part #
1/8"	.0938 - .1250	2.382-3.175	<b>2222</b>
5/32"	.1250 - .1562	3.175-3.969	<b>2223</b>
3/16"	.1563 - .1875	3.970-4.762	<b>2224</b>
7/32"	.1875 - .2187	4.762-5.56	<b>2225</b>
1/4"	.2188 - .2500	5.57-6.350	<b>2226</b>

1/2" Adaptor Chuck/Collet Holder **2227**

**5 Piece Collet Kit w/1/2" Adaptor Chuck 2220**

## Sioux® O.E. Valve Refacer Wheels

Dia. x Ht. x Hole (In.)	Type	Shape	Used On	Part #
4x1/2x5/8	GP	Offset	645,622N,620,624,6024	<b>SX78E</b>
4x1/2x5/8	Stellite	Offset	645,622,620,624,6024	<b>SX78A</b>
4x1x5/8	Valve Ends	Cup	645,680,956,6024,2001,2075	<b>SI81</b>
4x1/2x5/8x	Stellite	Offset	645,624,6024	<b>SI83</b>
7x11/16x1-3/4	GP	Straight	680,956,2001,2075	<b>SI173</b>
7x11/16x1-3/4	Titanium	Straight	680,956,2001,2075	<b>SI174</b>
7x11/16x1-3/4	Nickel Alloy	Straight	680,956,2001,2075	<b>SI176</b>
7x11/16x1-3/4	Stellite	Straight	680,956,2001,2075	<b>SI177</b>
6x5/8x3/4	GP	Offset	685L	<b>SX184</b>
6x5/8x3/4	Stellite	Offset	685L	<b>SX187</b>





# Reamers

Cylinder Head Rebuilding

## High Speed Steel Reamers For Cast Iron



High quality reamers are spiral fluted for a smooth finish every time. Crafted from the finest H.S. tool steel and tempered to assure long life. Special sizes and sharpening services available. Frequently used sizes are highlighted in **BOLD**.

Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#
.197	5.00	1217	.277	7.03	1148	.345	8.76	1123	.388	9.86	1196
.215	5.46	1101	.281	9/32"	1187	.346	8.79	1136	.393	9.98	1205
<b>.2165</b>	<b>5.50</b>	<b>1185</b>	.310	7.87	1116	.347	8.81	1181	<b>.394</b>	<b>10.00</b>	<b>1114</b>
.217	5.51	1103	.311	7.90	1117	.348	8.84	1137	.396	10.05	1129
.218	5.54	1104	<b>.312</b>	<b>5/16"</b>	<b>1118</b>	.353	8.97	1190	.402	10.21	1161
.234	15/64"	1105	.313	7.95	1176	<b>.354</b>	<b>9.00</b>	<b>1113</b>	.403	10.24	1162
.235	5.97	1106	.314	7.97	1177	.355	9.02	1191	.404	10.26	1163
<b>.236</b>	<b>6.00</b>	<b>1109</b>	<b>.315</b>	<b>8.00</b>	<b>1112</b>	.357	9.06	1215	.405	10.29	1164
.237	6.02	1107	.316	8.03	1174	.358	9.09	1138	.406	13/32"	1130
.238	6.05	1108	.317	8.05	1175	.371	9.42	1124	<b>.433</b>	<b>11.00</b>	<b>1134</b>
<b>.250</b>	<b>1/4"</b>	<b>1115</b>	.318	8.08	1178	.372	9.45	1125	<b>.437</b>	<b>7/16"</b>	<b>1131</b>
.256	6.50	1183	.320	8.12	1212	.373	9.47	1126	.453	29/64"	1165
.258	6.55	1207	.327	8.31	1188	.374	9.50	1127	.470	11.94	1203
.259	6.58	1208A	.340	8.64	1210	<b>.375</b>	<b>3/8"</b>	<b>1128</b>	.499	12.67	1179
<b>.260</b>	<b>6.60</b>	<b>1173</b>	.341	8.66	1119	.376	9.55	1139	<b>.500</b>	<b>1/2"</b>	<b>1132</b>
.261	6.63	1184	.342	8.69	1120	.377	9.58	1193	.501	12.72	1200
.262	6.65	1186	.343	8.71	1121	.378	9.60	1182	.502	12.75	1201
<b>.2755</b>	<b>7.00</b>	<b>1111</b>	<b>.3435</b>	<b>11/32"</b>	<b>1180</b>	.379	9.63	1209	<b>.562</b>	<b>9/16"</b>	<b>1133</b>
.276	7.01	1218	.344	8.74	1122	.380	9.65	1194	<b>.625</b>	<b>5/8"</b>	<b>1202</b>

## High Speed Steel Reamers For Bronze



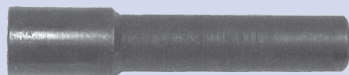
Designed for reaming high-density bronze based materials. Specially fluted, heat treated and ground to produce a smooth on-size I.D. Frequently used sizes are highlighted in **BOLD**. **Lubricant is required when reaming bronze.**

Use bronze reaming oil Part# 4528

Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#	Dec.	Frac/mm	Part#
.2165	5.50	<b>SL1185B</b>	.311	7.90	SL1117B	.318	8.08	SL1178B	.371	9.42	SL1124B
<b>.236</b>	<b>6.00</b>	<b>SL1110B</b>	<b>.312</b>	<b>5/16"</b>	<b>SL1118B</b>	.341	8.66	SL1119B	.372	9.45	SL1125B
.250	6.35	SL1115B	.313	7.95	SL1176B	.342	8.69	SL1120B	.373	9.47	SL1126B
.259	6.58	SL1208B	.314	7.97	SL1177B	<b>.343</b>	<b>11/32"</b>	<b>SL1121B</b>	.374	9.50	SL1127B
<b>.260</b>	<b>6.60</b>	<b>SL1173B</b>	<b>.315</b>	<b>8.00</b>	<b>SL1112B</b>	.344	8.74	SL1122B	<b>.375</b>	<b>3/8"</b>	<b>SL1128B</b>
<b>.2755</b>	<b>7.00</b>	<b>SL1111B</b>	.316	8.03	SL1174B	.345	8.76	SL1123B	.376	9.55	SL1139B
.310	7.87	SL1116B	.317	8.05	SL1175B	<b>.354</b>	<b>9.00</b>	<b>SL1113B</b>	<b>.394</b>	<b>10.00</b>	<b>SL1114B</b>

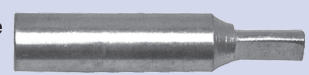
**Drive Adaptor** Kwik-Way, Peterson, 1/2" dia. straight shank for drill chucks.  
1/4" Square

**Part# SL4158**



**Drive Adaptor** Kwik-Way, Peterson or any "drill chuck type" seat & guide machine.  
3/8" dia. straight shank. 1/4" Square

**Part# SL1675**



# Reamers/Hone Kits



Cylinder Head Rebuilding

## Two Stone Valve Guide Hone **Best Value Available!**

Resize the inside diameter of worn valve guides quickly & accurately. Hone makes high performance guide work quickly & easily! Stones provide close tolerance, precision valve guide finishing. Cross hatch finish achieved regardless of guide material, (cast iron, hardened steel, nickel bronze, etc.) resulting in excellent oil retention. Hone supplied with one set of 220 grit silicone carbide stones - see below for size range required. Master hone set (**Part #80603**) covers .240 - .427 guide I.D.

### Master Hone Set (Range: .240" - .427")

Set includes 1 Knurled Adjustment Body, 3 Mandrels, 3/8" Chuck, Drive Spring Quick Adjustment Nut, 3 - 220 Grit SC Stone Sets, and a storage box.

### Part #80603

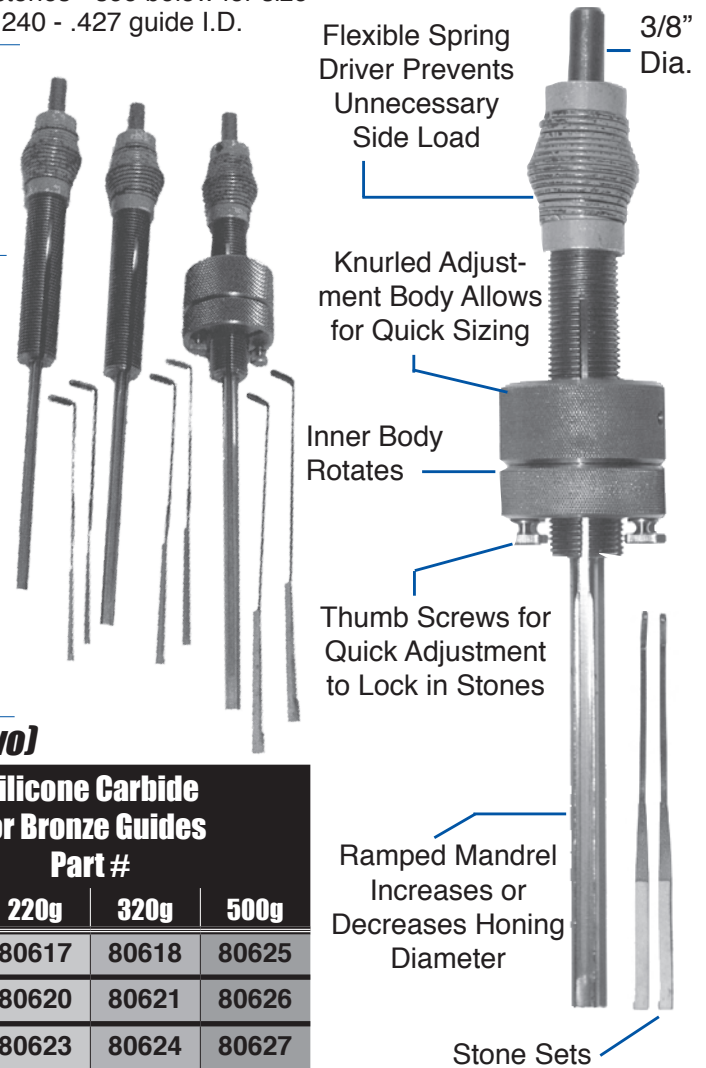
#### Replacement Parts

Size	Description	Part #
.240" - .302"	Complete Hone*	80600
	Replacement Mandrel Only	80604
.302" - .365"	Complete Hone*	80601
	Replacement Mandrel Only	80605
.365" - .427"	Complete Hone*	80602
	Replacement Mandrel Only	80606
	Replacement Knurled Adjustment Body	80600C
	Replacement Spring	80600S

\*Complete Hone Includes Knurled Adjustment Body (80600C)

#### Replacement Stone Sets (Sold in Sets of Two)

Range	Aluminum Oxide For Cast Iron Guides			Silicone Carbide For Bronze Guides			
	180g	220g	320g	180g	220g	320g	500g
.240"- .302"	80607	80608	80609	80616	80617	80618	80625
.302"- .365"	80610	80611	80612	80619	80620	80621	80626
.365"- .427"	80613	80614	80615	80622	80623	80624	80627



## Premium Carbide Tipped Reamers



Special Note: Pilot portion of reamer is .004"-.006" smaller than size.

Carbide Tipped Valve Guide Reamers, made to last longer than high speed & carbon steel reamers. Will cut cast iron & bronze guides. Min. 500 RPM.

Size	Part #	Size	Part #
.236" (6.0mm)	C1109	.344" (8.74mm)	C1122
.342" (8.69mm)	C1120	.373" (9.47mm)	C1126
.343" (11/32")	C1121	.374" (9.50mm)	C1127

## Titanium-Nitride Coated Reamers



Ream cast iron & bronze based materials to a superior finish. Specially fluted, heat treated, and ground to achieve a precise I.D. with less effort than standard high speed reamers. Special sizes and sharpening service available.

Dec.	Frac/mm	Part #	Dec.	Frac/mm	Part #
.236	6.00	1109T	.343	11/32"	1121T
.2755	7.00	1111T	.344	8.74	1122T
.315	8.00	1112T	.358	9.09	1138T
.341	8.66	1119T	.374	9.50	1127T
.342	8.69	1120T	.375	3/8"	1128T





# Knurlers/Resize Kits

Cylinder Head Rebuilding

## Standard & Metric Resizing Kits

Resize arbors (knurlers) are self starting and feed themselves through each guide. The arbors can be backed out at anytime, virtually eliminating the possibility of being locked in the guide. A reamer is then used to obtain the desired valve to guide clearance. Simply use with a high speed drill and speed reducer (Included). Valves can be installed with less than recommended guide clearance. Reconditions valve guides with up to .006" wear. Do not use on chilled or hardened guides.



### Standard Resize Kit

Description	Part #	Includes:		
Standard Resize Kit	SL1032	◆	◆	◆
Master Resize Kit	SL1033	◆	◆	◆
Metric Resize Kit	SL1034	◆	◆	◆
Speed Reducer w/Handle	SL1031	◆	◆	◆
Tap Wrench	SL4944	◆	◆	◆
Valve Guide Brush	SL1036	◆	◆	◆
Knurling Oil - 1 Qt.	4522	◆	◆	◆
3/16" Sq. Dr. Adaptor	SL1031E	◆		
5/16" Resize Arbor	SL1088		◆	◆
11/32" Resize Arbor	SL1089		◆	◆
3/8" Resize Arbor	SL1091		◆	◆
7/16" Resize Arbor	SL1094		◆	
6mm Resize Arbor	SL1081	◆		
7mm Resize Arbor	SL1082	◆		
8mm Resize Arbor	SL1083	◆		
9mm Resize Arbor	SL1084	◆		
.312 H.S. Reamer	1118		◆	◆
.341 H.S. Reamer	1119		◆	
.342 H.S. Reamer	1120		◆	
.343 H.S. Reamer	1121		◆	◆
.345 H.S. Reamer	1123		◆	◆
.371 H.S. Reamer	1124		◆	
.373 H.S. Reamer	1126		◆	◆
.375 H.S. Reamer	1128		◆	◆
.437 H.S. Reamer	1131		◆	◆
6mm H.S. Reamer	1109	◆		
7mm H.S. Reamer	1111	◆		
8mm H.S. Reamer	1112	◆		
9mm H.S. Reamer	1113	◆		

## Knurling Oil

Prolongs the life of all types of knurling arbors. Lubricates guide bores while knurling. Helps the arbor raise metal further and cuts friction to lessen arbor wear.

Description	Part #
1 Quart	4522
1 Gallon	4524



## Knurling Arbors

Reduces valve guide size. Use on guides with up to .006" wear, except chilled or hardened guides. Finish ream to obtain desired valve to guide clearance.



Dec.	Frac/mm	Part #	Dec.	Frac/mm	Part #
.216	5.50	SL1087	.348	11/32"+.005	SL1089A
.236	6.00	SL1081	.354	9.00	SL1084
.260	6.60	SL1080	.375	3/8"	SL1091
.275	7.00	SL1082	.390	3/8"+.015	SL1091B
.281	9/32"	SL1079	.394	10.00	SL1085
.312	5/16"	SL1088	.416	13/32"+.010	SL1093B
.315	8.00	SL1083	.437	7/16"	SL1094
.327	5/16"+.015	SL1088B	.442	7/16"+.005	SL1094A
.343	11/32"	SL1089			

## Speed Reducer 5:1 Reduction Ratio

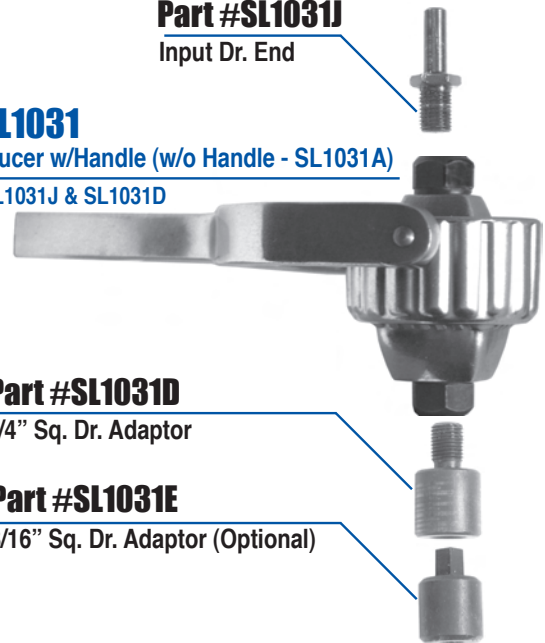
Saves valuable time & extra work by giving more control, power, & torque. Fits 1/4" or 3/8" drill chuck and has a 1/4" female sq. dr. to accept most reamers and knurlers. Order 3/16" Sq. Dr. Adaptor (SL1031E) for smaller metric reamers & knurlers.

Part #SL1031J  
Input Dr. End

### Part #SL1031

Speed Reducer w/Handle (w/o Handle - SL1031A)

Includes: SL1031J & SL1031D



Part #SL1031D

1/4" Sq. Dr. Adaptor

Part #SL1031E

3/16" Sq. Dr. Adaptor (Optional)

## Hand Knurler



Description	Part #
Complete Tool	4327
Replacement Knurler	4328

# Core Drills & Reamers



## H.S.S. Piloted Core Drills & Reamers

For Seat & Guide Machines - Precision Machined For Accurate Results

Cylinder Head Rebuilding

Machine Shank Type	CORE DRILLS			REAMERS	
	O.D.	Pilot	Part #	O.D.	Part #
Peterson / K.I. / DCM Tech 1/2" Round	15/32"	5/16"	7195	1/2"	7198
		11/32"	7196		
		3/8"	7197		
	17/32"	11/32"	7202	9/16"	7204
		3/8"	7203		
	19/32"	7/16"	7200	5/8"	7201
Kwik-Way / K.O. Lee .485 Round	.492	.343	7211	1/2"	7214
		.373	7212		
Sunnen / Tobin-Arp 1/2" w/Flat	.427	.312	7100	.438	7101
	.490	.343	7105	.500	7107
		.371	7106		
	.552	.341	7111	.5625	7114
	.610	.437	7109	.625	7110
Winona .468 w/Flat	15/32"	5/16"	7054	1/2"	7057
		11/32"	7055		
		3/8"	7056		
	17/32"	11/32"	7061	9/16"	7064
		3/8"	7062		
	19/32"	7/16"	7059	5/8"	7060
IDL / Van Norman 5/16" Sq. Dr.	.475	.311	7758	.500	7764
		.341	7762		
		.375	7763		
	.5375	.341	7228	.5625	7231



Core Drill (Part #7105)



Reamer (Part #7107)

**Shank Type Reference Guide**

1/2" Round  
.485 Round

1/2" w/Flat

.468 w/Flat

5/16" Sq. Dr.

## Core Drill/Reamer Combo

Drills and Reams Precisely to 1/2" in One Quick Step

Machine	Shank Type	Size	Part #
Peterson/ Kansas Inst./ DCM Tech	1/2" Round	.312 x .500	CDR6198
		.343 x .500	CDR6196
		.375 x .500	CDR6197
Winona	.468 w/Flat	.343 x .500	CDR6055
Serdi	3/8" Round	.312 x .437	CDR7198
		.343 x .500	CDR7196
		.375 x .500	CDR7197
IDL/ Van Norman	5/16" Sq. Dr.	.343 x .500	CDR6762
		.375 x .500	CDR6763



CDR6196



CDR6055



CDR7198



CDR6762

NOTE: Do NOT Exceed 250 RPM





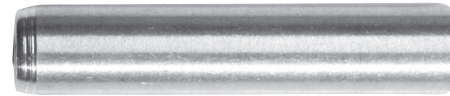
# Valve Guides/Drivers

Cylinder Head Rebuilding

## Valve Guides

Our line of stock replacement and high performance valve guides are manufactured to meet and exceed OEM material specifications. Our guides provide the precision and quality necessary for today's high stress, high temperature engines.

### Manganese Bronze



### Cast Iron



### Manganese Bronze

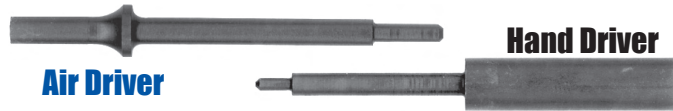
Application	I.D.	O.D.	Length	Part #
SB Chevy & Ford	.341	.502	2.250	G5607UB
	.341	.502	2.375	G5606UB
	.343	.502	2.250	G7946B
	.343	.502	2.375	G7459B
Buick & Pontiac V8	.343	.502	2.625	G6106B
BB Chevy & Ford	.372	.502	2.375	G7298B
	.372	.502	2.750	G7554B

### Cast Iron

Style	I.D.	O.D.	Length	Part #
Spiral I.D.	.343	.502	2.500	G9460H
	.344	.502	2.250	G9607
	.344	.502	2.375	G9606
Smooth I.D.	.344	.502	2.250	G5607
	.344	.502	2.375	G5606

## Valve Guide Drivers

Designed to remove and install cast iron or bronze valve guides easily. Made of a special heat-treated alloy steel for long life and durability. Choose from hand or air powered drivers.



Stem Dia.	Dec.	Valve Guide		Air Drivers	Hand Drivers
		O.D.	Dec.		
5mm	.197	9mm	.354	SL2990	SL2261
5.5mm	.2165	11mm	.433	SL2991	SL2262
6mm	.236	11mm	.433	SL2992	SL2265
6.6mm	.260	12mm	.472	SL2993	SL2266
7mm	.275	10mm	.394	SL3001	SL2267
8mm	.315	12mm	.472	SL3002	SL2270
5/16"	.312	7/16"	.437	SL3009	SL1754*
5/16"	.312	1/2"	.500	SL3005*	SL1757*
11/32"	.343	1/2"	.500	SL3006*	SL1765*
3/8"	.375	1/2"	.500	SL3007*	SL1766*
7/16"	.437	5/8"	.625	SL3008*	SL1774*

### Valve Guide Air Driver Kit

4 Pc. Kit Contains Items Marked With a \*

**Part #SL3004**



### Valve Guide Hand Driver Kit

5 Pc. Kit Contains Items Marked With a \*

**Part #SL2133**



## Air Hammer

Remove or install valve guides easily. Short strokes and uniform driving pressure minimizes guide end breakage.

Hose Size (I.D.): 3/8"

BPM: 3000

Opening: 401

Overall Length: 6-3/4"

Air Consumption: 4 C.F.M.

Bore: 11/16"

P.S.I.: 90 lbs.

Stroke: 2-5/8"

Air Inlet (NPT): 1/4"

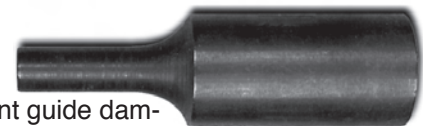


**Part #18558**

Quick Change Retainer Spring  
**Part #18559**

## Air Powered Diesel Valve Guide Drivers

Drive guides in from the shoulder to prevent guide damage. Installing drivers are recessed to insure correct installed height.



Application	Installer	Remover
Caterpillar 3406-3408	4637	4634
Cummins	4629*	4628*
Cummins L10	4639	.
Detroit GMC 53	4633*	4632*
Detroit GMC 71/92	4631*	4630*
International DT466	4635	4634
Mack	4627*	4626*
Mack (4 Valve Late)	4638	.

**8 Piece Kit Contains Items Marked With a \***  
**Part #4625**

# Guide/Boss Cutters



Cylinder Head Rebuilding

## Valve Guide Spot Facer

### For Use With Air & Electric Drills

Shorter body, machine type cutter for use with any 3/8" or 1/2" air/electric drill. Heavy carbide blades quickly shorten or face cast iron guides with ease. Order cutter and pilots separately. All pilots are interchangeable. 15/16" Cutting Diameter.

**Pilots Not Included (See Below)**

### Part #SL1270



## Pilots for SL1270

Interchangeable pilots are available for most guide I.D.'s. Order to fit smooth or spiraled guide I.D.'s.

Size	Smooth I.D.	Undersized or Spiraled I.D.
5/16" (8mm)	SL1270A	SL1271A
11/32"	SL1270B	SL1271B
3/8"	SL1270C	SL1271C
7/16"	SL1270D	SL1271D
1/2"	SL1270E	SL1271E



## Valve Guide O.D. Chamfer Tool

Use to restore chamfer 1/4" - 3/4" O.D. valve guides. Helps eliminate damage to seals. Use at low speed using hand drill, press, or seat guide machine. 1/2" x 1-5/8" long shank.



Part #IC118

## Rocker Stud Remover Tap Alignment Kit

Use to remove factory installed rocker studs. Position tool over side-by-side studs, screw down on the retaining nut, and the stud is forced out. Assures accurate alignment when tapping the boss screw-in stud, just use the tool with supplied arbor.

**Use with Chevy V6 & V8 Engines**

Part #4363



## Countersink for Bolt Holes

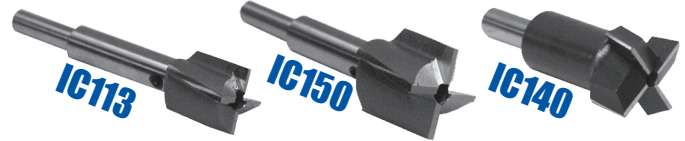
Chatterless countersink restores chamfer to about the top 1/16" of head bolt holes after block resurfacing. Prevents pulling thread material up into gaskets and making it seal poorly when you torque heads.

Part #IC121



## 4 Flute Piloted Cutters

Three Different Sizes Provide a Variety of Tasks



Application	Cutting Dia.	Shank Dia.	O.A.L.	Part #
Machining Guide Boss for Higher Cam Lift	11/16"	1/4"	3-1/8"	IC113
Use to True Head Bolt Seats. Helps Prevent Improper Torque.	15/16"	1/4"	3-1/8"	IC150
Cut Stud Bosses & Guide Tops	1-1/8"	1/4"	2-7/8"	IC140

**Above Cutters Use 3/16" Shank Pilots Sold Below**

## Interchangeable Pilots (3/16" Shank)

Size	Part #
5/16" (.312)	IC134
11/32" (.3435)	IC135
3/8" (.375)	IC136
7/16" (.437)	IC152
1/2" (.500)	IC137



## Rocker Stud Boss Cutter

Use with hand drill or seat & guide machine to cut (face) bosses without removing rocker arm studs for correct alignment to head. Complete with 2 carbide blades and depth control set screw.

Cutter Dia. 11/16"	Part #
Boss Cutter w/2 Blades	SL9311
Carbide Cutter Blade Ea. (2 Required)	SL9312
3/8" Pilot (Use w/Studs Removed)	SL9311A



## Bolt Thread Hole Cleaner

Use with penetrant lube to clean rusty, dirty threads. Helps prevent improper torque readings. Use with forward/reverse drill motor at low speed, or with tap wrench, working tool in & out of hole.

Size	Part #
1/2-13	IC101
7/16-14	IC103
10mm-1.5	IC105
11mm-1.5	IC107
12mm-1.75	IC109







# Valve Seal Tool Kits

Cylinder Head Rebuilding

## Boss Extractor® Valve Stem Seal Removal Tool

Easily removes "Top Hat" type seals and a wide range of conventional type steel jacketed seals. The user friendly design makes seal removal quick and effortless, reducing bench time as much as 30 to 40 minutes. Fits recessed lifter bores as small as 1.080" dia. and can reach up to 4" into the head cavity.

Patent #6,792,658



**Boss Extractor®**  
Kit includes 4 replacement set screws and o-ring in a fitted case.  
**Part #T500**



## Boss Extractor® Foot Attachments

The Boss Foot attachments complement the Boss Extractor, utilizing the same slide hammer for activation. Each foot fits a range of guide diameters providing a snug fit around the guide & maximum "perch" under the seal's bottom lip. Designed to extract soft seals such as Teflon, Viton, and Nitrile, but also able to remove steel jacketed seals. Use of these attachments provides easy seal removal even with the head attached to the block.



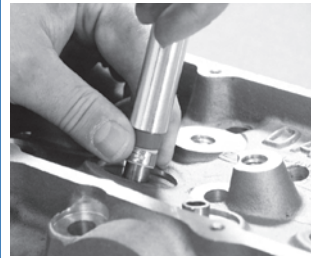
Part #T400

.400-.440 .440-.480 .480-.505 .505-.535 .535-.565 .565-.630



## Valve Stem Seal Installation Kit Install Valve Stem Seals with Valves in Head

Installation tool and seal driver pilots off valve stem to ensure proper alignment. Each seal driver is color coded for each seal size.



Description	Part #
<b>Complete Kit Includes Below:</b>	<b>T100KIT</b>
5.5mm Seal Driver	T101
6.0mm Seal Driver	T102
6.6mm Seal Driver	T103
7.0mm Seal Driver	T104
8.0mm Seal Driver	T105
11/32" Seal Driver	T106
Seal Driver Holder	T107

## Valve Stem Seal Installation Tool Kits

Both patented kits feature hardened, bullet-nosed sleeves and coaxial aluminum drivers that combine to make seal installation easy. The .010 wall bullet nose sleeve gently expands the seal, protecting it from damage when passing over the valve stem end and the lock groove. The coaxial fit between the sleeve and driver insures that the seal is driven squarely throughout the entire installation process, eliminating damage due to misalignment.

### Teflon® Seal Setter®

8 Pc. kit designed to properly install 5/16", 8mm, 11/32", and 3/8" Teflon® valve stem seals.

**Complete Kit - Part #T200**

Desc.	Part #	Desc.	Part #
5/16"(.312)	T201	8mm(.315)	T202
11/32"(.343)	T203	3/8"(.375)	T204



### Double Ended Seal Setter®

7 Pc. kit designed to properly install 6mm, 7mm, and 8mm top hat and straight body steel jacketed seals.

**Part #T300**



US PATENT #6,571,819

## Variable Angle Valve Stem Seal Pliers

**Narrow Access Design For the Smallest Valve Stem Seals** **NEW**

Rotating jaw assembly allows the plier handles to rotate to any position above the head while jaw assembly goes down into the spring cavity. Use straight or at any angle up to 90°. Jaw tip has a thin ledge for hooking underneath the stem seal. Also has vertical raised ridges inside the jaws to help grip the outside diameter of the valve stem seal.



**180°  
Rotation!**



**Part #4609**

## Universal Valve Seal Removal Pliers

Remove seals on most OHC engines, including 4-valve cylinder heads that have a very narrow access to the seal. Pliers reach around valve stem for easy removal. Serrated tip removes OE or aftermarket seals.

**Part #4608**



## Seal Removal Tool

An inexpensive option for removing valve stem seals. Removes 11/32" Guide O.D. and Larger!

**Part #T2**

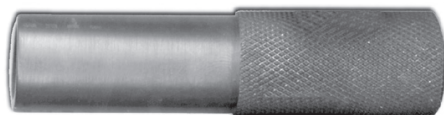


## Teflon® Seal Installer

**No More Sore Fingers!**

Allows the seal to be driven squarely. Safely Install: .500, .531, & .562 Guide OD Seals (11/32", 3/8" Valve Stem)

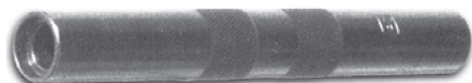
**Part #T3**



## Volkswagen V.S.S. Installing Tool

Install valve seals on all water-cooled Volkswagen and Audi 4000 & 5000. Use on OEM seals and Teflon® type. Design enables positive installation of seals in confined area.

**Part #4611**



## Valve Guide O.D. Machining Tools

**A Must for All Press-on Valve Stem Seals**

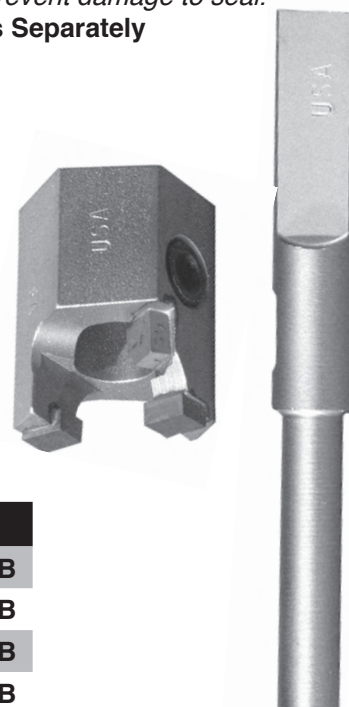
Individual carbide-tipped cutter bodies and hardened ground pilots are interchangeable and chuck into any portable drill or press. Does 3 jobs at once.

- 1) Faces the top to the correct length.
- 2) Sizes the guide OD to accept press-on seals.
- 3) Chamfers to top to prevent damage to seal.

Order Body and Pilots Separately

### Cutter Bodies

Size	Part #
.415	SL1435A
.428	SL1433A
.475	SL1434A
.500	SL1438A
.530	SL1442A
.562	SL1443A
.625	SL1445A



### Pilots

Stem Dia.	Part #
5/16" - 8mm	SL1435B
11/32"	SL1438B
3/8"	SL1442B
7/16"	SL1445B





# Guide-Liner® & Repl. Tooling

Cylinder Head Rebuilding

## Carbide Boring Tool

A fast and simple way to bore out your valve guides to accept .030 oversized Valve Guide-Liner®. The 1" pilot & seat bushing will accurately align the carbide reamer to cut a precise bore while only using a high RPM air drill. This tool is ideal for small shops to PER's.

**Available in Standard or Long Life Black Beauty®**



## Bronze-Bullet®

Bronze-Bullet® Guide-Liners® interrupted spiral design provides excellent oil retention for extended valve guide life and reduction of oil pass through.



## Smooth-Wall

Use with faster air powered tooling for quick and easy installation.



## Boring Bushing Kit

Part #SL8550



## The Auto-Installer

Auto installer provides quick & easy installation of Bronze-Bullet® liners. May also be used with Smooth Wall Liners (compress the end of the liner before entering.)



## Quantity Discounts Available

## Step 1: Bore

## Step 2: Install

Guide Size	Min. I.D.	Length	Bronze Bullet-Int. Spiral		Smooth Wall		Complete Assembly	Carbide Boring Tool	Auto-Installer	Air Driver	Air Holder	
			16 Pack	100 Pack	16 Pack	100 Pack						
5/16"	.312	1.875	SL1945ST	SL1945STA	SL1945	SL1945A	SL8560*	SL1719C (Standard) SL1719CB (Black Beauty)	SL9961	SL1714A	SL1713A	
		2.250	SL1919ST	SL1919STA	N/A	N/A						
		3.125	<b>SL1840ST</b>	<b>SL1840STA</b>	<b>SL1840</b>	<b>SL1840A</b>						
11/32"	.341	2.250	SL1982ST	SL1982STA	SL1982	SL1982A	SL8565*	SL1725C (Standard) SL1725CB (Black Beauty)	SL9962	SL1722A	SL1786A	
		2.400	SL1983ST	SL1983STA	SL1983	SL1983A						
	.342	2.250	SL1922ST	SL1922STA	SL1922	SL1922A						
		2.400	SL1932ST	SL1932STA	SL1932	SL1932A						
	.343	2.250	SL1958ST	SL1958STA	SL1958	SL1958A						
		2.400	SL1959ST	SL1959STA	SL1959	SL1959A						
		2.500	SL1923ST	SL1923STA	N/A	N/A						
		3.125	<b>SL1841ST</b>	<b>SL1841STA</b>	<b>SL1841</b>	<b>SL1841A</b>						
3/8"	.373	2.250	SL1980ST	SL1980STA	SL1980	SL1980A	SL8570*	SL1735C (Standard) SL1735CB (Black Beauty)	SL9963	SL1734A	SL1796A	
		2.500	SL1977ST	SL1977STA	SL1977	SL1977A						
		2.600	SL1978ST	SL1978STA	N/A	N/A						
	3.125	SL1992ST	SL1992STA	N/A	N/A							
	.374	2.250	SL1994ST	SL1994STA	SL1994	SL1994A						
		2.500	SL1974ST	SL1974STA	SL1974	SL1974A						
		2.950	SL1901ST	SL1901STA	N/A	N/A						
3.125		<b>SL1842ST</b>	<b>SL1842STA</b>	<b>SL1842</b>	<b>SL1842A</b>							
7/16"	.436	3.125	<b>SL1843ST</b>	<b>SL1843STA (50 pack)</b>	<b>SL1843</b>	<b>SL1843A (50 pack)</b>	SL8575*	SL1749C	SL9964	SL1744A	SL1743A	
5mm	.1968	1.625	<b>SL1858ST</b>	<b>SL1858STA</b>	N/A	N/A	SL8611*	SL3556CC (Solid-Carbide)	SL9957	N/A	N/A	
5.5mm	.216	2.250	<b>SL1857ST</b>	<b>SL1857STA</b>	N/A	N/A	SL8613*	SL3561C (Standard) SL3561CC (Solid-Carbide)	SL9958	N/A	N/A	
		.217	2.250	SL1900ST	SL1900STA	N/A						N/A
6mm	.235	2.000	SL1955ST	SL1955STA	N/A	N/A	SL8600*	SL3566C (Standard) SL3566CB (Black Beauty)	SL9965	N/A	N/A	
		.236	2.250	<b>SL1856ST</b>	<b>SL1856STA</b>	N/A						N/A
		.238	2.000	SL1906ST	SL1906STA	N/A						N/A
6.6mm	.260	2.500	<b>SL1849ST</b>	<b>SL1849STA</b>	<b>SL1849</b>	<b>SL1849A</b>	SL8580*	SL3571C(B) (Std. or BB)	SL9966	SL3204A	SL3203A	
7mm	.277	2.250	SL1930ST	SL1930STA	N/A	N/A	SL8585*	SL3576C (Standard) SL3576CB (Black Beauty)	SL9967	SL3214A	SL3213A	
		2.500	<b>SL1850ST</b>	<b>SL1850STA</b>	<b>SL1850</b>	<b>SL1850A</b>						
	.278	1.810	SL1903ST	SL1903STA	N/A	N/A						
	.279	2.250	SL1909ST	SL1909STA	N/A	N/A						
8mm	.312	2.500	SL1944ST	SL1944STA	N/A	N/A	SL8590*	SL3581C (Standard) SL3581CB (Black Beauty)	SL9968	SL3224A	SL3223A	
		.313	2.500	SL1933ST	SL1933STA	N/A						N/A
	.315	2.000	SL1954ST	SL1954STA	SL1954	SL1954A						
		2.500	SL1939ST	SL1939STA	SL1939	SL1939A						
	.316	3.000	SL1968ST	SL1968STA	N/A	N/A						
		2.500	<b>SL1851ST</b>	<b>SL1851STA</b>	<b>SL1851</b>	<b>SL1851A</b>						
		2.500	SL1940ST	SL1940STA	N/A	N/A						
2.500		SL1942ST	SL1942STA	N/A	N/A							
9mm	.354	2.750	<b>SL1852ST</b>	<b>SL1852STA</b>	<b>SL1852</b>	<b>SL1852A</b>	SL8595*	SL3586C(B) (Std. or BB)	SL9969	SL3234A	SL3233A	

Note: Bold Designates Universal Size/Length

\*For Replacement Parts, See Page 34

# Guide-Liner® & Repl. Tooling



## Guide-Liner® Drivers

Universal Length for Air & Hand



## Ball Broaches

Ball Broach Installation & Removal Holder



## Carbide Trim Tool

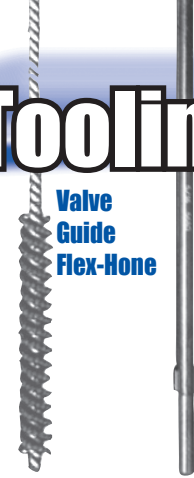
Standard Trim Tool



Pilot



## Valve Guide Flex-Hone



## Guide Liner Removal Tool

Use with SL5759 Installation Tool



Cylinder Head Rebuilding

### Step 3: Size

### Step 4: Trim

### Step 5: Finish

Manual Driver	Manual Holder	Ball Broaches		Broach Holder	Std. Trim Tool	Carbide Trim Tool	Pilots	Flex-Hone	Removal Tool
		Size	Part #						
SL1714	SL1713	.3100	SL5842	SL5758	SL1787	SL4235 Repl. Blade SL4236	SL4238	4162	SL5680
		.3110	SL5843						
		.3120	SL5844						
		.3130	SL5845						
SL1722	SL1786	.3390	SL5853	SL5759	SL1797	SL4235 Repl. Blade SL4236	SL4239	4163	SL5681
		.3400	SL5854						
		.3410	SL5855						
		.3420	SL5856						
		.3435	SL5857						
		.3445	SL5858						
		.3455	SL5859						
		.3465	SL5860						
SL1734	SL1796	.3710	SL5870	SL5759	SL1807	SL4235 Repl. Blade SL4236	SL4240	4164	SL5682
		.3720	SL5871						
		.3730	SL5869						
		.3740	SL5872						
		.3745	SL5892						
		.3750	SL5873						
		.3760	SL5874						
		.3770	SL5890						
SL1744	SL1743	.4360	SL5883	SL5759	SL1817	SL4235 (SL4236)	SL4241	4165	SL5683
		.4370	SL5884						
		.4380	SL5885						
N/A	N/A	.1978	SL5902	SL5758	N/A	SL4230	SL4247	4173	SL5677
		.1983	SL5903						
		.1988	SL5904						
N/A	N/A	.2170	SL5808	SL5758	SL3184	SL4233 Repl. Blade SL4234	SL4246	4173	SL5678
		.2175	SL5809						
		.2180	SL5810						
		.2185	SL5811						
N/A	N/A	.2370	SL5815	SL5758	SL3185	SL4233 Repl. Blade SL4234	SL4245	4160	SL5679
		.2375	SL5816						
		.2380	SL5817						
		.2385	SL5818						
		.2390	SL5819						
		.2395	SL5820						
SL3204	SL3203	.2600	SL5825	SL5758	SL3205	SL4233 (SL4234)	SL4242	4160	SL5684
		.2610	SL5826						
		.2620	SL5827						
SL3214	SL3213	.2750	SL5834	SL5758	SL1897	SL4233 Repl. Blade SL4234	SL4243	4161	SL5685
		.2760	SL5835						
		.2770	SL5836						
		.2780	SL5837						
		.2790	SL5838						
SL3224	SL3223	.3140	SL5846	SL5758	SL1787	SL4235 Repl. Blade SL4236	SL4238	4162	SL5686
		.3150	SL5847						
		.3160	SL5848						
		.3170	SL5849						
		.3180	SL5850						
		.3190	SL5851						
SL3234	SL3233	.3540	SL5864	SL5759	SL3235	SL4235 (SL4236)	SL4244	4163	SL5687
		.3550	SL5865						
		.3560	SL5866						



# Guide-Liners®

Cylinder Head Rebuilding

## Guide-Liner® Universal Size Chart Selecting The Correct Guide-Liner

Select the proper guide I.D. which corresponds to the clearances you desire. All Guide-Liners® have been designed for maximum performance when finished to the stated minimum finished guide I.D. or larger.

**10% Discount on 5 or More Boxes**



Stem Size	Min. I.D.	Length	Bronze Bullet® Interrupted Spiral® Guide-Liners®		Smooth Wall Guide-Liners®	
			16 Pack	100 Pack	16 Pack	100 Pack
5/16"	.312	3.125	SL1840ST	SL1840STA	SL1840	SL1840A
11/32"	.343	3.125	SL1841ST	SL1841STA	SL1841	SL1841A
3/8"	.374	3.125	SL1842ST	SL1842STA	SL1842	SL1842A
7/16"	.436	3.125	SL1843ST	*SL1843STA	SL1843	*SL1843A
5mm <small>NEW</small>	.1968	1.625	SL1858ST	SL1858STA	N/A	N/A
5.5mm	.216	2.250	SL1857ST	SL1857STA	N/A	N/A
6mm	.236	2.250	SL1856ST	SL1856STA	N/A	N/A
6.6mm	.260	2.500	SL1849ST	SL1849STA	SL1849	SL1849A
7mm	.277	2.500	SL1850ST	SL1850STA	SL1850	SL1850A
8mm	.316	2.500	SL1851ST	SL1851STA	SL1851	SL1851A
9mm	.354	2.750	SL1852ST	SL1852STA	SL1852	SL1852A

**NOTE: For A Full Listing of Sizes, See Page 32.**

\*50 pk.

## Guide-Liner® Hand Boring Tools



A fast and simple way to bore out your valve guides to accept .030 oversized Valve Guide-Liner®. The 1" pilot will accurately align the carbide reamer to cut a precise bore while using only a high RPM air or electric drill. This tool is ideal for small shops to PER's.

Seat Bushing Sold Separately, Not Supplied w/Comp. Assembly

### Boring Accessories & Replacement Tooling

Guide Size	Complete Assembly	Reamer Bushing	Top Retainer	Spring	Carbide Reamer*
5/16"	SL8560	SL8561	SL8593	SL8596	SL1719C
11/32"	SL8565	SL8566	SL8593	SL8596	SL1725C
3/8"	SL8570	SL8571	SL8594	SL8597	SL1735C
7/16"	SL8575	SL8576	SL8594	SL8597	SL1749C
5mm	SL8611	SL8612	SL8592	SL8596	SL3556C
5.5mm	SL8613	SL8614	SL8592	SL8596	SL3561C
6mm	SL8600	SL8601	SL8592	SL8596	SL3566C
6.6mm	SL8580	SL8581	SL8592	SL8596	SL3571C
7mm	SL8585	SL8586	SL8592	SL8596	SL3576C
8mm	SL8590	SL8591	SL8593	SL8596	SL3581C
9mm	SL8595	SL8589	SL8593	SL8597	SL3586C

\*For Black Beauty-style Carbide Reamers, add "B" to the end of the Part # (I.E. SL1719CB)

## Selecting The Correct Ball Broach

To obtain the recommended finished guide I.D., select a slightly larger ball broach (due to material flow-back that occurs during this sizing operation) typically .001" to .0015" larger than the desired finished I.D.

**See a complete listing of Ball Broaches on page 33**

## Bronze Bullet® "DFL" Coated Performance Guide-Liners®

"DFL" Performance Coated Guide-Liners® resist corrosion of Diesel & Race fuels while providing excellent wear resistance.



### Advantages of the "DFL" (Dry-Film-Lubricant) Coated Guide-Liners Include

#### Lubrication

Under Dry Starts • Under Low Oil Pressure  
Under Dry Fuels

#### Increased

Valve & Engine Efficiency • Tooling Life  
Guide & Valve Stem Life

#### Reduced

Oil Consumption • Friction • Heat

Stem Size	Min. x Length	16 Pack	100 Pack
5/16"	.310" x 3.130"	SL1927C	SL1927CA
	.312" x 3.130"	SL1840C	SL1840CA
11/32"	.343" x 2.500"	SL1923C	SL1923CA
	.343" x 3.125"	SL1841C	SL1841CA
	.344" x 2.500"	SL1921C	SL1921CA
3/8"	.374" x 3.125"	SL1842C	SL1842CA
	.373" x 2.500"	SL1977C	SL1977CA
6mm	.236" x 2.250"	SL1856C	SL1856CA
7mm	.277" x 2.500"	SL1850C	SL1850CA
8mm	.315" x 2.500"	SL1939C	SL1939CA
	.316" x 2.500"	SL1851C	SL1851CA
	.317" x 2.500"	SL1940C	SL1940CA

Note: Do NOT hone or ream DFL Coated Guide-Liner® after installation.



# Guide-Liner® Kits

## Deluxe Guide-Liner® Air Installation Kits

Complete Kit featuring Deluxe Tooling, including an upgraded Carbide Boring Tool, Go-No-Go Gauge, Carbide Guide Top Cutter w/Pilot, Flex Hone, Removal Tool & Storage Box, complete with step-by-step instructions. Designed for use with the SL8550 Bushing Kit sold below.

### Quick 5 Step Process

1. Bore
2. Install
3. Size
4. Trim
5. Finish



Cylinder Head Rebuilding

Guide Size	Kit #	Boring Tool	Reamer Bushing	Go-No-Go Gauge	Guide Brush	Auto Installer	Ball Broaches	GuideTop Cutter	Cutter Pilot	Flex Hone	Removal Tool
5/16"	SL1600NX	SL1719CB	SL8561	SL2500	SL1036	SL9961	SL5844 (.312), SL5845 (.313), SL5846 (.314)	SL4235	SL4238	4162	SL5680
11/32"	SL1601NX	SL1725CB	SL8566	SL2501	SL1036	SL9962	SL5857 (.3435), SL5858 (.3445), SL5859 (.3455)	SL4235	SL4239	4163	SL5681
3/8"	SL1602NX	SL1735CB	SL8571	SL2502	SL1036	SL9963	SL5872 (.374), SL5873 (.375), SL5874 (.376)	SL4235	SL4240	4164	SL5682
5mm	SL1613NX	SL3556CC	SL9921	SL2514	SL1036	SL9957	SL5902 (.1978), SL5903 (.1983), SL5904 (.1988)	SL4230	SL4247	4173	SL5677
5.5mm	SL1614NX	SL3561CC	SL9922	SL2498	SL1036	SL9958	SL5808 (.217), SL5809 (.2175), SL5810 (.218), SL5811 (.2185)	SL4233	SL4246	4173	SL5678
6mm	SL1612NX	SL3566CB	SL8601	SL2499	SL1036	SL9965	SL5815 (.237), SL5816 (.2375), SL5817 (.238), SL5818 (.2385)	SL4233	SL4245	4160	SL5679
6.6mm	SL1606NX	SL3571CB	SL8581	SL2504	SL1036	SL9966	SL5825 (.260), SL5826 (.261), SL5827 (.262)	SL4233	SL4242	4160	SL5684
7mm	SL1607NX	SL3576CB	SL8586	SL2505	SL1036	SL9967	SL5836 (.277), SL5837 (.278), SL5838 (.279)	SL4233	SL4243	4161	SL5685
8mm	SL1608NX	SL3581CB	SL8591	SL2506	SL1036	SL9968	SL5847 (.315), SL5848 (.316), SL5849 (.317)	SL4235	SL4238	4162	SL5686
9mm	SL1609NX	SL3586CB	SL8589	SL2507	SL1036	SL9969	SL5864 (.354), SL5865 (.355), SL5866 (.356)	SL4235	SL4244	4163	SL5687

## Standard Guide-Liner® Air Installation Kits

Designed for the smaller to mid-sized shop. Each kit includes a carbide boring tool with accessories, packaged in a storage box, with complete step-by-step instructions. These kits are designed to be used with the SL8550 Bushing Kit.

Guide Size	Kit #	Boring Accessory	Guide Brush	Auto Installer	Ball Broaches	Trim Tool
5/16"	SL1600RX	SL8560	SL1036	SL9961	SL5844 (.312), SL5845 (.313), SL5846 (.314)	SL1787
11/32"	SL1601RX	SL8565	SL1036	SL9962	SL5857 (.3435), SL5858 (.3445), SL5859 (.3455)	SL1797
3/8"	SL1602RX	SL8570	SL1036	SL9963	SL5872 (.374), SL5873 (.375), SL5874 (.376)	SL1807
7/16"	SL1603RX	SL8575	SL1036	SL9964	SL5883 (.436), SL5884 (.437), SL5885 (.438)	SL1817
5.5mm	SL1614RX	SL8613	SL1036	SL9958	SL5808(.217),SL5809(.2175),SL5810(.218),SL5811(.2185)	SL3184
6mm	SL1612RX	SL8600	SL1036	SL9965	SL5815(.237),SL5816(.2375),SL5817(.238),SL5818(.2385)	SL3185
6.6mm	SL1606RX	SL8580	SL1036	SL9966	SL5825 (.260), SL5826 (.261), SL5827 (.262)	SL3205
7mm	SL1607RX	SL8585	SL1036	SL9967	SL5836 (.277), SL5837 (.278), SL5838 (.279)	SL1897
8mm	SL1608RX	SL8590	SL1036	SL9968	SL5847 (.315), SL5848 (.316), SL5849 (.317)	SL1787
9mm	SL1609RX	SL8595	SL1036	SL9969	SL5864 (.354), SL5865 (.355), SL5866 (.356)	SL3235

## Boring Bushing Kit

Kit Contains: 7 Bushings To Fit All The Popular Valve Seat Sizes.

Size	Part#	Size	Part#
1"	SL8552	1-5/8"	SL8555
1-3/16"	SL8553	1-3/4"	SL8556
1-3/8"	SL8554	2"	SL8557
1-1/2"	*SL8598	2-1/4"	SL8558

\* Not Included In Kit

**Part #SL8550**





# Height Gauges

Cylinder Head Rebuilding

## Valve Stem Height Gauge Set

New, easy to use, comes complete with five interchangeable, lightweight, billet aluminum measuring bodies and .001 dial indicator with solid billet aluminum display base. Each body is presettable for reference use. Made in the U.S.A.

**Part #KK975DX**  
**Complete Set Includes:**  
**All Items Pictured Below**

**NEW**



Description	Dimensions	Part #
Large Measuring Body	1.250" O.D., 1.090" I.D., 3.300" OAL	KK975-1
Medium Measuring Body	1.060" O.D., .812" I.D., 2.840" OAL	KK975-2
Small Measuring Body	.900" O.D., .770" I.D., 2.840" OAL	KK975-3
Small/Tall Measuring Body	.900" O.D., .770" I.D., 3.840" OAL	KK975-4
Ex-Small/Tall Measuring Body	.750" O.D., .625" I.D., 3.830" OAL	KK975-5

## Height Gauges *All Gauges Include 1" Setting Fixture*



Height Gauge w/Indicator, 1-1/4" dia. body, interchangeable body sleeves to fit domestic or import.

**Part #KK719**



Height Gauge w/Indicator, 22mm dia. body.

**Part #KK728**



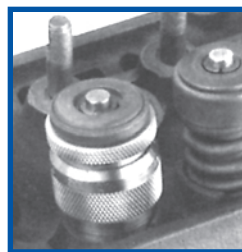
Height Gauge w/Indicator, long body, 1" dia. body.

**Part #KK727**

## Valve Spring Height Gauge

Fast, accurate measuring of installed valve spring height. Compare reading to factory specs or use before and after valve work to find out how many spring spacers you need to restore original height.

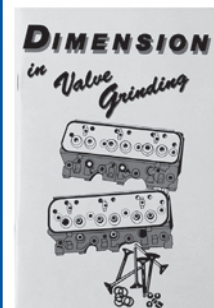
Required to get proper installed spring height when using aftermarket springs. Standard micrometer type dial shows installed height within .001" for high performance work & all top quality valve jobs.



Height Range	Part #
1.600" - 2.100" (Most V8's)	KK712
1.400" - 1.800" (4 & 6 Cyl.)	KK713



## Valve Stem Heights Book For Domestic Engines Thru 1986



**Dimensions In Valve Grinding**

**Part #6000A**

# Valve Spring Tools

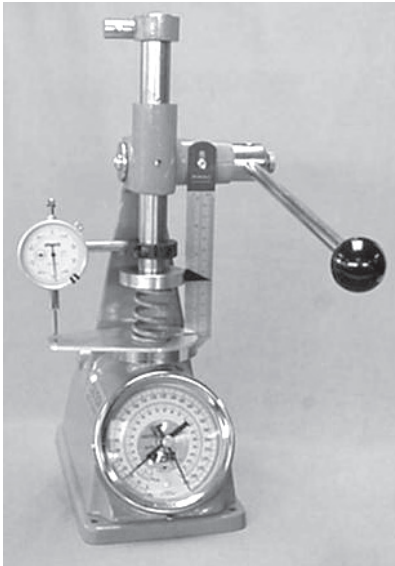


## Valve Spring Tester

### 3 Ranges Available

Test valve or clutch springs up to 2" dia. x 4-1/2" long. Rugged cast aluminum body, with mounting holes. Easy to read large face dia., full bezel pointer with red memory indicator. Height measures in inches & centimeters; pressure readings in pounds and kilograms. Accuracy: +/- 1%  
Note: Dial Indicated models are equipped w/gauge & bracket.

**Calibrated Spring**  
Use With Spring Testers  
**Part #05096**

Spring Tension	Increments	Standard Model	Dial Indicated Model
0-350	1 lb.	05068	05068D
0-500	2 lbs.	05069	05069D
0-1000	5 lbs.	05070	05070D
Dial Indicator & Bracket			05091
Dial Indicator Only			KK683

## Spring Seat Pick

Handy tool to remove O.E. spring seats prior to degreasing. Made of heat-treated carbon steel for durability. Knurled grip for positive control. Excellent tool for scribing.

**Part #4298**

## Valve Spring Seat Cutters

Carbide-tipped valve spring seat cutters for enlarging/correcting valve spring pads and to lower spring seats for high-lift cams. Use pilots with an electric drill only.

### Cutter Bodies

I.D.	x	O.D.	Part #
.625	x	1.350	SL1457
.625	x	1.476	SL1460
.625	x	1.500	SL1458
.625	x	1.570	SL1461
.625	x	1.635	SL1462
.625	x	1.750	SL1459

### Pilots

Stem Dia.	Part #
5/16"-8mm	SL1435B
11/32"	SL1438B
3/8"	SL1442B
7/16"	SL1445B



## Digital Valve Spring Tester

### 1,200 Lb. Capacity

**NEW**

Create your own Pass/Fail test. Set a high & low value, test your springs, if they fall within that range, the **OK** will light up. If not, the **HIGH** or **LOW** will light up instead.

- Spring Height: Inches & Centimeters
- Accuracy: +/- 1%
- 0.1 Lb. Increments, 4" Ram Travel
- Force Readings can be set for Pounds, Kilograms, or Newtons
- Backlit LCD Window w/Auto Shut-Off
- Equipped with 8 AA Batteries
- Height & Force Displayed in Same Window
- Remembers Last Reading

**Part # 05071E**



Cylinder Head Rebuilding

## Bench Top Valve Spring Tester

### GREAT VALUE!

Accurately check spring height versus spring pressure with our new heavy-duty bench top tester. Check springs up to 2" diameter, 4" in height, and 700 lbs. of spring pressure. Can be bench or vise mounted.

**Part #05075**



**NEW**

## Portable Valve Spring Tester

Need to check spring pressure at the track? No problem with this stud style valve spring compressor. This fully adjustable tool fits easily onto your rocker arm for pressure checks and will measure pressure up to 600 lbs.



**NEW**

**Part #05099**



## Mini Valve Spring Tester

This Mini Valve Spring Tester is designed to work with any drill press, or bench vise.

Description	Part #
Mini Valve Spring Tester (0-300 Lbs.)	05080
Mini Valve Spring Tester (0-600 Lbs.)	05081







# Valve Spring Compressors

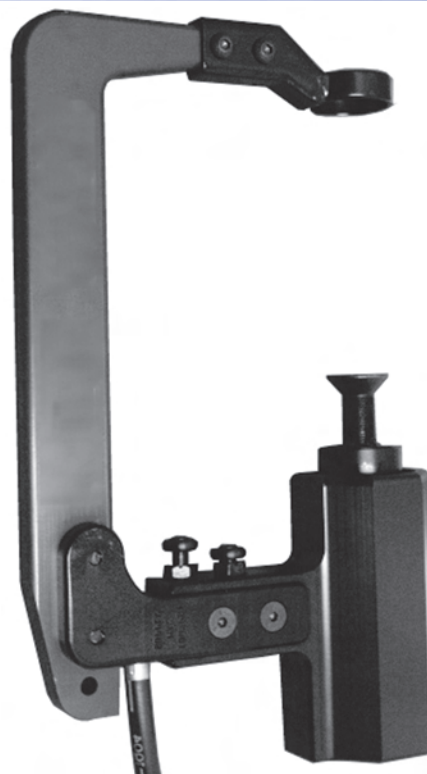
Cylinder Head Rebuilding

## Heavy Duty Air Spring Compressor

Extra heavy duty, air powered valve spring compressor handles most types of valve springs, including racing springs in excess of 900 lbs. The no-flex frame is manufactured from billet stock metal alloys. Dual stage pneumatic controls operate the adjustable length ram. The large spring shoe compresses big block and most oversized racing springs up to 1.600. An optional shoe is available for larger springs.

**Part #SL9000**

Description	Part #
Repl. Shoe (1.600 I.D. Jaw)	SL9000-7
Optional Shoe (1.740 I.D. Jaw)	SL9000-8



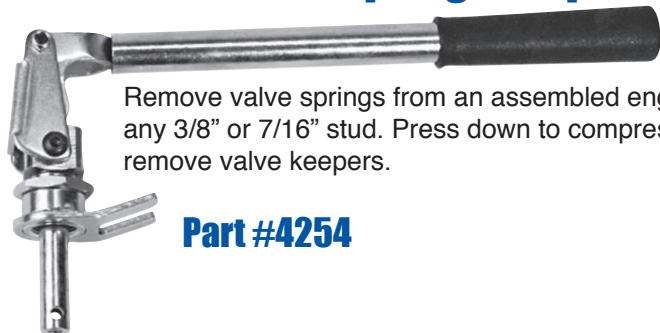
## Manual Heavy Duty Spring Compressor

Economical, heavy duty valve spring compressor designed for high performance, heavy duty, and standard spring applications. Easily handles spring pressure to 600+ lbs. Cantilever handle allows full 2-5/8" travel. Sliding valve spring jaw arm allows quick adjustment to valve spring.

**Part #4269HD**



## Stud Mount Valve Spring Compressor



Remove valve springs from an assembled engine. Screws onto any 3/8" or 7/16" stud. Press down to compress coil spring then remove valve keepers.

**Part #4254**

## Universal Spring Compressor for OHC Heads

Simple design allows you to work on most SOHC and DOHC heads while removing & installing keepers. Can be used without removing head from vehicle.



**Part #4655**

## Valve Spring Assembly/Disassembly

Use with your Guide & Seat Machine for assembly and disassembly of valve springs. 1/2" shaft rubber coated swivel plungers, 5/8" or 3/4" I.D.



Description	Part #
5/8" I.D. Plunger	4298A
3/4" I.D. Plunger	4298B

**We Accept**



# Valve Spring Compressors



Cylinder Head Rebuilding

## Valve Spring Compressors

### Air Operated Compressor

**Features:** Two Finger Control. Operates with 90 psi air pressure. Parallel lift will not bend valve stems. Develops 270 lbs of pressure.

**Includes:** 3 sets of quick change jaws (for 7/8" - 2-1/2" dia. springs.)

**Weighs:** 6-1/2 lbs.

#### Replacement Parts:

**Air Cylinder - Part #4260R**

(Fits Standard & HD Models, Cylinder w/Ram)

**Air Cylinder Rebuild Kit - Part #4260RK**

(Contains Seals, Valves, Buttons, Springs, & O-Rings)

**Seals Only - Part #4260S**



Size	Application	Part #
8-1/2" x 9"	Standard Duty	4260
12-1/2" x 11-1/2"	Heavy Duty	4260HD

### Manual Chrome Plated Universal Compressor

**C-Frame Opening:**

Height 10-1/2"

Depth 9-1/2"

**Includes:** 3 Jaw Sets (Part #4261,4262,4263)

**Features:** Use for 1" - 2-1/4" dia. springs, Marine "L" Head and O.H.V. One Hand Lock & Release Lever.



**Part #4265**

### Manual Parallel/Vertical Lift Compressor

**C-Frame Opening:**

Height 10"

Depth 8"

**Includes:** Jaw Set (Part #4262)

**Features:** Use for 1" - 2" dia. springs, Heavy Duty Cam-Lock for stiff springs.



**Part #4265PL**

## Replacement Jaws

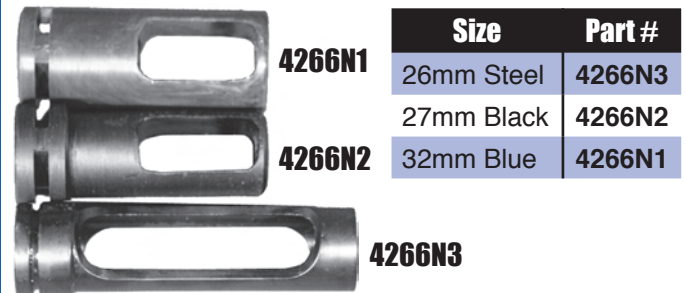
Use with Air & Manual Valve Spring Compressors



Description	Part #
Small, Straight Jaws	4261
Medium, Offset Jaws	4262
Large Straight Jaws	4263

## Recessed Valve Spring Adaptors

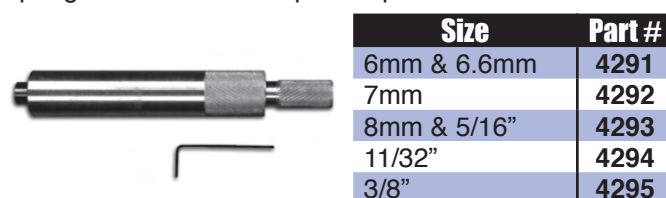
Use with conventional C-clamp valve spring compressors. Use on OHC cylinders with valve spring/cam follower bores recessed deep into cylinder head. Made of durable nylon (exc. 26mm) to prevent damage to heads. (Use with small compressor jaw.)



Size	Part #
26mm Steel	4266N3
27mm Black	4266N2
32mm Blue	4266N1

## Magnetic Valve Keeper Installers

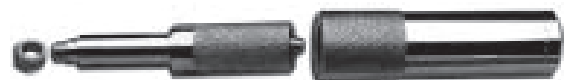
Use with compressor to install keepers. Attach keepers to magnet. Align with groove. Release compressor until spring retainer locks keepers in place.



Size	Part #
6mm & 6.6mm	4291
7mm	4292
8mm & 5/16"	4293
11/32"	4294
3/8"	4295

## Twin Magnetic Valve Keeper Tool

A great tool for removing or installing valve keepers. Works in half the time compared to a regular valve keeper tool. When installing keepers and retainers, put probe in handle, place on retainer, and strike with a mallet. Comes complete with Mercedes Benz adaptor.



**Part #4290**



# Resurfacing Abrasives

Cylinder Head Rebuilding

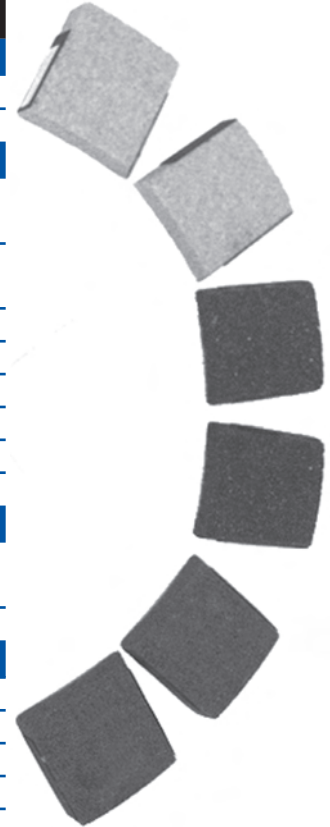
## Surface Grinding Segments

Silver Seal now offers the finest quality segments on the market today. Extensive research has led to a superb free-cutting product, with less buildup and a great finish.

### Segment Applications

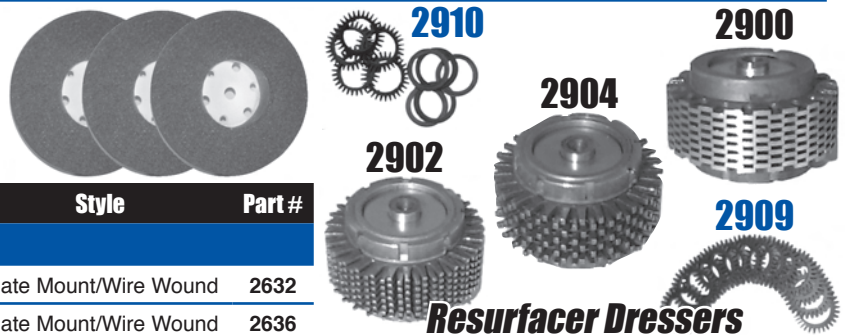
Color	Abrasive	Application
Black	Silicone Carbide	Cast Iron/Aluminum
Ruby	Aluminum Oxide	Steel/Hard Material
Pink	Mixture of Both	Hardened Iron/Steel

Machine/Model Number	Dia.	Segments Needed	Size	Color	Part # (1 ea.)
<b>Kwikway</b>					
858, 861	14"	10	65x20x100mm	Black	BK2622
862	16"	12		Ruby	PL2622
<b>Peterson / Peterson Berco, Kansas Inst.</b>					
RSC950 (Std. Model), SPY320, -1000, -1300	12"	8	65x25x100mm	Black	BK2604
RSC1200,1550,SPY360,-1000,-1300,SPC-361	14"	10		Ruby	PL2604
RSC1200, RSC1550, RPYS1500	16"	12		Black	BK2600
1055,1055 AWL, 1054 (requires 12 segments)	18"	14		Ruby	PL2600
RG32, RTY	12"	8	79x21x79mm	Pink	PK2600
				Black	BK2614
				Ruby	PL2614
				Pink	PK2614
RG35, -300/900	13"	10	50x10x92mm	Black	BK2604
				Ruby	PL2604
				Pink	PK2614
<b>Winona Van Norman</b>					
SM-2000, MG-3000, MG-3850	13"	8	65x25x100mm	Black	BK2604
SM-4000, SM-5000, MG-4000	13-7/8"	10		Ruby	PL2604
SM-6000A, SM6000C	17-3/4"	12			
<b>Storm Vulcan</b>					
RT-17Y Early (Serial numbers up to 128696)	12-1/2"	8	79x21x79mm	Black	BK2600
RT-7Y Early (Serial numbers up to 103151)	14"	10		Ruby	PL2600
				Pink	PK2600
RT-17Y Late (Serial numbers 128697 & up)	14"	10	65x25x100mm	Black	BK2604
RT-7Y Early (Serial numbers 103152 & up)	16"	10		Ruby	PL2604



## Surface Grinding Wheels

*Engineered to provide you the highest quality and performance.*



Machine / Model Number	Dia.x Hgt. x Face	Style	Part #
<b>Kwik-way / Lempco</b>			
545, 545-H, 855	12" x 3" x 1-1/2"	Plate Mount/Wire Wound	2632
545-B, 855-5, 856	14" x 3" x 1-1/2"	Plate Mount/Wire Wound	2636
545-BL, 860, 860A, L & T	16" x 3" x 1-1/2"	Plate Mounted	2638
<b>Peterson</b>			
Dry Grinder (24 Grit)	14" x 1-1/2" x 4"	Plate Mount 1" Hole(Dry)	2640
Dry Grinder (36 Grit)	14" x 1-1/2" x 4"	Plate Mount 1" Hole(Dry)	2641
902, 950, 952, 1050	14" x 1-1/2" x 2-1/2"	Nut Inserted (Wet)	2642
1054	16" x 1-1/2" x 2-1/2"	Nut Inserted (Wet)	2644
<b>Van Norman</b>			
555	11" x 1-1/2" x 3"	Plate Mounted	2648
560	14" x 2" x 3-1/4"	Plate Mounted	2652
561, 562	14" x 2" x 1-1/2"	Plate Mounted	2654
564, 566	16" x 2" x 1-1/2"	Plate Mounted	2656

### Resurfacer Dressers

**Kwik-Way (Old Style), Lempco 545**  
**14 Cutters**  
 Complete Assembly - Part #2902  
 Replacement Cutters - Part #2909

**Peterson Dry Grinder, Berco 1200, 1500**  
**8 Cutters - 5 Spacers**  
 Complete Assembly - Part #2904  
 Replacement Cutters - Part #2910

**Van Norman, Lempco, Storm RT7Y & RT-17Y**  
**14 Cutters**  
 Complete Assembly - Part #2900  
 Replacement Cutters - Part #2908



## The Best Selection Of Super Abrasive Inserts For Head And Block Resurfacing

### CBN Inserts (Cubic Boron Nitride) For Cast Iron

CBN Inserts from Silver Seal have a special edge preparation which strengthens and enhances the life expectancy. Other company's inserts have an "Up Sharp" edge which is easily chipped. Our superior technology allows us to re-sharpen our inserts to the original edge prep characteristics.

#### Top Of The Line Double Sided CBN

(TiN Coated) adds 10% to the life expectancy of the CBN insert and as an added benefit it clearly indicates wear characteristics that tell you when an insert needs to be rotated.

**Special Note:** CBN500ST is an excellent choice for DCM machines that require a 1/16" shim to be used with a normal 1/8" insert. The strength characteristics are greatly enhanced.

Dia.	Thickness	Part #
3/8"	1/8"	CBN375T
1/2"	1/8"	CBN500T
1/2"	3/16"	CBN500ST



#### The Original Double Sided CBN

The original CBN offered by Silver Seal which has proven results in hundred of shops across the nation.

Dia.	Thickness	Part #
3/8"	1/8"	CBN375
1/2"	1/8"	CBN500
1/2"	3/16"	CBN500S



#### Economy Quality Single-Sided CBN with an "Up Sharp" Carbide Back. CBN Side for Cast Iron. Carbide Side for Aluminum.

A great choice for the small shop that does occasional resurfacing.

Dia.	Thickness	Part #
3/8"	1/8"	CBN375E
1/2"	1/8"	CBN500E
1/2"	3/16"	CBN500SE



### PCD Inserts (Polycrystalline Diamond) For Aluminum

PCD Inserts are still the best choice for resurfacing aluminum. Because of the unique metallurgy of aluminum and the chemical interaction present with heat, CBN does not give the appropriate surface finish that PCD can provide.

#### The Original PCD

PCD Inserts consist of a layer of Polycrystalline Diamond bonded to a carbide substrate. As an added benefit, the carbide back can be used for aluminum heads after PCD side is used up.

Dia.	Thickness	Part #
3/8"	1/8"	PCD375
1/2"	1/8"	PCD500



#### Mallory Metal Shim For Use On DCM Machines

Special Note: Because PCD Inserts are only available in 1/8" thickness, we offer a 1/16" thick, 1/2" diameter Mallory Metal shim for use on DCM Machines.

**Part #MM116**



#### Carbide TiN Coated (Titanium Nitride) Carbide Inserts with an "Up Sharp" Edge for Aluminum

Back up for your PCD inserts or for the economy minded shop that does occasional aluminum resurfacing.

Dia.	Thickness	Part #
3/8"	1/8"	TINC375
1/2"	1/8"	TINC500
1/2"	3/16"	TINC500S



### Surface Grinding Coolant

Concentrated low foaming, synthetic, water-based grinding coolant with special metal deactivators.

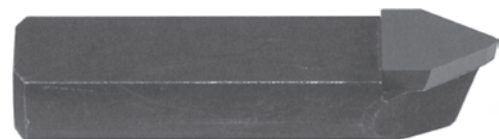
Size	Part #
1 Gallon	4514
5 Gallons	4516



Recommended Dilution Ratio 20:1 Mix To Water

### Rotary Broach Replacement Tool Bit

Van Norman Model 530 & 570 Broach & VN2000 Mill



**Part #KK065**

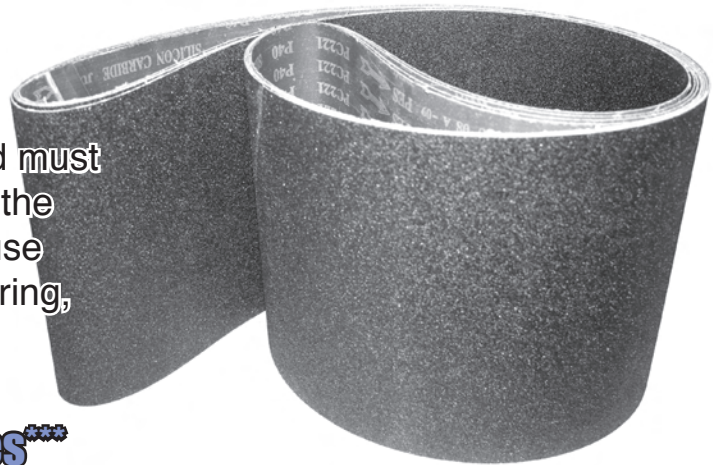


# Resurfacing Abrasive Belts

Cylinder/Head Rebuilding

## Head Resurfacing Belts Over 120 Different Belts!

Each belt is manufactured in-house and must meet a strict list of parameters insuring the highest quality belt available. We only use premium abrasives for an effective wearing, extended-life belt!



**\*\*\*Best Selection - Best Prices\*\*\***

### ALUMINUM-OXIDE

Good quality, red abrasive grains. Treated for extra long life. For use on Cast Iron. Down pressure is optional.

### SILICONE-CARBIDE

Good quality, black abrasive grains. Use for Cast Iron and Aluminum (60G or 80G) is suggested. Excess down pressure is not recommended.

### BLUE ZIRCONIA

Higher quality abrasive, tougher than A/O or S/C. Extremely cost effective because of it's longer life. Can be used on all types of material. Down pressure recommended.

### CERAMIC

Best quality maroon abrasive. Longest lasting belts. Perfectly uniform grain. Use for Cast Iron or Steel. Down pressure recommended.

**Custom sizes (width/length) are available.**

**All belts can be purchased in the following grits: 24, 36, 40, 60, & 80 grit. Call for details.**

### Backing

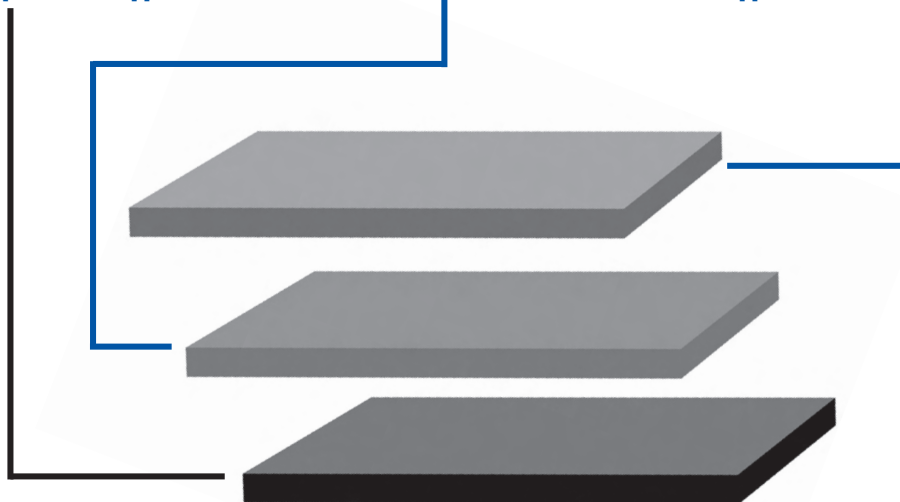
The finest cloth is used to compliment the bond and abrasive. It will not fray or tear when down pressure is applied.

### Bonding

Premium resin bond grips the abrasive allowing it to fracture, but not pull out.

### Abrasive

Our premium blend abrasives are designed to provide you with the best belt for your specific application.



## Resurfacing Coolant

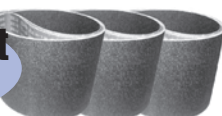
Low foaming synthetic concentrate blend, nitrate free, provides good tramp oil rejection & corrosion resistance at concentrations as low as 5%.



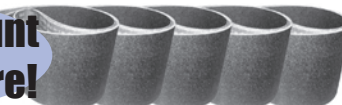
**Dilution Ratio 30:1**

Description	Part #
1 Gallon	4518
5 Gallons	4520

**10% Discount  
On 3-4 Belts**



**15% Discount  
On 5 or More!**



# Resurfacing Abrasive Belts



Cylinder Head Rebuilding

Belt Size	Machine / Model No.	Grit	Dark Red Aluminum Oxide	Black Silicone Carbide	Blue Zirconia	Maroon Ceramic
10" x 87"	Rogers SB-1028, SF-1028, T&S Machine, Master Tool 1028	24	•	HRB200	•	•
		40	HRB102	HRB202	HRB302	•
		60	•	HRB203	HRB303	•
10" x 103"	Rogers SF-1036, T&S Machine, Master Tool PS1036	40	HRB107	HRB207	HRB307	•
		60	•	HRB208	HRB308	•
11-7/8" x 76"	Winona Van Norman BG-600, McGlogan	36	•	HRB211	HRB311	•
		40	HRB112	HRB212	HRB312	HRB412
		80	HRB114	HRB214	HRB314	•
11-7/8" x 79"	Rogers RMC-700, Peterson/K.I. RG-1203	36	•	HRB216	•	•
		40	HRB117	HRB217	HRB317	HRB417
		80	HRB119	HRB219	HRB319	•
11-7/8" x 89"	Rogers RMC-800, Winona Van Norman PG-1229	36	HRB121	HRB221	HRB321	•
		40	HRB122	HRB222	HRB322	HRB422
		60	•	HRB223	HRB323	•
		80	HRB124	HRB224	HRB324	•
11-7/8" x 91"	Peterson/K.I. RG-1234	36	•	HRB261	•	•
		40	HRB162	HRB262	HRB362	HRB462
		60	•	HRB263	HRB363	•
		80	HRB164	HRB264	HRB364	•
11-7/8" x 101"	Winona Van Norman PG-1232	40	HRB172	•	HRB372	HRB472
		60	•	•	HRB373	•
		80	HRB174	•	HRB374	•
		120	•	•	HRB376	•
12" x 78"	RMC	40	HRB127	HRB227	HRB327	•
14" x 86"	Automotive Craftsman #1486	24	•	HRB230	HRB330	•
		36	HRB131	•	HRB331	•
		40	HRB132	HRB232	HRB332	HRB432
		60	•	HRB233	HRB333	•
		80	HRB134	HRB234	•	•
14" x 103"	Master Tool 1436, Rogers RMC-1436 T&S Machine	36	•	HRB236	•	•
		40	HRB137	HRB237	HRB337	HRB437
		60	HRB138	HRB238	HRB338	•
		80	HRB139	HRB239	HRB339	•
14" x 107"	Kwik-Way 870	36	HRB141	HRB241	HRB341	•
		40	HRB142	HRB242	HRB342	HRB442
		60	HRB143	HRB243	HRB343	•
		80	HRB144	HRB244	•	•
14" x 113-1/4"	Storm Vulcan/Anderson AB1000A, Peterson/K.I./A&A PG-1400 Master Tool 1441	36	HRB146	•	HRB346	•
		40	HRB147	HRB247	HRB347	HRB447
		60	HRB148	HRB248	•	•
		80	HRB149	HRB249	•	•
15" x 127-1/2"	Storm Vulcan/Anderson AB1540A, Peterson/K.I./A&A PG-1500, Winona Van Norman BR-1500, BG-1515, BG-1520, IDL HS-4350	24	•	•	HRB350	•
		36	HRB151	HRB251	HRB351	•
		40	HRB152	HRB252	HRB352	HRB452
		80	HRB154	HRB254	•	•
18" x 161-5/8"	Storm Vulcan/Anderson AB1800A, Peterson PG-1800	40	HRB157	HRB257	HRB357	HRB457
		80	HRB159	HRB259	•	•





# Crack Detection

Cylinder Head Rebuilding

## 15" Magnetic Coil

### Use with Fluorescent Particle Crack Detection Products

- Detect fissures (cracks) in crankshafts, camshafts, cylinder heads, connecting rods, etc.
- 15" coil generates a full 3,000 ampere turns (AT) field.
- Equipped with 25 ft., 120V AC cord and 8 ft. cord w/foot pedal switch.
- Mounts to bench or use as a portable unit.
- Also used to demagnetize parts.

### Directions For Use

1. Activate magnetic coil by depressing (constant) the "hands-free" foot switch while passing part through coil.
2. Use magnetic indicator to insure part is magnetized.
3. Spray part with fluorescent magnetic particle solution on area to be tested (can also dip part in bulk solution.)
4. Use UV blacklight to detect cracks (will show up as distinctive "yellow-green" lines).
5. Demag by depressing (constant) the foot switch and passing part through coil.

11226



### Magnetic Coil / Accessories

Description	Part #
<b>15" Magnetic Coil</b>	<b>11226</b>
UV Black Light 110AC - 150 Watt	10210
UV Inspection Light 120AC - 6 Watt	SL511
UV 12 Volt/DC Black Light - 100 Watt	10217
Magnetic Indicator	11228



11228



11233

### Fluorescent Powders/Concentrate

Description	Size	Part #
<b>Pre-Mixed Fluorescent Solution</b>	<b>5 Gal.</b>	<b>11232</b>
Fluorescent Magnetic Powder	1 Oz.	11237
Fluorescent Magnetic Powder	1 Lb.	11231
Solvent to Mix w/Fluorescent Powder	5 Gal.	11229
Solvent to Mix w/Fluorescent Powder	55 Gal.	11230
Aerosol, Fluorescent Oil Base Solution	12 Oz.	11233
Aerosol, Fluorescent Water Base Solution	12 Oz.	11236
Fluorescent Water Base Concentrate (1 quart makes 10 gallons.)	4-1 Qt. Bottles	11234
<b>Mix 1 oz. of #11231 Fl. Mag. Powder to 5 Gal. #11229 Solvent</b>		



10210

## Super Mag®

**Features:** Checks cast-iron cylinder heads, blocks, connecting rods, and other ferrous metals that can be magnetized. Automatic Demagnetizing - No need for additional electronic equipment. Rubber protected, hard maple table top for durability. All-steel constructed bench can support 500 lbs. or more!

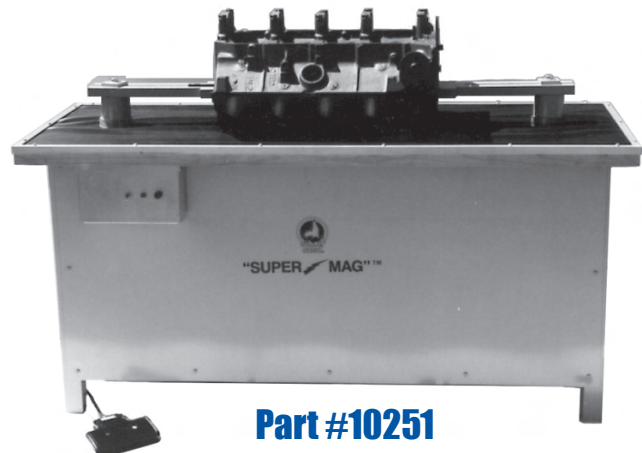
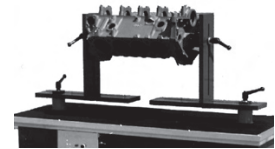
**Shipping Weight: 400 lbs.**

### Technical Information

Momentary On/Off Foot Switch  
Total Solid-State Electronic Construction  
110-115V AC Power Requirement

Bench Size & Opening		Application	Part #
Opening	Working Height		
32"	24"x48"x34" Ht.	Pass. & Light Truck	10250
45"	24"x60"x34" Ht.	Truck & Industrial	10251

### Optional Table Rise For Easy Block Rotation Part #10252



Part #10251

# Crack Detection



Cylinder Head Rebuilding

## Magnetest® Detector Kit

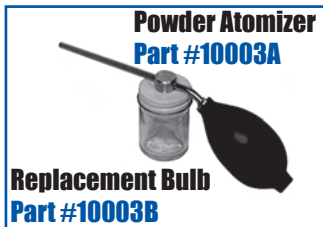
### Completely Portable!

Two industrial grade encapsulated permanent magnets, Magnetest® iron powder, and powder bulb in plastic case.



Kit Part #10100

Kit Contains	Part #
Permanent Magnets	10100A
Spray Powder Bulb	10003
1 lb. Grey Powder	10004



Powder Atomizer Part #10003A  
Replacement Bulb Part #10003B

## Crack Detection Kit

### No Transformer Box to Carry Around!

Heavy duty magnetic inspection kit locates surface cracks and many subsurface defects in ferrous metals. Fully protected, moisture-proof switch for ease of use and reliability. Laminated core, polyurethane coated, momentary switch, with 9' power cord & DC adaptor. 120 VAC, 60 hz., 5 amps nominal or 6/12 volt DC. Measures 8" x 2-1/2" x 6-3/4". Lift strength AC 12 lbs., DC 40+ lbs. Carrying case included (Part #1301).

Kit Part #10000A



### Kit Contains The Following:

Item	Part #	Item	Part #
Electro Magnet	10000	DC Adaptor Cord	10001
Funnel (4 oz.)	10002	Spray Bulb (8 oz.)	10003
1 lb. Grey Powder	10004	Optional Replacement Switch	10000SN

## Electric-Mag Kit

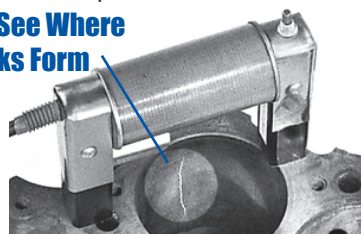
### Time-Tested Reliability

**Features:** 110 VAC/2 AMP Nominal powered magnet with 80 lbs. vertical lift! Power switch on handle, measures 7"L x 5-1/2"H with 4-1/2" yoke opening with miniature lamp, 3 prong plug, & 8' power cord. Kit includes metal case, 1 lb. grey powder & powder atomizer. Replacement parts available.

Clearly See Where Cracks Form

Part #11000

Replacement Switch Part #11000SW



## Original Magnetest® Powders

### 4 Different Colors

Magnetest® Iron Performance Powders are manufactured and blended right in our own facility.

Available in 1, 3, 5, 25, or 100 lb. containers.



	GREY	YELLOW	RED	WHITE
LB.	Part #	Part #	Part #	Part #
1	10004	10019	10024	10029
3	10005	10020	10025	10030
5	10006	10021	10026	10031
25	10007	10022	10027	10032
100	10008	10023	10028	10033

## Dye Penetrant Crack Finder Kit

1. Apply cleaner to surface and wipe dry.
2. Apply penetrant to area to be checked.
3. Remove excess penetrant with clean cloth.
4. Apply developer to expose crack.

For Cast Iron & Aluminum  
Part #10010



Kit Contains	Part #
8.5 oz. Cleaner	10204
8.5 oz. Penetrant	10012
8.5 oz. Developer	10205
Storage Case	1305

## Ultraviolet (UV) Fluorescent Detection Light Up A Leak

### Easy to Use 4 Step Crack Check Procedure:

1. Spray-on cleaner to prepare surface of part.
2. Spray-on penetrant and allow 5 minutes to penetrate crack.
3. Spray-on developer.
4. Inspect part with UV black light - crack will appear as a distinctive "yellow-green" color when viewed under UV light.

Great for Aluminum Heads!  
Part #10200

Kit Contains	Part #
Cleaner - 8.5 oz. Aerosol Can	10204
Developer - 8.5 oz. Aerosol Can	10205
Penetrant - 8.5 oz. Aerosol Can	10206
150 watt/110V AC high-intensity UV spot lamp with 7' cord complete with UV safety glasses.	10210
Replacement Bulb	10211





# Seal-Lock® Crack Repair

Cylinder Head Rebuilding

## Seal-Lock® Air Hammer

### Small & Compact

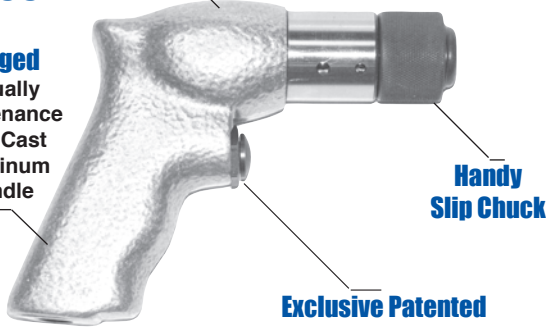
The Perfect Peening Hammer for Repairing Cracked Castings! With Features Not Found In Any Other Air Hammer.

**Part # 18600**

**Uses Less Air**  
Only 3 C.F.M.  
@90 P.S.I.

**Light Weight 20 oz.**  
Reduces Operator  
Fatigue

**Rugged**  
Virtually  
Maintenance  
Free Cast  
Aluminum  
Handle



**Handy  
Slip Chuck**

**Exclusive Patented  
Metering Trigger**  
Perfectly Controlled  
From 0 to 13,000  
Blows Per Minute

Less Than 6" Overall Length  
Lets You Work In Tight Areas

## Seal-Lock® Peening Tips

Peening Tips Snap in and out of Chuck easily and are safely locked in. The Air Hammer has no dangerous, cumbersome spring retainers.

**Part# 18601**

3-1/2" Round End



**Part# 18602**

3-1/2" Pointed End



**Part# 18603**

7" Round End



**Part# 18604**

7" Pointed End



**Part# 18605**

4" Flat Chisel



**Part# 18606**

4" Offset Flat Chisel



**Part# 18607**

6-1/2" Blank



**Part# 18608**

8-1/2" Curved End



## Sealmaster®

### Stitching Pins & Chemical Weld® Pins

Makes All Other Grooved repair Pins Obsolete!

One pin to repair both cast iron & aluminum castings! Two sizes: 1/2" & 7/8" long pins. Use 11/64" drill & #12-28 Tap to install pins. Chemical Weld Pin threads are coated with a high temp chemical welding agent for sealing.



Description	Part #
<b>Sealmaster® Starter Kit Contains:</b> 10 Each # 6A & #6B Pins, 1 Each #D6 Drill Bit, & T6 Heavy Duty Tap	<b>K1000</b>
<b>Sealmaster® Master Kit Contains:</b> 100 box of #6A & #6B Pins, 2-2" Cut Off Discs w/1/4" arbor, 1 each #D6 Drill Bit, # T6 Heavy Duty Tap, 1-1/4" oz. Btl. TMT™ Lube, 50ml btl., Grip 2 oz. Btl. Fluid Weld, & Plastic Storage Case	<b>K4000</b>
1/2" Stitching Pins (100/box)	6A
1/2" Chem. Weld Pins (100/box)	6ACW
7/8" Stitching Pins. (100/box)	6B
7/8" Chem. Weld Pins. (100/box)	6BCW
Reg. Stitching Pins (for 12-28)	6C
Chem. Weld Pins (for 12-28)	6CCW
11/64" Titanium Nitride Drill Bit (for 12-28)	D6-1
12-28 Heavy Duty Tap	T6
12-28 Heavy Duty Tight Fit Tap	T6TF

## Seal-Lock® Cold Fusion Crack Repair

### For Cast Iron & Aluminum Cylinder Heads & Blocks

When making repairs on thin castings, it is best to remove as little parent material as possible. Tests prove thin casting repairs require a repair plug diameter in the range of .150" to .230" with a .030" per inch taper, and an optimum thread pitch of 32 threads per inch. Fusion plugs are made to meet these requirements. Benefits - less material removed, less installation torque required, and less tendency to propagate the crack requires SEAL-LOCK® Fusion Plugs.



**Part# FP150**

(100/Box)  
.175" Top Dia.  
.150 Bottom Dia.  
32 Threads Per Inch

**Part# FP200**

(100/Box)  
.230" Top Dia.  
.200" Bottom Dia.  
32 Threads Per In.

Fusion Plugs Tools	Part#
<b>Cold Fusion Kit Contains:</b> Box FP150 & FP200 Plugs; w/ 1 Ea. 150 Tap, 200 Tap, 3 Ea. 1/8" & 11/64" Drill Bits, 2-2" Cut-Off Discs w/ 1/4" Arbor; 1 Ea. Bottle TMT® Lube & Fluid Weld®	<b>CFK100</b>
Tap (FP150 Plug)	FT150T
Tap (FP200 Plug)	FT200T
1/8" Titanium Nitride Drill Bit (set of 3)	FD150T
11/64" Titanium Nitride Drill Bit (set of 3)	FD200

## Seal-Lock® Mag II®

Features new rare earth magnetic alloys. Portable, these permanent magnets weigh less than 2 Lbs.! Enclosed in nylon covers & guaranteed forever to never lose their power. Kit includes set of Mag II® probes, 1 lb. Crack Detection powder and a plastic storage case.

**Complete Kit  
Part #19003**





# Seal-Lock® Crack Repair



Cylinder Head Rebuilding

## Sealace® Taper Plugs & Alumalace® Taper Plugs

**Stronger - More Durable - Leak Proof**

**Sealace®** Taper Plugs are manufactured from an alloy that is many times stronger than cast iron, yet Sealace exhibits coefficients of expansion and contraction identical to cast iron.

**Alumalace®** Taper Plugs are manufactured from aluminum, alloyed in exactly the same way as aluminum castings.

Each plug contains ZINC ELECTROLYTE, which inhibits corrosion in the repair area and ultimately fills pin holes and voids, adjacent to the repair, thus creating a permanent and impenetrable seal against leakage.

**Guaranteed Never To Crack!**

No other repair plugs offer this vital added assurance that all of your crack repairs will be forever corrosion-free and leak-proof!

Plug #	Dia. x Length	Box Qty.	Sealace® Plug Part #	Alumalace® Plug Part #	Sealace® Titanium-Nitride Tap Part #	Sealace® Titanium-Nitride Drill Part #
#4	.205/.155 x 1"	100	10113	20111	12113T	*17117T
#1	.275/.225 x 1"	100	10111	•	12111T	*17111T
#3	.350/.275 x 1-3/8"	50	10112	•	12112T	*17113T

U.S. Patent No. 4,599,781 & Canadian Patent No. 1,236,276

\*(3 pk.), drill bit size will vary dependent upon casting thickness.

## Seal Lock® Cylinder Repair Kits

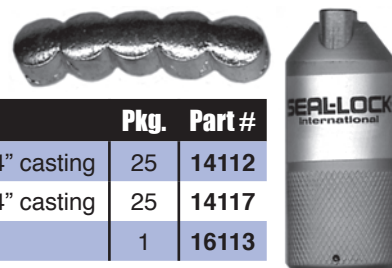


**Kit #20008**

Description	Qty.	Part #	Includes:
Standard Cylinder Kit		20009	▼
Deluxe Cylinder Kit		20010	▼
Alumalace® Repair Kit		20008	▼
#1 Sealace® Taper Plugs	100	10111	◆
#3 Sealace® Taper Plugs	50	10112	◆
#4 Sealace® Taper Plugs	100	10113	◆
Alumalace® Taper Plugs	100	20111	◆
#1 Sealace® Titanium Nitride Taps	2	12111T	◆
#3 Sealace® Titanium Nitride Taps	1	12112T	◆
#4 Sealace® Titanium Nitride Taps	2	12113T	◆
Alumalace® Titanium Nitride Tap	1	12113T	◆
3/16" Titanium Nitride Drill Bit	3	17111T	◆
17/64" Titanium Nitride Drill Bit	1	17113T	◆
9/64" Titanium Nitride Drill Bit	1	17117T	◆
TMT® Lubricant (1-1/4 oz. bottle)	1	30111	◆
Seal-Lock® Fluid Weld® (2 oz. bottle)	1	30333	◆
Grip® 50ml Bottle	1	30650	◆
Tab Seals 7 Gram Tablets	2	30702	◆
Seal-Lock® Air Hammer	1	18600	◆
3-1/2" Round End Peening Tool	1	18601	◆
3-1/2" Pointed End Peening Tool	1	18602	◆
Curved Peening Tool	1	18608	◆

## Seal-Lock® & Seal-Lock Jig

Using the Seal-Lock® Jig, a drill bit, and an air drill, patterns of tangent holes are drilled straddling the crack. Seal-Locks are inserted into the patterns. Once in place, they act like giant staples, keeping the crack forever from reopening or propagating further. The balance of the crack between the Seal-Locks is sealed using Seal-Lace Taper Plugs, capable of holding pressures in excess of 6000 PSI. Peen with air hammer & grind to finish.



Description	Pkg.	Part #
3/16" 3-lobe for up to 1/4" casting	25	14112
3/16" 5-lobe for up to 1/4" casting	25	14117
3/16" Seal-Lock® Jig	1	16113



# Hylomar® Kit

## Hylomar® Pit Lane Products Quick Fix Kit

**NEW**

**Trouble in the pits? We've got everything you need to get you back on track!**

As used by the top teams in FI, IRL, NHRA, NASCAR, World MX, WRX, Moto GP, FI Powerboats and more!



### Complete Kit - Part #HPL1000

Kit Includes:

#### 1) Hylomar® Universal Blue Racing Formula



Use for sealing machined surface joints on motors, transmissions, and rear ends. Seals fuel/brake line joints, bolt threads, and drain plugs.

**75ml - Part #HUBR02**

#### 2) Hylomar® Universal Blue Racing Formula XP Aerosol

The Unique sealing properties of Hylomar® Universal Blue Racing Formula helps prevent head gasket leaks, even under extreme loads and head lift.



**4.25 oz. - Part #HUBRA1**

#### 3) Hylomar® 4430 Blue Medium Strength Anaerobic Threadlocker

For small and medium size fasteners that need to be removed, this medium strength threadlocker is ideal.



**10ml - Part #HA44301**

#### 4) Hylomar® 4820 Red High Strength Anaerobic Threadlocker

For medium and large size fasteners that need to stay put, this very high strength threadlocker is the one.



**10ml - Part #HA48201**

#### 5) Hylomar® 4800 Green Wicking Grade High Strength Anaerobic Threadlocker

Can't remember if you used threadlocker? Don't worry, this nano-thin threadlocker will wick into the finest threads.



**10ml - Part #HA48001**

#### 3) Hylomar® Tough Bond Metal Epoxy



This multi-use, very high strength epoxy can be used for repairing everything from plastic body parts to cracked block and transmission casings.

**25ml - Part #HTBM01**

Shop Essentials

## HYLOMAR

when performance really counts™

# UNIVERSAL BLUE

- Non-hardening and non-setting.
- Unlimited assembly time.
- Vibration resistant.
- Allows metal to metal contact.
- Seals surface imperfections.
- Resistant to combustion products, water, engine coolant, petroleum, lubricating oils, kerosene, and some fluorocarbon refrigerants.
- Withstands rapid variations in temperature.
- Flame, dust, and moisture proofing properties.

### Hylomar® Universal Blue

Hylomar® Universal Blue is adopted world-wide in sealing gas and diesel engines and automotive transmissions.

Typical applications: Water and oil pumps, instrument inspection covers, cylinder heads and cast oil pans. Coating pre-formed gaskets, weatherproofing motors, and outdoor high voltage circuit breakers. Inlet manifolds, timing case covers, oil pump joints, gearbox and transmission components. Thread sealing, gas turbines, water-cooled generators, turbo vacuum systems, and any machined flange.

Size	Part #
1.4 oz (40g) Tube Carton	HUB001
1.4 oz (40g) Tube Blister	HUB002
3.5 oz (100g) Tube	HUB003
8.8 oz (250ml) Brush Top Can	HUB004
12.3 oz (350g) Cartridge	HUB005
14.1 oz (400ml) Aerosol	HUB006



### Hylomar® Rally Wipes

Hylomar® Rally Wipes are high powered cleaning towels that provide a versatile waterless cleaning that can cut through fresh Hylomar® Universal Blue gasket compound, tar, grease, wax, ink, lubricants, and adhesives.



Type	Part #
Rally Wipes (70 Pk)	HRW001
Rally Wipes (40 Pk)	HGPW01

### Hylomar® Cleaning Fluid and Gasket Remover

Hylomar® Cleaning Fluid is the ideal low toxicity product to use prior to the application of any sealant. Gasket Remover is used to remove cured Hylomar Universal Blue and also cured Hylomar Anaerobic sealants.

Description	Size	Part #
Cleaning Fluid	8.8 oz Brush Top Can	HCF1
Cleaning Fluid	5 Liter Can	HCF2
Gasket Remover	8.8 oz Brush Top Can	HGR1



### Hylomar® Universal Blue Racing Formula

Hylomar® Universal Blue Racing Formula exhibits significantly increased adhesive properties when compared to standard Universal Blue making the product ideal for high performance applications. Used by Formula One and NASCAR® race teams.

Size	Part #
1.4 oz (40g) Tube	HUBR01
4.25 oz (125ml) Aerosol	HUBRA1
2.6 oz (75g) Tube	HUBR02



### Hylomar® Advanced Formulation

Hylomar® Advanced Formulation is a solvent free version of our Hylomar® Universal Blue. Ideal for applications where environmental controls affect production. For applications, see Universal Blue with the addition of exhaust manifold sealing due to solvent free formulation.



Size	Part #
3oz (85g) Tube	HUBA01
8.5oz (250ml) Brush Top Can	HUBA02
12.3oz (350g) Cartridge	HUBA03

### Hylomar® Aerograde (PL32M)

Hylomar® Aerograde is a highly engineered non-setting and non-hardening sealant compound specifically developed for use in the aerospace industry. Defense specification DTD 900/4586. Hylomar® Aerograde carries Rolls Royce approvals MSRR9055 and OMAT number 4/46 (light).

Size	Part #
3.5 oz (100g) Tube	HUBPLL1







# Hylomar® Sealants



## Hylomar® Threadlockers & Sealants



Shop Essentials

Hylomar® Name	Color	Description	10ml	50ml	250ml	Loctite Equiv. Product
<b>Hylomar® Threadlockers &amp; Sealants</b>						
<b>4220</b>	Purple	Low strength low viscosity thread locker (screw lock)*		<b>HA42202</b>	<b>HA42203</b>	221/222/226/932
<b>4420</b>	Blue	Medium strength low viscosity thread locker*	<b>HA44201</b>	<b>HA44202</b>	<b>HA44203</b>	242
<b>4430</b>	Blue	Medium strength low/medium viscosity thread locker (nut lock)*	<b>HA44301</b>	<b>HA44302</b>	<b>HA44303</b>	243/245/540/962
<b>4620</b>	Red	High strength low viscosity thread locker*		<b>HA46202</b>	<b>HA46203</b>	232/262/641
<b>4800</b>	Green	Very high strength very low viscosity thread locker (Penetrating grade)*	<b>HA48001</b>	<b>HA48002</b>	<b>HA48003</b>	220/290
<b>4820</b>	Red	Very high strength low viscosity thread locker (stud lock)*	<b>HA48201</b>	<b>HA48202</b>	<b>HA48203</b>	270/271
<b>4870</b>	Red,	Very high strength modified high viscosity thread locker*		<b>HA48702</b>	<b>HA48703</b>	275/277/554
<b>4880</b>	Red/Orange	Very high strength high viscosity thread locker.*		<b>HA48802</b>	<b>HA48803</b>	272
<b>5020</b>	Purple	Very low strength low viscosity thread sealant*		<b>HA50202</b>	<b>HA50203</b>	542/545/569
<b>5059</b>	White Paste	Low strength medium/high viscosity PTFE modified thread sealant*		<b>HA50591</b>	<b>HA50592</b>	572
<b>5089</b>	White Paste	Very low strength very high viscosity PTFE modified thread sealant*		<b>HA50892</b>	<b>HA50893</b>	560/567/572
<b>5489</b>	Yellow, Fluorescent	Medium strength very high viscosity PTFE modified thread sealant*		<b>HA54892</b>	<b>HA54893</b>	571/567/577
<b>Anaerobic Retainers</b>						
<b>6450</b>	Yellow Liquid	Medium strength, modified medium viscosity retainer		<b>HA64502</b>	<b>HA64503</b>	232/262/641
<b>6620</b>	Green Liquid	High strength, low viscosity retainer		<b>HA66202</b>	<b>HA66203</b>	601/609
<b>6630</b>	Green, Fluorescent	High strength, modified low viscosity retainer		<b>HA66301</b>	<b>HA66303</b>	603/609
<b>6640</b>	Green	High strength, medium viscosity retainer	<b>HA66401</b>	<b>HA66402</b>	<b>HA66403</b>	635/638/680
<b>6655</b>	Green Liquid	High strength, modified medium viscosity retainer		<b>HA66552</b>	<b>HA66553</b>	620
<b>6855</b>	Green, Fluorescent	Very high strength, modified medium viscosity retainer		<b>HA68552</b>	<b>HA68553</b>	642/648

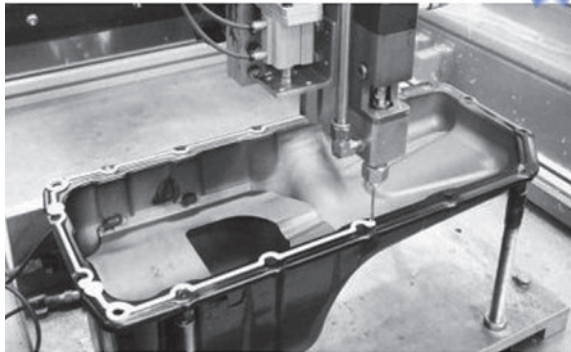
## Anaerobic Gasket Maker

Name	Description	Type	Size	Part #
2000 - Gasket	Off-White Viscous Liquid	Anaerobic Gasket Maker	100ml Concertina	<b>HA20001</b>
			250g Cartridge	<b>HA20003</b>
3400 - Gasket	Yellow Viscous Liquid	Anaerobic Gasket Maker	300ml Cartridge	<b>HA34002</b>
			Anaerobic Gasket Maker	100ml Concertina <b>HA40001</b>
4000 - Gasket	Orange viscous liquid	Gasket remover	250ml Tin	<b>HGR0001</b>
		Anaerobic activator	1 Liter Bottle	<b>HAA0002</b>

# Hylomar® Sealants & More



## Hylomar® OEM Grade Silicone Sealants Hylomar® 100 Series Silicone **NEW**



Hylomar® Silicone Sealant 100 has good resistance to oils and aqueous anti-freeze agents.

**Temperature Range: -60°F (-51°C) to 360°F (182°C)**

Size	Ivory Part #	Black Part #
85g Tube	HS1011	HS1021
300ml Cartridge	HS1012	HS1022

## Hylomar® 300 Series Silicone **NEW** Resistant to oil, water, and lubricants.

**Temperature Range: -40°F (-40°C) to 465°F (241°C)**

Size	White Part #	Black Part #
85g Tube	HS3011	HS3021
300ml Cartridge	HS3012	HS3022

## Hylomar® 300 High Temp. Series

**Temperature Range: -50°F (-46°C) to 570°F (299°C)**

Size	Clear Part #	Red Part #
85g Tube	HS3031	HS3101
300ml Cartridge	HS3032	HS3102

## Hylomar® 532 Engineering Grade

300ml Cartridge	Black	HS5321
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## Hylomar® Silicone Primer & Removers

Use both to clean and enhance bonding surface.

Description	Size	Part #
Silstrip Silicone Remover	150ml Cartridge	HSS001
Silicone Primer (Blue)	500ml Bottle	HSP001

## Copper Anti-Seize

Hylomar® Anti-Seize contains copper to help prevent galling or seizing of materials subjected to high loads and/or temperature.



**500g Bottle - Part #HCAS01**

## Hylomar® OEM Grade Sealants Hylomar® Polyurethane Sealant **NEW**

A permanently flexible polyurethane sealant particularly suitable for bonding and sealing areas subject to vibration or which will require painting. Hylomar® Polyurethane Sealant bonds: steel, aluminum, wood, polyester, epoxy coatings, and common building materials. When cured, the product has excellent chemical resistance and is waterproof.

Description	Size	Part #
Polyurethane White	310ml Cartridge	HPU101
Polyurethane Black	310ml Cartridge	HPU201
Polyurethane Grey	310ml Cartridge	HPU301

## Hylomar® Marine Fire-Retardant Sealant

Hylomar® FS 415 is a full cure, flexible, acrylic emulsion sealant providing low to medium joint movement, specifically designed for use around fire doors or any area requiring products with fire retardant properties. The fire retardant additives used do not contain halogens. The product exhibits good adhesion to most plastics, glass, wood and most construction materials and can be over coated with most paints and wall coverings.



**300ml Cartridge - Part #FS415J1**

## Hylomar® Epoxy 2-Epoxy Adhesives **NEW**



### Features

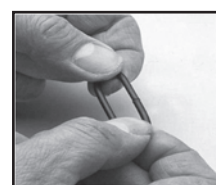
- Good gap filling qualities.
- Cures in 5 minutes.
- Easy to use.

This multi-use, very high strength epoxy can be used for repairing everything from plastic body parts to cracked block and transmissions casings.

Type	Size	Part #
Toughbond Rapid (GP)	25ml Syringe	HTBR01
Toughbond Metal (Metal)	25ml Syringe	HTBM01

## Hylomar® "Super Glue" Cyanoacrylate

Hylomar® cyanoacrylate adhesives are rapid bonding, high strength adhesives that are clean and easy to use.



This product is able to bond metal, plastics, rubber, wood, leather, ceramics and cork.



**5g Bottle - Part #HCMS01**

**20g Bottle - Part #HCMA02**



# Engine Sealants

## Silver Seal® Engine Tabs

### Prevent Cooling System Leaks After Your Rebuild

A must for engine rebuilders and mechanics for preventing internal and external cooling system leaks. Engine tabs guard against thermal and mechanical distortion, seepage at gaskets, hoses, and cracks. Install through freeze plug openings or in radiator. Tabs remain solid until cooling system is filled.



#### Full Size Tab

3/4" Dia. x 1" Ht.  
4,6,& 8 Cyl = 1 Tab  
Truck & Industrial = 2 Tabs

#### Half Size Tab

3/4" Dia. x 1/2" Ht.  
4,6,& 8 Cyl = 2 Tab  
Truck & Industrial = 4 Tabs

Shop Essentials

Full Size Tab		Half Size Tab	
Package/Qty.	Part#	Package/Qty.	Part#
1 box of 50	ET-50	1 box of 50	ET-55
10 boxes of 50	ET-500	10 boxes of 50	ET-505
500 pc. bulk	ET-500B	500 pc. bulk	ET-505B
20 boxes of 50	ET-1000	20 boxes of 50	ET-1005
1,000 pc. bulk	ET-1000B	1,000 pc. bulk	ET-1005B

## Seal-Tabs®

### Seal & Prevent Leaks

Permanently seal and prevent leaks in automotive cooling systems. Does not contain metallic particles or fibers. Safe, nontoxic, odorless!

Ultra compacted Seal-Tabs® will only dissolve in water or anti-freeze. When dissolved, the leak sealing formula is released throughout the cooling system, permanently sealing minute leaks that might have been missed in assembly, testing or installation.



Packaged	Part#
20 Tab Box	30700
50 Tab Box	30701
2 Tab Pack	30702

## Seal-Lock® GRIP®

### Fast Curing - Easy Application - No Mixing

A superior high strength, high temperature resistant single component anaerobic sealant/retaining compound that locks, seals, and retains a wide variety of parts. Heating for approximately 15 minutes at 200°F speeds curing and increases strength. Heat resistant. When fully cured, GRIP® is resistant to solvents.



#### Prevents

Leakage, Contamination, Corrosion.

#### Stops

Loosening from Vibration.

**50ml Bottle Part# 30650**    **250ml Bottle Part# 30655**

## Silver Seal® Head & Block Seal

Silver Seal® Head & Block Seal repairs cracks in cast iron, aluminum, blocks, or heads. Special ceramic coatings formula also seals cooling system gaskets, studs, and freeze plug leaks. Use to seal guides and sleeves. Simply flush-n-seal to do the job.



Engine Size	Amt. Needed
4 Cylinder	8 Oz.
6 & 8 Cylinder	16 Oz.

**16 Oz. Bottle - Part #KVS2000**

**Case of 12 Bottles - Part #KVS2012**

## Seal-Lock® Head & Block Sealer

### Head & Block Insurance

- Cross Links with Oxides (rust) Inside Water Jackets to Form a Tough, Flexible lining that Seals Leaks and Contains Cooling System Pressures.
- Not Affected by Water or Coolant (Anti-Freeze).
- Prevents Rust and Corrosion.
- Conducts Heat Evenly Through Casting - Without Insulating.
- Seals Porosity, Pin Holes, and Fine Cracks In Cast Iron & Aluminum Heads/Blocks
- Withstands Engine Operating Temperatures.



#### Quart

**Part# 30444**

#### Gallon

**Part# 30445**

## Seal-Lock® Fluid-Weld®

### Withstands Temperatures Up To 3000°F!

Repairs fine cracks, pin holes, and porosity in cast iron or aluminum heads and blocks. Improves sealing ability of crack repair plugs and pins. Seals injector tubes, gaskets, freeze plugs, etc. Superior lubricating ability eases installation of valve seat inserts, valve guides, sleeves, and other pressed fit parts.



Non-Flammable & Non-Toxic



#### 3 Sizes Available

**2 Oz. - Part# 30333**

**8.8 Oz. - Part# 30334**

**1 Gal. - Part# 30335**



# Leak Detection / Sealers



## The "Original" Radiator **LEAK STOPPER**<sup>®</sup>

Leak Stopper<sup>®</sup> is a metallic sealer with a carrying agent that stays in suspension until carried to the leaking area. Metallic particles seal leaks when exposed to air. Ten minutes of engine operation completes the sealing cycle. A profitable year round seller. **When you buy a case of Leak Stopper<sup>®</sup>, you will receive a silver dollar for each carton (12).**

**Trusted By  
Millions For  
Decades!**



**Counter Top  
Display  
24 Tubes  
Part #CD24  
Order by the Case  
12 Carton Case  
(288 Tubes)  
Part #CD288**

**Hanging  
Display  
24 Tubes  
Part #HU24  
Order by the Case  
12 Carton Case  
(288 Tubes)  
Part #HU288**



## Silver Seal<sup>®</sup> Head & Block Seal

Silver Seal<sup>®</sup> Head & Block Seal repairs cracks in cast iron, aluminum, blocks, or heads. Special ceramic coatings formula also seals cooling system gaskets, studs, and freeze plug leaks. Use to seal guides and sleeves. Simply flush-n-seal to do the job.

Engine Size	Amt. Needed
4 Cylinder	8 Oz.
6 & 8 Cylinder	16 Oz.

**16 Oz. Bottle - Part #KVS2000**

**Case of 12 Bottles - Part #KVS2012**



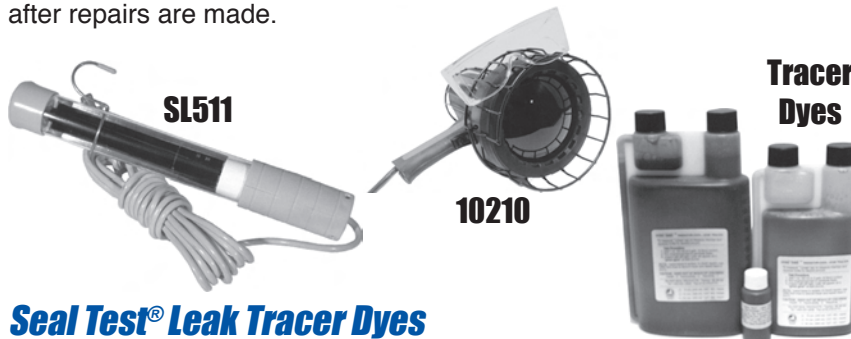
Shop Essentials

## Leak Detection Seal Test<sup>®</sup>

Automotive fluid leak detection system takes the guess work out of finding leaks in engines, transmissions, radiator coolant systems, and fuel systems.

### Seal Test<sup>®</sup> System Safe!

Fluorescent leak tracer dyes are custom blended to be 100% compatible with the system being tested. They are non-harmful to system fluids, gaskets, seals, and other component parts. No need to drain or remove after repairs are made.



### Seal Test<sup>®</sup> UV System Kits

Description	Part #
6 watt/120V AC fluorescent tube style UV lamp, 14"L x 1-3/4" dia. with 20 ft. cord, encl. in clear polypropylene tube.	SL511
150 watt/110V AC hi-intensity UV spot lamp with 7" cord complete with UV safety glasses. Includes case.	10210
12V DC 100 watt hi-intensity UV lamp. Complete with 18 ft. cord, battery terminal clamp connectors, cigarette lighter adaptor, and UV safety glasses. Includes case.	10217

Note: Order Dyes Separately.

### Replacement Parts & Accessories

Description	Part #
Replacement bulb (for Part #SL511)	SL504
Replacement bulb (for Part #10210)	10211
Replacement bulb (for Part #10217)	10216
UV Safety Glasses	10222
UV Lens Filter for Part #10210 & 10217	10223

### Seal Test<sup>®</sup> Leak Tracer Dyes

Description	Part #
Gas & Diesel Oil Crankcase (1 oz. to 5 qts. lube oil)	10227-1 (1-1 oz. Bottle)
Gas & Diesel Fuel Systems (1 oz. to 5 gallons fuel)	10227-6 (6-1 oz. Bottles)
ATF, Gear Lube, Hyd. Oil (1 oz. to 8 pints ATF)	10227-12 (12-1 oz. Bottles)
Radiator-Coolant System (1 oz. to 2 gallons anti-freeze)	10235-1 (1 oz. Bottle) 10236 (16 oz. Bottle) 10237 (32 oz. Bottle)



# Sealants

## Heat Tab Adhesive

### Exclusive Formula!

Premium grade Heat Tab Adhesive provides proper heat transfer to the heat tab to get an accurate melt if the engine overheats past the temperature of the heat tab that is installed. Formulated for long-term holding strength under all engine operating conditions.

**Effective Temperature Range: -76° to +350°F**  
**Tack free in 10-15 minutes. Fully cured in 24 hours.**

### Heat Tab Kit

#### Part #HTP SPECIAL

(Special package saves you 15%)

- Includes: 200 Premium Heat Tabs
- 1 3oz. Tube of Adhesive (HTA)
- 1 Tube-Grip Applicator (V200)
- 6 Extra Tube Tips (V052)



**See Full Listing of Heat Tabs on Page 4.**

Shop Essentials

## All-In-One Silicone®

Simplify your inventory with one premium grade RTV silicone that does it all.

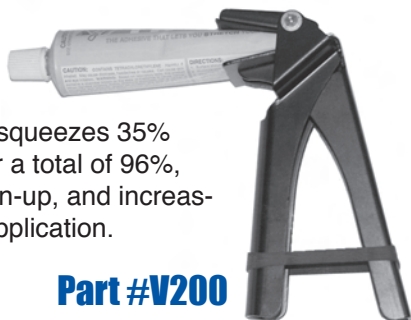
Choose from four colors: Aluminum, Blue, Black, and Clear. Each color performs at high temperatures, has low volatility, and is oxygen-sensor safe. All-In-One® Silicone stands up to any automotive application where RTV silicone is used.



Color	Black		Aluminum		Blue	Clear
Size	3 Oz.	11.17 Oz.	3 Oz.	11.17 Oz.	3 Oz.	3 Oz.
Part #	V135	V142	V195	V202	V165	V105

## Tube-Grip® Dispensing Tool

The Tube-Grip® Dispensing Tool creates 10 times more pressure than squeezing by hand, squeezes 35% more material out for a total of 96%, eliminates most clean-up, and increases the precision in application.



**Part #V200**



**3 oz. (85 gram) Tube**  
(Approx. 200 Tabs)

**Part #HTA**



**10.5 oz. (283 gram) Cartridge**  
(Approx. 700-750 Tabs)

**Part #HTAP10**

### WARNING!

Previously suggested Devcon Adhesive is now a water based formula and is no longer recommended.

## 2 Part Adhesive

### 1 oz. Tube

Attaches approximately 200 Heat Tabs.

**Part #DV11**



## Seal-Lock® GRIP®

### Fast Curing - Easy Application - No Mixing

A superior high strength, high temperature resistant single component anaerobic sealant/retaining compound that locks, seals, and retains a wide variety of parts. Heating for approximately 15 minutes at 200°F speeds curing and increases strength. Heat resistant. When fully cured, GRIP® is resistant to solvents.



**Prevents**  
Leakage, Contamination, Corrosion.  
**Stops**  
Loosening from Vibration.

**50ml Bottle**  
**Part# 30650**

**250ml Bottle**  
**Part# 30655**

## Epoxi-Putty®

EPOXI-PUTTY® is a kneadable, steel-reinforced epoxy putty that cures rock hard within minutes of mixing. After 3 hours, EPOXI-PUTTY® can be drilled, tapped, filed, etc. and will withstand temperatures up to 300° F.



**Part #V636**

## Solvent 184®



Non-flammable Solvent 184® is a great cleaner for brakes, alternators, electric motors, starters, and removing Hylomar®.

**16 Oz. Can**  
**Part #V265**

# Pre-Lube Products



## The Original Pre-Lube Tank - Part #EL05

Our original system comes complete with 5 quart capacity tank, triple purpose top (oil fill/dipstick measure/**Patented Pressure Release Safety Cap\***), 8 ft. oil supply hose (rated at 250 psi), and 2 universal engine connector fittings.

Simply fill the tank with engine oil, pressurize tank with air (50-100 psi), connect pre-lube oil supply hose to engine oil sending unit port, open tank flow-control valve, and in just a few seconds pre-lube is complete.



**\*IMPORTANT: The EL05 is the only pre-lube system available on the market with the Patented Safety Pressure Release Cap which prevents the operator from opening a pressurized tank, thus avoiding personal injury. (Pat. #5,036,996) (\*\*Other suppliers do not carry this! Check before you purchase!\*\*)**

## Friction Master (A/L-22) Assembly Lube

Protect your engine from costly dry-start failures by assembling your engine using A/L-22 Assembly Lube. Provides superior protection against dry start failure for up to fifteen minutes running time. Used on all types of parts where metal to metal protection's vital, especially on camshafts, crankshafts, and bearings.



Description	Part #
2 oz. Bottle w/Spout	4565
8 oz. Bottle w/Spout	4566
1 Gallon Jug	4568
5 Gallon Pail	4569

## Valco-Torco "MPZ" Assembly Lube

With its distinctive red color and natural attraction to metal, provides a pre-lubricant for all engine parts. It offers superior protection against scuffing, galling, and metal transfer during the break

in of a new or rebuilt engine. MPZ Cam Lube is used to protect cam lobes, lifters, and other highly stressed engine parts during the initial cranking and break-in of new or rebuilt engines.



Description	Part #
Assy. Lube (1 oz. Tube)	V751
Assy. Lube (4 oz. Bottle)	V752
Assy. Lube (12 oz. Bottle)	V753
Cam Lube (1 oz. Tube)	V754
Aerosol Gel Lube (8 Oz. Can)	V755

## Moly Pre-Lube

An excellent engine parts liquid pre-lubricant designed to leave a tacky, protective film that remains during engine assembly, before engine pre-start, and engine oil circulation critical wear-in period. Non-harmful to internal engine parts, oil, gaskets, or seals.

Package Size	Part #
1 Pint	4551
1 Quart	4552
1 Gallon	4554



## Motor Assembly White Grease

A multipurpose lithium grease formulated to provide excellent mechanical stability and resistance to water. Performs well in high speed, heavy load conditions. Withstands temperatures of -20°F to 300°F.



**Part #V903**

Shop Essentials





# Import Tools

## Valve Clearance Disc Kits



**Magnetic Disc Holder  
Included**

### 14mm Toyota Kit - Part #TOYK

14mm Diameter Kit includes 4 of each size.  
Range: 2.40mm-3.30mm (.05mm increments)

### 25mm Honda/Toyota Kit - Part #HONK

25mm Diameter Kit includes 2 of each size.  
Range: 2.30mm-3.50mm (.05mm increments)

### 27mm Nissan Kit - Part #NISK

(1.0, 1.3, & 1.6 16V)  
27mm Diameter Kit includes 4 of each size.  
Range: 2.00mm-3.00mm (.05mm increments)

### 28mm Toyota Kit - Part #TOY28K

(1.9L 4AFE)  
28mm Diameter Kit includes 4 of each size.  
Range: 2.50mm-3.30mm (.05mm increments)

### 31mm VW/Audi/Chrysler Kit - Part #VWAK

31mm Diameter Kit includes 5 of each size.  
Range: 3.05mm-4.20mm (.05mm increments)

### 34mm Toyota Truck Kit - Part #TOYTK

34mm Diameter Kit includes 4 of each size.  
Range: 2.20mm-3.40mm (.05mm increments)

### **NEW** 37mm Toyota/Mitsubishi Kit - Part #TOY37K

37mm Diameter Kit includes 4 of each size.  
Range: 2.50mm-3.30mm (.05mm increments)

### How To Order Replacement Packs

For single disc size replacements,  
order Make & Disc Size.

**Ex.: Honda 3.05 disc = HONK3.05**

Sold in 4 pc. packs (except 25mm - 2pc. pack)  
(Part #TOYK & TOY37K are only sold in kit form.)

## Resurfacers Holders



Description	mm	Part #
Jaguar	17.3	4614
Honda & Toyota	25.0	4622
Nissan	27.0	4613
Toyota	28.0	4615
VW/Audi	31.0	4618
Toyota Truck	34.0	4620

## Head-Saver Shim Kit

Use shims under cam towers to correct timing chain tension and valve clearance when more than .015 is removed during resurfacing of OHC heads.



Description	Part #
<b>Datsun</b>	
Fits 4 Cyl. L-16, L-18, & L-20 (1968-1978)	0591000
Fits 6 Cyl. L-21, L-23, & L-26	0591001
<b>Mercedes</b>	
4 & 5 Cylinder Engine	0591004
6 Cylinder Engine	0591006

## Valve Adjustment Tool

For use on Chrysler Omni & Horizon and earlier model VW's.



**Part #4604**

## Toyota/Lexus Valve Adjusting Tool

This simple tool provides easy depression of the valve lifter so the wedge tool can be inserted. With this clearance, the old insert can be removed and the new insert with the correct thickness can be installed.

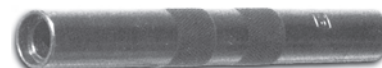
Description	Part #
<b>Complete Set</b>	<b>4605</b>
Pliers Only	4605P
Wedge for Toyota & Lexus	4605W



## Volkswagen V.S.S. Installing Tool

Install valve seals on all water-cooled Volkswagen and Audi 4000 & 5000. Use on OEM seals and Teflon® type. Design enables positive installation of seals in confined area.

**Part #4611**



# Seal-Lock® Thread Repair



## Self-Tapping Solid Repair Inserts

The best solid repair system available! Unlike ordinary helically coiled inserts, **Seal-Lock®** inserts are solid bushings that provide a precision fit for spark plug threads that will never cause compression leaks. And since they are self tapping, they will never back out when spark plug is removed. **Repair damaged spark plug threads!**

Seal-Lock® Self Tapping Thread Repair Systems are Covered By U.S. Patent No. 4,703,968; Canada Patent No. 1,282,985



Self-Tapping slots provide sharp cutting edges that tap into castings. Tapping slots trap cuttings and lock insert bushing into place

### Optional Insert Tool & Replacement Inserts

Description	Qty.	Part #
M14 Long Insert Driver	1	14001L
M14 x 3/4" Insert (1/2 thread .647" OD)	5	14750H

### Seal-Lock®

Self Tapping Thread Repair System For Cast Iron or Cast Aluminum Heads, Taper seat or Gasket Type Ports

### Spark Plug Kits

Description	Qty.	Part #
<b>M12 x 1.25 Kit Contains:</b>		<b>20004</b>
M12 Insert Driver	1	12001
M12 Pilot	1	12003
3/4" Reach Inserts	3	12750*
TMT Lube (1-1/4 oz.)	1	30111
<b>M14 x 1.25 Kit Contains:</b>		<b>20007</b>
M14 Insert Driver	1	14001
M14 Piloted Reamer	1	14002
M14 Pilot	1	14003
3/8" Reach Inserts	3	14375*
1/2" Reach Inserts	3	14500*
3/4" Reach Inserts	3	14750*
TMT Lube (1-1/4 oz.)	1	30111
<b>M18 x 1.50 Kit Contains:</b>		<b>20005</b>
M18 Insert Driver	1	18001
M18 Pilot	1	18003
1/2" Reach Inserts	3	18500*
TMT Lube (1-1/4 oz.)	1	30111

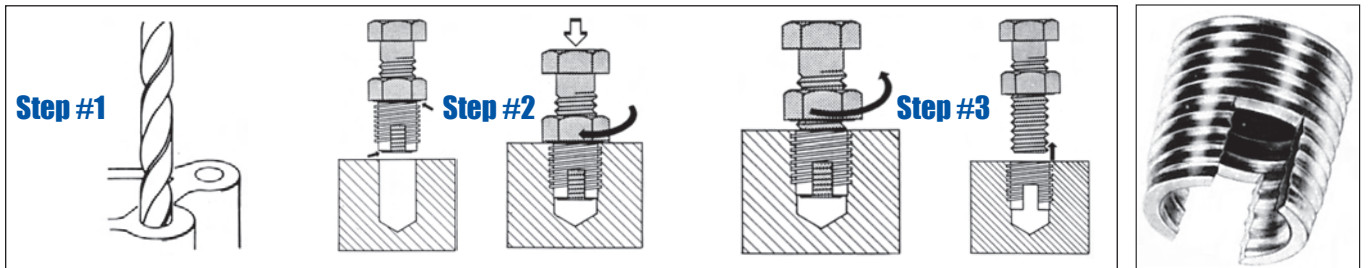
\*10-Pk. Inserts Avail. Separately.

## Seal-Lock® Self Tapping Thread Repair Inserts

**Guaranteed Superior To Any Other Thread Repair System Or Your Money Back!**

**NOW....** You can replace stripped, worn or damaged threads in Cast Iron, Aluminum, Magnesium, Copper, Brass, Bronze, Steel, etc...With Solid Steel Threads Without Taps or Special Tools!

**Your New Threads are - Stronger - More Durable - Corrosion Resistant - Vibration Proof - Pressure Proof**



Standard Assortment Part #400	Metric Assortment Part #500	Large Thread Assortment Part #600	Assortment Package Part #700
Contains 5 Ea.: 1/4-20, 3/8-16, 5/16-18, 7/16-14	Contains 5 Ea.: M6 x 1, M8 x 1.25, M10 x 1.5	Contains 5 Ea.: 1/2-13, M12 x 1.75, 1/2-20, 9/16-12	Contains 2 Ea.: 8-32, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13, 1/2-20, M6 x 1.0, M8 x 1.25, M10 x 1.5, M12 x 1.75

**Insert O.D. is .020/.040 Over Drill Size**

Thread Size	Qty.	Drill Size	Part #	Thread Size	Qty.	Drill Size	Part #	Thread Size	Qty.	Drill Size	Part #
6-32	50	#6	40062	1/4"-28	40	5/16"	40278	M11x1.5	15	9/16"	40433
6-40	50	#6	40064	5/16-18	25	7/16"	40312	7/16-14	15	9/16"	40437
M4 x 0.7	50	A	40120	5/16-24	25	3/8"	40324	7/16-20	15	9/16"	40457
8-32	50	A	40125	M8 x 1.25	25	3/8"	40325	M12x1.75	10	19/32"	40472
8-36	50	A	40136	M9 x 1.25	20	15/32"	40354	1/2"-13	10	5/8"	40500
M5 x 0.8	50	9/32"	40140	3/8 -16	20	17/32"	40375	1/2"-20	10	43/64"	40520
10-24	50	9/32"	40149	3/8-24	20	31/64"	40379	9/16-12	10	43/64"	40562
10-32	50	19/64"	40187	M10x1.25	15	43/64"	40390	5/8-11	10	3/4"	40625
M6 x 1.0	40	5/16"	40236	M10x1.5	15	9/16"	40393	3/4-10	10	63/64"	40750
1/4-20	40	5/16"	40250	M10x1.75	15	9/16"	40399				



# Thread Repair

## Coiled Thread Repair Inserts

### Coarse - Inch Series

Thread Size & Length	25pc. Bulk Inserts Part#	6/12 pc. Bulk Inserts Part#	Qty.	Complete *Kit Part#	Installation Tool Part#	Tap Part#	Drill Size
8-32 x .164	B122031						
8-32 x .246	B12203	203	12	B12203K	B12203I	06203	11/64"
8-32 x .328	B122032						
10-24 x .190	B122041						
10-24 x .285	B12204	204	12	B12204K	B12204I	06204	13/64"
10-24 x .385	B122042						
12-24 x .216	B122051						
12-24 x .324	B12205	205	12	B12205K	B12205I	06205	15/64"
12-24 x .432	B122052						
1/4-20 x .250	B122061						
1/4-20 x .375	B12206	206	12	B12206K	B12206I	06206	17/64"
1/4-20 x .500	B122062						
5/16-18 x .312	B122071						
5/16-18 x .469	B12207	207	12	B12207K	B12207I	06207	21/64"
5/16-18 x .625	B122072						
3/8-16 x .375	B122081						
3/8-16 x .562	B12208	208	12	B12208K	B12208I	06208	25/64"
3/8-16 x 750	B122082						
7/16-14 x .438	B122091						
7/16-14 x .656	B12209	209	6	B12209K	B12209I	06209	29/64"
7/16-14 x .875	B122092						
1/2-13 x .500	B122101						
1/2-13 x .750	B12210	210	6	B12210K	B12210I	06210	17/32"
1/2-13 x 1.00	B122102						
9/16-12 x .562	B122111						
9/16-12 x .844	B12211	211	6	B12211K	B12211I	06211	19/32"
9/16-12x1.125	B122112						



### Coarse-Inch Insert Assortment Kit

50 Pc. Kit Includes:

- 5 Installation Tools
- 5 Taps and Inserts for 1/4-20, 5/16-18, 3/8-16, 7/16-14, & 1/2"-13 sizes.

**Part #B33004**



### Fine - Inch Series

Thread Size & Length	25pc. Bulk Inserts Part#	6/12 pc. Bulk Inserts Part#	Qty.	Complete *Kit Part#	Installation Tool Part#	Tap Part#	Drill Size
10-32 x .190	B122201						
10-32 x .285	B12220	220	12	B12220K	B12220I	06220	13/64"
10-32 x .380	B122202						
1/4-28 x .250	B122211						
1/4-28 x .375	B12221	221	12	B12221K	B12221I	06221	17/64"
1/4-28 x .500	B122212						
5/16-24 x .312	B122221						
5/16-24 x .469	B12222	222	12	B12222K	B22245I	06222	21/64"
5/16-24 x .625	B122222						
3/8-24 x .375	B122231						
3/8-24 x .562	B12223	223	12	B12223K	B12223I	06223	25/64"
3/8-24 x .750	B122232						
7/16-20 x .438	B122241						
7/16-20 x .656	B12224	224	6	B12224K	B12224I	06224	29/64"
7/16-20 x .875	B122242						
1/2-20 x .500	B122251						
1/2-20 x .750	B12225	225	6	B12225K	B12225I	06225	33/64"
1/2-20 x 1.00	B122252						
9/16-18 x .562	B122261						
9/16-18 x .844	B12226	226	6	B12226K	B12226I	06226	37/64"
9/16-18x1.125	B122262						
5/8-18 x .625	B122271						
5/8-18 x .938	B12227	227	6	B12227K	B12227I	06227	41/64"
5/8-18 x 1.250	B122272						



\*Kit Contains: 10 Inserts up to 3/8", 5 inserts 7/16" and up, 1 installation tool & tap.

\*Kit Contains: 10 Inserts up to 3/8", 5 inserts 7/16" and up, 1 installation tool & tap.



## Coiled Thread Repair Inserts

### Spark Plug Series

Thread Size & Length	25pc.		6 pc.		Complete Kit Part#	Installation Tool Part#	Tap Part#
	Bulk Inserts Part#	Part#	Bulk Inserts Part#	Part#			
10-1.0mm x 1/2"	B32285	285			B32285K	B32285I	06285
12-1.25mm x 1/2"	B32286	286			B32286K	B32286I	06287
12-1.25mm x 3/4"	B32287	287					
14-1.25mm x 3/8"	B32288	288			B32290K	B32290I	06291
14-1.25mm x 7/16"	B32289	289					
14-1.25mm x .472	B32292	292					
14-1.25mm x 1/2"	B32290	290					
14-1.25mm x 3/4"	B32291	291					
18-1.50mm x 1/2"	B32293	293			B32293K	B32293I	06293

### Coarse - Metric Series

Thread Size & Length	25pc. Bulk		6/12 pc.		Complete Kit Part#	Installation Tool Part#	Tap Part#	Drill Size
	Inserts Part#	Part#	Bulk Inserts Part#	Qty.				
M6 x 1 x 6	B222421				B22242K	B22242I	06242	1/4"
M6 x 1 x 9	B22242	242	12					
M6 x 1 x 12	B222422				B22243K	B22243I	06243	9/32"
M7 x 1 x 7	B222431							
M7 x 1 x 10.5	B22243	243	12		B22245K	B22245I	06245	21/64"
M7 x 1 x 14	B222432							
M8 x 1.25 x 8	B222451				B22247K	B22247I	06247	13/32"
M8 x 1.25 x 12	B22245	245	12					
M8 x 1.25 x 16	B222452				B22248K	B22248I	06248	31/64"
M10 x 1.5 x 10	B222471							
M10 x 1.5 x 15	B22247	247	12		B22252K	B22252I	06252	37/64"
M10 x 1.5 x 20	B222472							
M12 x 1.75 x 12	B222481				B22254K	B22254I	06254	21/32"
M12 x 1.75 x 18	B22248	248	6					
M12 x 1.75 x 24	B222482				B22251K	B22251I	06251	9/16"
M14 x 2 x 14	B222521							
M14 x 2 x 21	B22252	252	6		B22253K	B22253I	06253	21/32"
M14 x 2 x 28	B222522							
M16 x 2 x 16	B222541							
M16 x 2 x 24	B22254	254	6					
M16 x 2 x 32	B222542							

\*Kit contains: 10 Inserts up to 10mm, 5 Inserts 12mm & up, 1 Tap & 1 Installation Tool.

### Fine - Metric Series

Thread Size & Length	25pc. Bulk		6/12 pc.		Complete Kit Part#	Installation Tool Part#	Tap Part#	Drill Size
	Inserts Part#	Part#	Bulk Inserts Part#	Qty.				
M8 x 1 x 8	B222441				B22244K	B22245I	06244	21/64"
M8 x 1 x 12	B22244	244	12					
M8 x 1 x 16	B222442				B22246K	B22246I	06246	13/32"
M10 x 1.25 x 10	B222461							
M10 x 1.25 x 15	B22246	246	12		B22249K	B22249I	06249	31/64"
M10 x 1.25 x 20	B222462							
M12 x 1.5 x 12	B222491				B22251K	B22251I	06251	9/16"
M12 x 1.5 x 18	B22249	249	6					
M12 x 1.5 x 24	B222492				B22253K	B22253I	06253	21/32"
M14 x 1.5 x 14	B222511							
M14 x 1.5 x 21	B22251	251	6					
M14 x 1.5 x 26	B222512							
M16 x 1.5 x 16	B222531							
M16 x 1.5 x 24	B22253	253	6					
M16 x 1.5 x 32	B222532							

\*Kit contains: 10 Inserts up to 10mm, 5 Inserts 12mm & up, 1 Tap & 1 Installation Tool.



### Spark Plug Installation Kits

#### M10-1.0 Kit

Contains 10 Inserts (1/2" long), 1 Tap, & 1 Installation Tool. No Drilling Required.

**Part #B32285K**

#### M12-1.25 Kit

Contains 5 Inserts (1/2" long), 5 Inserts (3/4" long), 1 Tap, & 1 Installation Tool. No Drilling Required.

**Part #B32286K**

#### M14-1.25 Kit

Contains 5 Inserts (1/2" long), 5 Inserts (3/4" long), 1 Tap, & 1 Installation Tool. No Drilling Required.

**Part #B32290K**

#### M18-1.50 Kit

Contains 5 Inserts (1/2" long), 1 Tap, & 1 Installation Tool. No Drilling Required.

**Part #B32293K**





# Port & Polishing Kits

## Port & Polishing Kits

### **NEW #2587DX - Master Kit**

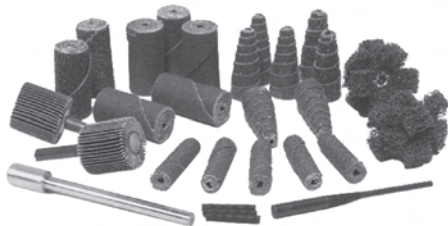
56 pc. set offers the most complete cylinder head porting kit available. Ideal for cast iron & aluminum heads and intake manifolds.

### **#2587 - Standard Kit**

A very popular 49 pc. kit, although not as complete as the master kit, includes a large variety of cartridge rolls.

### **NEW #2586 - Touch Up Kit**

For rejuvenating a set of heads that have been previously ported and polished.



Shop Essentials

**Kit Part #**

**Includes:**

**Master Kit - Part #2587DX**

**Standard Kit - Part #2587**

**Touch Up Kit - Part #2586**

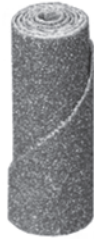
Product Function	Description	Qty.	Grit	Part #			
For intake runners & porting heads.	1/4" x 1-1/2" x 1/8" Straight Cartridge Roll	2	40	2602		◆	◆
	1/4" x 1-1/2" x 1/8" Straight Cartridge Roll	5	80	2606		◆	◆
	3/8" x 1-1/2" x 1/8" Straight Cartridge Roll	2	40	2613		◆	◆
	3/8" x 1-1/2" x 1/8" Straight Cartridge Roll	5	80	2615	◆	◆	◆
For large porting jobs requiring a generous amount of material removed.	3/4" x 1-1/2" x 1/8" Straight Cartridge Roll	2	40	2678	◆	◆	◆
	3/4" x 1-1/2" x 1/8" Straight Cartridge Roll	5	80	2679	◆	◆	◆
Material removal in smaller areas with better product endurance.	3/8" x 1-1/2" x 1/8" Half Taper Spiral Roll	2	40	2741		◆	◆
	3/8" x 1-1/2" x 1/8" Half Taper Spiral Roll	5	80	2742		◆	◆
Material removal in small areas with better product endurance.	5/8" x 1-1/2" x 1/8" Half Taper Spiral Roll	2	40	2747		◆	◆
	5/8" x 1-1/2" x 1/8" Half Taper Spiral Roll	5	80	2684		◆	◆
For quick material removal in small areas of the cylinder head.	5/8" x 1-1/2" x 1/8" Full Taper Spiral Roll	2	40	2685	◆	◆	◆
	5/8" x 1-1/2" x 1/8" Full Taper Spiral Roll	5	80	2686	◆	◆	◆
For polishing combustion areas.	1" x 1" x 1/4" Shank Flap Wheels	2	120	2592	◆	◆	
For removal of large amounts of metal.	1" x 1" Round Mounted Point	1	60	A38		◆	
For removal of large amounts of metal in small areas.	3/8" x 3/4" Pointed Mounted Point	1	60	B52		◆	◆
	11/16" x 1-1/4" Pointed Mounted Point	1	60	A12		◆	◆
Use to drive cartridge rolls and spirals.	3-1/4" long Mandrel for Cartridge Roll (1-1/2" L. Pilot)	1		2712	◆	◆	
	2-3/4" long Mandrel for Cartridge Roll (1" L. Pilot)	1		2713		◆	◆
	6" long Mandrel for Cartridge Roll (1" L. Pilot)	1		2713L			◆
Use to drive X-Buffs or Flap Wheels.	4-3/8" long Combination Mandrel (with 3 set screws)	1		2730	◆		◆
For polishing combustion areas.	1" x 1" x 1/4" - 20 Flap Wheels	2	120	2748			◆
Provides a final finish to the ported areas of the cylinder head.	1-1/2" Heavy-Duty X-Buffs	2	Med	2726	◆		◆
	1-1/2" Heavy-Duty X-Buffs	2	X-Fine	2727			◆

# Port & Polishing Supplies



## Straight Cartridge Rolls

1/8" hole, box of 50.



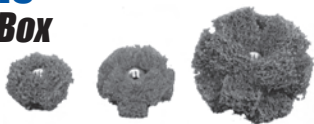
Dia./Length	Grit	Part #
1/4" x 1-1/2"	40	2602
	80	2606
	120	2607
3/8" x 1"	40	2609
	60	2610
	80	2611
	120	2612
3/8" x 1-1/2"	40	2613
	60	2614
	80	2615
	120	2616
1/2" x 1-1/2"	40	2733
	60	2619
	80	2620
5/8" x 1-1/2"	40	2623
	80	2678
	120	2734
3/4" x 1-1/2"	40	2678
	80	2679
	120	2734



2713L

## X-Buffs

10 Per Box



Fine finish honing and polishing pads provide an easy method to clean and prep bores & passage ways of various engine parts.

2-Ply		
Dia.	Finish	Part #
3/4"	Medium	2720
	Very Fine	2721
1"	Medium	2722
	Very Fine	2723
1-1/2"	Medium	2724
	Very Fine	2725
3-Ply Heavy-Duty		
1-1/2"	Medium	2726
	Very Fine	2727



2728

## Full-Taper Spiral Cartridge Rolls

1/8" hole, box of 50.



Dia./Length	Grit	Part #
3/8" x 1-1/2"	40	2735
	80	2624
	120	2736
	320	2737
1/2" x 1-1/2"	40	2738
	60	2625
	80	2589
	120	2626
5/8" x 1"	40	2687
	80	2688
5/8" x 1-1/2"	40	2685
	80	2686
5/8" x 2"	80	2590
	80	2739



2712

## Mandrels - 1/4" Shank

For 1/8" hole Cartridge Rolls			
For use on:	OAL	Pilot length	Part #
1" L. rolls	2-1/2"	3/4"	2751
1" L. rolls	6"	3/4"	2751L
1-1/2" L. rolls	2-3/4"	1"	2713
1-1/2" L. rolls	6"	1"	2713L
2" L. rolls	3-1/4"	1-1/2"	2712
2" L. rolls	6"	1-1/2"	2712L



2730

For X-Buff/Flap Wheel		For X-Buffs	
Length	Part #	Length	Part #
4-3/8"	*2730	3"	2728
*includes 3 set screws		4"	2729

## Abrasive Bands

### Aluminum Oxide/Resin Bond

Sold Individually



Description	Grit	Part #
1" dia. x 1" L.	40	2714
1" dia. x 1" L.	80	2603
Mandrel, 1/4" Shank		2600

## Half-Taper Spiral Cartridge Rolls

1/8" hole, box of 50.



Dia./Length	Grit	Part #
3/8" x 1"	40	2682
	80	2683
	120	2740
3/8" x 1-1/2"	40	2741
	80	2742
	120	2743
	320	2744
1/2" x 1-1/2"	40	2745
	80	2746
5/8" x 1-1/2"	40	2747
	80	2684



2751

## Mounted Flap Wheels

### 1" Abrasive Length

1/4" Straight Shank		
Dia.	Grit	Part #
1"	60	2660
	80	2661
	120	2592
1-1/2"	80	2663
1-5/8"	80	2594
	80	*2665
2"	120	*2668
	80	2595
	120	2670
2-1/2"	80	2596
3"	80	2674

\*1/2" Abrasive Length



### 1/4"-20 Threaded Shank

1"	80	2667
	120	2748
2"	60	2671
	80	2672
	120	2749
3"	120	2750
1/4"-20 Straight Shank Adaptor		2731



Shop Essentials





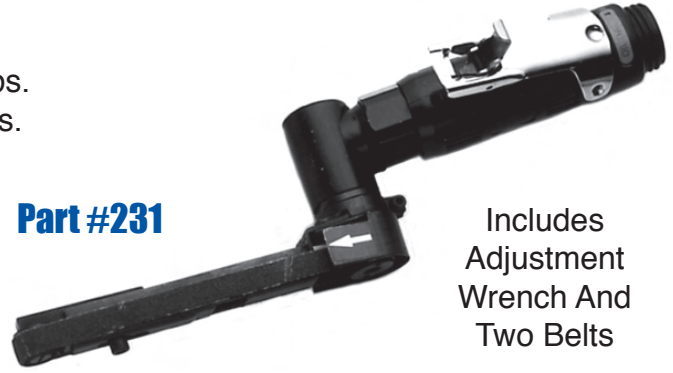
# Port & Polishing Tools/Supplies

## Air Belt Sander

- 18,000 rpm, 4,500 fpm, 11-1/2" OAL, 1-1/4 lbs.
- Smooths & contours inside or outside corners.
- Belt assembly rotates 360°

Description	Part #
<b>Mini Air Belt Sander</b>	<b>231</b>
80 Grit Belts, 10 Pk, 3/8" x 13"	231A
120 Grit Belts, 10 Pk, 3/8" x 13"	231B

**Part #231**



Includes Adjustment Wrench And Two Belts

## Air Die Grinders

Shop Essentials

**Part #239**



### 1/4" Drive Standard Grinder

- 22,000 rpm, 7" OAL, 1-1/4 lbs.
- Rear exhaust minimizes chip flyback.
- Ball bearing construction for long tool life.

**Part #229L**























### 1/4" Drive Extended Grinder

- 22,000 rpm, 10-1/4" OAL, 1-3/4 lbs.
- Ball bearing construction for long tool life.
- Extended shaft is ideal for work in tight openings

**Use With Our Mounted Points Offered Below**

## Mounted Points with 1/4" Shank

 <b>A1</b> W: 3/4" L: 2-1/2"	 <b>A3</b> W: 1" L: 2-3/4"	 <b>A4</b> W: 1-1/4" L: 1-1/4"	 <b>A5</b> W: 3/4" L: 1-1/8"	 <b>A11</b> W: 7/8" L: 2"
 <b>A12</b> W: 11/16" L: 1-1/4"	 <b>A14</b> W: 11/16" L: 7/8"	 <b>A15</b> W: 1/4" L: 1-1/16"	 <b>A21</b> W: 1" L: 1"	 <b>A23</b> W: 3/4" L: 1"
 <b>A24</b> W: 1/4" L: 3/4"	 <b>A25</b> Dia.: 1"	 <b>A26</b> Dia.: 5/8"	 <b>A31</b> W: 1-3/8" L: 1"	 <b>A32</b> W: 1" L: 5/8"
 <b>A34</b> W: 1-1/2" L: 3/8"	 <b>A36</b> W: 1-5/8" L: 3/8"	 <b>A38</b> W: 1" L: 1"	 <b>236</b> W: 1-1/2" L: 1/2"	 <b>B52</b> W: 3/8" L: 3/4"

# Cylinder Head Holders

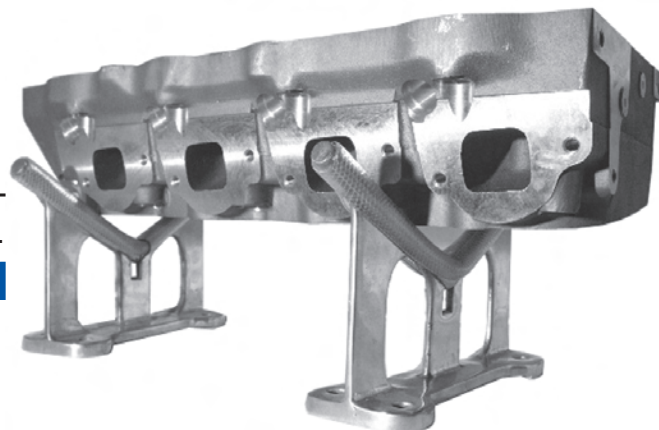


## 360° Polished Aluminum Universal Head Holder

### Professional Grade

Head can be rotated 360°. Use with import and domestic heads. Slip resistant neoprene coated rails hold head in position & provide protection. Use with cams & cranks while measuring or magnafluxing. Can be mounted for increased stability.

**Part #4271**



## Neoprene Replacement Rails

**Part #4273 (1 Pair)**

## Economy Head Holders

**Value Priced**

**Part #4268**

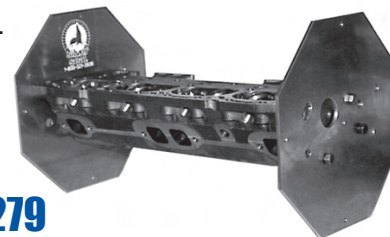
- Head can be mounted either side up.
- Tapered mandrels can fit any size head bolt hole.
- Clearance for guide knurling, ball broaching, or any type of pass through tooling.



## 12" Port & Polishing Head Stands

**Easy-To-Use!** These multipurpose head stands are designed to allow you to position heads for port & polishing work. Predrilled holes for SB & BB Chevy & Ford heads.

You drill holes for other applications.



**Part #4279**

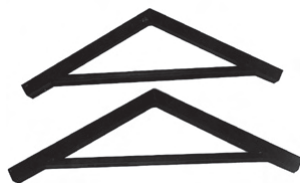
## Engine Rollover Stands

**Stands Designed to Hold V6 & V8 Blocks**

Stands designed for boring/honing. Sets blocks at 90° or 60° angle. Use to bore V-Type in line blocks. Solid, heavy duty construction.



**90° Style V6 Only**  
**Part #4272 (1 Pair)**



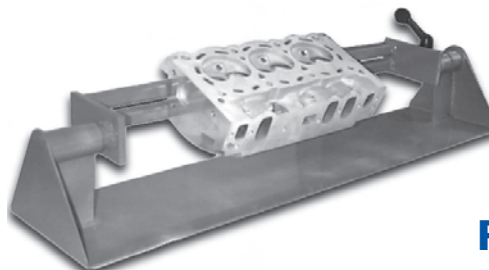
**60° Style V8 & Inline 6 Block**  
**Part #4274 (1 Pair)**

## Cylinder Head Work Center

**Passenger Cars - Light Truck - Small Diesel**

360° rotating unit allows guide work, seat work, "CCing" combustion chambers, etc. Fast assembly. Wide enough for Ford 4.6L heads.

**Base: 41" Long x 10" Wide x 7" High**



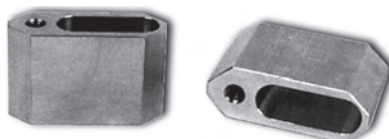
**Holds Heads Up To 31" Long**

**Part #4723**

## Cylinder Head Milling Adapters

Save time when setting up import cylinder heads by using these adapters. Eliminate time consuming stud removal and height adjustment on milling machine using vertical setup plate by using the exhaust side bolt holes or existing studs and allows for height adjustment.

**Part #4348**  
**(1 Pair)**



## Cylinder Head Stud Spacer

Threaded stud spacer allows fast & easy setup when resurfacing on foreign or domestic cylinder heads. Eliminates removing and installing old studs.

**Metric 8mm x 1.25**

**Standard 3/8" - 16**

**Part #4360**  
**(1 Pair)**

**Part #4361**  
**(1 Pair)**





# Rotary Burrs

## Tungsten Carbide Rotary Burrs

Built for High Efficiency and Rapid Metal Removal (1/4" Shank)

Shop Essentials

Shape	Style	Burr Dia.	Length of Cut	Shank Length	Part #
Ball	Single Cut	1/2"	7/16"	2-1/2"	52
		1/2"	7/16"	6"	52S
		3/4"	3/4"	2-1/2"	54
	Double Cut	1/4"	7/32"	2-1/2"	49DC
		1/2"	7/16"	2-1/2"	52DC
		1/2"	7/16"	6"	52SDC
Aluminum Cut	3/8"	5/16"	2-1/2"	108AC	
	1/2"	7/16"	2-1/2"	110AC	
Cylinder Radius	Single Cut	5/8"	1"	2-1/2"	50
	Aluminum Cut	3/8"	3/4"	2-1/2"	100AC
		1/2"	1"	2-1/2"	102AC
Angled Cone	Single Cut	60 deg.	1/2"	2-1/2"	40
		90 deg.	3/4"	2-1/2"	42
Radius Cone	Single Cut	1/2"	1-1/8"	2-1/2"	44
		1/2"	1-1/8"	6"	44S
		1/2"	1-1/4"	6"	43S
		5/8"	1-15/16"	2-1/2"	43
	Aluminum Cut	1/2"	1-1/8"	2-1/2"	120AC
		5/8"	1-15/16"	2-1/2"	122AC
Cone	Single Cut	1/4"	3/4"	2-1/2"	62
		1/4"	1"	2-1/2"	64
		3/8"	3/4"	2-1/2"	66
	Double Cut	1/4"	3/4"	2-1/2"	66DC
Radius Tree	Single Cut	3/8"	3/4"	2-1/2"	45
		3/8"	3/4"	6"	45S
		3/4"	1-1/4"	2-1/2"	46
	Double Cut	3/8"	3/4"	2-1/2"	45DC
		3/8"	3/4"	6"	45SDC
		1/2"	1"	2-1/2"	47DC
Aluminum Cut	3/8"	3/4"	2-1/2"	104AC	
	1/2"	1"	2-1/2"	106AC	
Tree	Single Cut	5/8"	1"	2-1/2"	56
Cylinder	Single Cut	1/8"	1/2"	2-1/2"	33
		1/2"	1"	6"	59S
		1"	1"	2-1/2"	60
	Double Cut	1/8"	1/2"	2-1/2"	33DC
	Aluminum Cut	3/8"	3/4"	2-1/2"	116AC
1/2"		1"	2-1/2"	118AC	
Oval	Single Cut	1/2"	7/8"	6"	51S
	Double Cut	3/8"	5/8"	2-1/2"	48DC
		1/2"	7/8"	6"	51SDC
	Aluminum Cut	3/8"	5/8"	2-1/2"	112AC
		1/2"	7/8"	2-1/2"	114AC

<b>Single Cut</b> Use for material removal	<b>Double Cut</b> Designed for fast material removal	<b>Aluminum Cut</b> Specifically used for aluminum applications
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## H.S.S. Rotary Burrs

2-1/2" Length • Single Cut\*

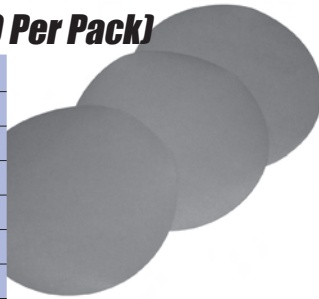
Shape	Burr Dia.	Length of Cut	Part #
Ball	1/4"	1/4"	81
	1/2"	1/2"	82
	3/4"	3/4"	86
Cylinder Radius	5/16"	1"	78
Angled Cone	90 deg.	3/4"	53
Cone	1/4"	3/4"	92
	1/4"	1"	59
Radius Tree	3/8"	3/4"	55
	1/2"	1-1/8"	74
	3/4"	1-1/4"	57
Tree	5/8"	1"	84

\*All rotary burrs have a 1/4" dia. shank that may be used with any standard die grinder. Use of safety glasses is highly recommended when using these tools.



## PSA 5" & 6" Gold Body Shop Abrasive Discs (50 Per Pack)

Grit	5" Part #	6" Part #
40	LRG500	LRG600
60	LRG501	LRG601
80	LRG502	LRG602
100	LRG503	LRG603
120	LRG504	LRG604
150	LRG505	LRG605
180	LRG506	LRG606
220	LRG507	LRG607
320	LRG508	LRG608
400	LRG509	LRG609



## Resin Fiber Discs (50 Per Pack) Aluminum Oxide

Size	24 Grit	36 Grit	50 Grit	Pad Holder
4"x5/8"	RFD100	RFD101	RFD102	RFD500
4-1/2"x7/8"	RFD104	RFD105	RFD106	RFD501
5"x7/8"	RFD107	RFD108	RFD109	RFD502
7"x7/8"	RFD110	RFD111	RFD112	RFD503
9"x7/8"	RFD113	RFD114	RFD115	RFD504

### Zirconia

Size	24 Grit	36 Grit	50 Grit	Pad Holder
4"x5/8"	RFD200	RFD201	RFD202	RFD500
4-1/2"x7/8"	RFD204	RFD205	RFD206	RFD501
5"x7/8"	RFD207	RFD208	RFD209	RFD502
7"x7/8"	RFD210	RFD211	RFD212	RFD503
9"x7/8"	RFD213	RFD214	RFD215	RFD504

## Nylon-Abrasive Impregnated Cleaning Pads

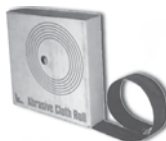


Use wet or dry for general cleaning, light deburring, or finish blending.

**Pad Size - 6"x9"**  
**10 Pads Per Pack**  
**Part #2561**

## Abrasive Cloth Shop Rolls

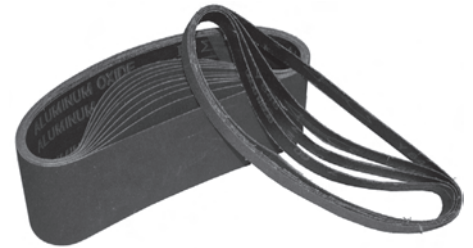
Continuous 150 foot (50 yard) rolls allow you to cut what you need! Packaged in a dispenser for storage.



Width	Grit Part #							
	50	80	100	120	180	220	240	320
1"	---	2944	2946	2948	2952	2954	2956	2958
1-1/2"	2960	2964	2966	2968	2972	2974	2976	2978

## Coated Abrasive Industrial Belts 10 Per Pack

Aluminum Oxide & Silicon Carbide available in grits 24-400.\*



Zirconia available in grits 24-120.\*

Width	Length	Aluminum Oxide	Silicon Carbide	Zirconia
3/8	13	AB100	AB200	AB300
1/2	12	AB101	AB201	AB301
1/2	18	AB102	AB202	AB302
1/2	24	AB103	AB203	AB303
3/4	18	AB104	AB204	AB304
3/4	20-1/2	AB105	AB205	AB305
1	12	AB106	AB206	AB306
1	30	AB107	AB207	AB307
1	42	AB108	AB208	AB308
1-1/8	21	AB109	AB209	AB309
1-1/2	60	AB110	AB210	AB310
1-1/2	72	AB111	AB211	AB311
2	20	AB112	AB212	AB312
2	48	AB113	AB213	AB313
2	60	AB114	AB214	AB314
2	72	AB115	AB215	AB315
2	132	AB116	AB216	AB316
2-1/2	48	AB117	AB217	AB317
2-1/2	60	AB118	AB218	AB318
2-1/2	72	AB119	AB219	AB319
3	18	AB120	AB220	AB320
3	21	AB121	AB221	AB321
3	24	AB122	AB222	AB322
3	60	AB123	AB223	AB323
3	72	AB124	AB224	AB324
3-1/2	15-1/2	AB125	AB225	AB325
4	21	AB126	AB226	AB326
4	21-3/4	AB127	AB227	AB327
4	24	AB128	AB228	AB328
4	36	AB129	AB229	AB329
6	48	AB130	AB230	AB330

**\*NOTE: When Ordering, Please Specify Grit**

We can make any size belt up to 52" wide. Please call 1-800-521-2936 for pricing & availability.



# Protective Gear

## Glass Bead Gloves

### New, Improved!

Fully embossed/rough hand, textured to provide a firm grip while cleaning parts. Gloves are cotton lined, finely tailored, with finished seamed cuffs. and designed to fit following cabinets: ABS, Aero, Clean-Peen, Econoline, Empire, Goff, Kelco, K.I., Median Blast, Pauli & Griffin, Snap-On, Trinco, Universal, Winona V.N., Zero, and others.



Shop Essentials

Port Hole Diameter	Port Hole Circum.	Overall Length	Pkg. Description	Part #
6"	19"	23"	Pair	4779
7"	22"	26"	Pair	4781
7"	22"	30"	Pair	4782
8"	25"	26"	Pair	4783
8"	25"	30"	Pair	4709
			Pair/Extra Left	4711
			Left (only)	4708
			Right (only)	4710
9"	28"	30"	Pair	4784
10"	25"	30"	Pair	4786
			Pair/Extra Left	4788
			Left (only)	4785
			Right (only)	4787
13"	41"	30"	Pair	4789

## Hot Tank Gloves

Alkaline & oil resistant, lined for heat protection, mid-forearm gauntlet style, Neoprene coated.

**Part #4700 (Pair)**

**Part #4704 (Shoulder Length Pair)**



## Heat/Flame Resistant Gloves

One size fits all. Provides heat protection for up to 400°F. Use for removing heads, blocks, etc. from ovens.

**Part #4702 (Pair)**



## Disposable Dust Mask

Double-bonded, double strapped.

OSHA APPROVED

**Part #4719 (Box/20)**



## Protective Aprons

### PVC/Nylon Aprons

The ultimate in heavy duty protection. The ideal apron for the engine builder. Apron is puncture, acid, and caustic resistant. 35"W x 45"L

**Part #4714**



### Cotton Denim Aprons

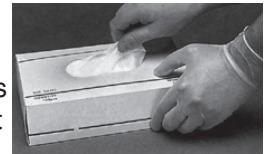
100% heavy duty cotton denim with three 30"L grommet ties at neck and waist. 28"W x 36"L and machine washable. Bib pocket at chest includes pencil sleeve. Hip pockets are roomy; ideal for small accessories.

**Part #4715**

## Disposable Gloves

### Latex Disposable Gloves

Protect your hands while using spray paint, bluing dye, etc. Gloves fit either hand. Large Size fits most hands.



**Part #LG01 (Box/100)**

### Blue Nitril Disposable Gloves ★ NEW

Powdered, latex free gloves are 4 mil thick and have a textured finish. Large size fits most hands.

**Part #LG02 (Box/100)**

## Eye & Face Protection

### Protective Safety Glasses

These protective safety glasses have adjustable temples with flat fold side shields. Features universal bridge and temples; adjustable from 5-1/2" to 6-1/2".

**Part #4722**



### Fiberglass Face Shield

Lightweight fiberglass face shield gives excellent protection to entire face. Positive lock headgear. Clear window measures 8"x9" at .060" thick.

**Part #4716**

**Replacement Shield - Part #4716S**



### Protective Safety Goggles

Fits over glasses. Made of soft vinyl plastic.

**Part #4724**



# Cleaning Media / Supplies



## Premium Silver Shot

Silver Shot is a new soft metallic shot for blast cleaning aluminum, cast iron, and steel parts with no surface deterioration. Proven to last longer than glass beads and conventional steel shot, unlike glass beads, it won't break down into dust, and it will not work harden during use like steel shot. **Packaged in a 50 lb. pail.**



### Recommended usage for air blasting cabinets:

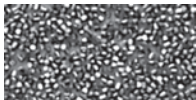
- Suction Type - Part #SS070
- Pressure Type - Part #SS070 or SS230
- Centrifugal or Paddle
- Wheel Machines -Part #SS110 or SS230

Use On	SAE* Size	Screen Size	Part #
Aluminum or Zinc Parts	S70	#40&45	SS070
Removing Carbon Deposits	S110	#30&35	SS110
Cast Iron or Steel Parts	S170	#20&25	SS170
Cast Iron or Steel Parts	S230	#18&20	SS230

\*The lower the SAE size, the finer the shot.

## General Cleaning Media

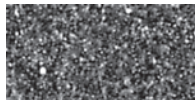
### Steel Shot



For Cleaning Cast Iron/  
Steel  
SAE - 170  
#20 & #25 Screen  
50 Lb. Pail

### Part #7016

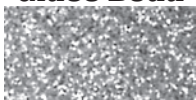
### Steel Shot



For Removing Carbon  
Deposits  
SAE - 110  
#30 & #35 Screen  
50 Lb. Pail

### Part #7010

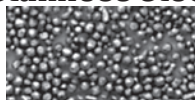
### Glass Bead



All Metals, Leaves Clean  
Surface  
SAE - Standard  
#60-#140 Screen  
50 Lb. Pail.

### Part #7017

### Stainless Steel



All Metals, Best On  
Aluminum  
SAE - 110  
#30 & #35 Screen  
50 Lb. Pail

### Part #7011

### Steel Diagonals



For Parts Cleaning  
Tumblers  
SAE - 1/4" (.250")  
25 Lb. Pail

### Part #7014

### Steel Ball Cones



For Parts Cleaning  
Tumblers  
SAE - 3/8" (.375")  
25 Lb. Pail

### Part #7015

## Armex® Cleaning and Coating Removal System

Armex® is an effective, economical, and environmentally superior method for cleaning, depainting, and degreasing across the country, and around the world.

What makes Armex® so different? Baking Soda, formulated by the leader in bicarbonate technology Arm & Hammer®, makes Armex® the only true cleaning solution that is both extremely effective, yet safe for the environment.



The baking soda in Armex® is granular, sharp, friable, relatively soft, and has a benign pH of 8.2, making it not only safer for the environment, but safer for workers before, during, and after use.

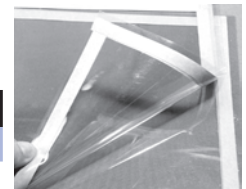
Armex® has greater application versatility, superior flowability, enhanced rinsability, exceptional cleaning capability, total technical support, and ISO 9002 certification, the mark of consistent quality.

**For Use With Soda Blasting Machines Only!**

### 50 Lb. Bag - Part #7025

## Glass Bead Window Film

Save your bead blasting cabinet glass with replacement mylar film. Easily attaches to cabinet

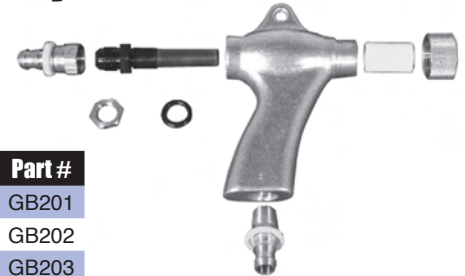


Application (5/pk)	Part #
Zero (12"x19" Self Adhesive)	GB400
Trinco (12"x24" Non Adhesive)	GB500

## Glass Bead Guns

### Large Machine Style - Part #GB200

Fits most large glass bead machines, Zero, Empire, WVN, Blast-It-All, Etc.



Replacement Parts	Part #
Gun Body	GB201
Brass Fitting	GB202
Nozzle Holding Nut	GB203

### Rebuild Kits

Includes a Nozzle, Orifice, Lock Nut, and O-Ring

Rebuild Kit#	Nozzle
GB210	GB209 (1/4" I.D.)
GB220	GB219 (5/16" I.D.)
GB230	GB229 (3/8" I.D.)
GB240	GB239 (7/16" I.D.)

### Small Machine Style - Part #GB100

Fits most small glass bead machines, Econoline, Trinco, Etc.



Replacement Parts	Part #
Gun Body	GB101
Carbide Nozzle 3/4" O.D., 5/16" I.D.	GB102

Shop Essentials





# Cleaning Products



Shop Essentials

## Ultrasonic Cleaner **NEW**

### Safe To Use On Ferrous Metals & Aluminum

A highly concentrated, powerful, fast acting, penetrating, biodegradable ultrasonic cleaner/degreaser. This amazing detergent is water-based and contains no chlorinated or petroleum solvents, no acids or free caustic. ULTRASONIC CLEANER has no flash point, making it safer than solvents. ULTRASONIC CLEANER contains multiple penetrating emulsifiers that dissolve and float away even the most stubborn grease. ULTRASONIC CLEANER is cost effective and can significantly reduce hazardous waste and reporting requirements. Can be used at ambient temperatures up to 180°F.

Blend	Mix	Package Size	Part #
Liquid	1:10-1:20 Parts with Water	5 gallon pail	CH30522

## Parts Cleaning Solvent

### Natural Plus - All Metal Cleaner

Non-flammable and non-caustic all purpose parts cleaner. Blend of citrus-base liquid concentrate designed to replace chlorinated solvents and other harsh alkaline cleaners. For use in recirculating washers, tumblers, & dip tanks. Safe on all metals but should be tested prior to cleaning plastics and painted surfaces. VOC value rated under 10%. Temperature range up to 120°F.

Blend	Mix	Package Size	Part #
Liquid	1:3-1:10 Parts with Water	1 gallon jug	CH30901
		5 gallon pail	CH30900

## Pro-Soap Heavy Duty Hand Cleaner

A superior all natural hand cleaner for removing dirt, grease, grime, ink, paint, resin, and tar. Contains natural cleaning citrus oil and moisturizing cocoa oil to leave hands clean and conditioned. Does not contain harmful abrasives or petroleum solvents.

Blend	Mix	Package Size	Part #
Powder	Use As Is	7 lb. jug	CH02999
		Case: 4-7 lb. jugs	CH03000

## Final Spray

### Alkaline Spray Washing & Hot Tank Compound for Use on All Metals

A powdered alkaline compound for cleaning all metals. Final spray is free rinsing, non-corrosive, and has a mild alkalinity. Final Spray was designed to replace silicated products that tend to bake on aluminum surfaces and deposit frosty or powdery residue which interferes with machining, conversion coatings, and gives aluminum a dull appearance. It leaves no residue to interfere with inspecting, spot welding, and machining. Final Spray has three complex ingredients that inhibit rust and protect metal parts. Parts cleaned with Final Spray emerge from the tank clean and shiny.

Blend	Mix Jet Spray	Mix Tank	Pkg. Size	Part #
	1/2-3 oz. per gal. of water	3-6 oz. per gal. of water		
Powder			500 lb. barrel	CH50712

## Pressure Washing & Steam Cleaning

### Pro-Wash Surface Cleaner

Medium-to-heavy duty concentrated cleaner specially formulated for use in high pressure and steam cleaner systems to clean all washable surfaces. Mix with hot or cold water. Rapidly penetrates and emulsifies dirt, oil, and grease. Use as engine degreaser. Moderate foaming action with lemon odor. Temperature range up to 180°F.

Blend	Mix	Pkg. Size	Part #
Liquid	1:10-1:50 Parts With Water	5 gallon pail	CH30405

### Guide To Determine Required Powdered Cleaner Mix:

The following is provided to assist in determining the amount of cleaner required to change system.

**oz. to lbs. = 16 oz. of cleaning powder = 1 lb.**

**Example:** For a 50 gallon tank, to mix 4 oz. of cleaner per gallon of water, multiply tank capacity by 4 and divide by 16 (50 x 4 = 200 divided by 16 = 12.5 lbs. of cleaning powder.)

#### SPECIAL NOTE:

All 500 lb. drums are shipped F.O.B. California.

## Hot Tank Cleaners

### Citrus Soak

Designed to clean aluminum and ferrous metal parts. Blend of natural solvents and detergents. Performs heavy duty cleaning without using hazardous and caustic alkali cleaners. Removes oil, grease, most paints, and light carbon deposits. Mix concentration depending upon degree of soiled parts. Slight citrus odor. Use pH Neutralizer as required.

### Hurricane Blue

A specially formulated biodegradable detergent cleaner that dissolves grease, dirt, oil, and most paints. Unlike "Cold" type solvent cleaners, which becomes contaminated, Hurricane Blue removes dirt and oil by settling to the bottom of the tank which keeps the solution clean! With normal use, it's non-harmful to hands, nonhazardous, and noncarcinogenic. Hurricane Blue is inexpensive, and depending upon frequency of use, the cleaning solution is normally replaced once or twice a year.

### Ferrous Soak

Designed to clean ferrous metals only. Premium heavy duty alkaline stripper. Removes carbon, oil, grease, paint, and light to medium rust deposits.

Product Name	Application	Temp. Range	Mix Ratio	Package Size	Part #
<b>Citrus Soak (Powder)</b>	All Metals	140°F	2-10 oz. per gallon of water.	50 lb. Pail	<b>CH30814</b>
				125 lb. Keg	<b>CH40814</b>
				500 lb. Barrel	<b>CH50814</b>
<b>Hurricane Blue (Powder)</b>	All Metals	100-160°F	Varies, start with 4 lbs. per 10 gallons of water.	24 lb. Pail	<b>CHHB24</b>
				50 lb. Pail	<b>CHHB50</b>
				125 lb. Keg	<b>CHHB125</b>
<b>Ferrous Soak (Powder)</b>	Ferrous Metals Only	160-200°F	2-10 oz. per gallon of water	125 lb. Keg	<b>CH40701</b>
				500 lb. Barrel	<b>CH50701</b>
<b>pH Neutralizer (Powder)</b>	All Metals	N/A	Use with pH Test Kit	25 lb. Pail	<b>CH30011</b>

## Jet Cleaners

### Citrus Spray

Exceptional cleaner for aluminum & ferrous metal parts. Blend of natural citrus cleaning solvents and alkaline detergents. Penetrates dirt, oil, and grease on contact. Designed to soften and liquefy burnt on deposits for quick removal. Non toxic, slight citrus odor. Use pH Neutralizer and Foam Control as required.

### Pro Spray

Exceptional cleaner for aluminum & ferrous metal parts. Low foaming, non caustic blend of heavy duty alkaline detergents provide quick penetration of heavy dirt, oil, grease, and carbon deposits. Holds dirt and oils in suspension to insure clean parts. Use pH Neutralizer and Foam Control as required.

### Kephos Cleaner

Extra heavy-duty high detergent alkaline cleaner for ferrous metals only. Low foaming cleaner designed for quick removal of heavy dirt, sludge, oil, grease, & burnt on carbon deposits. Also strips paint and rust to assure thorough cleaning of parts. Retards scale formation while controlling water hardness. Use pH Neutralizer as required.

Product Name	Application	Temp. Range	Mix Ratio	Package Size	Part #
<b>Citrus Spray (Powder)</b>	All Metals	160-190°F	3-6 oz. per gallon of water	50 lb. Pail	<b>CH31862</b>
				125 lb. Keg	<b>CH41862</b>
				500 lb. Barrel	<b>CH51862</b>
<b>Pro Spray (Powder)</b>	All Metals	160-190°F	3-6 oz. per gallon of water	50 lb. Pail	<b>CH31801</b>
				125 lb. Keg	<b>CH41801</b>
				500 lb. Barrel	<b>CH51801</b>
<b>Kephos Cleaner (Powder)</b>	Ferrous Metals Only	180-200°F	3-8 oz. per gallon of water	125 lb. Keg	<b>CH40465</b>
				500 lb. Barrel	<b>CH50465</b>
<b>pH Neutralizer (Powder)</b>	All Metals	N/A	Use with pH Test Kit	25 lb. Pail	<b>CH30011</b>
<b>Foam Control (Liquid)</b>	All Metals	Up to 212°F	1-5 oz. per 40 gal. solution	32 oz. Quart	<b>CH20014</b>



# Cleaning Products

Shop Essentials

## Steel Cleaning Baskets

### 2 Piece Basket

A light weight steel all galvanized basket which is impervious to solvents. Not for use with strong alkaline or caustic cleaners. Although it has two halves for easy filling, it assembles quickly to a 9" Dia. x 16" long enclosed basket.



**Part #4738**

### 1 Piece Basket

With clips, lid, and handle (9" Dia. x 8-1/4" Long)



**Part #4739**

**Basket Only (With Handle) - Part #4739B**

**Lid & Clip For #4739B - Part #4739L**

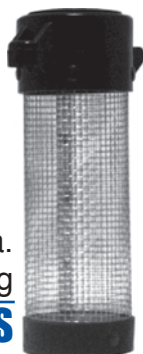
## Small/Medium Baskets

Durable wire mesh baskets with snap lock lid.



Size: 4-1/4" Dia.  
x 6-3/4" Long

**Part #4738M**



Size: 2" Dia.  
x 6" Long

**Part #4738S**

## Steel Dip Baskets

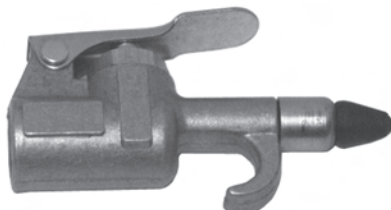
Zinc plated dip basket for soaking/cleaning parts. 10" Dia. with carrying handle and hooks to hang basket while draining. Sturdy, light weight basket for use with solvents and non-caustic cleaners. Fits 5 & 7 gallon plastic or metal pails. (Pail not included.)



**Part #4740**

## Trigger Control Air Blow Gun

Rubber Tip  
Standard Blow Gun  
2-1/8" Nozzle  
1/4" NPT Inlet



**Part #4407**

## Bucket Lifter Cleaning Basket

### Keep Lifters Organized & Clean

Sixteen compartments keep lifters in order during cleaning. Heavy duty latch keeps lid closed. Perforated basket allows flow to all lifters. Remove divider to clean other parts.



**Part #BLC-01**

## Bucket Lifter Organizer

Sixteen compartments to keep clean lifters separate and in order. Color coded with printed red & blue assembly position numbers to keep intake separate from exhaust. Use easy to remove dry erase markers to mark job number and engine information on organizer. Easy clean up for the next job!



**Part #BLO-02**

## Keeper Cleaner Holder

Clean keepers & small parts in dip cans & parts cleaner. 1/4" holes in top and bottom allows solvent to clean parts. Made of PVC, impervious to solvents.



**Part #4736**

## Small Parts Cleaner

Easy to use mini parts cleaner. Put parts inside and shoot glass beading through top hole, then shake to remove excess through release holes. Unit is 6" long and 2" in diameter. Made out of heavy duty metal.



**Part #4737**

## Flow-Thru Parts Cleaning Brushes

These are the best brushes for washing parts! An ergonomic polypropylene handle, designed to reduce wrist fatigue, and synthetic filaments resistant to solvent type cleaners make this the best brush for your money! Both brushes are supplied with a 24" tube designed to fit .500" to .600" O.D. washer nozzles.



**Part #B3321**



**Part #B3320**



# Surface Preparation



## Wire End Brushes

**Best Quality - U.S. Made**

**For Cast Iron:** Heat treated high tensile steel wire provides superior fatigue resistance and excellent brushing action.

**For Aluminum:** Specially designed stainless steel brushes are the top pick, eliminating contamination and possible rust formation. Removes carbon, not aluminum.

## Cast Iron Knotted

Length	Duty	Wire Size	Part #
3/4"	Severe	.014	B3076
3/4"	Extreme	.020	B3084
1-1/8"	Severe	.014	B3075
1-1/8"	Extreme	.020	B3082

## Cast Iron Crimped

Length	Duty	Wire Size	Part #
1/2"	Med/Heavy	.020	B3079
3/4"	Medium	.014	B3077
3/4"	Med/Heavy	.020	B3080
1"	Medium	.014	B3078
1"	Med/Heavy	.020	B3081

## Aluminum Crimped NEW

Length	Duty	Wire Size	Part #
1/2"	Standard	.006	B3065
3/4"	Standard	.006	B3066
1"	Standard	.006	B3067

## Non-Spark Crimped

Length	Duty	Wire Size	Part #
3/4"	Standard	.010	B3120
1"	Standard	.010	B3121

## Surface Conditioning Pads

**Hook & Loop Pad Holder Type**

Removes gaskets and other surface residue material fast! Press hook & loop disc onto grip pad holder.



Dia.	Finish	Qty.	Part #
2"	Coarse	10	2554
2"	Medium	10	2556
4"	Coarse	10	2550
4"	Medium	10	2552
4-1/2"	Coarse	10	2551
4-1/2"	Medium	10	2553
2" Grip Holder w/1/4" Straight Shank			2560
4 - 4-1/2" Grip Holder w/1/4" Straight Shank			2558

## Gasket Removal Coated Discs

**Safe on Aluminum & Cast Iron**

Removes gaskets, carbon, rust, & paint! Cleans & polishes!

**NEW**

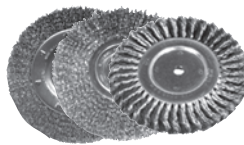
Description	Part #
2" Removal Disc	2572
3" Removal Disc	2573
2" Holder	2696M
3" Holder	2692M



## Wire Wheel Brushes

**Solid Ring Construction**

Our brushes run smoother, last longer and provide a perfect balance.

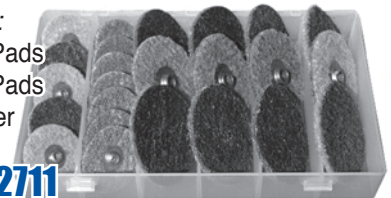


Dia.	Wire Style	Duty	Wire Size	Arbor Hole	Face Width	Part #	
4"	Crimped	Std.	.006	3/8"-1/2"	1/2"	B3134	
		Medium	.014	3/8"-1/2"	3/4"	B3140	
		Heavy	.014	5/8"-1/2"	1-1/8"	B3130	
6"	Twisted	Super	.014	5/8"-1/2"	1/2"	B3150	
		Crimped	Medium	.014	5/8"-1/2"	3/4"	B3141
			Heavy	.014	5/8"-1/2"	1-1/8"	B3131
8"	Knotted	Super	.014	5/8"-1/2"	1/2"	B3152	
		Extreme	.023	5/8"-1/2"	3/8"	B3154	
		Crimped	Medium	.014	5/8"-1/2"	1"	B3143
Heavy	.014		5/8"-1/2"	1-1/4"	B3133		
10"	Twisted	Super	.014	5/8"-1/2"	5/8"	B3153	
		Extreme	.023	5/8"-1/2"	1/2"	B3155	
		Crimped	Heavy	.014	3/4"-1/2"	1-1/8"	B3135

## Surface Conditioning & Gasket Removal Kits

**Kits Include:**

- 5 Each of the Following:
  - 2" Fine, Medium, Coarse Pads
  - 3" Fine, Medium, Coarse Pads
- 1 Each: 2" & 3" Pad Holder



**Female Kit - Part #2711**

**Male Kit - Part #2711M**

## Pad Holders (With Mandrel)

Dia.	Desc.	Fem. Part #	Male Part #
2"	Medium	2696	2696M
3"	Medium	2692	2692M
4"	Medium	2702	2702M

**Replacement Mandrel - Part #2697**



## Conditioning Pads

Dia.	Desc.	Pk/Qty	Female Part #	Male Part #
2"	Fine	10	2695	2695M
2"	Medium	10	2693	2693M
2"	Coarse	10	2694	2694M
3"	Fine	10	2691	2691M
3"	Medium	10	2689	2689M
3"	Coarse	10	2690	2690M
4"	Fine	10	2699	2699M
4"	Medium	10	2700	2700M
4"	Coarse	10	2701	2701M

## Sanding Discs

**(Aluminum Oxide / Resin Bond)**

Dia.	Grit	Pk/Qty	Fem. Part #	Male Part #
2"	40	10	2703	2703M
2"	60	10	2704	2704M
2"	80	10	2705	2705M
2"	120	10	2706	2706M
3"	40	10	2707	2707M
3"	60	10	2708	2708M
3"	80	10	2709	2709M
3"	120	10	2710	2710M

Shop Essentials



# Brushes

## Valve Guide Brushes

### Steel or Nylon

Power brushes are 9-1/2" OAL, Nylon hand brushes are 12" with loop handle. 2-1/2" - 3" trim length.

Dia.	Power(1/4" shaft)		Hand Nylon
	Steel	Nylon	
1/4"	B2990	B3005	*B3019
5/16"	B3000	B3006	*B3020
11/32"	B3001	B3007	*B3021
3/8"	B3002	B3008	*B3022
7/16"	B3003	B3009	*B3023
1/2"	B3004	B3010	*B3024
9/16"	B2960	B2963	.
5/8"	B2961	B2964	.
3/4"	B2962	B2965	B3039
7/8"	B2950	.	.



**6 pc. Nylon Brush Kit (Included)**  
**Part #B3025**

Shop Essentials

## Feed Line & Crank Hole Brushes

### For Engine Prep



Size	Length	Steel	Nylon
1/8" x 2"	12"	.	B3018
3/16" x 2"	7"	B21090	.
1/4" x 2"	10"	B2951	B3040
	10" H.D.	BH2951	.
5/16" x 2"	10"	B2952	.
	10" H.D.	BH2952	.
5/16" x 2-1/2"	34"	.	B3027
	12"	B2953	B3042
3/8" x 2-1/2"	12" H.D.	BH2953	.
3/8" x 3"	34"	.	B3044
7/8" x 3"	6" H.D.	.	B3038*

\*Lifter Bore Brush

## Custom Diesel Brushes

### For Copper Cleaning & Prep Work

#### Detroit Diesel

Carbon steel wire, use as seat brush to insure perfect seating of newly installed coppers.

**Part #B3307 (New Style)**

**Part #B3308 (53/71/92)**

**Part #B3309 (149)**

#### Cummins

Stainless steel wire, cleans/polishes copper. Use as bench tool.

**Part #B3301**

Carbon steel wire, use as seat brush to insure perfect seating of newly installed coppers.

**Part #B3302 (New Style)**

## Steel Tube Brushes

### 1" Trim, 3-1/2" OAL



Dia.	Part #	Dia.	Part #
1/4"	B21072	1/2"	BFR2501
5/16"	B21175	5/8"	B21078
3/8"	BFR2500	1"	B21075
7/16"	B21142		

## Oil Gallery Brushes

### Standard and Ultra-Duty

The right size to fit your application.

	Size	Length	Grade	Part #
Nylon	5/16 x 2-1/2"	34"	Standard	B3027
	3/8" x 3"	34"	Standard	B3044*
	1/2" x 2-1/2"	34"	Standard	B3045*
	5/8" x 2-1/2"	34"	Standard	B3036
	5/8" x 3"	34"	Standard	B3046*
	3/4" x 2-1/2"	34"	Standard	B3037
	3/4" x 3"	12"	Standard	B3039
	3/4" x 3"	34"	Standard	B3047*
	3/4" x 3"	40"	Standard	B3048*
	<b>5 pc. Nylon Brush Kit (Included)</b>			

Steel	5/16" x 2"	10"	Standard	B2952*
	3/8" x 2-1/2"	12"	Standard	B2953*
	1/2" x 2-1/2"	12"	Ultra-Duty	BH3500
	1/2" x 2-1/2"	34"	Standard	B2954*
	1/2" x 2-1/2"	34"	Ultra-Duty	BH2954
	5/8" x 3"	12"	Standard	B2955
	5/8" x 3"	12"	Ultra-Duty	BH2955
	5/8" x 3"	30"	Standard	B2956*
	5/8" x 3"	30"	Ultra-Duty	BH2956
	3/4" x 3"	30"	Ultra-Duty	BH2958
	3/4" x 3"	40"	Standard	B2957*
	3/4" x 3"	40"	Ultra-Duty	BH2957
	7/8" x 3"	24"	Standard	B2959
	1" x 3"	40"	Standard	B2967
	1-1/2" x 3"	40"	Standard	B2968
<b>5 Pc. Steel Brush Kit (Included)</b>				<b>B3049S</b>

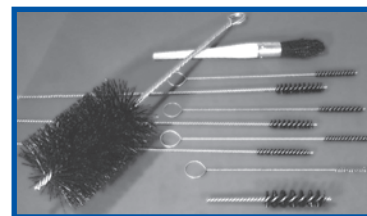


## Engine Cleaning Brush Kit

10 pc. kit contains all the necessary brushes needed for a typical rebuild. Kit includes the following;

Brush Type	Part #	Brush Type	Part #
3/8"x34" Oil Gallery Brush	B3044	4" Cyl. Wash Brush	B3202
1/2"x34" Oil Gallery Brush	B3045	Lifter Bore Brush	B3038
5/8"x34" Oil Gallery Brush	B3046	Parts Cleaning Brush	B3062
11/32" Valve Guide Brush	B3021	1/4" Feed Hole Brush	B2951
3/8" Valve Guide Brush	B3022	5/16" Cam Brush	B3041

### Kit Part #B3049DX



## Thread Cleaning Brushes

### 3-1/2" Brush Length 6-1/2" OAL

Dia. x Wire Size	Part #
3/4" x .008	B3011S
7/8" x .008	B3014S
1-1/2" x .010	B3013S



## Knotted Cup Brushes

Heavy-duty single row knotted brush perform a variety of tasks. 5/8"-11NC.

Dia.	Wire	Part #
3-1/2"	.014	B3087
3-1/2"	.020	B3050
3-1/2"	.023	B3053
4"	.014	*B3070
4"	.014	B3088
4"	.020	B3051
5"	.014	B3089
6"	.014	B3071

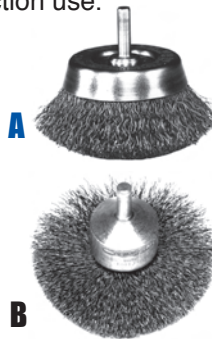
\*Double Row



## Hollow/Flared End Brushes

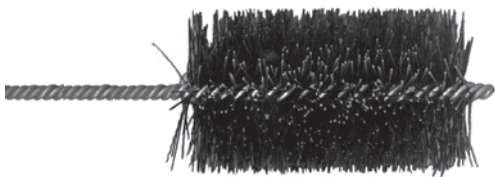
A) Hollow End: Use for G.P. applications.  
B) Flared End: Excellent for side-action use.  
1/4" shank.

Style	Dia.	Wire	Part #
B	1"	.020	B3072
B	1-1/2"	.020	B3083
A	1-3/4"	.0118	B3085
A	2-3/4"	.0118	B3086
B	2-3/4"	.020	B3073
B	3"	.020	B3074



## Cylinder Washing Brushes

Nylon bristled brushes are designed to efficiently clean the cylinder walls after honing. Use with warm water & detergent. 18-1/2" length.



Dia.	Part #
3-1/2"	B3200
4"	B3202
4-1/2"	B3204
5"	B3206

## Miscellaneous Brushes

Style	Overall Length	Bristle Length	Part #	Description
A	13-3/4"	5-3/4"	B3060	Hand Scratch Brush
B	10"	5"	B3061	Wire Hand Brush
C	8-1/4"	1/4"	B3095	File Card Brush
D	11"	2-3/4"	B3062	Nylon Parts Brush
E	5-3/4"	3/4"	B3064	Tin Handle Brush
F	7-7/8"	1-3/4"	B3063	Stainless Injector Brush
F	7-7/8"	1-3/4"	*B3063S	Stainless Injector Brush

\*Weaveback

## Specialty Brushes

### Port Brushes

As brush wears, cut back spring for fresh wire.



Dia.	Wire	Length	Part #
1/4"	.020	4"	B3093
1/2"	.020	2-1/2"	B3094

### Tight Area End Brushes

As brush wears, cut back to expose fresh wire.



1/4"	.012	6"	B3090
3/8"	.017	6"	B3091

### Carbon Removal Brush

Cobalt-tipped cable brush for excessive carbon removal.

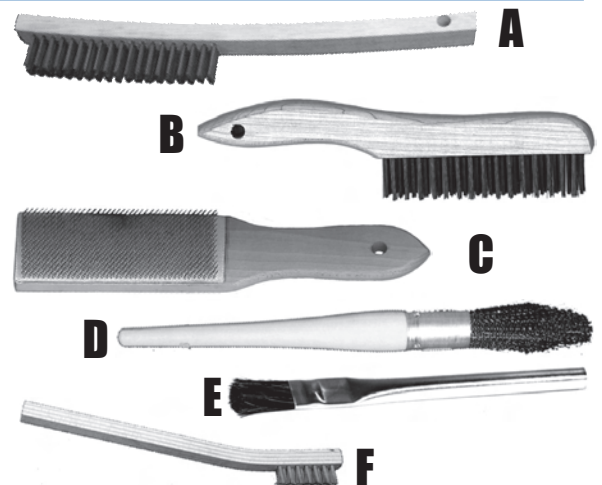


1/2" ball, 5/16" cable | B3092

## Butterfly Bolt Hole Brushes

Brushes provide an efficient solution for cleaning bolt holes. 2-1/4" OAL. Holders are 1/4" Shank, 3-1/8" OAL.

Dia.	Wire	Brush Part #	Holder Part #
1/4"	.005	BF2505	BFH1
5/16"	.005	BF3125	
11/32"	.005	BF3425	
3/8"	.008	BF3758	
7/16"	.008	BF4378	
1/2"	.008	BF5008	BFH2
9/16"	.008	BF5628	
5/8"	.008	BF6258	
3/4"	.008	BF7508	
1"	.008	BF9998	







# Shop Lubricants

## Premium Grade Honing Oils and Lubricants And The Finest Quality Water Soluble Synthetic Grinding Coolants

Selecting the correct honing oil, grinding coolant, & other machine shop lubricants is just as important as selecting the best machine tooling and abrasives. We've chosen the finest base stocks and additives to formulate the highest quality blends for automotive machine shop use! Your choice of concentrates, or use as is, our products are economically packaged to fit your needs. If you require a custom blend, call us for price and availability.



Shop Essentials

### Oils & Lubricants

#### Knurling Oil

Best Blend for valve guide knurling arbors and general knurling tools. Extends tool life and provides corrosion protection.

Size	Part #
1 Pint	4521
1 Quart	4522
1 Gallon	4524
5 Gallons	4526

#### Bronze Guide Reaming Oil

Highly refined premium grade oil with excellent lubricating properties that enhance reaming operations. Provides an ideal surface finish and corrosion protection. Extends life of reamers. Use as a spray or dip.

Size	Part #
1 Pint	4529
1 Quart	4528
1 Gallon	4530

#### Tap Oil

A general purpose grade cutting oil with good lubricating properties which extends the life of taps by preventing excessive wear. Use as a spray or dip.

Size	Part #
1/2 Gallon	4543
1 Gallon	4544

#### Diamond Lap Oil

A premium grade cutting oil with enhanced lubricating properties that extends the life of diamond laps by preventing excessive wear. Use as a dip or spray.

Size	Part #
1 Quart	4534

#### Valve Grinding Oil

A premium blend of virgin based straight cutting oil with extreme pressure additives. Provides excellent surface finish, and corrosion protection for valve grinding. A blended concentrate for all valve refacers.

Size	Part #
1 Gallon	4540
5 Gallons	4542

#### Tap-Machine-Tool (TMT®) Lube

Finest quality lubricant for taps, reamers, drill bits, and valve seat cutters. A pure, synthetic lubricant that does it all, even on stainless steel and aluminum. A little goes a long way.

Size	Part #
1-1/4 Oz. Bottle	30111

#### Way Lube Oil

Premium blend of highly refined lubricating oils designed for use as a premium quality slide and way lubricant. It provides maximum lubricity, and is an exceptional anti-wear, long life, way lubricant.

Size	Part #
1 Gallon	4538

#### Rust Inhibitor

Use on all metals! A non-chlorinated solvent based corrosion inhibitor designed to displace water & act as a fingerprint neutralizing agent. A formulated preservative that provides corrosion protection during storage or shipping for periods up to one month. Use as a spray, dip, or soak. (HAZMAT Required)

Size	Part #
1 Gallon	4548
5 Gallons	4550

#### Sump Deodorizing Tablets (SDT®)

**Destroys coolant odors immediately!**

This is not a perfume. Easy to use tablets reduce biofilm and neutralizes endotoxins. Designed to eliminate and control odors in small sumps (200 gallons or less). Use one tablet for every 25 gallons, each treatment lasts between one and two weeks.

Size	Part #
15 Tablets Per Tube	4561
Case/12 Tubes (180 Tablets)	4562



## Honing Oils

### General Purpose Honing Oil

A great economical clear honing oil for all machines and general machine shop use! Easy to tell when oil is dirty and needs changing. A straight cut, light viscosity general purpose honing oil with no additives. Preferred by the Big 3 & P.E.R.'s.

Size	Part #
1 Gallon	85001
5 Gallons	85005
55 Gallons	85055

### Super Abrasive Honing Coolant

Designed for use with Diamond Hones.

Size	Replaces	Part #
5 Gallons	SCC205	85205

### Medium-Duty Honing Oil (CK50)

Top quality, medium duty honing oil blended especially for cylinder resizing, main bearing bore correction, and general purpose honing operations. Chlorine free, it's an excellent blend of refined mineral oil with high pressure additives for good lubricity and finish. Designed for use as a concentrate for spraying or pressure flow. Use with CK and CH Honing Machines.

5 Gal. Quantity Discounts Available  
See Price Sheet for Details.

Size	Replaces	Part #
5 Gallons	CK-50	84005
55 Gallons	CK-50-55	84055

### Heavy-Duty Honing Oil (MAN845)

Finest quality, heavy duty, honing oil blend. Chlorine free, a premium blend of highly refined oil and extreme pressure additives intended to provide high lubricity capabilities for an excellent finish. For use in LBB Honing Machines and HS30 Honing Stands for rod reconditioning, pin fitting, and similar honing jobs. Designed to be used as a concentrate for spray or pressure flow.

Size	Replaces	Part #
1 Gallon	MAN845	84501
5 Gallons	MAN845-5	84505
15 Gallons	MAN845-15	84515
55 Gallons	MAN845-55	84555

## Coolants

### Flywheel Grinding Coolant

A concentrated synthetic blend formulated for use in all types of flywheel grinders. Nitrite Free. Also works well as a rust inhibitor that provides up to 30 days indoor storage "Rust Protection" at a concentration as low as 3%.

**Recommended Dilution Ratio**  
30:1 Mix Concentrate To Water  
1 Quart = 7.5 Gallons  
1 Gallon = 30 Gallons  
5 Gallons = 150 Gallons

Size	Part #
1 Quart	4504
1 Gallon	4506
5 Gallons	4508

### Cool Green Aluminum Coolant

A premium, heavy duty grade, semi-synthetic coolant specially formulated for aluminum. A unique blend of virgin oil, synthetic additives, corrosion inhibitors, and surface active agents that mixes readily with water. This provides a stable micro-emulsion that can be used for cutting and grinding operations, resulting in an excellent micro finish!

**Recommended Dilution Ratio**  
50:1 Mix Concentrate To Water  
1 Quart = 12.5 Gallons  
1 Gallon = 50 Gallons

Size	Part #
1 Quart	4535
1 Gallon	4536

### Crankshaft/Cam Grinding Coolant

A pure synthetic concentrate blend, without nitrates, phenol, or sulfur. Low foaming, it also provides excellent rust protection of finished cranks and cams up to 30 days.

**Recommended Dilution Ratio**  
20:1 Mix Concentrate To Water  
1 Quart = 5 Gallons  
1 Gallon = 20 Gallons  
5 Gallons = 100 Gallons

Size	Part #
1 Quart	4510
1 Gallon	4512
5 Gallons	4513
55 Gallons	4509

### Resurfacing Belt Coolant

Low foaming, synthetic concentrate blend, nitrite free, provides good tramp oil rejection and corrosion resistance at concentrations as low as 5%.

**Recommended Dilution Ratio**  
30:1 Mix Concentrate To Water  
1 Gallon = 30 Gallons  
5 Gallons = 150 Gallons

Size	Part #
1 Gallon	4518
5 Gallons	4520

### Surface Grinding Coolant

A nitrite free synthetic concentrate blend that is low foaming and gives excellent corrosion protection at low concentrations of 5%. Can be used for single piece wheels and surface grinder segments.

**Recommended Dilution Ratio**  
20:1 Mix Concentrate To Water  
1 Gallon = 20 Gallons  
5 Gallons = 100 Gallons

Size	Part #
1 Gallon	4514
5 Gallons	4516

### Multi-Purpose Grinding Coolant

**NEW** An exceptional all-purpose synthetic grinding concentrate designed to work on both ferrous and nonferrous metals where excellent cooling and cleanliness are required. The wheel is kept open; therefore increasing the time between wheel dressings. Also provides superior rust protection.

**Recommended Dilution Ratio**  
20:1 Mix Concentrate To Water  
1 Gallon = 20 Gallons  
5 Gallons = 100 Gallons

Size	Part #
1 Gallon	4545
5 Gallons	4547



# Paint / Markers

## Engine Paints

**Make Heads & Blocks Look New Again!**

Top quality - fast drying engine paint allows you to re-store engine parts to original finish/color.

Casting/Finish	Case Qty.	Part #
Cast Iron Gray	12	P1
Chrome Aluminum	12	P2
Blast - Aluminum	6	P15
Stainless Steel	6	P17
"Gloss" Machine Gray	12	P16
<b>OE Color/Enamel Paint</b>		
GM Black	12	P3
Ford Gray	12	P4
Ford Blue	12	P6
Chevy Orange	12	P7
Mustang Blue	12	P8
Chrysler Blue	12	P10
School Bus Yellow	6	P18
<b>1200° F. Hi-Temp</b>		
Aluminum	6	P21
Black	6	P22
Cast Iron Gray	6	P23

**Quantity Discount On Part #P1 & P15**



**HAZMAT**  
Aerosol Paint  
Requires Special Handling

12 oz. aerosol cans sold individually or by case.

## Tool Crib® Auto Chemicals

Description	Oz.	Part #
Silicone Lube	13.5	AC01
Dry Film Graphite Lube	14.2	AC02
Red Insulating Varnish	16.5	AC03
Carb & Choke Cleaner	16.0	AC04
5-Way Corrosion Inhibitor & Lube	15.0	AC05
Super Strength Penetrating Oil	15.3	AC06
Non-Chlorinated Brake Cleaner	13.2	AC07



## Mechanics Wire

Multi-purpose black annealed utility wire for general shop use, as well as unlimited uses for engine rebuilders! Annealing makes wire soft and easy to use, while strong enough to hold parts together.

**See Page 105 for Wire Pliers**

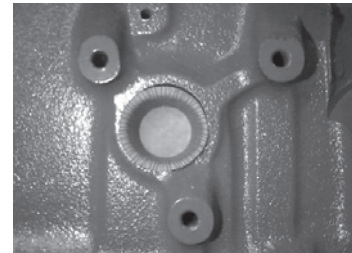


Wire Size	Spool Size	Part #
14 Gauge	5 lb. (295')	MW101
16 Gauge	5 lb. (480')	MW102
18 Gauge	5 lb. (830')	MW103

## Paint/Dust Protective Plugs

**Packaged 100 Plugs Per Box**

Size	Part #
14mm	6520
18mm	6521
1/8"	6522
1/4"	6523
1/2"	6524
5/8"	6525
3/4"	6526
1"	6527
1-1/2"	6529



## Parts Identifying System Kit

Pear shaped parts identification tags for connecting rods, heads, and other parts.

### Each Kit Contains:

- 1000 2-1/4" x 3-1/2" Tags,
- 1000 Tag Wires,
- 3 Black Industrial Markers



**Part #4439**

## Metal Paint Markers

	Color	Part #
<b>STANDARD</b>	Yellow 2 Oz.	4414
	White 2 Oz.	4415
	Red 2 Oz.	4417
	Orange 2 Oz.	4416
	Blue 2 Oz.	4418
<b>INDUSTRIAL</b>	Yellow	4440
	White	4441
	Black	4442
	Gold	4443
	Red	4445
	Orange	4446
	Green	4447
	Silver	4448
	Blue	4449

### STANDARD

Write on plastic, glass, and various metals. A spring loaded stainless steel ball tip allows proper coverage. Fast drying, highly visible permanent paint.



### INDUSTRIAL

Fast drying, high gloss enamel paint for permanent markings on metal, glass, plastic, wood, cloth, etc. **Works on any surface: wet, dry, or oily.** Hard point valve on tip to release paint.



Shop Essentials



## Head & Crank Boxes

**Protect your parts while storing or when shipping.**

Hand slots on each end for easy handling with reinforced bottom & sides. Plenty of room for heads with studs, BB Chevy, and some Diesel heads. Blank spaces for your company name and your part number. These sturdy shipping boxes will protect your finished crankshaft or cylinder heads.



W x L x H	Strength	Qty.	Description	Part #
8-1/4"x25"x6-3/4"	200 lb.	25	V6,V8 SB Heads & Cranks	4595
8-1/4"x29"x6-3/4"	200 lb.	15	V8 BB Ford, Mopar, & Cranks	4596
10"x31"x10"	300 lb.	15	Heavy Duty	4598

## Stretch Film

**2 Sizes Now Available**

Heavy duty 80 gauge wrap film protects products and packages from moisture and dirt during storage and shipping. Clings tightly without using twine or tape. No need to stock several bag sizes.



4592 Shown



Size	Part #
5"x1000' w/Ext. Core <b>NEW</b>	4592
15"x1500' w/3" Core (Case/4 Rolls)	4593

## Storage Bags

**Small Block Engine Bags**

Protects your finished work from dirt, dust, & moisture. Store pistons, cranks, heads, & engines in these plastic, waterproof bags. Imprint area for writing engine types. Measures 30" x 10" x 50" and fits most 4, 6, and 8 cylinder applications. Material is clear Virgin Poly Plastic, 2 mils thick.

**Part #4588 (100/roll)**

**Big Block Engine Bags**

These heavy duty 3 mil bags perform like 4 mil bags at no extra cost. Multi-layered film bag provides the best tear, puncture, and impact resistance. Fits all BB & most Diesel engines. Larger size 30" x 24" x 50".

**Part #4589 (100/roll)**



**Head & Crank Bags**

Measures 10" x 8" x 36" to fit most cylinder heads and crankshafts. Material is clear Virgin Poly Plastic, 3 mils thick. With imprint area for you to mark your Part #.

**Part #4587 (100/roll)**



**Small Part Zipper Bags**

High quality zip-lock bags protects your small parts from dust and moisture. Two-mil thick, made of 100% virgin clear polyethylene film. 100/pack.

W" x L"	Part #
5" x 6"	4485
3" x 5"	4483



## PacMaster®

**Turn Old Boxes Into FREE Packing Material!**

The special PacMaster® technique converts empty corrugated boxes, which previously cost money to dispose of, into FREE large volume filler material suitable for packing even sensitive goods for transport. The PacMaster® is simple to operate with its lockable main switch that also acts as an emergency stop and has a rotary knob to control On/Off/Reverse functions.

**Best Packing Material for Crankshafts & Heads In The Industry!**



Technical Data	Measurement
Dimensions WxDxH	24-1/2" x 19-5/8" x 40-1/8"
Power Supply	220v,3Ph,60Hz, 20 amp
Packing Mat Grid	5/32" x 4-3/8"
Cutting Capacity	2-3 Ply Boxes
Cutter Feed Width	16-3/4"
Prelim. Cutter Feed Height	3/4"
Cutter Feed Height	3/4"
Cutting Speed (fpm)	34.5
Noise Level (Approx.)	68.5 dB
Weight	452 lbs.

**Part #PACMASTER**

Preliminary Cutter Cuts Cardboard Of **Any Width!**





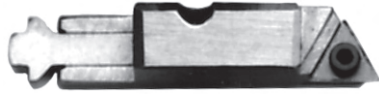
# Boring Bar Tools

## General Boring Bar Tool Holders For 6-Edge Tips

It's time to update your conventional Boring Bar Cutter into one easily replaceable 6-Edge Tip & Holder. Includes Carbide Tip.



Kwik-Way			
Model	Length	Part #	
F, FL, FN Short; FW, FR, FS Long	2-9/16"	BK116	
FL Medium; F, FN, FT Long	3"	BK117	



Rottler			
Model	Length	Approx. Range	Part #
All Bars	1-15/16"	2.9" - 3.5"	BR170
	2-5/16"	3.45" - 4.5"	BR171



Van Norman (Old Style Slim)			
Model	Length	Thickness	Part #
777,900,905,944,965	2-5/16"	5/16"	BV135

Replacement Tips		
Description	Type	Part #
6-Edge Tips For General Boring Bars	Standard	BC120
	Titanium Coated	BC131
3-Edge Tips For Offset Cutting	Standard	BC101
	Titanium Coated	BC102
For Sleeve Cut-Off	Standard	BC119
	Titanium Coated	BC115

## 6-Edge Cutter Bits

With Replacement Tips, For O.E. Holder

Manufacturer	Model	Dia.	Part #
Van Norman	777S, 777S4, 944S	3/8"	BV800
Kwik-Way	F, FT, FL, FN, FR, FS, FW, FWS, FWSII, FX	5/16"	BK500
Rottler	All Models	11/32"	BR700
Replacement Screw (BV800, BK500, BR700)			S109
Replacement Tip (BV800, BK500, BR700)			BC300



BV800



BK500



BR700



BC300

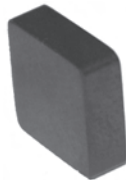
(Enlarged to show detail.)

NOTE: Cutting tip not included with Holder

## Special CBN Cutter

For Rottler Boring Mills

Size	Thickness	Part #
3/8" Square	1/8"	CBNS375



## Diamond Laps



Machine	Model	Part #
Kwik-Way	All Bars	KK1000
Van Norman	777,777S,777S4	KK1001
Van Norman	900,905,943,944,944S,965	KK1002
Rottler	D & F Series	KK1003
Storm-Vulcan	All Bars	KK1004
Dressing Stick 500 Grit (For All Diamond Laps)		KK1005

## 1-Edge Cutter Bits

For O.E. Holder

Van Norman



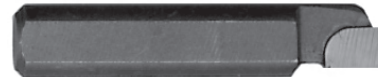
Model	Type	Dia.	Part #
777,900,905,944,965	General	1/4"	BV085
	General	3/8"	BV079
777S,777S4,944S	Hard	3/8"	BV020
	Sleeve Cut-Off	3/8"	BV300

Kwik-Way



Model	Type	Dia.	Part #
F, FT, FL, FN, FR, FS, FW, FWS, FWSII, FX	Rough	5/16"	BK20R
	Finish	5/16"	BK20F
After #1770	Chamfer	5/16"	BK200
	Sleeve Cut-Off	5/16"	BK20C

Rottler



Model	Type	Length	Dia.	Part #
All Bars	General	1-1/4"	11/32"	BR101
	General	1-7/16"	11/32"	BR107
	General	1-3/4"	11/32"	BR103
	Sleeve Cut-Off	1-3/4"	11/32"	BR10C

## O-Ring Cutter Bits

.037" cutter bits designed to be used with your O-Ring Wire & O-Ring Tool Holder.

For Most Metals.

Part #BC157



## O-Ring Wire

One Pound Spools (200 Ft.) Stainless Steel

Part #BC159



## Torque Plates

Cylinders can distort up to .004" when torquing head bolts. With this much distortion, piston rings won't seal properly. To help eliminate distortion, use precision machined torque plates to duplicate actual cylinder conditions, and to achieve the high degree of bore accuracy required during the boring & honing process.



**Comes Complete With Bolts & Cap Screws**

**See Our Cylinder Flex-Hones on Page 82**

Make	Engine Size	Maximum Overbore	Part #
Chevy	All V6	4.060	6608
Chevy	302,327,350 V8	4.060	6603
Chevy	400 S.B. V8	4.165	6604
Chevy	396 -454 V8	4.310	6605
Ford	2300 OHC 4 Cyl	3.830	6600
Ford	260-400 V8	4.060	6601
Ford	4.6L Modular V8	3.580	6612
Ford	352-428 V8	4.290	6602
Ford	429-460 V8	4.420	6610
GM	2.5L VIN "R" 4 Cyl.	4.060	6606
GM	2.5L VIN "U" 4 Cyl.	4.060	6607
GM	2.8L V6	3.564	6609
Buick	3.8L/4.1L V6	4.020	6615
Mopar	2.2L/2.5L 4 Cyl	89mm	6619
Mopar	273-360 V8	4.100	6614
Olds.	400-455 V8	4.180	6618
Pontiac	389-455 V8	4.210	6611

## Chamfering Cones & Mandrels

Use to chamfer rough edges on cylinders after boring. Allows easier installation of pistons. Helps prevent piston ring damage! Available in 60 grit Aluminum Oxide or Premium Zirconia Cones. Use with portable drill.

**QUANTITY DISCOUNT: 10% on 10 or more.  
20% on 25 or more.**

Description	Part #
82° Aluminum Oxide 2" x 3" x 3-1/2" Cone	A47
82° Zirconia 2" x 3" x 3-1/2" Cone	A47Z
<b>82° Chamfering Cone Mandrel</b>	<b>A48</b>
45° Aluminum Oxide Cone	A49
45° Zirconia Cone	A49Z
<b>45° Chamfering Cone Mandrel</b>	<b>A50</b>



**Part #  
A47  
&  
A47Z**



**Part #  
A49  
&  
A49Z**



**Part #  
A48**



**Part #  
A50**

## Cylinder Wall De-Glazer



Fast cutting and self-centering. Flexible drive shaft sets stone tension! Fits 2" to 7" diameter cylinders. Use with portable drill.

Description	Part #
<b>De-Glazer w/Med. Grit Stones</b>	<b>4200</b>
Coarse Repl. Grit Stones	4198
Medium Repl. Grit Stones	4201
Fine Repl. Grit Stones	4202

## H.D. Cylinder Ridge Reamer

Tungsten carbide cutters remove ridges from top of cylinders. A must before replacing piston rings. For use on 3" to 5" (77mm - 127mm) cylinder diameters. Smooth cutting is assured by fine thread feeding. Changing from one cylinder to another without readjusting is easy with the three position spring loaded cutter.



**Part #84000**

**Replacement Cutter Blades  
Part #84001**





# Cylinder Hones

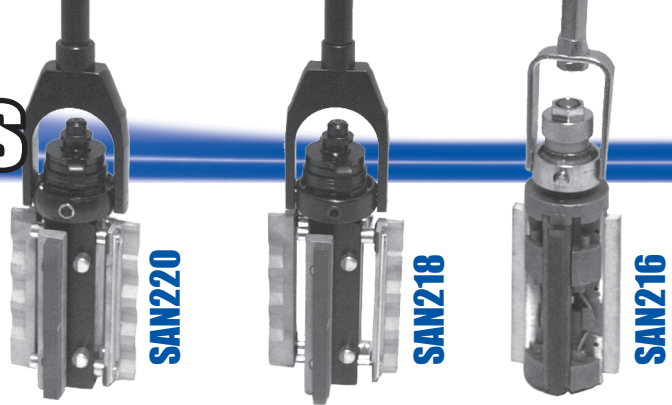
## Hone Stop Assembly

**Features Rubber Collar to prevent damage to the block.**

High quality design enables you to set the hone depth for all cylinders in just one step, preventing cylinder taper and preserving stone life.



Bushing I.D.	Part #
1/2"	4741
9/16"	4742
5/8"	4743



## Portable Cylinder Hones

**Designed For Use In All Cylinder Honing Applications**

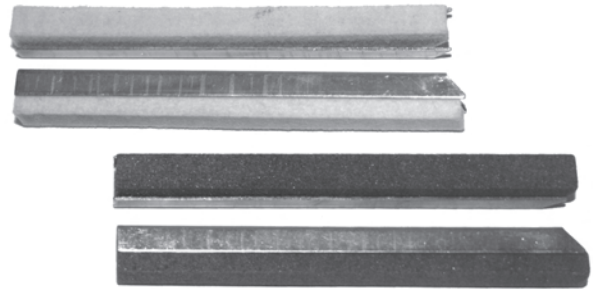
Product features include: Fast stock removal, accurate sizing of cylinder, heavy-duty universal joint, works with partial or complete honing, and a storage case. Automotive hones include 1 set of SAN300 stones. Small engine hone includes 1 ea. SAN608, SAN610, & SAN612 stones.

Application	Range	Drive Shaft		
		Dia.	Length	Part #
Small Engine	1.25"-2.75"	1/2"	6.00"	SAN216
Standard Automotive	2.50"-5.50"	5/8"	12.00"	SAN218
Heavy-Duty Automotive	2.50"-5.50"	5/8"	12.00"	SAN220

## Small Engine Cylinder Hone Stones

Stone sets fit above Model #SAN216 and consist of two stones and two wipers. Stones are 3-1/2" long, available in three grits, and are easily changed.

Cylinder Size Range	Stone & Wiper Set Part #		
	80 Grit	180 Grit	280 Grit
1.75"-2.20" (44.5mm-55.9mm)	SAN602	SAN608	SAN614
2.05"-2.50" (52.0mm-63.5mm)	SAN604	SAN610	SAN616
2.35"-2.75" (59.6mm-69.9mm)	SAN606	SAN612	SAN618



Short Block Rebuilding

## Plateau Brushes

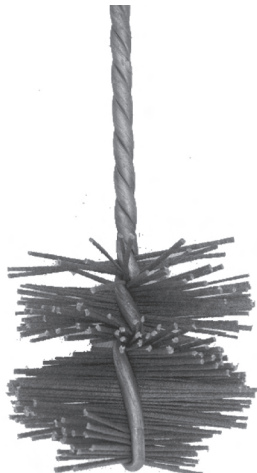
Designed to produce a finish that rivals a perfectly "Broken-In" engine which will minimize initial wear on piston rings.

- Removes loose, fractured, and torn fragments of metal.
- 15-20 Stroke per Cylinder provides a superior finish.
- As the brush wears down, it can be used on smaller bores.

### Cylinder Bore Plateau Brushes

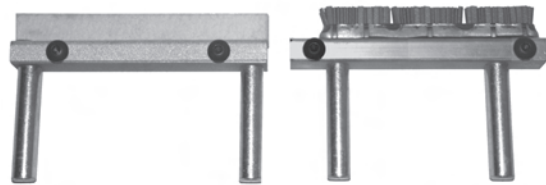
Dia.	Bore Size	Part #
1-1/4"	7/8" - 1"	UFB125
1-1/2"	1" - 1-1/4"	UFB150
2"	1-1/4" - 1-3/4"	UFB200
2-1/2"	1-3/4" - 2-1/4"	UFB250
3"	2-1/4" - 2-3/4"	UFB300
3-1/2"	2-3/4" - 3-1/4"	UFB350
4"	3" - 3-1/2"	UFB400
4-1/2"	3-1/2" - 4"	UFB450
5"	4" - 4-1/2"	UFB500
5-1/2"	4-1/2" - 5"	UFB550
6"	5" - 5-1/2"	UFB600
6-1/2"	5-1/2" - 6"	UFB650
7"	6" - 6-1/2"	UFB700

3/8" Stem Dia.  
4" Abrasive Length  
14" OAL



**NOTE:** Similar abrasive material is used on OEM engines for finishing after diamond or stone honing.

## Plateau Brushes For Cyl. Hones



Description	Part #
<b>For Portable Hones - 3.0" to 4.1" Range</b>	
<b>Complete Assembly</b>	<b>80800</b>
Replacement Felt Insert (1 Pair) 320 Grit	80801
Repl. Plateau Brush Inserts (1 Pair) 320 Grit	80802
Replacement Holder Set (4 Each)	80803
<b>For Portable Hones - 3.8" to 5.5" Range</b>	
<b>Complete Assembly</b>	<b>80804</b>
Replacement Felt Insert (1 Pair) 320 Grit	80801
Repl. Plateau Brush Inserts (1 Pair) 320 Grit	80802
Replacement Holder Set (4 Each)	80805

## For Sunnen CK10 & CV616 Honing Machines



Description	Bore Size	Grit	Part #
Pair (2) Plateau Brush Inserts	3"-5"	320	80806

# Cylinder Honing



## Silver Seal® Cylinder Honing Stones

**For all AN-style hones and hone bodies.**

Use with Sunnen "AN" type hones and many other popular models including Silver Seal models SAN218 and SAN220 hones shown on page. Integral style holder sets include 2 holders with stones and 2 holders with aluminum wipers. Blind hole stones measure 2-3/16" long. All other stones are 4" long.

### For Portable and Power Hones

Bore Range	Application	Roughing 70 Grit	Medium 150 Grit	Finishing 220 Grit	Fine Finish 280 Grit	X-Fine Finish 400 Grit	Polishing 600 Grit
2.5"-2.7"	Cast Iron	SAN115	SAN215	•	SAN515	SG25J87	•
	Cast Iron	SAN100	SAN200	SAN300	SAN500	SM27J87	SMM33C05
2.7"-4.1"	Hard Sleeves	SAN130	SAN230	•	SAN530	SM27J85	•
	Blind Holes	SAN10071	SAN20071	SAN30071	SAN50071	•	•
3.5"-5.5"	Cast Iron	SAN101	SAN201	SAN301	SAN501	SN37J87	SNN40C05
	Hard Sleeves	•	SAN231	•	SAN531	SN37J85	•
	Blind Holes	SAN10171	SAN20171	SAN30171	SAN50171	•	•
4.7"-15.0"	Cast Iron	SAN106	SAN206	SAN306	SAN506	SW47J87	•
	Hard Sleeves	•	SAN236	•	SAN536	SW47J85	•

### For Power Hones Only

Bore Range	Application	Medium 150 Grit	Finishing 220 Grit	Fine Finish 280 Grit
2.7"-4.1"	Cast Iron	SAN200G	SAN300G	SAN500G
	Blind Holes	SAN20071G	SAN30071G	SAN50071G
3.5"-5.5"	Cast Iron	SAN201G	SAN301G	SAN501G
	Blind Holes	SAN20171G	SAN30171G	SAN50171G
4.7"-15.0"	Cast Iron	SAN206G	SAN306G	SAN506G

Note: "G" series Power Hone Only stones are green in color & last longer than normal gray stones. Use extra pressure to achieve maximum results.



Short Block Rebuilding

## Bolt-On Style Stones & Felts

**For all AN-style hones with bolt-on type holders. 4" length.**

Grit	2 Stone/2 Felt	4 Stones
80 (Coarse)	80550	80554
180 (Medium)	80560	80564
220 (Med.-Fine)	80570	80574
280 (Fine)	80580	80584
400 (Extra-Fine)	80590	80594

## Stone Holder Sets

**For bolt-on style stones/felt. Set of 4.**

Bore Range	Part #
2-3/4" - 4-3/4"	80984
3-3/4" - 6-1/2"	80985

## Honing Stones & Shoes

**For Sunnen CV-616 & CK10**

Sold & Packaged in Pairs

Stones		
Application	Sunnen #	Part #
Hard Blocks	EHU-123	80070
Roughing	EHU-133	80072*
Hard Blocks	EHU-518	80073
General Purpose	EHU-525	80082*
Finishing	JHU-625	80102*
Shoes		
Wear Shoes	CK-3070	80981
Alignment Shoes	CK-3120	80982



\*For Hard Materials, Fast Stock Removal, and Extended Life, Order Red Aluminum Oxide (AR). Example: 80082AR



# Flex-Hone®

## Flex-Hones®

All Flex-Hone® tools produce a conditioned surface finish. These unique hones use a low-temperature, low pressure abrading system that produces a clean, long wearing surface. Designed to create a crosshatched surface pattern for oil retention. The silicone carbide hones are attached to flexible nylon stems that allow the hones to float, thereby assuring self-alignment to bore. They produce a soft cutting action. Use with 10-30 wt. motor oil or honing oil (applied sparingly to bore wall). Operate hone for 10-45 seconds. Repeat until desired surface finish is achieved.

Flex-Hones® are supplied in silicone carbide as standard, available in all sizes and styles in 120, 180, 240, and 320 grits. Other abrasive materials such as aluminum oxide, tungsten carbide, etc., are available by special order, as well as other hone grits.

**Call for availability.**

### Small Engine Cylinders

Standard Duty - 180 Grit - 8" Long

Hone Size	Size Metric	Part #
1"	25.4mm	4125
2"	51mm	4100
2-1/4"	57mm	4101
2-1/2"	64mm	4102
2-3/4"	70mm	4103
3"	76mm	4104
3"	76mm	4179*

\*120 Grit

### Lifter Bore

180 Grit

Hone Size	Size Metric	Part #
1/2"	13mm	4174
5/8"	16mm	4121
3/4"	19mm	4123
7/8"	22mm	4124
1"	25.4mm	4125
1-1/8"	29mm	4126
1-3/8"	35mm	4127
1-1/2"	38mm	4176
1-3/4"	44mm	4136

### Brake Cylinder

180 Grit

Hone Size	Size Metric	Part #
9/16"	14mm	4120
5/8"	16mm	4121
23/32"	18mm	4122
3/4"	19mm	4123
7/8"	22mm	4124
1"	25.4mm	4125
1-1/8"	29mm	4126
1-3/8"	35mm	4127
1-5/8"	41mm	4128
2"	51mm	4100

### Valve Guide

240 Grit - Ideal for final finish of valve guides. Use with portable drill or seat & guide machine

Hone Size	Size Metric	Part #
13/64"	5mm	4173
1/4"	6.4mm	4160
9/32"	7mm	4161
5/16"	8mm	4162
11/32"	9mm	4163
23/64"	9.5mm	4133
3/8"	10mm	4164
7/16"	11mm	4165
15/32"	12mm	4175

### Block Cylinders

Standard Duty - 120 Grit - 13-1/2" Long

Hone Size	Size Metric	Bore Range	Part #
3-1/4"	83mm	3.000"-3.125"	4105
3-1/2"	89mm	3.125"-3.500"	4106
3-3/4"	95mm	3.500"-3.750"	4107
4-1/8"	105mm	3.750"-4.125"	4108
4-5/8"	118mm	4.125"-4.625"	4109



Short Block Rebuilding

### Block Cylinders & Liners

Heavy Duty - 120 Grit

13-1/2" Long (Hone Size 3" - 4-1/2")  
17-1/2" Long (Hone Size 5" - 7-1/2")

Hone Size	Size Metric	Bore Range	Part #
3"	76mm	2.750"-3.000"	4110
3-1/4"	83mm	3.000"-3.250"	4111
3-1/2"	89mm	3.000"-3.500"	4112
3-3/4"	95mm	3.250"-3.750"	4178*
4"	101mm	3.500"-4.000"	4113
4-1/4"	108mm	3.750"-4.250"	4172
4-1/2"	114mm	4.000"-4.500"	4114
5"	127mm	4.500"-5.000"	4115
5-1/2"	140mm	5.000"-5.500"	4116
6"	152mm	5.500"-6.000"	4117
6-1/2"	165mm	6.000"-6.500"	4118
7"	178mm	6.500"-7.000"	4119
7-1/2"	190mm	7.000"-7.500"	4177

\*320 Grit

### Journal Bore Flex-Hones®

These specially designed hones allow you to deburr and remove material using a low-temperature abrading process. This provides a superb journal surface for both bearing insert or aluminum journal. Just the right finishing touch for a free running cam shaft.

Cam Bearing Flex-Hones® include a threaded pipe nipple adaptor for an extension rod which allows you to reach each journal within the entire length of the cylinder head and engine block.

#### Cam Bearing

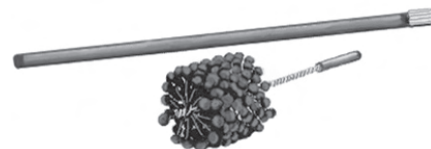
180 Grit - Order hone one size larger than bore size

Hone Size	Size Metric	Part #
2"	51mm	4155
2-1/4"	57mm	4156
2-1/2"	64mm	4157
2-3/4"	70mm	4158

### O.H.C. Cam Journal Bore

180 Grit - New material for O.H.C. bearings or aluminum heads.

Hone Size	Size Metric	Part #
1-1/8"	29mm	QBH100
1-1/4"	32mm	QBH101
1-3/8"	35mm	QBH102
1-1/2"	38mm	QBH103
1-5/8"	41mm	QBH104
1-3/4"	45mm	QBH105



#### 18" Extension Rod

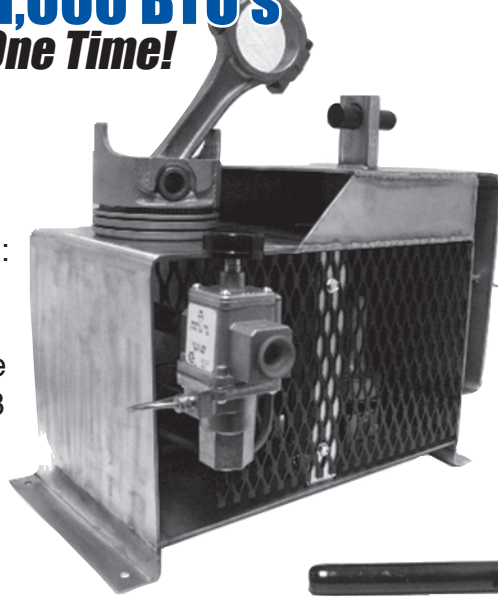
Use with all Cam Bearing Flex-Hones®

**Part #4159**



## Rod Heaters 11,000 BTU's Heat Two Rods at One Time!

Natural Gas & L.P.G.  
Save Time: No warm-up required. You can begin piston assembly almost immediately. Save Money: No heat coils or electrical circuits to replace. You can do 2 rods at the same time (in approximately 2-3 min.) Assemble 8 rods in under 10 minutes.



### Natural Gas Rod Heater

Connect to 1/2" natural gas line.

**Part #RH1G**

### L.P.G. Rod Heater

Propane tank, regulator, & hose not included.

**Part #RH2LPG**

## Temperature Indicating Crayons

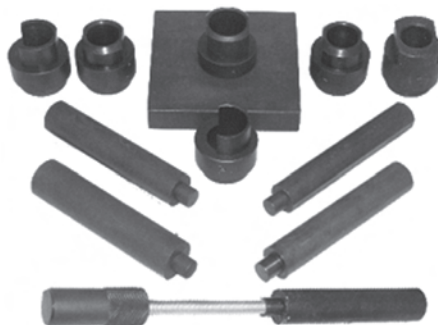
Mark part before heating. When designated temperature is reached, the mark will melt. Available with melting points from 200° - 600°.



Temp.	Part #	Temp.	Part #
200°F	4431	500°F	4437
450°F	4436	600°F	4438

## Pin Extractor Set Ideal For Use With Your Shop Press

Designed to remove piston pins safely and quickly. Use with any shop press. Made for universal use of high quality steel, can be altered to fit virtually any piston.

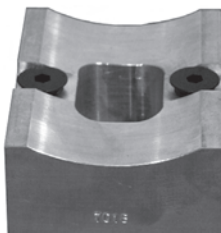


Description		Part #	
Complete Pin Extractor Set		SL1029	
Piston Guide Assembly Includes: SL1029M, SL1029N, & SL1029P		SL10291	
Description	Part #	Description	Part #
#0 Fixture for .800 Pins	SL1029A	#3 Fixture for 1.010 Pins	SL1029D
#1 Fixture for .950 Pins	SL1029B	#4 Fixture for 1.100 Pins	SL1029E
#2 Fixture for 1.010 Pins	SL1029C	#5 Fixture for .865 Pins	SL1029F
Base Block	SL1029G	1.000 Drift Pin	SL1029L
.760 Drift Pin	SL1029H	Tapered Handle	SL1029M
.812 Drift Pin	SL1029J	Threaded Rod	SL1029N
.875 Drift Pin	SL1029K	Threaded Adaptor	SL1029P

## Piston Pin Removal Fixture

Adjust screws for height of piston sides at wrist pin. (Example: .050 on 400 Chevy). Prevents piston pin distortion when wrist pin is pressed out.

Description	Part #
Domestic - 4-1/2" Radius	7018
Import - 3.2" - 3.875"	7019
Set of Each (7018 & 7019)	7020



## Piston Pin Installation Gauge

Simply set & lock sliding collar for repetitive installations!



**Part #SL1025**



# Piston Ring Tools

## **NEW** Electric Piston Ring Filer *An Accurate Grind In Seconds!*

- Powerful 12-Volt Electric Motor
- Rechargeable Battery & Battery Charger
- Set Ring End Gaps Accurately
- Dial Indicator Measures the Correct Grind Amt.
- Includes Two (2) 120-Grit Grinding Wheels



### Part #4297E

### 120 Grit Grinding Wheel - Part #4297A

### Piston Rod Guide

Use to prevent rod bolts from nicking cylinder walls and crank journals while installing or removing pistons. Durable plastic prevents metal to metal contact. Works on both 5/16" & 3/8" rod bolts.

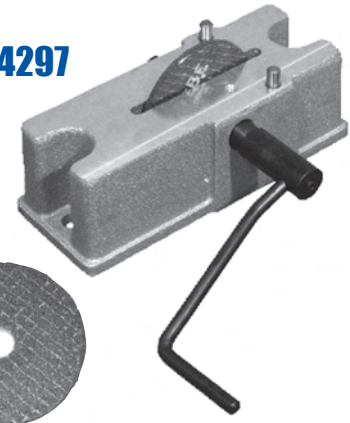


Description	Part #
Rod Guide w/Adaptors	4299
6" Rod Guide Extensions (Pair) (Use with or without rod guide.)	4299E

### Piston Ring Filer

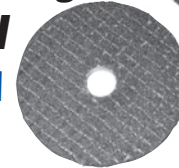
Manual piston ring filer enables you to assure proper piston ring end gap! Position piston ring against dowel pins and crank handle to turn filing wheel. Grind and check gap with feeler gauge to meet OE specifications.

### Part #4297



### 120 Grit Grinding Wheel

### Part #4297A



### Piston Ring Installer

Accepts rings from 3/64" to 1/4" (1.2mm to 6.3mm) thick. Tapered jaw design securely holds ring. Tool reduces ring breakage.

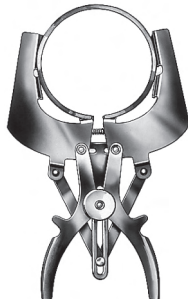


### Part #4289

### Ring Expander

For installing and removing piston rings without the danger of breakage or distortion.

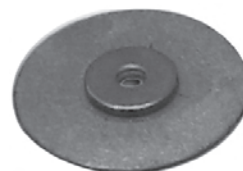
Description	Part #
1-1/4" - 2-1/4" Dia.	4224S
2"-4" Diameter	4234S
2-3/4" - 4-1/4" Dia.	4224
3-1/2" - 7" Diameter	4225



### Piston Ring Gap Tool

This portable rotary filer allows you to accurately file correct ring gap on any make or diameter piston ring. Includes mounting brackets and extra-hard (fine grit) carbide coated wheel.

### Part #4288



### Fine Grit Carbide Grinding Wheel Part #4288A

# Piston Ring Tools



## Fixed Size Tapered Ring Compressors

- Precision machined from heat-treated aluminum & hard anodized.
- Features positive grip surface.
- Reduces assembly time eliminates distortion & breakage of rings.

**NEW**



Bore Sz.	Part #	Bore Sz.	Part #	Bore Sz.	Part #	Bore Sz.	Part #
2.935	TRC2935	4.020	TRC4020	4.160	TRC4160	4.375	TRC4375
2.972	TRC2972	4.030	TRC4030	4.165	TRC4165	4.380	TRC4380
3.189	TRC3189	4.040	TRC4040	4.170	TRC4170	4.390	TRC4390
3.209	TRC3209	4.060	TRC4060	4.175	TRC4175	4.400	TRC4400
3.347	TRC3347	4.070	TRC4070	4.180	TRC4180	4.440	TRC4440
3.425	TRC3425	4.080	TRC4080	4.185	TRC4185	4.470	TRC4470
3.504	TRC3504	4.095	TRC4095	4.190	TRC4190	4.500	TRC4500
3.736	TRC3736	4.100	TRC4100	4.195	TRC4195	4.530	TRC4530
3.766	TRC3766	4.120	TRC4120	4.200	TRC4200	4.560	TRC4560
3.796	TRC3796	4.125	TRC4125	4.250	TRC4250	4.600	TRC4600
3.810	TRC3810	4.130	TRC4130	4.280	TRC4280	4.625	TRC4625
3.875	TRC3875	4.135	TRC4135	4.310	TRC4310	4.670	TRC4670
3.905	TRC3905	4.140	TRC4140	4.320	TRC4320	4.675	TRC4675
3.935	TRC3935	4.145	TRC4145	4.340	TRC4340	4.680	TRC4680
4.000	TRC4000	4.150	TRC4150	4.350	TRC4350	4.685	TRC4685
4.005	TRC4005	4.155	TRC4155	4.360	TRC4360	4.750	TRC4750

## NEW Ring Squaring Tool

These tools are designed to go deep in the bore for accurate end gap measurement. They feature a machined no slip positive grip surface. Four sizes available, will fit most bore diameters.



Description	Part #
3.810" - 3.980"	RST3810
4.000" - 4.230"	RST4000
4.240" - 4.380"	RST4240
4.500" - 4.625"	RST4500

## Adjustable Tapered Ring Compressor

Double Coated Aluminum Ring Compressor has tapered sleeve allowing free and easy installation of rings and pistons. Adjust with a screwdriver. Three sizes available for most domestic & import applications.



Description	Part #
4.00" - Adjusting range (3.940-4.060)	2240
4-1/8" - Adjusting range (4.065-4.185)	2241
4-1/4" - Adjusting range (4.190-4.310)	2242

## Ring Compressor Kit

**Kit Includes:** 6 Bands covering 2-7/8" - 4-3/8" rings and pliers that allow a very fine adjustment of the band.

Description	Part #
Ring Compressor Kit Includes	4213
Pliers	4214
Band 2-7/8" - 3-1/8"	4215
Band 3-1/8" - 3-3/8"	4216
Band 3-3/8" - 3-5/8"	4216A
Band 3-5/8" - 3-7/8"	4217
Band 3-7/8" - 4-1/8"	4218
Band 4-1/8" - 4-3/8"	4219
Optional Sizes	
Band 4-1/2" - 4-3/4"	4220
Band 4-3/4" - 5"	4221
Band 5" - 5-1/4"	4222
Band 5-1/2" - 6"	4223



Short Block Rebuilding

## Shop Grade Ring Compressor

Compressor band takes all rings at once. Self-locking ratchet pawl prevents early release.

Description	Part #
2-1/8" - 5" Diameter	4206
3-1/2" - 7" Diameter	4207
3-1/2" - 7" Diameter Truck & Tractor	4208







# Piston Rod Tools

## Heavy-Duty Rod Splitting Fixture

**Easy To Use - Works Fast!**

Quickly separates the cap from the rod without damage. Simply loosen the rod nuts a couple turns, place the rod onto the splitting fixture, and pull the handle. Portable, for use with your bench top vise.



**NEW**

**Part #KK649**



## Rod Bolt Protectors

**Eliminate Crank Journal Damage**

Connecting rod bolt protectors help avoid crankshaft journal and rod bolt damage during installation & removal.

**One Pair - Part #4234**

**100 Pairs - Part #4235**

**One Size Fits All**



## Rod Installation Block

**Install Rod Bolts The Easy Way!**

Universal block provides the surface to position the connecting rod squarely while installing rod bolts. The hardened aluminum block has a lip to prevent slippage through a vise while the rod bolts are hammered or pressed in.

**Part #4231**



## Rod Bolt Stretch Indicator

**A "Must Have" Tool**

Unit holds itself in place leaving both hands free to torque bolt properly. Complete instructions included.



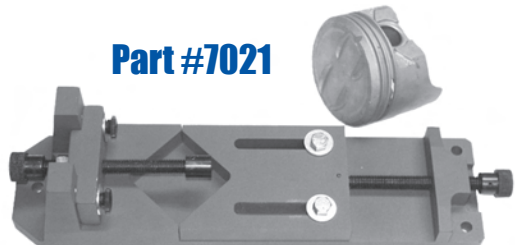
**Part #KK714**

## Adjustable Piston Assembly Fixture

**Use with heated connecting rods!**

- Will not mar piston surface.
- Easily adjust to lock piston into fixture.
- Fully adjustable wrist pin stop, once set, allows you to assemble identical set of pistons quickly.

**Part #7021**



## Rod Safety Pins

**Keep "Em" Together**

These pins solve the problem of keeping your rods & caps together. Works in a jet cleaner or soak tanks. Not for oven use. Made of tempered spring wire.



**Description**

**Part #**

7" Small Size, Cap on Rod

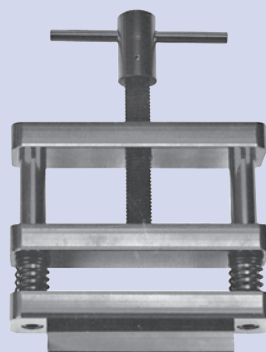
**4347S**

14" Large Size, Set of Rods

**4347L**

## Rod Vises

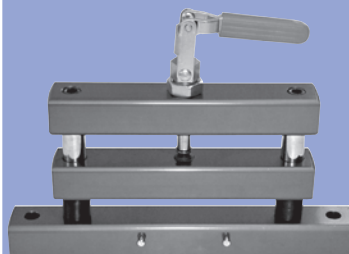
### Professional



**Part #: 4346**

Does not damage connecting rods. Clamp rods securely to align parting faces while you torque rod bolts. This clamp is portable for vise or use in work bench.

### Heavy Duty



**Part #: 4347**

Heavy-duty rod vise is designed to hold two aluminum or steel rods securely. Complete with an easy grip handle and fast release latch for high production output. Made of aluminum alloy, this vise can be mounted in a bench vise or permanently on a bench.

Short Block Rebuilding

# Piston Rod Tools



## Electric Balancer Scales

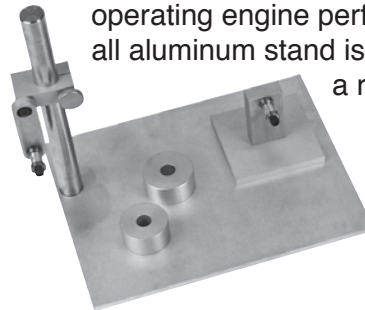
### ACCURACY GUARANTEED

Engine balance scales save money by permitting easy, accurate, do-it-yourself balancing and weighing minimizing engine vibration and component failure. These precision scales are perfect for balancing pistons, rods, clutch weights, etc. Digital models are powered by one 9 volt battery or an optional AC adapter. Balancing scales are used with Rod Balancing Stand KK640.



## Rod Balancer Stand

Balance your pistons & rods for smooth operating engine performance. This quality all aluminum stand is also adjustable to level a rod. **Includes:** Scale support, 2 discs (2" & 2.3")



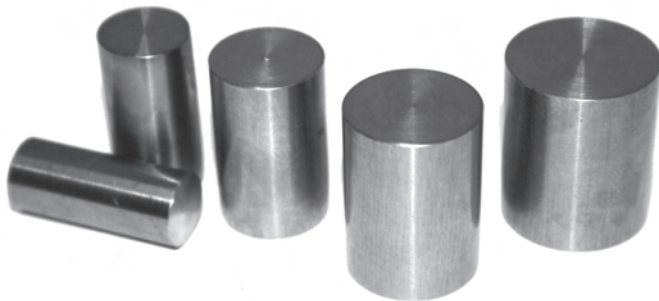
**Part #KK640**

Digital Balance Scale Description	Part #
0 to 2000 Gram (1 Gram Reading)	KK639
0 to 3000 Gram (1 Gram Reading)	KK639A
0 to 2000 Gram (.01 Gram Reading)	KK639B
AC Adaptor for Above Scales	KK721

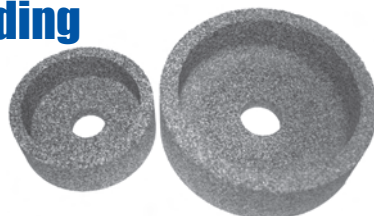
## NEW Heavy Metal For Internal Crank Balancing

A selection of 5 sizes ranging from 1/2" -1". 1.2" Length.

Hole Size	Press Fit	Grams	Part #
1/2"	+.002	65	HM65
5/8"	+.002	110	HM110
3/4"	+.002	147	HM147
7/8"	+.002	198	HM198
1"	+.002	265	HM265



## Rod & Cap Grinding Wheels For Sunnen



Machine	Size	Shape	Part #
<b>CRG 500</b> <b>501</b>	4" x 1-1/2" x 1" GP	Cup	2502
<b>CRG700 Series</b>	6" x 2" x 1-1/4" GP	Cup	2506
	6" x 2" x 1-1/4" hard	Cup	2508

## Rod Honing Stones For Sunnen

Sunnen Mandrels	Use	Qty.	Sunnen#	Part#
 Con-Rod CR-1450 CR1750 Mandrel	GP	1	CR-2	80001
	Finishing	1	CR-4	80005
 Con-Rod CR-1900 CR4500 Mandrel	Roughing	1	CR-10	80010
	GP	1	CR-12	80020
 Con-Rod (pin) Sunnen KL Mandrel	Finishing	1	CR-14	80030
	Roughing	1	KL-5	80150
 Piston & King (pin) Sunnen ML Mandrel	GP	1	KL-7	80170
	Finishing	1	KL-13	80180
 Con-Rod (pin), Sunnen PL Mandrel	Roughing	1	ML-5	80210
	GP	1	ML-7	80230
 Con-Rod (pin) SL720 - SL2300 Mandrel	Finishing	1	ML-13	80240
	Roughing	1	PL-5	80270
 Con-Rod (pin) SL720 - SL2300 Mandrel	GP	1	PL-7	80280
	Finishing	1	PL-13	80290
 Con-Rod (pin) SL720 - SL2300 Mandrel	Roughing	1	SL-5	80330
	GP	1	SL-7	80340
 Con-Rod (pin) SL720 - SL2300 Mandrel	Finishing	1	SL-13	80350

## Replacement Guide Shoes For Sunnen

Sunnen Mandrels	Use	Qty.	Sunnen#	Part#
 Sunnen Mandrel CR40-D	1.450-1.900	2	CR40-D	80970
	1.900-4.700	2	CR50-D	80975
	1.900-4.700	2	CR50-B	80980
 Sunnen Mandrel VA-B	9.90-1.156	2	VA-B	80990
	1.115-1.281	2	VB-B	80991
 Sunnen Mandrel UA-B	.744-.843	2	UA-B	80992
	.806-.906	2	UB-B	80993
	.900-1.003	2	UC-B	80983
	.994-1.125	2	UD-B	80994
	1.119-1.250	2	UE-B	80988

"B" Suffix = Bronze

Short Block Rebuilding



# Dowel/Stud Pullers

## Dowel Puller Kits

### Remove Dowel Pins Fast!

Slide Hammer-type puller removes dowel pins fast & easy from cylinder heads, blocks, crankshafts, flywheels, etc.



### Standard Dowel Puller Kit

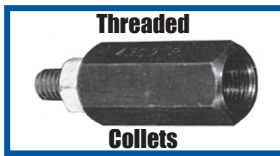
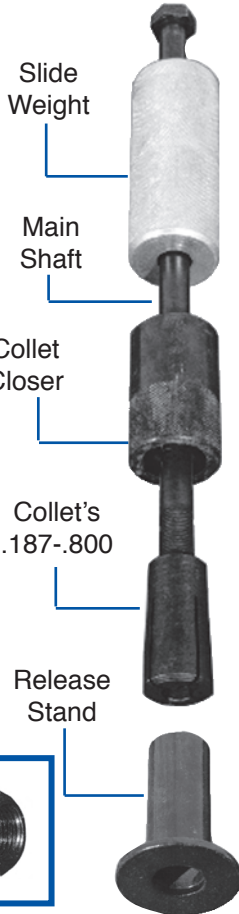
#### Part #4300

Kit Includes: Sliding weight, main shaft, collet closer, release stand, and 1/4", 5/16", 3/8" and 7/16" collets.

### Metric Dowel Puller Kit

#### Part #4300M

Includes: Sliding weight, main shaft, collet closer, release stand, and 4mm, 5mm, 6mm, and 8mm collets.



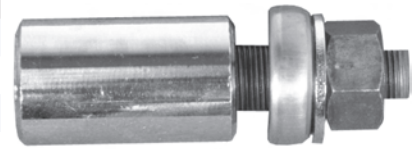
### Replacement Parts

Description	Part#	Description	Part#
Sliding Weight	4301	.735 Collet-Ford	4316
Collet Closer	4302	.750 - 3/4" Collet	4317
Release Stand	4303	.800 Collet-Ford	4318
Main Shaft	4304	.157 - 4mm Collet-VW	4331
3/16" (.187) Collet	4305	.197 - 5mm Collet-VW	4319
1/4" (.250) Collet	4306	.236 - 6mm Collet-VW	4320
5/16" (.312) Collet	4307	.315 - 8mm Collet-VW	4321
3/8" (.375) Collet	4308	.393-10mm Collet-VW	4351
7/16" (.437) Collet	4309	.472-12mm Collet-VW	4352
1/2" (.500) Collet	4310	<b>Threaded Collets</b>	
9/16" (.562) Collet	4311	8-32	4306TP
5/8" (.625) Collet	4312	10-32	4307TP
.640 Collet-Chevrolet	4313	1/4"-20	4308TP
.675 Collet-Ford	4314	5/16"-18	4309TP
.687 - 11/16" Collet	4315	3/8"-16	4310TP

## Heavy Duty Stud Puller

Finally, a stud puller built to last! For best results, use with an impact wrench, which allows concentrated pressure on the stud without side pressure to the inner mandrel. Fits 5/16" or 3/8" threaded studs.

Replacement	Part #
Bearing	4344B
Nut	4344N
Washer	4344W
Housing	4344H
Screw	4344S

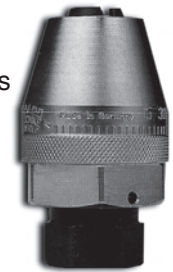


### Part #4344

## Adjustable HD Screw-In Stud Remover

### Removes Studs Up To 1/2"

Remove or install right & left-hand studs with ease - 1/2" square drive for hand tools or pneumatic impact tools. Flush mount jaws and tapered outer body lets you get between studs with as little as 3/4" clearance. Precision machined and hardened jaws for long life, no extra parts that are prone to breakage with repeated use.



### Part #4362 - Replacement Jaw Kit - Part #4362J

## Stud Extracting Tool

**NEW**

Easily allows removal of stubborn studs, such as rocker or cylinder head studs. Also removes broken studs that have a portion of the stud sticking up. Roller cam action grips the stud tighter as it turns. 1/4" - 3/4" capacity, 1/2" drive.



### Part #4396

## Stud Remover Set

Unique roller cam design can be used for any stud length. Ideal for work in tight spaces. Made from hardened alloy steel. Case included.



### WARNING:

Not to be used with pneumatic impact wrench.

### HAND WRENCH ONLY!

### Fractional Set

Contains 4 Drivers:  
1/4", 5/16", 3/8", 7/16"

### Part #4349

### Replacement Pullers

Size	Part #
1/4"	4349A
5/16"	4349B
3/8"	4349C
7/16"	4349D

### Metric Set

Contains 4 Drivers:  
6mm, 8mm, 10mm, 12mm

### Part #4350

### Replacement Pullers

Size	Part #
12mm	4350A
10mm	4350B
8mm	4350C
6mm	4350D



# Cam Bearing Tools

## Engine Builder's #1 Choice To Install Cam Bearings

Here's the fast, simple, economical cam tool that changes hundreds of different sized cam bearings with one of four expanding mandrels. This cam bearing tool adjusts instantly to undersized cam bearings and let's you install/remove them out of any engine. Save money by ordering the complete kit! Bearing range 1.375" to 2.750".



### Kit #BT1

Kit Includes: 5" Drive Bar, 36" Drive Bar, Guide Cone, Set of Washers, Large & Small Expanders, 4 Sets of Mandrels w/Sleeves, Wall Mount Rack.

### Kit #BT2

Kit Includes: BT1 + 24" Drive Bar (Save 35% on 24" Drive Bar when purchased in this kit!)

Drivers & Accessories	Description	Part #	Rubber Sleeves For Mandrels	Size	Part #	Drive Washers	Size	Part #	Expanding Mandrels	Size	Part #	Expanders	Description	Part #
	5" Driver	BT1B		1.370	BT5NS		1.370	BT5W		1.370	BT5M		1-7/32"	BT3E
	24" Driver	BT2B		1.682	BT6NS		1.682	BT6W		1.682	BT6M		1-5/8"	BT4E
	36" Driver	BT3B		1.875	BT7NS		1.875	BT7W		1.875	BT7M		Threaded Stud	BT1S
	48" Driver (V12 Cummins)	BT4B		2.250	BT8NS		2.250	BT8W		2.250	BT8M			
	Bar Cap	BT1CAP												
	Guide Cone	BT1C												

## Universal Camshaft Bearing Tool Kit

Complete tool in heavy duty molded plastic case. Bearing range 1.125" to 2.690".



### Complete Kit Part #BT000

Kit Includes Everything Shown Below

Description	Size	Part #
Drive Bar w/Cap	28"	BT220
Drive Bar w/Extension	10"	BT230
Complete Expander Assembly Unit	1.125-1.475	BT330
Small Drive Washer	1.200	BT430
Large Drive Washer	1.750	BT420
Expander Shaft		BT270
Metal Expander Cone	1.125	BT280
Rubber Sleeve (For Collet Jaw Set)	1.475	BT410
Collet Jaws for Expander Assembly (Set of 4)		BT350
Nylon Center Cone	Universal	BT1C

### Expanding Collets and Rubber Sleeves

Size	Collet Part #	Sleeve (2 Pk.) Part #
1.475-1.700	BT020	BT120
1.700-1.925	BT040	BT140
1.925-2.150	BT060	BT160
2.150-2.375	BT080	BT180
2.375-2.690	BT100	BT200



## Universal Camshaft Installation Tool



This easy-to-use universal camshaft installation tool comes complete with five adaptors for most domestic V6 & V8 engines. The heavy duty comfort-grip handle provides plenty of support.

**Part #CT898**

## Camshaft Installation Tool

Providing a solid grip, this hex design handle makes it easy to install or remove camshafts. Installation bolts included on handle.

For Chevy V-6 & V-8 ex. hydraulic roller camshafts.

### Part #CBT100



Short Block Rebuilding



# Crankshaft Polishing Belts

## Premium Crankshaft Polishing Belts

**Longer Lasting, Premium Grade at Standard Pricing**

Call for your **FREE 3 Belt First Time Buyer Trial** (Part #CPB-Trial) on any of the sizes and grits below.

Aluminum Oxide Grain, specially treated for long life. Triple flex cotton blue backing for proper edge roll. 2 layer premium resin over resin bond. This, coupled with the correct grit selection will provide the best possible finish. Manufactured by a division of Silver Seal Products.

**Save 10% by ordering 10 boxes or more! (Assorted sizes & grit)**

## Premium Crankshaft Polishing Belts

**Priced & Packaged 10 Per Box**

Length	Width	240G	320G	400G	Length	Width	240G	320G	400G	
42"	1"	3028	3026	3029	77"	3/4"	3094	3074	3071S	
55-3/4"	1"	3031	3030			7/8"		3075		
	3/4"	3038	3032			1"	3096	3076	3072	
60"	1"	3040	3034	3033		1-1/8"		3078	3083	
	1-1/4"	3037	3036			1-1/4"	3098	3080	3071	
	1-1/2"		3039			1-3/8"		3082		
	2"	3041	3041S			1-1/2"	3100	3084	3085	
64"	3/4"	3048	3044	3051		1-5/8"		3086	3192	
	1"	3050	3046	3042		1-11/16"		3087		
	1-1/4"	3053	3053S			1-3/4"	3102	3088		
	1-1/2"	3051S	3047S	3043		1-7/8"		3090	3093	
	1-3/4"	3049	3049S	3045		2"	3103	3092	3073	
	2"	3081	3077			2-1/4"			3079	
70"	3/4"	3057S	3057		91"	3/4"	3120	3108		
	1"	3060	3058	3063			1"	3122	3110	3106
	1-1/4"	3061	3061S				1-1/4"	3124	3112	
3/4"	3069	3069S				1-1/2"	3126	3114		
1"	3068	3064	3065			1-3/4"	3128	3116		
72"	1-1/4"	3070	3066			2"	3130	3118		
	1-1/2"	3067	3067S			115"	1"	3134	3132	
	1-3/4"	3059	3059S			116"	1-1/2"		3129	



## Buff Bright Surfco Micro Finish Belts

**Priced & Packaged 1 Per Box**

Performance strength, premium Aluminum-Oxide resin belts manufactured especially for very fine polishing. Will not remove material giving a non-directional polish. Sides wear to journal radii. Great for high performance work

Length	Width	Super Micro	
		Micro Surfco	Surfco
60"	3/4"	3184	3184S
	1"	3153	3153S
64"	3/4"	3157	3157S
	1"	3158	3158S
70"	3/4"	3185	3185S
	1"	3164	3164S
72"	3/4"	3186	3186S
	1"	3167	3167S
77"	3/4"	3171	3171S
	1"	3173	3173S
91"	3/4"	3187	3187S
	1"	3183	3183S

Short Block Rebuilding

## Sky-Blue Premium Crankshaft Polishing Belts

**NEW**

**Priced & Packaged 10 Per Box**

Top quality belt boasts a Sky-Blue backing that readily conforms to journal radii. Exceptionally high grade Aluminum-Oxide grains are bonded to this flexible material, along with an active lubricant which reduces grinding heat, also extending belt life.

Length	Width	320G	400G
60"	3/4"	3360	3362
	1"	3361	3363
64"	3/4"	3364	3366
	1"	3365	3367
70"	3/4"	3370	3372
	1"	3371	3373
72"	3/4"	3374	3376
	1"	3375	3377
77"	3/4"	3378	3380
	1"	3379	3381
91"	3/4"	3390	3392
	1"	3391	3393

## Super Fine Cork/ Abrasive Polishing Belts

**Semi Flex Backing, Abrasive Bonded Cork. Priced & Packaged 1 Per Box**

Length	3/4" Part #	1" Part #
60"	3484	3453
64"	3457	3457
70"	3485	3464
72"	3486	3467
77"	3471	3473
91"	3487	3483

## Crankshaft Roughing Belts

**Priced & Packaged 10 Per Box**

L x W.	80 Grit Part #	120 Grit Part #	180 Grit Part #
64"x1"	3056	3054	3052
70"x1"	.	.	3062
77"x1"	.	3104	.
91"x1"	3131	.	.

## Super Finish Belt Grease - Part #2999A

Grease & aluminum-oxide powder creates luster & a bright finish. 28 oz.

## Abrasive Belt Unloader - Part #2999E

Works like a giant "Eraser". Simply press firmly against running abrasive for a few seconds or until loaded particles have been removed. 13.3 oz.

## Abrasive Belt Grease Stick - Part #2999G

Light bodied grease that provides lubrication and prevents clogging, leaving the abrasive grit free to cut and smooth. 20 oz.

# Crankshaft Polishers



## Portable Electric Crankshaft Polishers

**64" & 72" Models Available**

**Free Box of 10 Polishing Belts (Your Choice of Size/Grit) With Purchase of Either Polisher!**



Belt Length	Part #
61" - 64"	3135
69" - 72"	3133

120V, single phase 1/2 HP, 10,000 RPM Motor with 12' cord. Balanced design for less wrist fatigue. Dust filter installed in motor for long life. Each unit comes standard with 1" flanged rollers. Optional style/size rollers also available.

### Replacement Parts

Description	Part #
1" Flanged Rollers (3)	3136
2" Flanged Rollers (3)	3137
1" Unflanged Rollers (3)	3147
2" Unflanged Rollers (3)	3148
Replacement Motor	3138

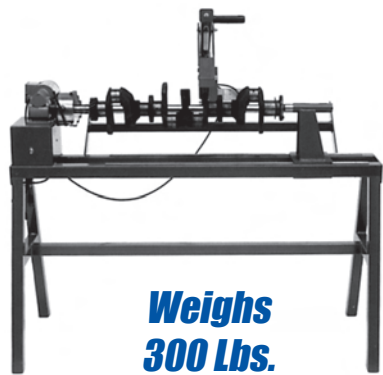


## H/D Crankshaft Polishing Machine Stand

Rigid 14 gauge steel frame, 43 RPM 120V TEFC motor, 5" - 3 jaw chuck, internal/external jaw sets, 36" adjustable tailstock, mounted 110V outlet, adjustable leveling pads, and easy one-person loading and unloading.

### Arm

Balanced polishing arm glides on linear bearing, spring loaded belt arm follows rod journals, 10,000 RPM - 1/2 HP motor (plugs into std. outlet), belt speed - 4,000 ft. per min. Uses std. 64"L. belts.



**Weights  
300 Lbs.**

**Complete Stand with  
Polishing Arm  
Part #3140**

**Crankshaft Polishing  
Stand Only  
Part #3141**

**Crankshaft Polishing  
Arm Only  
Part #3142**

## Steady Rest Shoes - For Crank Grinders

Model (Shoe Width)	Style Upper	Style Lower	Upper Part #	Lower Part #
<b>Berco</b>				
225, 270	1	1	SR01	SR01
<b>Sclodum-DCM</b>				
SV200, RG200	1	1	SR02	SR02
SV230, RG230, RG200N, RG270(narrow)	1	1	SR03	SR03
SV230, RG230, RG200N, RG270(Wide)	1	1	SR04	SR04
<b>Storm Vulcan</b>				
1648 (Wide)	2	3	SR08	SR09
15 STD (Narrow)	4	5	SR10	SR11
15A STD, 15AW	4	5	SR14	SR15
15C STD, 15CW	6	5	SR16	SR17
<b>Van Norman</b>				
OE# 438-42	7	7	SR20	SR20
OE# 111-5446	8	8	SR23	SR23
<b>Winona V.N. Zan Rosso</b>				
250, 280 (Narrow)	1	1	SR24	SR24
210 OE#815801	9	N/A	SR25	N/A

Short Block Rebuilding

## Portable Air Crankshaft Polisher

Features a high torqued output 11,000 RPM air motor. Lightweight alloy frame (weighs only 9 lbs.). Polisher is balanced for extended use. Unit will adjust to belt lengths from 64" to 72". Supplied with 1" rollers, optional 2" wide rollers also available.



**Part # 3144**

### Style Guide

#1	#2	#3
#4	#5	#6
#7	#8	#9





# Crank/Cam Wheels

## Crankshaft Grinding Wheels

Our material composition provides superior performance & durability. Each wheel is diamond ground and trued for your convenience.

**Call For Availability On Sizes Not Listed**



### Style Guide

1. Straight, Both Sides
2. Recessed, 1 Side Only
3. Recessed, 2 Sides
4. Hub, 1 Side Only

### 18" x 3"

Width	Style	Part#
3/4"	4	CW100
7/8"	1	CW102
15/16"	2	CW104
1"	2	CW106
1-1/16"	2	CW108
1-1/8"	2	CW110
1-3/16"	2	CW112
1-1/4"	2	CW114
1-3/8"	2	CW118
1-1/2"	2	CW122
1-5/8"	2	CW124
1-7/8"	2	CW130
2"	2	CW134

### 20" x 3"

Width	Style	Part#
3/4"	4	CW240
7/8"	1	CW242
15/16"	2	CW244
1"	2	CW246
1-1/16"	2	CW248
1-1/8"	2	CW250
1-1/4"	2	CW254
1-3/8"	2	CW258
1-7/16"	2	CW260
1-1/2"	2	CW262
2-1/2"	2	CW275

## Camshaft Grinding Wheels

High Tech wheels for your complete line of cams. Our certified wheels provide free cutting action & superior finish that today's industry requires.

Storm Vulcan 75, 75A, 75D, 1165, 1165A

Van Norman 253, 254, 255; Berco RAC1500, RAC2130

### 18" x 3"

Width	Part#
7/8"	2864
1"	2866

Width	Part#
1-1/8"	2856
1-1/4"	2857

### 18" x 6"

Width	Part#
7/8"	2872
1"	2858
1-1/8"	2859

### 20" x 3-3/4"

Lempco (Kwik-Way) TKG Series, 518

Width	Style	Part#
7/8"	1	CW202
1"	2	CW206
1-1/4"	3	CW208

### 22" x 3-3/4"

Lempco (Kwik-Way) 519

Width	Style	Part#
3/4"	4	CW300
7/8"	1	CW302
15/16"	2	CW304
1-1/8"	3	CW308

### 22" x 5"

Storm Vulcan 15A (to Serial #593)

Width	Style	Part#
3/4"	4	CW330
7/8"	1	CW332
15/16"	2	CW334
1"	2	CW336
1-1/16"	2	CW338
1-1/8"	2	CW340
1-1/4"	2	CW344
1-3/8"	2	CW346
1-7/16"	2	CW348
1-1/2"	2	CW350
1-5/8"	2	CW352
1-15/16"	2	CW362
2"	2	CW364

### 24" x 5"

Storm Vulcan 15A (from serial# 594) #15A Special, 15C (to serial #172)& 1860

Width	Style	Part#
3/4"	4	CW400
7/8"	1	CW402
15/16"	4	CW404
1"	2	CW406
1-1/16"	2	CW408
1-1/8"	2	CW410
1-1/4"	2	CW414
1-3/8"	2	CW418
1-7/16"	2	CW420
1-1/2"	2	CW422
1-5/8"	2	CW424
1-3/4"	2	CW428
1-7/8"	2	CW432
1-15/16"	2	CW434
2"	2	CW436

### 24" x 8"

Van Norman 438, 448, 460, 465; Zanrosso CG-210(early)Scledum 200, RMC/ Robbi Rex 1200

Width	Style	Part#
3/4"	4	CW450
7/8"	1	CW452
1"	3	CW456
1-1/8"	3	CW458
1-1/4"	3	CW460
1-1/2"	3	CW461
1-3/4"	3	CW466
2"	3	CW472

### 25" x 5"

Storm Vulcan 15C

Width	Style	Part#
3/4"	4	CW500
7/8"	1	CW502
1"	1	CW506
1-1/16"	1	CW508
1-1/8"	1	CW510
1-1/4"	1	CW512
1-1/2"	1	CW518
1-11/16"	1	CW520
1-3/4"	1	CW522
1-7/8"	1	CW524
2"	1	CW526

### 26" x 8"

SV New Scledum RG2, 230; Winona VN 400, 438,439,448,460,465, 475, 476, 666,CG250; Peterson/Berco 180B, 225A, B, C; Zanrosso 210, 230; AMC K-1100

Width	Style	Part#
3/4"	4	CW530
7/8"	1	CW534
15/16"	2	CW536
1"	3	CW538
1-1/16"	3	CW540
1-1/8"	3	CW542
1-3/16"	3	CW544
1-1/4"	3	CW546
1-5/16"	3	CW548
1-1/2"	3	CW552
1-5/8"	3	CW554
1-3/4"	3	CW558
1-7/8"	3	CW560
1-15/16"	3	CW562
2"	3	CW564

### 28" x 6"

Lempco (Kwik-Way) KGB, C, E

Width	Style	Part#
7/8"	1	CW602
1-1/4"	3	CW608
1-1/2"	3	CW610

### 28" x 8"

SV New Scledum 230, 270, 280; Winona VN 400,438,475,476, 666, CG250;Peterson/Berco 260,260A,260B,270B, 270A,B,C, Zanrosso Mito 250

Width	Style	Part#
3/4"	4	CW620
13/16"	4	CW622
7/8"	1	CW624
15/16"	2	CW626
1"	3	CW628
1-1/16"	3	CW630
1-1/8"	3	CW632
1-3/16"	3	CW634
1-1/4"	3	CW636
1-5/16"	3	CW638
1-3/8"	3	CW640
1-1/2"	3	CW644
1-5/8"	3	CW646
1-3/4"	3	CW648
1-11/16"	3	CW650
1-7/8"	3	CW652
1-15/16"	3	CW654
2"	3	CW656
2-3/8"	3	CW662

### 30" x 8"

SV New Scledum 270, 280; Zanrosso Mito 280 RMC; Robbi Rex 1800, Rex 2200L

Width	Style	Part#
3/4"	4	CW730
7/8"	4	CW732

### 36" x 12"

SV New Scledum 250 Storm Vulcan 350A,B,C RMC/Robbi Rex 2200M, 2700M, 3100M; Winona VN 111; Peterson/Berco 300,350 Zanrosso Mito 360

Width	Style	Part#
1-1/8"	3	CW908
1-1/4"	3	CW910
1-3/4"	3	CW920

# Crankshaft Supplies



## Instant Crankshaft Key Way

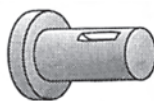
### Allows You To Repair Worn Key Ways

Why junk good cranks due to worn key way or because you are unable to recut a new key way on nodular Iron shafts. This Instant Keyway Process can be performed in a matter of minutes in your shop. A crankshaft grinder and arc welder is all that is necessary.

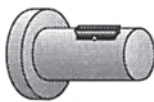
Size	Application	Qty.	Part#
3/8" x 4"	391 Ford Truck & Mack Diesel	5	6396
5/8" x .155"	391 Ford Truck, VW Rabbit	10	6386
3/4" x 3/16"	AMC, Buick, Chevy, Olds, Pont.	10	6385
3/4" x 1/4"	Chrys. Dodge/Plymouth 6 & 8	10	6387
3/4" x 5/16"	Cummins	5	6394
1" x 3/16"	Chevy & GM	5	6388
1" x 1/4"	Chrys. Dodge/Plymouth, Cont.	5	6389
1" x 5/16"	Cummins & IHC	5	6395
1-1/8"x3/16"	Chevy & GM	5	6390
1-1/8" x 1/4"	Buick, Chrys. Dodge/Plymouth	5	6391
1-1/8" x 3/8"	Detroit Diesel	5	6393

Note: 391, 361, & 330 Ford Cranks may require grinding a taper on one end of Instant Key Way

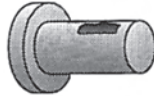
### 1) Worn Key Way



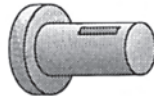
### 2) Instant Carbon Key



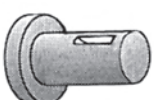
### 3) Weld Shaft



### 4) Grind to Size



### 5) Remove Key



## Crankshaft Turning

### Nuts & Sockets

#### Can Be Used With A Degree Wheel

Use these time saving tools during short block rebuilding to ease the task of crankshaft rotation. Remove dampener, slip over snout, and turn to desired position.



Application	Nut Part #	Socket Part #
Chevy Small Block	N2510	SL2510
Ford, Pont, Buick SB	N2511	SL2511
Mopar Big Block	N2512	SL2512
Chevy BB	N2513	SL2513

## Woodruff Keys

All keys priced and sold in 25 piece boxes.

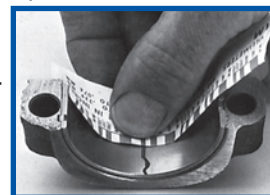
USA#	Size W x L x H	Application	Part#
304	3/32 x 1/2 x 3/16	Chrysler	6350
404	1/8 x 1/2 x 3/16	GMC Truck	6352
406	1/8 x 3/4 x 19/64	Various	6354
505	5/32 x 5/8 x 7/32	AMC, Ford	6355
506	5/32 x 3/4 x 9/32	Various	6356
507	5/32 x 7/8 x 11/32	Various	6357
606	3/16 x 3/4 x 9/32	AMC, Ford, GM	6358
607	3/16 x 7/8 x 11/32	AMC, GM	6359
*	3/16 x 1-3/8 x 23/64	Ford 6 Cyl.	6363
608	3/16 x 1-3/8 x 3/8	Ford 6&8 Cyl.	6362
*	3/16 x 1-13/32 x 19/64	Ford 8 Cyl.	6364
*	3/16 x 1-3/4 x 23/64	Ford 8 Cyl.	6365
*	3/16 x 2-3/8 x 13/32	GMC 6 Cyl.	6367
*	15/64 x 23/32 x 9/32	Ford V6	6368
806	1/4 x 3/4 x 9/32	Chrys, Dodge	6369
808	1/4 x 1 x 13/32	Farm & Indus.	6370
810	1/4 x 1-1/4 x 1/2	Farm & Indus.	6371
817-1	1/4 x 1-3/8 x 25/64	Buick 8 Cyl.	6372
1010	5/16 x 1-1/4 x 1/2	VW 4 Cyl. Van	6373
1217	3/8 x 2-1/8 x 33/64	Various	6374
*	3/8 x 3-3/4 x 1/4	Ford Trk 8 Cyl.	6375



## Plastigage

### Checking Bearing Clearances

Check main and rod bearing clearances quickly and accurately. Plastigage is a special extruded plastic thread with accurately controlled "crush" properties. Product is color-coded with instructions included.



Clearance Range	Color	Qty.	Part #
.001" to .003" (.025 to .076mm)	Green	12pk.	4411
.002" to .006" (.051 to .152mm)	Red	12pk.	4412
.004" to .009" (.102 to .229mm)	Blue	12pk.	4413
<b>Assortment Pack</b> 5 Green, 3 Red, 2 Blue			10pk. 4444

## Carbon Crankshaft Welding Plugs

Four sizes cover oil holes from .105 to .500.



Small End	Large End	Length	Part # (100 Pk)
.105	.250	.300	6385CWP
.190	.312	.300	6386CWP
.240	.375	.450	6387CWP
.365	.500	.450	6388CWP

Short Block Rebuilding



# Flywheel Grinding

## Flywheel Grinding Wheels

Silver Seal offers the best wheel for each application. When selecting a wheel, keep in mind that harder flywheels need a softer stone and softer flywheels need harder stones. We recommend keeping a variety of wheels on hand.



**Quantity Discounts Available**

For a Dowel Puller, See Page 88.

Harder  
Softer

Used On	Size (1-1/4" Arbor)	Description	Part #
<b>Cast Iron</b>	6"1/4-1/2"x2"	Black/Speckled, G.P. Std. Life	2402
	6"1/4-1/2"x2-5/8"	Black/Speckled, G.P Long Life	2404
	6"x2-1/2"	Black/Speckled, G.P Straight Cup	2409
	4"3/3"x1-1/2"	Black/Speckled, G.P Small Dia.	2400
	3"1/2-1/4"x1-1/2"	White, Fast Grinding On Hard Surface	2407
<b>Steel/ Ductile Iron</b>	6"1/4-1/2"x2"	Pink, Std. Life	2403
	6"1/4-1/2"x2-5/8"	Pink, Extended Life	2405
	4"3/3"x1-1/2"	Pink, Small Dia.	2401
	6"1/4-1/2"x2-5/8"	Premium Ruby, Extended Life	2404R
	4"3/3"x1-1/2"	Premium Ruby, Small Dia.	2400R

**Note:** Our premium grain ruby wheels run cooler at a higher pressure, therefore cutting freer and leaving a superb finish!

## Wheel Dressers - Flywheels

### Complete Hand Dresser

For All Machines

**Part #2920**

### Replacement Stone

**Part #2922**



### Complete Assembly ( For Peterson & DCM)

**Part #2924**

### Replacement Star Set (5 Pc.)

**Part #2926**



### Complete Assembly ( For Winona)

**Part #2928**

### Replacement Star Set (7 Pc.)

**Part #2930**



## Small Arbor Flywheel Grinding Wheels



Dia. x Hgt. x Arb.	Shape	Color	Part #
3"1/2-1/4"x1-1/4"x5/8"	Flared Cup	White	2406
5"1/3-3/4"x2"x15/16"	Flared Cup	Black	2420

## True Up Your Crank Mounting Surface

3"1/2-1/2" x 1-1/4" x 3/4"  
Flared Stone repairs warped flywheels

**Part #2430**



Specialty Tools



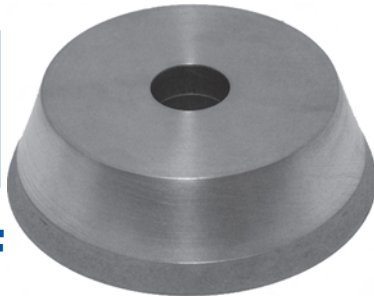
**NEW**

## CBN Flywheel Grinding Wheel

*An Efficient Alternative to Conventional Abrasives*

- 6" dia. x 1-3/4" H. x 1-1/4" arbor
- A full 1/8" thick CBN material
- Precision balanced Aluminum core

**NOTE:** For optimum results, use with fresh grinding coolant and increased coolant flow.



**Part #CBN600F**

### Flywheel Grinding Coolant

A concentrated synthetic blend formulated for use in all types of flywheel grinders. Nitrite Free!



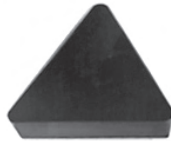
Size	Part #
1 Quart	4504
1 Gallon	4506
5 Gallons	4508

Recommended Dilution Ratio - 30:1

### Flywheel Cutter Tip

*For Winona Van Norman 570 Rotary Broach*

3-Edge carbide tip fits 570 rotary broach flywheel attachment. Van Norman #25368.



**Part #KK904**

**Quantity Discounts Available**

### Flywheel/Flexplate Balance Weights

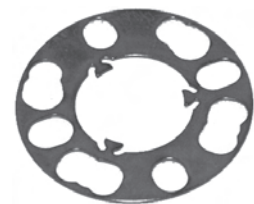
Converts Chevy 350 Flywheels to 400/454

Description	Part #
350 to 400 Chevy Flywheel	7006
Same as 7006, Except Fits Flywheel or Flexplate	7007
350 to 454 Chevy Flywheel	7008



### Flywheel Positioning Shims

Avoid costly clutch problems & comebacks! After re-surfacing wheel, restore clutch pedal height with **Silver Seal Flywheel Shims**. These shims bolt up between the flywheel and crank flange for a fast, inexpensive fix.



Make	Engine Size/Application	.025 Part #	.050 Part #	.089 Part #
<b>Chrysler/ Mitsubishi</b>	1.4L, 1.5L, 1.6L, 1.8L, 2.0L, 2.2L, 2.4L, 2.5L, 2.6L, 3.0L, 3.3L, 3.5L, 3.8L	FSY462A	FSY462B	•
	3.9L, 4.0L, 5.2L, 5.6L, 5.8L, 5.9L, 6.3L, 6.5L, 7.2L	FSC852A	FSC852B	•
<b>Ford</b>	1.3L, 2.8L, 2.9L, 4.0L(6 hole)	FSF629A	FSF629B	•
	1.6L, 1.9L, 2.0L, 2.3L, 3.0L(6 hole), 3.1L, 3.3L, 3.4L, 3.8L, 3.9L, 4.1L, 4.2L, 4.6L(6 hole), 4.7L, 4.9L, 5.0L, 5.4L(6 hole), 5.8L	FSF468A	FSF468B	FSF468C
	5.7L, 5.9L, 6.4L, 6.9L, 7.3L(not dual mass flywheel), 7.5L	FSF460A	FSF460B	•
<b>GM</b>	2.0L HO, 2.2L, 2.3L, 2.4L, 2.5L, 2.8L, 3.1L, 3.8L	FSG628A	FSG628B	FSG628C
	2.0L, 2.3L, 4.3L	FSG643A	FSG643B	•
	3.0L, 3.2L, 3.3L, 3.7L, 5.0L, 5.3L, 5.7L, 6.0L, 6.2L(Diesel), 6.5L, 6.6L, 6.7L, 7.0L, 7.3L, 7.4L(not 455), 8.1L	FSG857A	FSG857B	FSC857C
<b>Honda</b>	1.2L, 1.3L, 1.5L, 1.6L, 1.8L, 2.0L, 2.2L, 2.3L, 2.7L	FSH402A	FSH402B	•
	2.4L, 2.5L	FSG628A	FSG628B	FSG628C
<b>Jeep</b>	4.0L, 5.4L, 5.9L	FSC852A	FSC852B	•
<b>Mazda</b>	1.2L, 1.3L, 1.5L, 1.6L, 1.8L, 1.9L, 2.0L, 2.2L, 2.4L, 2.7L, 3.0L	FSM420A	FSM420B	•
<b>Nissan</b>	1.5L, 1.6L, 1.8L, 2.0L, 2.2L, 2.4L, 2.6L, 2.8L, 3.0L(except V6)	FSN418A	FSN418B	•
<b>Suzuki</b>	1.8L(Sidekick)	FST462A	FST462B	•
<b>Toyota</b>	1.5L, 1.6L, 1.8L, 1.9L, 2.0L, 2.2L, 2.3L, 2.4L, 2.6L, 3.0L	FST462A	FST462B	•

Specialty Tools



# Diamond Dressers

**Silver Seal** offers a great selection of diamond dressers to fit your machine. All diamonds are thoroughly inspected to meet our quality control standards, insuring a high caliber diamond dresser at a competitive price.

## Valve Refacing Machines

Machine	Description	Part #
Black & Decker, Skil, Sioux, Thor, Van Dorn, Van Norman	3/8" x 1-5/8" Round Shank	80700
Kwik-Way, Tobin Arp S & D	5/16" x 2-1/4" Round Shank	80760
Kwik-Way, Valve Master (1714)	1/2" x 3", 1/2"-20NF Thread, 3/4" Screw Head	80699
Sioux (1713, 1715)	3/8" x 3", 3/8"-24NF Thread, 3/4" Screw Head	80702
U.S. (6A14288)	7/16" x 2" Round Shank	80753
Hall 80, Kwik-Way, K.O. Lee, Van-Norman, K.R. Wilson	1/4" x 1" Overall Length, 1/2" x Step, 7/16" Head	80750
Skil (Talent)	5/16" x 2-3/8", 5/16"-18NC Thread, 5/8" Screw Head	80706
Van Norman (500)	3/8" x 1-5/8" Round Shank	80700
Kwik-Way SV, CV, VS	7/16" x 3", 7/16"-20NF Thread, 3/4" Screw Head	80697
Sioux 680, 682, 956	3/8" x 2 1/2" 3/8" x -24NF Thread, 3/4" Screw Head	80767

## Valve Reseating Machines

Machine	Description	Part #
Black & Decker, S&D, Van Dorn, Tobin Arp	3/8" x 2-3/8", 3/8" -24NF Thread, 3/4" Screw Head	80701
Kwik-Way PB	1/2" x 3", 1/2" -20NF Thread 3/4" Screw Head	80699
Sioux (1715), thor, Kwik-Way (NSG)	3/8" x 3", 3/8" -24NF Thread 3/4" Screw Head	80702
Kwik-Way (Heavy Duty)	1/2" x 3", 3/4" Screw Head, 1/2"-20 NF Threaded	80698
Kwik-Way	1/4" x 1" Step Shank	80750
Hall (Heavy Duty), Snap-On, U.S., Skil, Black & Decker	5/16" x 2-3/8", 5/16" -24NF Thread, 5/8" Screw Head	80695
K.O. Lee, Skil	5/16" x 2-3/8", 5/16" x 18NC Threaded, 5/8" Screw Head	80706
Sioux Heavy Duty (1715B)	3/8" Hex Shank x 2" Long 1/4" -28 Right Hand Thread	80755
Sioux Heavy Duty (1715A)	3/8" x 2-3/4" 3/8" -24NF Thread	80703
Winona	1/4" x 2" Round Shank	80704

## Clutch Grinding Machines

Machine	Description	Part #
Lempco AC, NAC, VAC, Do-All	7/16" x 2" Round Shank	80753
Van Norman (444)	3/8" x 1-5/8" Round Shank	80700

## Piston Grinders

Machine	Description	Part #
Van Norman (75, 76), Relio	3/8" x 1-5/8" Round Shank	80700
Storm Vulcan D-3	7/16" x 2" Round Shank	80753
Van Norman 101	3/8" x 1-5/8" Round Shank	80700

## Rod & Cap Machines

Machine	Description	Part #
Sunnen Rod and Cap Grinder (CRG-500)	3/8" x 1-5/8" Round Shank	80700
Storm Vulcan No. 65 Rod Grinder	1/2" x 3", 1/2" -20NF Thread, 3/4" Screw Head	80699

## Drum Lathes

Machine	Description	Part #
Van Norman (All except 302 and 302H)	3/8" x 1-5/8" Round Shank	80700
Barret, V.N. (302 & 302H)	3/8" x 3" Round Shank	80761
Lempco	7/16" x 2" Round Shank	80753
Ammco 5000	1/2" x 1-3/4" Round Shank	80764

## Crank / Camshaft Grinders

Machine	Description	3/4 Carat (Part #)		1 Carat (Part #)		1-1/2 Carat (Part #)		2 Carat (Part #)	
		Std.	Superior	Std.	Superior	Std.	Superior	Std.	Superior
Storm Vulcan 14, 15, 15A, 15C, 75, 75A	1/2"x3" Round Shank	80762	80762S	81762	81762S	82762	82762S	83762	83762S
Van Norman, Lempco, Landis	7/16"x1-3/8" Step Shank 5/8" Head	.	.	80759	80759S	81759	81759S	82759	82759S
Berco	Taper Shank Step Type, 5/8" Head 2-1/4"	.	.	80754	80754S	81754	81754S	82754	82754S

*Note: Superior Diamonds offer a longer life, more uniform wheel finish, and are resettable. Call for details.*

# Diamond Dressing



Part# 80695



Part# 80697



Part# 80699



Part# 80754  
Part# 81754  
Part# 82754



Part# 80702



Part# 80703

## Actual Size



Part# 80767



Part# 80761



Part# 80760



Part# 80698



Part# 80701



Part# 80762  
Part# 81762  
Part# 82762  
Part# 83762



Part# 80706

## Actual Size



Part# 80753



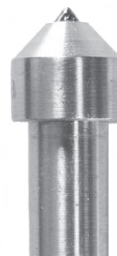
Part# 80764



Part# 80704



Part# 80700



Part# 80759  
Part# 81759  
Part# 82759



Part# 80750



Part# 80755

Specialty Tools





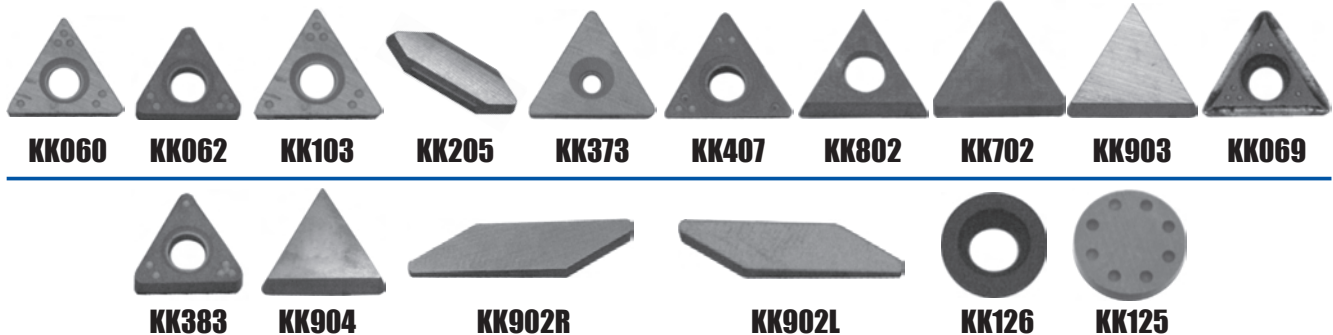
# Brake Lathe Inserts

## Solid Carbide Brake Lathe Replacement Inserts

Qty. Discounts Available!  
See Price Sheet

Machine	Model #	OEM #	Rake	Edge	Part #
<b>Accu-Turn</b>	Combo Disc/Drum Lathes	433796	Pos.	3	<b>KK060</b>
	On The Car Lathes	878051	Neg.	6	<b>KK062</b>
<b>All-Tool</b>	747	3331	Neg.	6	<b>KK062</b>
<b>Ammco</b>	700, 710, 1000, 2002, 3000, 4000, 4100, 7000, 7500, 7700	6914	Neg.	6	<b>KK062</b>
	3850 (1/32")	7681	Pos.	3	<b>KK103</b>
	Older Type 3000 & 4000	3205, 3656	-	2	<b>KK205</b>
	HD 5000, 6000, 6002	5677	Pos.	3	<b>KK373</b>
	Twin Cutters 6900, 6950, 7900	6914	Neg.	6	<b>KK062</b>
	Twin Cutters 6900, 6950 (1/32")	7681	Pos.	3	<b>KK103</b>
<b>Bean</b>	B401, B410, B501, B601	90487	Pos.	3	<b>KK407</b>
<b>Bear</b>	1410, 1466, 1467, 1468, 1469, & 1478	2264, 72265	Neg.	6	<b>KK383</b>
<b>FMC</b>	600, 601, 700, 701	90487	Pos.	3	<b>KK407</b>
	505, On The Car Lathes	91212	Pos.	3	<b>KK802</b>
<b>Hoffman</b>	660	3331	Neg.	6	<b>KK062</b>
<b>Hunter</b>	201 Disc Lathe & 205 Combo Lathe	V30207167	Neg.	6	<b>KK702</b>
	BL300 On The Car Lathe	221580-2	Neg.	6	<b>KK062</b>
	205 Drum Lathe	V29687	Pos.	3	<b>KK903</b>
<b>Kwik-Way</b>	SDL, CBL, NCL, Kwik-Lathe On The Car Lathe	109-1092-23	Pos.	3	<b>KK802</b>
<b>Performance</b>	6600, 7100, 7200, 7600	3331	Neg.	6	<b>KK062</b>
<b>Pro-Cut</b>	On The Car Lathes	<b>NEW</b> 50-742	Pos.	3	<b>KK069</b>
<b>RJ West</b>	Perfect 400, 1115HD, 1215	W139	Pos.	3	<b>KK060</b>
<b>Snap-On</b>	YA277, YA278, YA282, YA180 On the Car Lathe	109-1092-23	Pos.	3	<b>KK802</b>
<b>Star</b>	XDL, XDS, 835A, 1776	CB-60	Neg.	6	<b>KK062</b>
<b>Winona, Van Norman, REIS</b>	204, 204D, 205, 205DC, 415, 243VX, & Others	29687	Pos.	3	<b>KK903</b>
	204, 205, 205DR, 243, 243XV, 300, 302, 333	302-7167	Pos.	2	<b>KK902R</b>
	303, 304, 305, 404, 405, V22	304-7167	Pos.	2	<b>KK902L</b>
	Flywheel Cutter & Flywheel Attachment	29005	Pos.	3	<b>KK904</b>
<b>Van Norman, Carboloy, Kenametal</b>	TNMS Negative Rake w/ Positive Chip Control. 1/32" R. -3/8" I.C. -3/16" Thick For V.N. 204 & 304, Fits V.N. Tool Holder 29005		-	6	<b>KK101</b>
<b>Round Tips</b>	With Hole - Use With All Machines	<b>NEW</b>	Pos.	360°	<b>KK126</b>
	Without Hole - Use With All Machines		Pos.	360°	<b>KK125</b>

Specialty Tools



# Brake Lathe Tools/holders



## Replacement Brake Lathe Carbide Insert Toolholders

Machine (Model #)	Application	OEM #	Part #	Picture
Ammco (1000,2002,3000,4000, 4100,7700) All-Tool (747) Hoffman (660) Performance (6600,7100,7200,7600)	For Drums 1/2" x 3/8" x 2-1/2" Use KK062 Insert	9872	KK782	
Ammco (3000,3850,4000,4100, 7000,6900,6950 Twin Cutters) All-Tool (747) Hoffman (660) Performance (6600,7100,7200,7600)	For Rotors 3/8" x 3/8" x 1-7/8" Use KK062 Insert	10701 10702	KK191 KK192	
Ammco HD (5000,6000,6002)	For Rotors 5/8" x 5/8" x 4-1/2" Use KK373 Insert	5878	KK878	
Accu-Turn (Fits All Comb. Lathes) FMC (600,601,700,701,Rototrue) Hoffman (Perfect 400)	For Drums/Rotors 3/8" x 3/8" x 3" Use KK062 Insert	433763 433764	KK404 KK405	
Bear (1410,1466,1467,1468,1469,1478)	For Drums/Rotors 3/8" x 3/8" x 2-3/4" Use KK062 Insert	90495 90494	KK424 KK425	
Kwik-Way (CBL,NCL, SDL) Snap-On (Y282,Y277,Y278,180)	For Drums/Rotors 3/8" x 3/8" x 2-1/2" Use KK802 Insert	109-1091-00 109-1091-02	KK804 KK805	
Accu-Turn, FMC Ammco, Kwik-Way	(Curved Holder, For Rotors with a Flange) For Rotors 3/8" x 3/8" x 3" Use KK407 Insert	434057 434056	KK464 KK465	
Ammco, Hoffman, Performance, All-Tool, Others	3/8"x3/8"x1-3/16" Use KK125 Insert		KK125L KK125R	

## Brazed Carbide Brake Lathe Tools

*Fits Popular Brake Drum Lathes*

Size	Style	Application	Part #
3/8" Sq. x 2-1/2"	Left	Replaces Bean 43-46L; Bear 23211; Star CB8; VN 302-7272	KK42
	Right	Replaces Bean 43-46R; Bear 20718; Star LB16; VN 302-7171	KK41
3/8" x 1/2" x 3"	Left	Replaces Ammco 2043 For 3000, 4000, 4100, & 7700 Lathes	KK47
	Right	Replaces Ammco 2042 For 3000, 4000, 4100, & 7700 Lathes	KK45
5/8" Sq. x 4"	Left	Replaces Ammco 5725, For 5000/6000; Star CB30; VN Big Brute for 310-404	KK573
	Right	Replaces Ammco 5720 For 5000/6000; Lempco SHD, DH, 530 Kwik-Way HD	KK572



KK42



KK47



KK573



KK41



KK45



KK572

## Hardspot Cutters

Size	Application	Part #
1/2" Sq. x 2-3/4" (Right Hand)	Replaces Ammco 4725, H.D. Car/Med. Duty Truck	KK752
1/2" Sq. x 2-3/4" (Left Hand)	Replaces Ammco 4726, H.D. Car/Med. Duty Truck	KK952
5/8" Sq. x 4"	Super Duty Truck Drum, Tool For Ammco 5000/6000 VN 310,404,405	KK720
3/8" Sq. x 2-5/16"	Ammco 6900 & 7500 HD Double End Drum Tool	KK6222



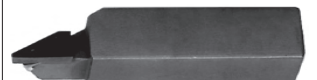
KK6222



KK952



KK720



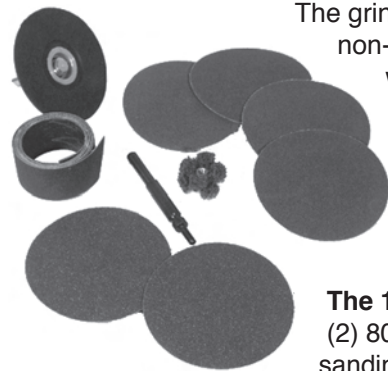
KK752

Specialty Tools



# Brake Work Supplies

## Disc Brake Prep Kit **NEW** Stops Brake Squeal



The grinding discs create a non-directional pattern which eliminates brake squeal, while the X-Buff provides one of the fastest, cleanest ways to fine hone a wheel cylinder.

**The 10 Piece Kit includes:**  
(2) 80 grit 3" Kwik-change sanding discs, (4) 120 grit 3" Kwik-change sanding discs, (1)

3" Holder pad for Kwik-change discs, (1) X-Buff (2-ply, hi-strength, med. finish), (1) Mandrel for X-Buff (1/4" shank x 3" long), and (1) 240 grit 1"x36" Handy roll.

**10 Piece Kit - Part #2580**

## Brake Flex-Hones®

### Brake Cylinder

Size	Part #
9/16" - 14mm	4120
5/8" - 16mm	4121
23/32" - 18mm	4122
3/4" - 20mm	4123
7/8" - 22mm	4124
1" - 25mm	4125
1-1/8" - 29mm	4126
1-3/8" - 35mm	4127
1-5/8" - 41mm	4128
2" - 51mm	4100

Standard Grit is 180.

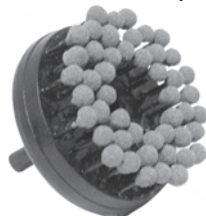
Special order grits available upon request.



### Brake Rotor

Produces a non-directional pattern to reduce squeal. Hones are 2-1/2" diameter.

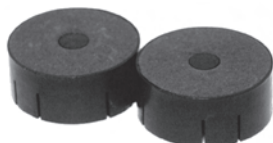
Size	Part #
60 Grit (Coarse)	BR060
120 Grit (Medium)	BR120
240 Grit (Fine)	BR240



## Brake Silencer Pressure Pads

Tough, durable replacement pads fit Ammco Model 7075 Brake Rotor Silencer (O.E. #9183) Set of 2

**Part #KK83**



## Brake Silencer Belts & Bands Eliminate Vibrations & Stop Chatter

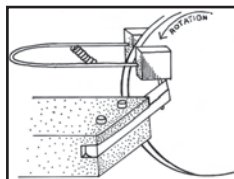
Top quality rubber O.E. replacement silencer bands & belts are weighted to eliminate vibration (exc. KK80/81). Available in several lengths & widths, covering all car and truck applications.

	Size	Description	Part #
<b>Disc Bands</b>	5/8"x28-1/2"	Fits 6-9" Vented Rotors	KK71
	3/8"x25-1/2"	Fits 6-9" Solid Rotors	KK96
	9/16"x31-1/2"	Fits 10-12" Solid Rotors	KK94
	3/8"x20-3/4"	Fits 10-12" Vented Rotors	KK95
	9/16"x36-1/2"	Fits 13-15" Truck Rotors	KK98
<b>Drum Belts</b>	5/8"x35"	Repl. FMC 90984 & Ammco 6920, For Univ. Vented Rotors	KK69
	1-1/4"x35"	Replaces Ammco 6930 For Heavy Duty Trucks	KK70
	1-3/4"x72"	Repl. FMC 90988 & Ammco 5280, For Passenger Cars	KK80
	2-3/4"x72"	Repl. FMC 90983 & Ammco 5290, For Truck Drums	KK81



## Anti-Chatter Clamp On Silencer Outlasts Rubber Straps/Bands

Anti-Chatter silencer fits both vented (thick) and non-vented (thin) rotors. Silencer rides at the cutter. Fits Ammco, Bear, FMC, Van Norman, Lempcoc, Kwik-Way and others. Pads fit over rotor and in front of cutter tips. Metal pins fit behind cutter and follow cut-off.



**Part #KK86**

## Brake Cylinder Hone

Fast-cutting, self-centering with adjustable cutting tension. Capacity 3/4" to 2-1/2". 3 Stones to a Set.

Description	Part #
<b>Cylinder Hone w/Med. Stones</b>	<b>4203</b>
Repl. Med. Grit Stones	4204
Repl. Fine Grit Stones	4205



## Spindle Boot

Spindle boot is designed to replace worn & torn boots on Ammco Models 3000 & 4000 Brake Lathes. (O.E. #3085)

**Part #KK85**

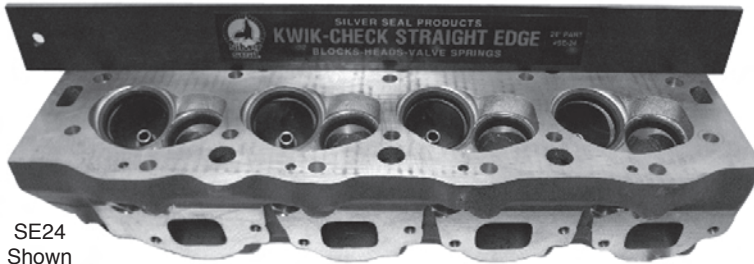


Specialty Tools



## Kwik-Check Straight Edges

Straight edges for determining height variation across a surface quick and accurately. Precision ground two sides with +/- .001" variance over length. Commonly used on flywheels, crankshaft saddles, head & block warpage.



SE24  
Shown

Common Use	Length	Part #
Flywheel/Restricted Areas	12"	SE12
Small Engines	24"	SE24
General Use	32"	SE32
Truck or Industrial Engines	36"	SE36
Truck & Diesel	48"	SE48

## Starrett - Precision Levels

Ground & graduated vials are housed in a satin finished, brass protective tube with a friction-fit closing cover to prevent breakage. Base made of the highest quality seasoned casting and are precision machined on the bearing surface. Each level contains a cross test vial to simultaneously level in both directions.



Length	Part #	Accessories	Part #
8" Level	KK723	Replacement Vial	KK723V
12" Level	KK724	Replacement Vial	KK724V

## Universal Valve Guide Level ★ NEW

Precision machined level fits all popular guide pilot top sizes. Includes 4" Starrett level.

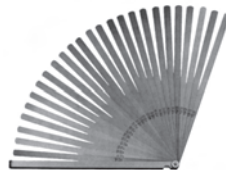


**Complete Level - Part #KK730**  
**Replacement Vial - Part #KK730V**

## 12" Feeler Gauge Set

**25 Blades Total**

Includes the following sizes:  
.0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .025, .027, .030, .040



Part #FGSET

## Individual 12" Feeler Blades

1/2" Width, 3/16" hole in one end, hardened and polished German steel, each blade is permanently marked with its proper size. To order, simply use prefix **FG** in front of gauge size. (for example, part #FG0015 = .0015" gauge size)

Available in the following gauge sizes:

.001, .0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025, .026, .027, .028, .029, .030, .031, .032, .033, .034, .035

## Warp Alignment Gauge



Ideal as a straight edge and for checking crankshaft and camshaft saddles. 26" long.

Part #SE26

## Feeler Gauge Set

**26 Blades Total, 3-1/2" Long**

Includes the following sizes:

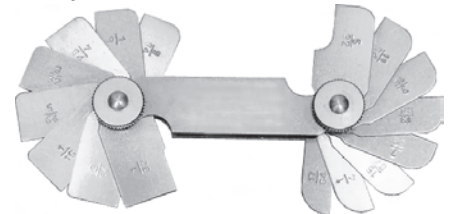
.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025



Part #KK678

## Crankshaft Journal Radius Gauge

16 Blade 1/32" - 17/64" by 64th. Each includes Male & Female.



Part #KK722

## Thread Pitch Gauges



### Inch Series

30 Blades  
4-42 Pitch Standard  
Part #KK609

### Metric Series

24 Blades  
0.25mm - 6.0mm  
Part #KK610

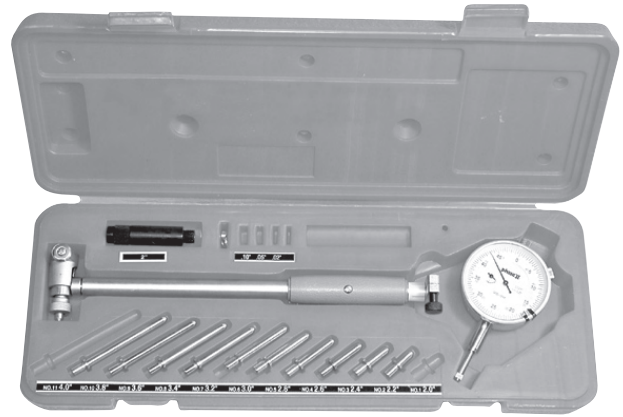


# Measuring Tools

## Cylinder Dial Bore Gauges

### Economical & Accurate

- Measures cylinder wall taper & out of-round.
- Precision gauge is self centering & adjusts quickly.
- Spacers & wrench are included.
- Range: 2"-6"
- Fitted carrying case included.



Graduations	Part #
.001"	KK697
.0005"	KK667

## Valve Seat Runout Gauge

Check valve seat runout on any automobile, truck, motorcycle, snowmobile, or outboard engine with this jeweled bearing indicator. Most engine valve seat runout specifications require accuracy within .001". Place gauge over pilot, position probe on valve seat and rotate gauge a full revolution. .200" Range, .001" Graduations, and a 0-50-0 Reading.



Pilots	Pilot Top	Part #
B&D, Neway	3/8"	KK679
Sioux	3/8"+.010"	KK680

## Dial Indicator

- Rev. counter hand. Suppl. w/lug backs.
- Bezel knurled; easily adjusted through 360°.
- Includes adjustable tolerance limit markers.
- **Lug Back:** 3/8" Dia. Shank
- **Reading:** 0-100
- **Graduation:** .001"
- **Dia. Dial:** 2-1/4"

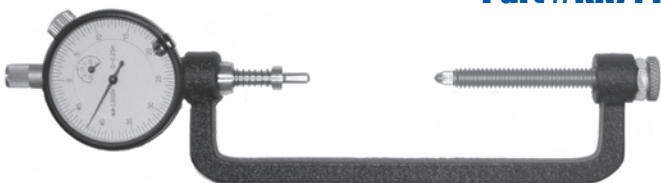


Part #KK683

## Rod Bolt Stretch Indicator

Unit holds itself in place leaving both hands free to torque bolt properly. Instructions & Rod Bolt Stretch recommendations included.

Part #KK714



## Telescoping Gauge Set

- Satin - Chrome finish
- Contact points are hardened steel and precision ground on the ends.
- Rigid handle with self-centering system
- Smooth & constant spring tension
- Range: 5/16"-6"



Part #KK674

## Magnetic Bases For Dial Indicators

85 lbs. of Magnetic Pull!

Features V-Base for round or flat surfaces. Will not mar polished surfaces.



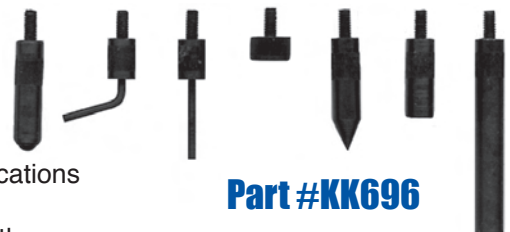
Description	Part #
Telescoping Arm Stand	KK672
360° Flexible Arm Stand	KK673

KK672

KK673

## Indicator Point Kit

Perform More Operations With Your Dial Indicator

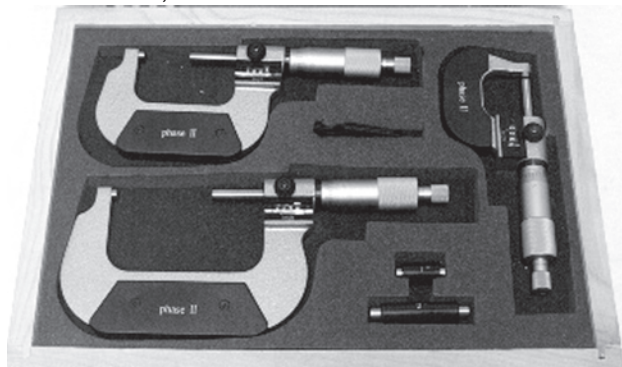


- AGD Specifications
- 4-48 thread
- Complete with case.
- 22 Assorted points fit most indicators.

Part #KK696

## Digital Outside Inch Micrometers .0001 Accuracy

- Hammertone Blue baked enamel frame.
- Meets or exceeds federal accuracy specifications.
- Anvil and spindle hardened & precision ground with microlap finish on carbide tipped measuring faces.
- Spindle thread is hardened, ground, and lapped.
- Ratchet stop thimble in all models.
- Quick, easy zero adjustment on sleeve.
- Microfine graduations on satin chrome.
- Positive locking nut on spindle.
- To ensure error free readings, every fifth thousandth is numbered on the thimble. Digit counter reads to .001" on the sleeve, .0001" on thimble.



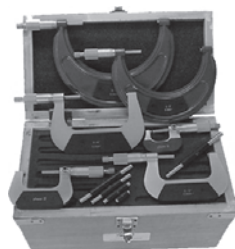
0-3" Micrometer Set (KK654, KK655, KK656)		KK652	
Range	Part #	Range	Part #
0-1"	KK654	3-4"	KK657
1-2"	KK655	4-5"	KK658
2-3"	KK656	5-6"	KK659



## Outside Inch Micrometers

- .001" reading plus .0001 vernier.
- Swiss style design, balance, and quality.
- Ratchet stop for exact & repetitive readings.
- Microfine graduations allow for easy reading.
- Carbide faces: .250" Diameter.
- Meets or exceeds U.S. Federal specs. for accuracy.
- Price includes standard, wrench, and fitted case.

**Accuracy: .0001" Flatness: .00003" Parallelism: .00005"**  
**Graduation: .0001" Spindle Diameter: .256"**



0-4" Micrometer Set		KK666	
0-6" Micrometer Set		KK629	
Range	Part #	Range	Part #
0-1"	KK660	3-4"	KK663
1-2"	KK661	4-5"	KK664
2-3"	KK662	5-6"	KK665

## One-Revolution Dial Calipers Special Features & Advantages

Measuring face hardened, precision ground, and microlapped for absolute accuracy. Satin chrome finish, crisp engraved graduations, and made of stainless steel. Includes a deluxe fitted case.



Range	Grad.	Accuracy	Part #
0-6"	.001"	.001" per 6"	KK670
0-8"	.001"	.001" per 6"	KK686

## Depth Base Attachment

Adapts to any brand of dial and vernier caliper. Single screw allows quick attachment. Ground and surface hardened. Base length: 3"

\*\*\*Calipers NOT Included\*\*\*

**Part #KK650**



## Depth Micrometer Set

- Ratchet stop insures consistent & repetitive measurements.
- .157" Diameter rods with lapped measuring end.
- Satin - Chrome Finish.
- Two adjusting wrenches
- Fitted Case
- Accuracy: +/- .0003"
- Graduation: .001"



Range	Base	# of Rods	Part #
0-4"	2-1/2"	4	KK676
0-6"	4"	6	KK630

## Valve Guide Dial Bore Gauge

Effective range from .240" to .380" Grad .0001/Inch. Complete with all the necessary spacers and extensions for those close tolerance measurements.

### Features:

- AGD Bore Gauge Indicator
- Self-Centering
- Carbide Contact Point
- Adjustable Tolerance Pointers
- Fitted Wood Case



**Part #KK800**





# Performance Tools

## Universal Degree Wheel Kit

This kit contains all of the tools needed to degree cams, assuring proper cam timing and lobe lift. Features deluxe components including a 9" degree wheel and indicator, dial indicator mount, 2 valve check springs, clamp kit, 14mm top dead center locator, wire degree wheel, pointer, detailed instructions, and a durable foam padded carrying case. **For Use With Heads On Engines**



**Part #KK644KT**

## Degree Wheels

Use degree wheel to find top dead center or for checking cam timing

8" Degree Wheel | **Part #KK644**

9" Degree Wheel | **Part #KK644A**



## A N Hex Wrenches

- Color coded for fast identification
- Scratch resistant to hose fittings
- Lightweight aluminum alloy construction

**NEW**



Size	Part #
<b>Full Set</b>	<b>AN10</b>
1/2" #3	AN1
9/16" #4	AN2
11/16" #6	AN3
13/16" #8	AN4
1" #10	AN5
1-1/4" #12	AN6
1-1/2" #16	AN7
1-13/16" #20	AN8

## Piston Dome Thickness Checker

Now you can modify piston domes or fly-cut valve pockets knowing how much material there is to work with. This simple to use tool includes a .001" dial indicator and a contact point that permits measurement of the most complex dome shapes. An essential tool for every well-equipped performance shop.



**NEW**

**Part #KK992**

## Top Dead Center Locator

This tool provides a positive stop for the piston when locating top dead center. Screws into the spark plug hole.

**Part #KK701 (Chevy)**

**Part #KK701A (Chrysler)**



## Pushrod Slotting Tool, Chevy S/B

Easily modify your heads for 1.6 ratio rockers with this handy pushrod slotting tool. Simply use a 5/16" drill bit to correctly lengthen the pushrod slot with precision. Recommended usage is one tool for each set of heads.



**NEW**

**Part #PST100**

## Deck Bridges

**NEW**

2 Models Available

- Checks Piston-To-Deck Clearance
- For Cylinder Bores Up To 4-1/2"
- Part #KK990 is Magnetic Which Holds The Unit Firmly In Place.



**KK991**



**KK990**

Description	Part #
Deck Bridge w/o Magnetic Base	<b>KK991</b>
Magnetic Deck Bridge	<b>KK990</b>

## Cam Checking Fixture

**NEW**

Includes 0-1.000" Dial Indicator (0.001") No more fumbling with a magnetic base and a dial indicator to measure cam lift. This fixture maintains and holds the dial indicator and 5" extension (included) in the precisely correct position over the lifters, assuring proper geometry. Supplied with 1/2" and 7/16" adapters for use with any engine block.



**Part #KK900**

## Cam Lobe Lift Gauge

Two lifter faces insert into lifter bore for roller & flat tappet cams. Uses standard 3/8" neck, 1" Travel Dial Indicator (Order Separately.)



Application	Part #
Ford & GM	<b>KK716</b>
Extension*	<b>KK726</b>
Dial Indicator	<b>KK683</b>

\*Use With Talldeck Blocks

## Universal Timing Pointer

Consists of a stud with 1/4", 5/16", 3/8" NC threads, a 1/4" diameter pointer, and a sturdy swivel clamp. Screw stud into available front cover bolt hole and align pointer.

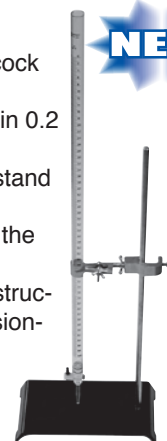


**Part #KK715**

## Cylinder Head CC Kit

**NEW**

- Lab grade glass burette with glass petcock and easy to read etched graduations.
- Burette has 100cc capacity, graduated in 0.2 cc division lines.
- Multi-position clamp, rod, and support stand with stable base.
- Includes a flat plexi-plate which covers the combustion chamber.
- Comes complete with detailed racer instructions revealing how easy it is to professionally CC cylinder heads.



**Part #KK995**

Specialty Tools

## Dual Gauge Leakdown Tester Kit

This dual gauge tester measures the ability of cylinders to hold compressed air. Attach shop air and use tester to pinpoint bad valves, worn piston rings, cracked cylinder walls, leaking head gaskets, etc. Easy-to-read gauge to monitor input air pressure.

**Kit Includes:** Precision regulator and combination M14 & M18 adaptor on 26" long air pressure hose, plastic storage case with instructions.



**Part #LDT02**

## Quick Compression Tester

Short offset stem with a rubber cone tip permits easy seating in any spark plug port. Fits domestic & import engines. Large face dial gauge allows fast & accurate readings. (0-300 psi and 21 bar.)

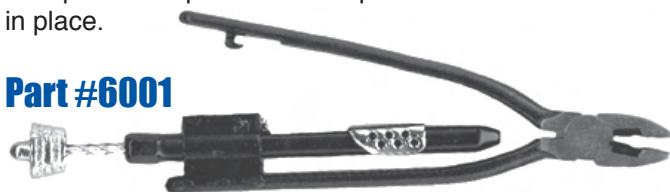


**Part #LDT03**

## Twist Wire Pliers

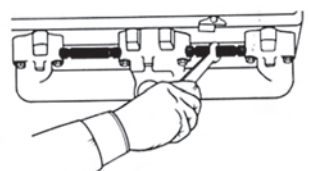
Twist Wire Pliers designed with "lockwire" electrical fasteners in mind. Easy to use; attach wire from fasteners and lock handles. Release and pull knob for single twist; hold pliers and push knob to spin wire and lock fastener in place.

**Part #6001**



## Exhaust Manifold Spreader

Warped exhaust manifold areas are a common problem. Installed before manifold is removed makes reinstalling easy. Maximum extension length is 4-1/4" developed especially for small block Chevys.

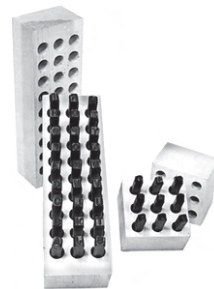


**Part #4495**

## Tool & Die Grade Metal Figure Stamps

Excellent grade, letter, and number figures for machine shop use.

Description	Part #
1/8" Number Stamps (0-9)	4227
3/16" Number Stamps (0-9)	4229
1/4" Number Stamps (0-9)	4286
1/8" Letter Stamps (A-Z)	4228
3/16" Letter Stamps (A-Z)	4230



## Transfer Punch Set

Set is made of hardened and tempered tool steel, black oxide finish. Sizes marked on punches and supplied with metal index stand.

**28 Piece Set**

**Range:** 3/32" through 1/2" by increments of 64th's, and one 17/32"

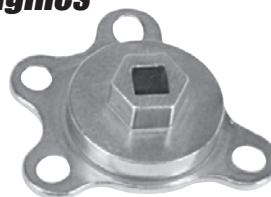
**Part #KK631**



## Engine Rotation Adaptor

**Great for Chevy V6 & V8 Engines**

Eliminates broken balancer bolts! Tool allows you to rotate crankshaft the proper way when turning crank with the balancer installed. Easy to attach to a balancer. Rotate crank with a 1/2" breaker bar or 1" socket and breaker bar. Also useful when assembling engine or degreasing the cam.



**Part #4353**

## Valve Lash Wrench Sets

No need to have three hands to do valve lash adjustment! Simply position the adjusting wrench over the rocker arm lockdown and drop the appropriate T-Handle through the hole in the wrench - with one hand doing the job of two! Then make the lash adjustment with a feeler gauge according to the camshaft manufacturer's specifications.



Description	Part #
1/2" w/3/16" & 1/8" T-Handles	4250
7/16" w/1/8" T-Handle	4251
9/16" w/3/16" & 7/32" T-Handles	4252
5/8" w/3/16" & 7/32" T-Handles	4253



# Specialty Tools

## GM Oil Pickup Screen Tools

- Dead center impact.
- No damage to pick-up tube.
- Firmly seat flange against pump housing.
- No need for welding.
- Set screw holds part firmly in tool for convenience and easy starts, or use without.
- Can be used on models other than GM which use press-type oil pick-up screens.
- Made of 4340 chrome Moly steel, 52 Rockwell hardness

Application	Tube O.D.	Part #
Fits all GM SB V6 & V8	5/8"	4278
Fits all GM BB V8	3/4"	4276



## Oil Galley Plug Removal Tool

Pipe-plug sockets designed to be used on square male & female type plugs. The socket is a 1/2" drive impact, and the bit is made of tool steel. The 2-1/2" long bit can be extended or retracted to suit the engine builder's needs.

### Plug Removal Set - Part #VKSET

All 5 Tools (w/Bits) One For Each Size

Size	Replacement Bits	Part #
3/8"	VK0375B	VK0375
5/16"	VK0312B	VK0312
1/4"	VK0250B	VK0250
3/16"	VK0180B	VK0180
9/32"	Socket (No Bit)	VK0280



## Chain Engine Lift

For easy lifting or removal of automobile engines, transmissions, or other heavy units. Half-ton load tested.

### Part #4406

## Engine Lift Eye

Lifts Cylinder Heads & Engine Blocks



**Standard - Part #4277**  
3/8", 7/16", and 1/2" Bolts

**Metric - Part #4277M**  
9mm, 11mm, and 12mm Bolts



## Front Oil Galley Plug Tool

Just insert plug to galley oil hole and tap to install! Once the plug is below the surface, tool "peens" the block in 2 places, thus preventing pop-out. All in one 3/4" drive. Fits Most Applications. Great For Small Block Chevy's.

### Part #6560



## Rebuilders Freeze Plug Driver

- Use with Dead Blow Hammer for best results.
- Does not damage or mark freeze plug.
- Save your sockets.
- Easy to use.

Plug Size	4" Driver	6" Driver
1-3/8"	EP1375S	EP1375L
1-1/2"	EP1500S	EP1500L
1-5/8"	EP1625S	EP1625L
1-3/4"	EP1750S	EP1750L
2"	•	EP2000L

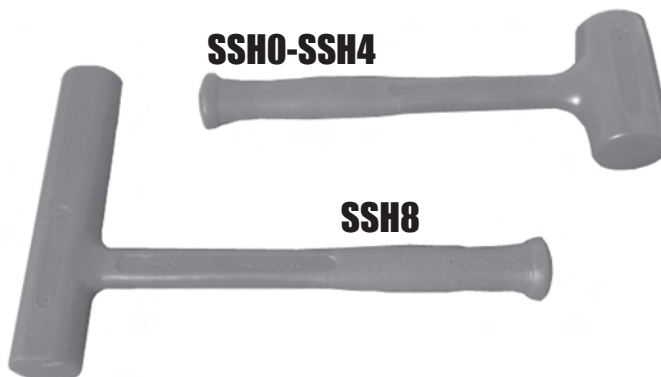


## High Impact Dead Blow Hammers

No marks, no sparks, complete protection and safety. Our new Dead Blow Hammers are available in many different sizes to suit your needs. Inner core is heat treated steel welded together and filled with just the right amount of steel shot for a sustained impact. The outer shell is made of trucothane (custom formulated urethane) which eliminates mushrooming, bronze chip pickup, and is cut resistant. Handle is textured and flanged for a sure grip. A tool you'll have for years!

### SSHO-SSH4

### SSH8



Weight	Face Dia.	Head Length	OAL	Part #
13 oz.	1-1/4"	3-1/8"	10-1/8"	SSHO
21 oz.	1-3/4"	3-3/4"	11-1/4"	SSH1
26 oz.	2"	4-1/8"	12-3/4"	SSH2
45 oz.	2-1/4"	4-5/8"	14-3/8"	SSH3
53 oz.	2-3/4"	5-3/8"	15-1/4"	SSH4
Piston Installation Hammer				SSH8

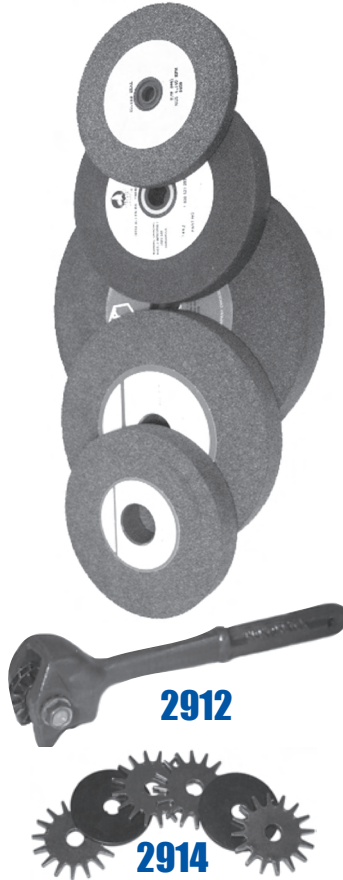
Specialty Tools



## Bench Grinder Wheels

General purpose wheels for steel and cast iron.

Size	Grit	Part #
6" X 1/2"	36	2441
	46	2442
	60	2444
6" X 3/4"	36	2446
	46	2448
	60	2450
6" X 1"	36	2452
	46	2454
	60	2456
7" X 1"	36	2458
	46	2460
	60	2462
8" X 1"	46	2466
	60	2468
10" X 1"	46	2472
	36	2476
10" X 1-1/4"	46	2478
	60	2480
10" X 1-1/2"	36	2482
	60	2486



## Bench Grinder Wheel Star Dressers

Hand dressers for wheels up to 16".

Description	Part #
<b>Complete Dresser for Wheels up to 10" Dia.</b>	<b>2912</b>
Cutter Replacement Set includes 4 blades, 2 spacers (for 2912)	2914
<b>Complete Dresser for Wheels 10" - 16" Dia.</b>	<b>2916</b>
Cutter Replacement Set includes 4 blades, 2 spacers (for 2916)	2918

## Socket Holders

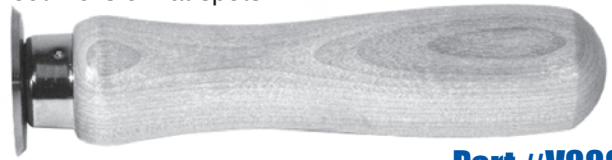
Socket holders keep socket firmly in place on rail, yet allow easy arranging of holder clip. Each rail comes with 16 holding clips.



Description	Part #	Description	Part #
1/4" Holder	4256	1/2" Holder	4258
3/8" holder	4257	Set - 1 Of Each	4259

## Peeler™ Gasket/Surface Scraper

Designed specifically for removing chemical gasket material. The unique, self-leveling, conical blade will not dig into surfaces, and it is free to rotate so that it is somewhat self-sharpening and maintains a good sharp edge without nicks or flat spots.



**Part #V888**

## Gasket/Surface Scraper

Plastic "screw-driver" style grip handle, heavy duty 1/4" shank with 1" wide chisel edge, 9-1/2" long.

**Part #4341**



## Deburring Tool

Deburring Cutter - hollow handle stores blades - removable end cap. Patented push-button locking collet device removes/inserts new blades. Body of light weight wear-resistant acetal material fits hand without slippage or fatigue. Round head blades for safe deburring of drilled and machined holes, end milled areas, tubing backside of holes.



Description	Part #
Deburring tool w/2 blades	KK606
Package of 10 blades/for steel and aluminum	KK607

## Power Mag®

### Electric Magnet Parts Retrieval Tool

An ON/OFF electric magnet parts retrieval tool designed to pick up parts with ease. Includes 18" long flexible wand that retains its shape to snake through holes and passages. Power switch allows you to energize magnet to pick up parts and prevent magnet from sticking to metal surfaces. (9 volt battery not included).



**Part #4404PM**

## Magnet Tools

**Pocket Magnet - 6"**



**Part #4402**

**Telescoping Pocket Magnet - 5-1/4" to 17-1/4" Long**



**Part #4403**



# Valve Stem Seals

## Valve Guide O.D. Machining Tools

### A Must for All Press-on Valve Stem Seals

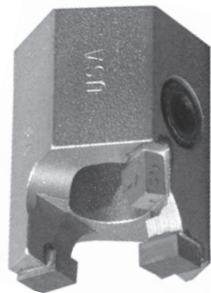
Individual carbide-tipped cutter bodies and hardened ground pilots are interchangeable and chuck into any portable drill or press. Does 3 jobs at once.

- 1) Faces the top to the correct length.
- 2) Sizes the guide OD to accept press-on seals.
- 3) Chamfers to top to prevent damage to seal.

Order Body and Pilots Separately

### Cutter Bodies

Size	Part #
.415	SL1435A
.428	SL1433A
.475	SL1434A
.500	SL1438A
.530	SL1442A
.562	SL1443A
.625	SL1445A



### Pilots

Stem Dia.	Part #
5/16" - 8mm	SL1435B
11/32"	SL1438B
3/8"	SL1442B
7/16"	SL1445B

## Valve Stem Seal Installation Tool Kits



### Teflon® Seal Setter®

8 Pc. kit designed to properly install 5/16", 8mm, 11/32", and 3/8" Teflon® valve stem seals.

### Complete Kit - Part #T200

Desc.	Part #	Desc.	Part #
5/16"(.312)	T201	8mm(.315)	T202
11/32"(.343)	T203	3/8"(.375)	T204

US PATENT #6,571,819

### Double Ended Seal Setter®

7 Pc. kit designed to properly install 6mm, 7mm, and 8mm top hat and straight body steel jacketed seals.

Part #T300



## Performance Valve Stem Seals

Silver Seal® Performance Valve Stem Seals are a combination of OEM quality and Racer Technology. Our metal body valve stem seals are designed to resist exotic fuels and additives while providing continuous service temperature at 400°F (205°C) with intermittent temperatures up to 550°F (288°C).



### Performance Seals With Rubber Inside of Seal Skirt

Nominal Stem Dia.	Guide O.D.	Part #
7mm	.276	75103
5/16"	.311	75115
5/16"	.311	75121
5/16"	.311	75124
5/16"	.311	75127
11/32"	.342	75133
11/32"	.342	75139
11/32"	.342	75142
11/32"	.342	75145
11/32"	.342	75148
11/32"	.342	75151
11/32"	.342	75154
3/8"	.373	75157
3/8"	.373	75160
3/8"	.373	75163
3/8"	.373	75169

### Performance Seals With All Steel Jacket No Rubber Inside Seal Skirt

Nominal Stem Dia.	Guide O.D.	Part #
6mm	.236	85100
7mm	.276	85106
8mm	.315	85130

### Designed to be used with Triple High Performance Valve Springs

Nominal Stem Dia.	Guide O.D.	Part #
5/16"	.311	85121
5/16"	.311	85124
11/32"	.342	85136
11/32"	.342	85142

# Valve Stem Seals



## Teflon® & Rubber Valve Stem Seals

An Engine Rebuilding Tradition for Many Years.  
(16 or 100 Pack Box). Teflon® is a registered trademark of DuPont.

Stem Dia.	Guide O.D.	Valve Stem Seal Part #	Guide Cutter	Cutter Pilot
11/32"	.500	1611	SL1438A	SL1438B
	.530	1711	SL1442A	SL1438B
	.562	1811	SL1443A	SL1438B
	.594	1911	N/A	N/A
3/8"	.500	1612	SL1438A	SL1442B
	.562	1812	SL1443A	SL1442B
10mm	14mm	1810M	N/A	N/A
29/64"	.660	6040	N/A	N/A
1/2"	.687	2216	N/A	N/A

## Teflon® Valve Stem Seals

Used by High Performance Engine Builders Worldwide.  
(16 or 100 Pack Box). Teflon® is a registered trademark of DuPont.

Stem Dia.	Guide O.D.	Valve Stem Seal Part #	Guide Cutter	Cutter Pilot
5/16"	.415	DT9010	SL1435A	SL1435B
	.500	DT1610	SL1438A	SL1435B
	.530	DT1710	SL1442A	SL1435B
11/32"	.500	DT1611	SL1438A	SL1438B
	.530	DT1711	SL1442A	SL1438B
3/8"	.500	DT1612	SL1438A	SL1442B
	.530	DT1712	SL1442A	SL1442B



## High-Performance Valve Stem Seals

Manufactured from a unique polymer material that conforms and maintains the required radial tension during High-Performance engine temperature changes. This seal is self lubricating, providing superior protection during start up. The high temperature resistant material tolerates nitromethane, methanol, and all types of racing fuel. (16 or 100 Pack Box).



Stem Dia.	Guide O.D.	Color	Part #
11/32"	.500	Red	DT1611R
11/32"	.530	Orange	DT17110
3/8"	.530	Blue	DT1712B

## High Performance Valve Stem Seal Kit

A complete, 102 pc. kit offers everything needed to cover 5/16", 11/32", & 3/8" seal applications. Each kit includes 3 pilots, 2 carbide cutters, 1 Teflon installation tool and 96 asst. Teflon valve stem seals packed in a compartment-style storage box with instructions.

**Part #VS1000K**



**Teflon® Seal Installer**



## High Performance Valve Stem Seal Kit Includes:

### Cutter Bodies

Size	Part #
.500	SL1438A
.530	SL1442A



### Pilots

Stem Dia.	Part #
5/16" - 8mm	SL1435B
11/32"	SL1438B
3/8"	SL1442B
7/16"	SL1445B



### Teflon® Valve Stem Seals

Stem Dia.	Guide O.D.	Qty.	Part #
5/16"	.500	16	DT1610
	.530	16	DT1710
11/32"	.500	16	DT1611
	.530	16	DT1711
3/8"	.500	16	DT1612
	.530	16	DT1712



Engine Parts





# Valve Stem Seal Kit

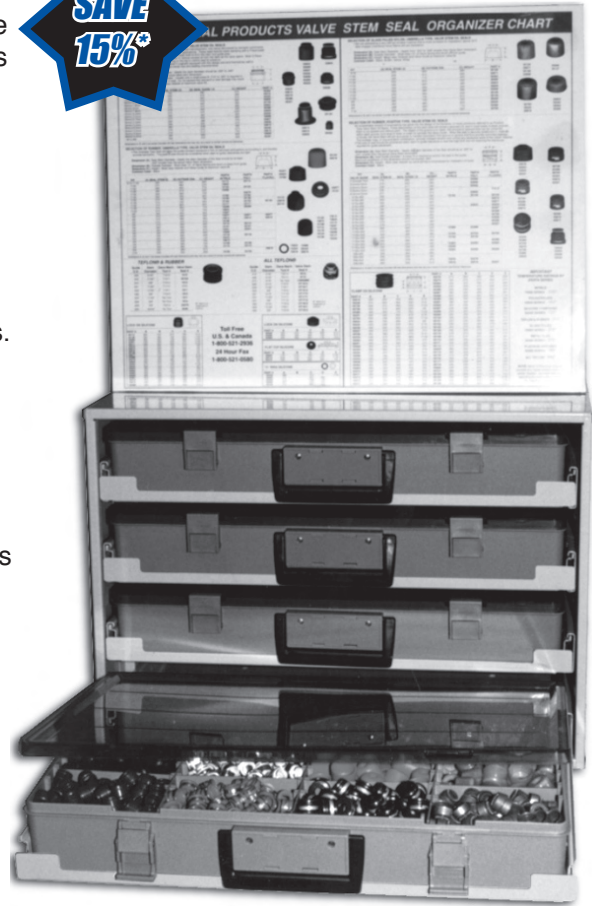
## Valve Seal Organizer

Organizer includes 50 of the most popular seals. Keep your valve stem seals clean & organized with no time wasted opening boxes and researching numbers.



- Includes:** Heavy Duty Metal Cabinet w/Pull-Out Drawers  
 Four Satchel Style Case/Drawers w/See-Through Lid  
 Dimensional/Specification Chart  
 1,416 Pieces of the Most Popular Seals

**Features:** Specification chart references dimension for both guides & stem. Instructions describe the proper way to size seals. Chart indicates material & temperature ranges. The heavy duty yet lightweight cabinet has positive locking latches and a durable carrying handle, allowing you to easily carry seals to and from your work area. Color photos show seal style & part # for easy reordering. The cabinet comes pre-assembled and can be set on a bench or a shelf. The overall dimensions of the organizer is 20-1/4" wide x 15-3/4" deep x 14-3/4" high. Complete set of labels included. The pull-out drawers are made of a molded plastic that includes adjustable inserts to change compartment sizes. Can hold up to 1600 pieces.



### Complete Kit - Part #VSSO (Payment Terms Available!)

#### Satchel Case/Drawers Only (18-1/2"W x 13"L x 3"H)

Part #10162

#### Valve Stem Seal Cabinet Only

Part #LC4

### Valve Stem Seal Organizer Includes

\*Compared To Open Stock Pricing

Qty.	Part #	Nominal Size	Type	Qty.	Part #	Nominal Size	Type	Qty.	Part #	Nominal Size	Type
16	55519	1/4" x .630	H	32	15124	5/16" x .855	A	32	35595	11/32" x .815	A
100	25333	5/16" x .400	B	32	25124	5/16" x .855	A	32	35823	11/32" x .825	A
16	45333	5/16" x .400	B	16	1611	11/32" x .500	T&R	32	15612	11/32" x .880	A
16	55608	5/16" x .603	H	16	DT1611	11/32" x .500	TFL	32	25612	11/32" x .880	A
16	45398	5/16" x .610	E	16	DT1711	11/32" x .530	TFL	32	35140	11/32" x .890	A
16	55614	5/16" x .610	H	16	1811	11/32" x .562	T&R	32	15241	11/32" x .900	A
32	25923	5/16" x .650	C	32	45704	11/32" x .650	E	32	25241	11/32" x .900	A
32	45923	5/16" x .650	C	32	15704	11/32" x .670	F	16	1612	3/8" x .500	T&R
16	45356	5/16" x .660	E	32	25704	11/32" x .670	E	16	DT1612	3/8" x .500	TFL
16	45357	5/16" x .660	E	32	15736	11/32" x .690	F	16	DT1712	3/8" x .530	TFL
16	45604	5/16" x .660	G	32	15483	11/32" x .700	E	16	1812	3/8" x .562	T&R
16	55396	5/16" x .665	H	32	25483	11/32" x .700	E	32	35240	3/8" x .705	A
16	45506	5/16" x .680	E	32	45483	11/32" x .700	E	32	25616	3/8" x .780	C
16	45799	5/16" x .680	E	32	35563	11/32" x .715	A	32	25076	3/8" x .785	F
32	15389	5/16" x .710	F	100	25120	11/32" x .755	A	32	15108	3/8" x .885	A
32	15144	5/16" x .710	G	16	45120	11/32" x .755	A	32	25108	3/8" x .885	A
32	15113	5/16" x .840	A	32	15126	11/32" x .755	A				

Engine Parts



# Valve Stem Seal Specifications



## Valve Stem Seal Designs

**Umbrella** - Ideally the stem diameter for this seal should not exceed .025" oversize. Diameter must clear I.D. of valve spring and divert oil away from guide.



**Type A**

**O-Ring Seal** - Reduces excessive oil flow contact to valve stem. Optimize with Umbrella seals. Applies up to .025" oversize valves.



**Type B**

**Positive Seal - (No Rings or Bands)** Can be used with a wide range of stem and guide dimensions. Grooved, seal to stem contact controls oil flow to guide. Note: We recommend stem not to exceed +.015" oversize.



**Type C**

**Positive Seal - (With spring seat)** Latest OEM design for aluminum cylinder head applications. Tension spring grooved seal to stem contact controls oil flow to guide. Will allow up to +.003" oversize stem applications.(also called top hat.)



**Type D**

**Positive Seal - (With Ring or Bands)** Excellent seal for guide contact tension. Grooved seal, stem contact controls oil flow to guide. Recommended not to exceed +.015" oversize stem.



**Type E**

**Positive Seal - (With 1 or 2 Rings)** Recommended seal for correct guide contact tension, also is a grooved seal. Stem contact controls oil flow to guide. Recommended not to exceed +.015" oversize stem.



**Type F**

**Positive Seal - (With Spring and Band)** Great seal to control guide contact tension. Grooved seal stem controls oil flow to guide. Not to exceed +.015" oversize stem.



**Type G**

**Positive Seal - (Metal clad with spring)** Tight guide to seal fit. Recommended not to exceed +.003" oversized valve stem.



**Type H**

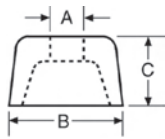
## Valve Stem Seal Specifications

Stem Seal Id.	Top Stem ID (A)	Bottom Sead ID (B)	Seal OD (C)	Overall Height (D)	Seal Type	Part #
5 mm	.186	.358	----	.372	H	55836
5.5 mm	.175	.405	----	.400	H	55724
5.5 mm	.180	.395	----	.425	H	55709
5.5 mm	.182	.367	----	.456	H	55840
5.5 mm	.185	.398	----	.3915	H	55706
5.5 mm	.195	.433	----	.3898	H	55837
7/32	.192	.433	----	.3898	H	55848
7/32	.192	.433	----	.3898	H	55849
7/32	.203	.425	----	.408	H	55857
7/32	.205	.485	----	.737	D	55802
6 mm	.196	.424	----	.573	D	55806
6 mm	.196	.390	----	.740	D	55821
6 mm	.198	.430	----	.419	H	55653
6 mm	.198	.430	----	.620	H	55659
6 mm	.200	.425	----	.405	H	55861
6 mm	.203	.337	----	.385	H	55717
6 mm	.204	.429	----	.4331	H	55841
6 mm	.205	.420	----	.401	H	55708
6 mm	.208	.386	----	.450	H	55834
6 mm	.209	.430	----	.450	H	55710
6 mm	.210	.437	----	.512	D	55814
6 mm	.210	.460	----	.800	D	55819
6 mm	.212	.430	----	.315	H	55842
6 mm	.212	.430	----	.315	H	55843
6 mm	.215	.432	.530	.360	G	45606
6 mm	.216	.425	----	.4016	H	55831
6 mm	.228	.445	----	.6435	D	55655
1/4	.206	.430	----	.707	D	55654
1/4	.231	.426	----	.505	H	55828
1/4	.235	.502	.615	.515	H	55225
1/4	.240	.415	.630	.390	H	55519
1/4	.245	.438	----	.5795	D	55803
1/4	.246	.485	----	.5725	H	55854
1/4	.247	.485	----	.798	D	55686
1/4	.248	.446	.630	.474	E	45819
1/4	.248	.435	----	.8065	D	55801
6.5 mm	.234	.472	----	.395	H	55835
6.5 mm	.238	.428	----	.3465	E	45810
6.5 mm	.240	.413	----	.4528	H	55838
6.5 mm	.241	.428	----	.342	E	45811
6.5 mm	.243	.470	----	.4724	H	55606
7 mm	.230	.424	----	.499	H	55705
7 mm	.232	.424	----	.437	H	55704
7 mm	.238	.497	----	.790	D	55813
7 mm	.240	.371	----	.385	H	55688
7 mm	.240	.235	----	.382	H	55723
7 mm	.242	.460	----	.650	D	55820
7 mm	.243	.4715	.550	.4675	H	55542
7 mm	.244	.463	----	.733	D	55689
7 mm	.244	.485	----	.835	D	55822
7 mm	.2465	.4875	----	.560	H	55719
7 mm	.250	.448	----	.4016	H	55825

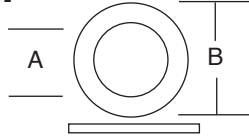


# Valve Stem Seal Specifications

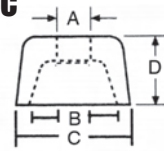
Type A



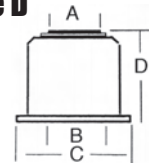
Type B



Type C



Type D

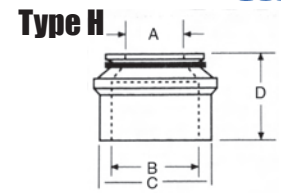
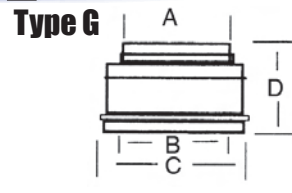
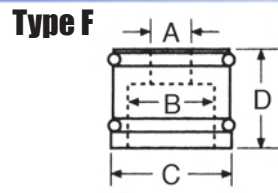
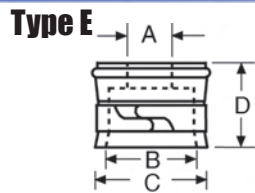


Stem Seal Id.	Top Stem ID (A)	Bottom Sead ID (B)	Seal OD (C)	Overall Height (D)	Seal Type	Part #
7 mm	.252	.420	----	.545	E	45821
7 mm	.252	.467	----	.5906	H	55829
7 mm	.255	.4875	----	.560	H	55720
7 mm	.255	.464	----	.4252	H	55844
7 mm	.275	.504	.603	.496	H	55608
7 mm	.290	.458	----	.416	H	45396
9/32	.245	.506	----	.5118	H	55845
9/32	.248	.408	----	.385	H	55853
9/32	.252	.472	----	.3819	H	55830
9/32	.252	.472	----	.5118	H	55833
9/32	.254	.412	----	.391	H	45519
9/32	.265	.455	.710	.365	G	25144
9/32	.271	.552	----	.4425	H	55852
9/32	.294	.425	.650	.549	C	45923
7.5 mm	.278	.432	----	.573	E	45812
7.5 mm	.280	.436	.660	.567	G	45604
7.5 mm	.284	.503	.620	.3875	H	55532
7.5 mm	.284	.551	----	.5035	H	55826
7.5 mm	.290	.468	.560	.539	H	55603
7.5 mm	.292	.492	.660	.4875	E	45356
7.5 mm	.292	.482	.660	.4875	E	45357
5/16	.205	.430	----	.719	D	55656
5/16	.270	----	.680	.515	A	15602
5/16	.272	.515	----	.516	H	55726
5/16	.275	----	.810	.730	A	55611
5/16	.275	.540	----	.900	D	55816
5/16	.276	.515	.593	.775	D	55610
5/16	.276	.496	----	.527	H	55702
5/16	.278	.455	.665	.425	H	55396
5/16	.278	.460	----	.378	E	45145
5/16	.278	.480	----	.887	D	55811
5/16	.278	.484	----	.6417	H	55827
5/16	.280	----	.855	.715	A	15124
5/16	.280	----	.400	.080	B	15923
5/16	.280	----	.470	.100	B	25619
5/16	.280	.490	----	.502	H	55725
5/16	.283	.492	----	.890	D	55817
5/16	.283	.492	----	.890	D	55818
5/16	.285	.465	.710	.365	G	15144
5/16	.285	.425	.650	.549	C	25923
5/16	.285	.465	.710	.365	G	45144
5/16	.285	----	.895	.590	A	25115
5/16	.285	.392	----	.362	E	45804
5/16	.285	.494	----	.508	H	55716
5/16	.288	.465	----	.481	E	45808
5/16	.290	----	.840	.695	A	15113
5/16	.290	.470	.680	.495	E	45506
5/16	.290	.465	.680	.495	E	45799

Stem Seal Id.	Top Stem ID (A)	Bottom Sead ID (B)	Seal OD (C)	Overall Height (D)	Seal Type	Part #
5/16	.290	.551	----	.4331	H	55832
5/16	.291	.465	----	.475	E	45809
5/16	.292	----	.840	.695	A	25113
5/16	.292	.463	.610	.480	E	45398
5/16	.292	.560	----	1.11	D	55808
5/16	.295	.540	.710	.555	F	15389
5/16	.295	.470	----	.511	E	45802
5/16	.295	.555	----	1.09	D	55815
5/16	.297	.465	.610	.483	E	45397
5/16	.300	----	.400	.080	B	25333
5/16	.300	----	.400	.080	B	45333
5/16	.300	.470	.615	.400	H	55341
5/16	.300	.475	.680	.4905	E	45506
5/16	.300	.425	.600	.450	E	45875
5/16	.300	.420	.590	.455	E	45877
5/16	.300	.460	----	1.112	D	55807
5/16	.302	.543	.710	.551	F	25389
5/16	.303	----	.850	.675	A	35129
5/16	.305	----	.815	.630	A	35671
5/16	.313	----	.400	.750	B	15333
8 mm	.272	.549	.593	.490	H	55607
8 mm	.274	.465	----	.4528	H	55839
8 mm	.282	.412	----	.410	H	55620
8 mm	.284	.470	----	.5394	H	55823
8 mm	.286	.460	----	.376	H	55714
8 mm	.288	.506	.610	.5118	H	55614
8 mm	.290	.550	----	.4724	H	55824
11/32	.290	.462	----	.486	E	45805
11/32	.295	.498	----	.5255	H	55701
11/32	.300	.546	----	.454	H	55860
11/32	.301	.546	----	.5895	H	55862
11/32	.302	.490	----	.524	H	55727
11/32	.303	.520	----	.527	H	55728
11/32	.305	----	.800	.820	A	15307
11/32	.305	----	.905	.820	A	15782
11/32	.305	----	.850	.750	A	25679
11/32	.305	----	.905	.820	A	25782
11/32	.305	.505	.690	.475	F	25736
11/32	.305	.549	----	.491	H	55703
11/32	.306	.482	----	.418	H	45341
11/32	.306	.548	----	.484	H	55712
11/32	.306	.488	----	.531	H	55850
11/32	.306	.488	----	.5375	H	55851
11/32	.308	.549	----	.5827	H	55846
11/32	.308	.548	----	.5827	H	55847
11/32	.310	----	.800	.800	A	15117
11/32	.310	----	.755	.560	A	15120
11/32	.310	----	.920	.550	A	15136



# Valve Stem Seal Specifications



Stem Seal Id.	Top Stem ID (A)	Bottom Sead ID (B)	Seal OD (C)	Overall Height (D)	Seal Type	Part #
11/32	.310	----	.900	.720	A	15249
11/32	.310	----	.880	.860	A	15612
11/32	.310	----	.885	.300	A	15977
11/32	.310	----	.800	.800	A	25117
11/32	.310	----	.765	.765	A	25126
11/32	.310	----	.900	.720	A	25249
11/32	.310	----	.880	.860	A	45616
11/32	.310	----	.885	.300	A	45977
11/32	.312	.555	.730	.300	F	25205
11/32	.312	----	.755	.560	A	45120
11/32	.313	.560	.680	.840	D	55605
11/32	.315	----	.895	.600	A	15115
11/32	.315	----	.755	.760	A	15834
11/32	.315	----	.855	.715	A	25124
11/32	.315	.475	.670	.4525	F	25704
11/32	.315	.495	.720	.482	E	45205
11/32	.316	.494	.700	.490	E	45736
11/32	.316	.600	----	.490	E	45806
11/32	.318	.468	.670	.449	F	15704
11/32	.318	.600	----	.490	E	45807
11/32	.318	.510	----	.4345	H	55713
11/32	.320	----	.885	.450	A	15101
11/32	.320	.562	.730	.460	F	15205
11/32	.320	----	.900	.675	A	15241
11/32	.320	.500	.700	.485	E	25483
11/32	.320	.500	.700	.485	E	45483
11/32	.320	----	.885	.450	A	25101
11/32	.320	----	.755	.560	A	25120
11/32	.320	----	.900	.685	A	25241
11/32	.320	.460	.650	.551	E	45704
11/32	.321	.490	.680	.490	E	45399
11/32	.323	.620	----	.449	C	45900
11/32	.325	.510	.690	.475	F	15736
11/32	.325	.485	.700	.473	E	15483
11/32	.325	----	.885	.327	A	25977
11/32	.328	----	.700	.455	A	35882
11/32	.331	.525	----	.4815	F	25701
11/32	.332	.627	----	.697	H	55855
11/32	.332	.627	----	.691	H	55856
11/32	.335	----	.900	.140	A	15472
11/32	.335	----	.825	.365	A	35823
11/32	.335	----	.885	.695	A	35958
11/32	.335	----	.880	.645	A	25118
11/32	.335	----	.890	.635	A	35140
11/32	.337	----	.715	.450	A	35563
11/32	.338	.620	----	.449	C	45901
11/32	.339	----	.815	.440	A	35595
11/32	.340	----	.765	.610	A	35130

Stem Seal Id.	Top Stem ID (A)	Bottom Sead ID (B)	Seal OD (C)	Overall Height (D)	Seal Type	Part #
11/32	.346	----	.885	.790	A	25108
11/32	.350	.550	.800	.561	C	45241
9 mm	.321	.535	----	.677	H	55711
3/8	.308	----	----	.068	B	35800
3/8	.310	----	.765	.762	A	15126
3/8	.316	----	.905	.720	A	15320
3/8	.320	----	.880	.870	A	25612
3/8	.326	.664	----	.702	H	55707
3/8	.3335	.584	----	.410	H	55718
3/8	.335	----	.880	.645	A	15118
3/8	.335	----	.935	.790	A	15613
3/8	.337	.490	----	.390	H	55721
3/8	.338	.520	----	.520	H	55730
3/8	.338	.618	----	.521	H	55858
3/8	.339	.554	----	.500	E	45813
3/8	.339	.600	----	1.112	D	55812
3/8	.340	.490	----	.530	H	55729
3/8	.342	----	.885	.790	A	15108
3/8	.345	.584	.785	.475	F	15076
3/8	.345	.550	.780	.570	C	15616
3/8	.345	.550	.780	.570	C	25616
3/8	.3455	.6035	----	.514	H	55722
3/8	.349	.580	.785	.4525	F	25076
3/8	.350	----	.885	.755	A	15110
3/8	.350	----	.885	.755	A	25110
3/8	.350	----	.880	.815	A	35819
3/8	.352	.574	----	1.242	D	55810
3/8	.354	.618	----	1.295	D	55809
3/8	.355	.620	----	1.489	D	55804
3/8	.356	.628	----	1.073	D	55805
3/8	.359	----	.930	.805	A	15105
3/8	.360	----	.710	.450	A	35811
3/8	.360	.727	----	.860	C	45902
3/8	.362	----	.870	1.125	A	15875
3/8	.365	----	.885	.620	A	35025
3/8	.365	.563	----	.620	H	55859
3/8	.367	----	.705	.4535	A	35240
3/8	.368	----	.890	.703	A	35566
3/8	.368	.564	----	.211	A	55731
3/8	.371	.751	----	.561	A	35900
7/16	.430	----	.935	.820	A	35793
1/2	.478	.655	----	.494	H	55715



# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Acura</b>				
<b>1.6L 1590cc, L4, Vin D, 16A1</b>				
1986-87	I	Ring & Spring	Viton	<b>45811</b>
1986-87	E	Ring & Spring	Viton	<b>45810</b>
1987-89	I&E	Metal Clad	Viton	<b>55835</b>
<b>1.7L 1678cc L4, B17A1 V-TEC</b>				
1992-93	I	Metal Clad	Viton	<b>55848</b>
1992-93	E	Metal Clad	Viton	<b>55849</b>
<b>1.8L 1797cc L4, B18C1 V-TEC</b>				
1994-01	I	Metal Clad	Viton	<b>55848</b>
1994-01	E	Metal Clad	Viton	<b>55849</b>
<b>1.8L 1834cc L4, B18A1, B18B1</b>				
1992-01	I&E	Metal Clad	Viton	<b>55835</b>
<b>2.3L 2254cc, L4, F23A1</b>				
1998-99	I	Metal Clad	Viton	<b>55848</b>
1998-99	E	Metal Clad	Viton	<b>55849</b>
<b>2.5L 2451cc, L5, G25A1</b>				
1993-98	I	Metal Clad	Viton	<b>55848</b>
1992-94	E	Metal Clad	Viton	<b>55849</b>
<b>2.5L 2494cc, V6, C25A1</b>				
1986-87	I	Ring & Spring	Viton	<b>45811</b>
1986-87	E	Metal Clad	Viton	<b>55835</b>
<b>2.7L 2675cc, V6, C27A1</b>				
1987-90	I	Ring & Spring	Viton	<b>45811</b>
1987-90	E	Metal Clad	Viton	<b>55835</b>
<b>3.0L 2977cc, V6, C30A1, J30A1</b>				
1991-02	I	Metal Clad	Viton	<b>55848</b>
1991-02	E	Metal Clad	Viton	<b>55849</b>
<b>3.2L 3206cc, V6, C32A1</b>				
1992-04	I	Metal Clad	Viton	<b>55848</b>
1991-04	E	Metal Clad	Viton	<b>55849</b>
1994-95	E	Metal Clad	Viton	<b>55837</b>
<b>3.2L 3165cc, V6, Vin V, 6VD1 "Isuzu"</b>				
1996-97	I&E	Metal Clad	Viton	<b>55831</b>
<b>3.5L 3475cc, V6, C35A1</b>				
1998-04	I	Metal Clad	Viton	<b>55848</b>
1996-04	E	Metal Clad	Viton	<b>55849</b>
<b>Allis-Chalmers</b>				
<b>4.236 Perkins Diesel 8 Valve, L4</b>				
	I&E	1-Ring	Teflon/Rubber	<b>1812</b>
<b>G201 8 Valve, L4</b>				
	I&E	2-Ring	Poly	<b>25076</b>
<b>G226 Gas/ LPG 8 Valve, L4</b>				
	I	2-Ring	Poly	<b>25076</b>
<b>AMC Jeep</b>				
<b>2.4L 148 C.I., L4, Vin 1 "Jeep Power-Tech"</b>				
2002-04	I&E	Top Hat	Viton	<b>55654</b>
<b>2.5L 150 C.I., L4, Vin E, H, P, U "AMC"</b>				
1999-02	I	Metal Clad	Viton	<b>NUV0821-EO</b>
1999-03	E	Metal Clad	Viton	<b>NUV0821-FO</b>
1983-98	I	Ring & Band	Viton	<b>45801</b>
1983-98	E	Ring & Band	Viton	<b>45802</b>

Year	I/E	Style	Material	Part #
<b>AMC Jeep (Cont.)</b>				
<b>2.5L 151 C.I., L4, Vin B "GM"</b>				
1980-83	I&E	O-Ring	Nitrile	<b>15333</b>
1980-83	I&E	Umbrella	Nitrile	<b>15120</b>
1980-83	I&E	2-Ring	Nitrile	<b>15704</b>
1980-83	I&E	O-Ring	Poly	<b>25333</b>
1980-83	I&E	Umbrella	Poly	<b>25120</b>
1980-83	I&E	2-Ring	Poly	<b>25704</b>
1980-83	I&E	Umbrella	Nylon	<b>35563</b>
1980-83	I&E	O-Ring	Viton	<b>45333</b>
1980-83	I&E	Umbrella	Viton	<b>45120</b>
1980-83	I&E	Ring & Band	Viton	<b>45704</b>
1980-83	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1980-83	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>2.8L 173 C.I., V6, Vin W "GM"</b>				
1984-86	I&E	O-Ring	Nitrile	<b>15333</b>
1984-86	I&E	Umbrella	Nitrile	<b>15616</b>
1984-86	I&E	Ring & Band	Nitrile	<b>15483</b>
1984-86	I&E	O-Ring	Poly	<b>25333</b>
1984-86	I&E	All-Rubber	Poly	<b>25616</b>
1984-86	I&E	Ring & Band	Poly	<b>25483</b>
1984-86	I&E	All-Rubber	Viton	<b>45241</b>
1984-86	I&E	Ring & Band	Viton	<b>45736</b>
1984-86	I&E	Ring & Band	Viton	<b>45483</b>
1984-86	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1984-86	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.3L 199 C.I., L6, Vin A "AMC"</b>				
1965-70	I&E	2-Ring	Nitrile	<b>15736</b>
1965-70	I&E	2-Ring	Poly	<b>25736</b>
1965-70	I&E	Umbrella	Nylon	<b>35566</b>
1965-70	I&E	Ring & Band	Viton	<b>45736</b>
1965-70	I&E	1-Ring	Teflon/Rubber	<b>1812</b>
<b>3.7L 225 C.I., V6, Vin H, P "GM"</b>				
1966-71	I&E	2-Ring	Nitrile	<b>15704</b>
1966-71	I&E	2-Ring	Poly	<b>25704</b>
1966-71	I&E	Ring & Band	Viton	<b>45704</b>
<b>3.8L 232 C.I., L6, Vin B, C, E, G "AMC"</b>				
1964-79	I&E	Umbrella	Nitrile	<b>15113</b>
1964-79	I&E	Ring & Band	Nitrile	<b>15483</b>
1964-79	I&E	Umbrella	Poly	<b>25113</b>
1964-79	I&E	Ring & Band	Poly	<b>25483</b>
1964-79	I&E	Umbrella	Nylon	<b>35566</b>
1964-79	I&E	Ring & Band	Viton	<b>45736</b>
1964-79	I&E	Ring & Band	Viton	<b>45483</b>
1964-79	I&E	1-Ring	Teflon/Rubber	<b>1812</b>
<b>4.0L 242 C.I., L6, Vin L, M, S "Jeep"</b>				
1998-03	I	Metal Clad	Viton	<b>NUV0821-EO</b>
1987-97	I	Ring & Band	Viton	<b>45801</b>
1987-97	E	Ring & Band	Viton	<b>45802</b>
<b>4.1L 250 C.I., V8</b>				
1959-61	I&E	1-Ring	Teflon/Rubber	<b>1811</b>

**Part # Material Guide**

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>AMC Jeep (Cont.)</b>				
<b>4.2L 258 C.I., L6, Vin A, C, M, T "AMC"</b>				
1971-90	I&E	Umbrella	Nitrile	15113
1971-90	I&E	Ring & Band	Nitrile	15483
1971-90	I&E	Umbrella	Poly	25113
1971-90	I&E	Ring & Band	Poly	25483
1971-90	I&E	Umbrella	Nylon	<b>35566</b>
1971-90	I&E	Ring & Band	Viton	45736
1971-90	I&E	Ring & Band	Viton	45483
1971-90	I&E	1-Ring	Teflon/Rubber	1811
<b>4.7L 287 C.I., V8</b>				
1963-66	I&E	Umbrella	Nitrile	15320
1963-66	I&E	Umbrella	Nitrile	15124
1963-66	I&E	Umbrella	Poly	<b>25124</b>
1963-66	I&E	Umbrella	Nylon	35566
1963-66	I&E	1-Ring	Teflon/Rubber	1912
<b>4.8L 290 C.I., V8, Vin H, M, N "AMC"</b>				
1967-69	I&E	Ring & Band	Nitrile	15076
1967-69	I&E	Umbrella	Nitrile	15241
1967-69	I&E	2-Ring	Poly	25076
1967-69	I&E	Umbrella	Poly	<b>25241</b>
1967-69	I&E	Umbrella	Nylon	35566
<b>5.0L 304 C.I., V8, Vin H "AMC"</b>				
1970-81	I&E	Umbrella	Nitrile	15124
1970-81	I&E	Ring & Band	Nitrile	15076
1970-81	I&E	Umbrella	Poly	25124
1970-81	I&E	2-Ring	Poly	25076
1970-81	I&E	Umbrella	Nylon	<b>35566</b>
<b>5.4L 327 C.I., V8</b>				
1960-70	I&E	2-Ring	Nitrile	15205
1960-70	I&E	Umbrella	Nitrile	15241
1960-70	I&E	2-Ring	Poly	25205
1960-70	I&E	Umbrella	Poly	<b>25241</b>
1960-70	I&E	Umbrella	Nylon	35140
1960-70	I&E	Ring & Band	Viton	45205
<b>5.6L 343 C.I., V8, Vin S, T "AMC"</b>				
1967-69	I&E	Umbrella	Nitrile	15241
1967-69	I&E	Ring & Band	Nitrile	15076
1967-69	I&E	Umbrella	Poly	25241
1967-69	I&E	2-Ring	Poly	25076
1967-69	I&E	Umbrella	Nylon	<b>35566</b>
<b>5.9L 360 C.I., V8, Vin 7, N, P "AMC"</b>				
1970-91	I&E	Umbrella	Nitrile	15241
1970-91	I&E	Ring & Band	Nitrile	15076
1970-91	I&E	Umbrella	Poly	25241
1970-91	I&E	2-Ring	Poly	25076
1970-91	I&E	Umbrella	Nylon	<b>35566</b>
<b>6.4L 390 C.I., V8, Vin X "AMC"</b>				
1968-70	I&E	Ring & Band	Nitrile	<b>15076</b>
1968-70	I&E	2-Ring	Poly	25076

Year	I/E	Style	Material	Part #
<b>AMC Jeep (Cont.)</b>				
<b>6.6L 401 C.I., V8, Vin Z "AMC"</b>				
1971-78	I&E	Umbrella	Nitrile	15241
1971-78	I&E	Ring & Band	Nitrile	15076
1971-78	I&E	Umbrella	Poly	25241
1971-78	I&E	2-Ring	Poly	25076
1971-78	I&E	Umbrella	Nylon	<b>35566</b>
<b>Audi</b>				
<b>1.5L 1471cc L4 XZ</b>				
1974	I&E	Metal Clad	Viton	<b>55620</b>
<b>1.6L 1588cc L4 YG, YH, YK</b>				
1975-83	I&E	Metal Clad	Viton	<b>55620</b>
<b>1.7L 1715cc L4 Vin A, WT</b>				
1981-83	I&E	Metal Clad	Viton	<b>55620</b>
<b>1.8L 1780cc L4 Vin A, B, C, JN, MG</b>				
1984-87	I&E	Metal Clad	Viton	<b>55620</b>
<b>2.0L 1983cc L4 Vin A, B, 3A</b>				
1988-90	I&E	Metal Clad	Viton	<b>55620</b>
<b>2.0L 1986cc L5 DIESEL Vin G, CN</b>				
1979-84	I&E	Metal Clad	Viton	<b>55620</b>
<b>2.2L 2226cc L5 Vin A, P, R, AAN "TURBO"</b>				
1992-96	I&E	Metal Clad	Viton	<b>55688</b>
<b>2.2L 2144cc L5 Vin A, B, WD, WE, WU</b>				
1978-91	I&E	Metal Clad	Viton	<b>55620</b>
<b>2.3L 2309cc L5 Vin E, 7A</b>				
1990-91	I&E	Metal Clad	Viton	<b>55688</b>
<b>2.3L 2309cc L5 Vin B, C, D, NF, NG</b>				
1988-95	I&E	Metal Clad	Viton	<b>55620</b>
<b>2.8L 2771cc V6 AAH, AFC</b>				
1995-98	I&E	Metal Clad	Viton	<b>55688</b>
<b>3.6L 3562cc V8 Vin E, PT</b>				
1990-91	I&E	Metal Clad	Viton	<b>55688</b>
<b>4.2L 4172cc V8 Vin W, ABH</b>				
1992-94	I&E	Metal Clad	Viton	<b>55688</b>
<b>CASE</b>				
<b>3.9L 390 Series, L4 Cummins B &amp; BT Diesel, 8 Valve</b>				
	I	Ring & Band	Viton	<b>45805</b>
<b>3.9L 390 Series, L4 Cummins B &amp; BT Diesel, 8 Valve</b>				
	I&E	Ring & Band	Viton	<b>45802</b>
<b>5.9L 590 Series L6, Cummins B &amp; BT Diesel, 12 Valve</b>				
	I	Ring & Band	Viton	45805
	I&E	Ring & Band	Viton	<b>45802</b>
<b>A267D Diesel, 8 Valve, L4</b>				
	I	Umbrella	Nitrile	<b>15126</b>
<b>G188D Diesel, 8 Valve, L4</b>				
	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
<b>CATERPILLAR</b>				
<b>7.2L 3126 L6, 12 Valve</b>				
	I&E	Top Hat	Viton	55807

## Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Caterpillar (Cont.)</b>				
<b>10.3L C10 L6</b>				
	I&E	Oil Shield	Viton	<b>55731</b>
<b>7.2L 3126B L6, 18 Valve</b>				
	E	Metal Clad	Viton	55721
<b>12.0L C12 L6</b>				
	I&E	Oil Shield	Viton	55731
<b>14.6L C15 L6</b>				
	I&E	Metal Clad	Viton	55721
<b>D330C 8 Valve L4,</b>				
	I&E	Umbrella	Nylon	35900
<b>1673C 12 Valve L6</b>				
	I&E	Umbrella	Nylon	35900
<b>3114 8 Valve L4,</b>				
	I&E	Top Hat	Viton	55807
<b>3116 12 Valve L6</b>				
	I&E	Top Hat	Viton	55807
<b>3304 8 Valve L4,</b>				
	I&E	Umbrella	Nylon	35900
<b>3306 12 Valve L6</b>				
	I&E	Umbrella	Nylon	35900
<b>3406 24 Valve L6</b>				
	I&E	Umbrella	Nylon	35900
<b>3406B 24 Valve L6</b>				
	I&E	Umbrella	Nylon	35900
<b>3406C 24 Valve L6</b>				
	I&E	Metal Clad	Viton	55721
<b>3406E 24 Valve L6</b>				
	I&E	Metal Clad	Viton	55721
<b>3408 32 Valve Diesel, V8</b>				
	I&E	Umbrella	Nylon	35900
<b>3408C 32 Valve Diesel, V8</b>				
	I&E	Metal Clad	Viton	55721
<b>3408E 32 Valve Diesel, V8</b>				
	I&E	Metal Clad	Viton	55721
<b>3408E 32 Valve Diesel, V8</b>				
	I&E	Metal Clad	Viton	55721
<b>3412 48 Valve Diesel, V12</b>				
	I&E	Umbrella	Nylon	35900
<b>3412C 48 Valve Diesel, V12</b>				
	I&E	Metal Clad	Viton	55721
<b>3412E 48 Valve Diesel, V12</b>				
	I&E	Metal Clad	Viton	55721
<b>Chrysler</b>				
<b>1.5L 1468cc, 90 C.I., L4, Vin K "G15B Mits"</b>				
1985-94	I&E	Positive	Viton	45606
<b>1.6L 1597cc, 98 C.I., L4, Vin F, Z "4G61 Turbo Mits"</b>				
1989-90	I&E	Positive	Viton	45606
<b>1.6L 1597cc, 98 C.I., L4, Vin 3, B, F, K "G32,G32B, Mits" "Turbo"</b>				
1971-88	I&E	Metal Clad	Viton	55608

Year	I/E	Style	Material	Part #
<b>Chrysler (Cont.)</b>				
<b>1.7L 1715cc, 105 C.I., L4, Vin A, B "Volkswagen"</b>				
1978-83	I&E	Metal Clad	Viton	55620
<b>1.8L 1755cc, 107 C.I., L4, Vin B, T "4G37 Mits"</b>				
1989-94	I&E	Metal Clad	Viton	55608
<b>1.8L 1834cc, 112 C.I., L4, Vin C, D "4G93 Mits."</b>				
1992-94	I&E	Metal Clad	Viton	55653
<b>2.0L 1995cc / 1996cc L4, VIN C, F, Y</b>				
1995-04	I&E	Top Hat	Viton	55654
<b>2.0L 1995cc / 1996cc L4</b>				
1974-91	I&E	Metal Clad	Viton	55608
<b>2.2L 195 C.I., L4, Vin 8, A,B, C, D, E, P "TURBO"</b>				
1981-94	I&E	All-Rubber	Viton	<b>45923</b>
1981-94	I&E	Positive	Poly	25923
<b>2.3L 2346cc, 143 C.I., L4, DIESEL Vin 9, J "4D55T Turbo Mits"</b>				
1983-85	I&E	Metal Clad	Viton	55608
<b>2.4L 2351cc, 148 C.I., L4, Vin B, X, EDZ, G, S "TURBO"</b>				
1995-04	I&E	Top Hat	Viton	55654
<b>2.4L 2351cc, 148 C.I., L4, Vin G "4G64 Mits"</b>				
2001-04	I&E	Metal Clad	Viton	55653
<b>2.4L 2351cc, 148 C.I., L4, Vin G, W "G64B Mits"</b>				
1990-93	I&E	Metal Clad	Viton	55608
<b>2.5L 2507cc, 153 C.I., L4, Vin J "TURBO"</b>				
1989-92	I&E	All-Rubber	Viton	<b>45923</b>
1989-92	I&E	Positive	Poly	25923
<b>2.5L 2507cc, 153 C.I., L4, Non Turbo</b>				
1986-93	I	Ring & Band	Viton	45506
1986-93	E	Positive	Viton	45799
<b>2.5L 2497cc, 152 C.I., V6, Vin H, N "6G73 Mits"</b>				
1995-00	I	Metal Clad	Viton	55653
1995-00	E	Metal Clad	Viton	55659
<b>2.6L 2555cc, 156 C.I., L4, Vin 7, D, E, F, G, H, N W "G54B Mits" &amp; Turbo</b>				
1978-89	I&E	Metal Clad	Viton	55608
<b>2.7L 167 C.I., V6, Vin R, T, U</b>				
1998-04	I&E	Top Hat	Viton	55656
<b>2.8L 170 C.I. L6 Vin 6, A</b>				
1960-83	I&E	Umbrella	Nylon	35025
1960-83	I&E	Umbrella	Poly	25241
1960-83	I&E	Umbrella	Nitrile	15241
1960-83	I&E	1-Ring	Teflon/Rubber	1811
1960-83	I	All-Rubber	Viton	45241
1960-83	I	All-Rubber	Poly	25616
1960-83	I	Umbrella	Nitrile	15616
1960-83	E	Umbrella	Viton	45977
1960-83	E	Umbrella	Poly	25977
1960-83	E	Umbrella	Nitrile	15977
<b>3.0L 2972cc, 181 C.I., V6, Vin H "6G72 Mits."</b>				
2001-04	I	Metal Clad	Viton	55653
2001-04	E	Metal Clad	Viton	55659
<b>3.0L 2972cc, 181 C.I., V6, Vin B, J "6G72 Mits."</b>				
1991-96	I&E	Positive	Viton	45606

### Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Chrysler (Cont.)</b>				
<b>3.0L 2972cc, 181 C.I., V6, Vin 3, H, S "6672 Mits."</b>				
1987-00	I&E	Metal Clad	Viton	55608
<b>3.2L 3200cc, 197 C.I., V6, Vin J</b>				
1998-01	I&E	Top Hat	Viton	55655
<b>3.2L 198 C.I., L6, Vin A, B</b>				
1960-83	I&E	Umbrella	Nitrile	15241
1960-83	I&E	Umbrella	Poly	25241
1960-83	I&E	Umbrella	Nylon	35025
1960-83	I	Umbrella	Nitrile	15616
1960-83	I	All-Rubber	Poly	25616
1960-83	I	All-Rubber	Viton	45241
1960-83	E	Umbrella	Nitrile	15977
1960-83	E	Umbrella	Poly	25977
1960-83	E	Umbrella	Viton	45977
1960-83	I&E	1-Ring	Teflon/Rubber	1812
<b>3.3L 201 C.I., V6, Vin 3, G, R, S, T, U</b>				
2001-04	I&E	All-Rubber	Viton	45821
<b>3.3L 201 C.I., V6, Vin 3, G, R, S, T, U</b>				
1990-00	I&E	O-Ring	Nitrile	15923
1990-00	I&E	Positive	Poly	25923
1990-00	I&E	All-Rubber	Viton	45923
<b>3.5L 215 C.I., V6, Vin 4, F, G, K, M, V</b>				
1993-05	I&E	Top Hat	Viton	55655
<b>3.7L 226 C.I., V6, Vin K</b>				
2002-04	I&E	Top Hat	Viton	55689
<b>3.7L 225 C.I., L6, Vin 6, B, C, D, E, F, H, J, M, N, W, X</b>				
1960-87	I&E	Umbrella	Nitrile	15241
1960-87	I&E	Umbrella	Poly	25241
1960-87	I&E	Umbrella	Nylon	35025
1960-87	I	Umbrella	Nitrile	15616
1960-87	I	All-Rubber	Poly	25616
1960-87	I	All-Rubber	Viton	45241
1960-87	E	Umbrella	Nitrile	15977
1960-87	E	Umbrella	Poly	25977
1960-87	E	Umbrella	Viton	45977
<b>3.8L 230 C.I., L6</b>				
1946-59	I&E	1-Ring	Teflon/Rubber	1811
<b>3.8L 230 C.I., V6, Vin L</b>				
2001-04	I&E	All-Rubber	Viton	45821
1991-00	I&E	Positive	Poly	25923
1991-00	I&E	All-Rubber	Viton	45923
<b>3.9L 239 C.I., V6, Vin M</b>				
1987-95	I&E	Umbrella	Nitrile	15241
1987-95	I&E	Umbrella	Poly	25241
1987-95	I&E	Umbrella	Nylon	35025
1987-95	I	Umbrella	Nitrile	15616
1987-95	I	All-Rubber	Poly	25616
1987-95	I	All-Rubber	Viton	45241
1987-95	E	Umbrella	Nitrile	15977
1987-95	E	Umbrella	Poly	25977
1987-95	E	Umbrella	Viton	45977
<b>3.9L 239 C.I., V6, Vin X</b>				
1992-03	I	Metal Clad	Viton	NUV0821-EO
1992-03	E	Metal Clad	Viton	NUV0821-FO

Year	I/E	Style	Material	Part #
<b>Chrysler (Cont.)</b>				
<b>4.5L 273 C.I., V8, Dodge, Plymouth, Truck</b>				
1964-69	I&E	1-Ring	Teflon/Rubber	1812
1964-69	I	All-Rubber	Poly	25616
1964-69	E	Umbrella	Poly	25977
1964-69	I&E	2-Ring	Poly	25076
1964-69	I&E	Ring & Band	Nitrile	15076
1964-69	I&E	Umbrella	Nitrile	15616
1964-69	I&E	Umbrella	Nitrile	15977
1964-69	I&E	Umbrella	Nylon	35025
<b>4.5L 277 C.I., V8, Chrysler</b>				
1957-82	I&E	Umbrella	Nitrile	15241
1957-82	I&E	Umbrella	Poly	25241
1957-82	I&E	Umbrella	Nylon	35025
<b>4.7L 287 C.I., V8, Vin J, N</b>				
2000-04	I&E	Top Hat	Viton	55689
<b>5.2L 318 C.I., V8, Vin Y</b>				
1992-03	I	Metal Clad	Viton	NUV0821-EO
1992-03	E	Metal Clad	Viton	NUV0821-FO
1988-92	I	Metal Clad	Viton	55855
1988-92	E	Metal Clad	Viton	55856
<b>5.2L 318 C.I., V8</b>				
1959-95	I&E	Ring & Band	Nitrile	15076
1959-95	I&E	2-Ring	Poly	25076
1959-95	I&E	1-Ring	Teflon/Rubber	1812
1959-95	I	Umbrella	Nitrile	15616
1959-95	I	All-Rubber	Poly	25616
1959-95	I	All-Rubber	Viton	45241
1959-95	E	Umbrella	Nitrile	15977
1959-95	E	Umbrella	Poly	25977
1959-95	E	Umbrella	Viton	45977
1959-95	I&E	Umbrella	Nylon	35025
<b>5.3L 326 C.I., V8</b>				
1959	I&E	Ring & Band	Nitrile	15076
1959	I&E	2-Ring	Poly	25076
<b>5.6L 340 C.I., V8, Vin H, J, P</b>				
1968-74	I&E	Ring & Band	Nitrile	15076
1968-74	I&E	2-Ring	Poly	25076
1968-74	I&E	1-Ring	Teflon/Rubber	1812
1968-74	I	Umbrella	Nitrile	15616
1968-74	I	All-Rubber	Poly	25616
1968-74	I	All-Rubber	Viton	45241
1968-74	E	Umbrella	Nitrile	15977
1968-74	E	Umbrella	Poly	25977
1968-74	E	Umbrella	Viton	45977
1968-74	I&E	Umbrella	Nylon	35025
<b>5.9L 359 C.I., L6, Vin 8, C, D "TURBO CUMMINS"</b>				
1989-98	I	Ring & Band	Viton	45805
1989-98	E	Ring & Band	Viton	45802
<b>5.9L 359 C.I., L6, Vin 6 "TURBO CUMMINS"</b>				
1998-02	I	Metal Clad	Viton	55720
1998-02	E	Metal Clad	Viton	55719

## Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements



# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Chrysler (Cont.)</b>				
<b>5.9L 360 C.I., V8, Vin 5, Z "TRUCK"</b>				
1993-03	I	Metal Clad	Viton	NUV0821-EO
1993-03	E	Metal Clad	Viton	NUV0821-FO
1988-92	I	Metal Clad	Viton	55855
1988-92	E	Metal Clad	Viton	55856
<b>5.9L 360 C.I., V8</b>				
1970-95	I&E	Ring & Band	Nitrile	15076
1970-95	I&E	2-Ring	Poly	25076
1970-95	I&E	1-Ring	Teflon/Rubber	1812
1970-95	I	Umbrella	Nitrile	15616
1970-95	I	All-Rubber	Poly	25616
1970-95	I	All-Rubber	Viton	45241
1970-95	E	Umbrella	Nitrile	15977
1970-95	E	Umbrella	Poly	25977
1970-95	E	Umbrella	Viton	45977
1970-95	I&E	Umbrella	Nylon	35025
<b>5.9L 361 C.I., V8</b>				
1959-77	I&E	Ring & Band	Nitrile	15076
1959-77	I&E	2-Ring	Poly	25076
1959-77	I&E	Umbrella	Nitrile	15782
1959-77	I&E	Umbrella	Poly	25782
<b>6.3L 383 C.I., V8, Vin 8, G, H, J, L, N</b>				
1959-71	I&E	Umbrella	Nitrile	15782
1959-71	I&E	Umbrella	Poly	25782
1959-71	I&E	Umbrella	Nylon	35240
1959-71	I	Umbrella	Nitrile	15616
1959-71	I	All-Rubber	Poly	25616
1959-71	I	All-Rubber	Viton	45241
1959-71	E	Umbrella	Nitrile	15977
1959-71	E	Umbrella	Poly	25977
1959-71	E	Umbrella	Viton	45977
<b>6.6L 400 C.I., V8, Vin J, M, N, P</b>				
1972-78	I&E	Ring & Band	Nitrile	15076
1972-78	I&E	2-Ring	Poly	25076
1972-78	I	Umbrella	Nitrile	15616
1972-78	I	All-Rubber	Poly	25616
1972-78	I	All-Rubber	Viton	45241
1972-78	E	Umbrella	Nitrile	15977
1972-78	E	Umbrella	Poly	25977
1972-78	E	Umbrella	Viton	45977
<b>6.8L 413 C.I., V8</b>				
1959-77	I&E	2-Ring	Nitrile	15736
1959-77	I&E	2-Ring	Poly	25076
1959-77	I&E	Umbrella	Nitrile	15782
1959-77	I&E	Umbrella	Poly	25782
1959-77	I&E	Umbrella	Nylon	35025
<b>7.0L 426 C.I. V8 HEMI</b>				
1966-71	I&E	Umbrella	Nitrile	15113
1966-71	I&E	Umbrella	Poly	25113
1966-71	I&E	Positive	Poly	25923
1966-71	I&E	Umbrella	Nylon	35129
1966-71	I&E	All-Rubber	Viton	45923

Year	I/E	Style	Material	Part #
<b>Chrysler (Cont.)</b>				
<b>7.0L 426 C.I. V8 WEDGE</b>				
1963-65	I&E	Ring & Band	Nitrile	15076
1963-65	I&E	2-Ring	Poly	25076
1963-65	I&E	Umbrella	Nylon	35025
1963-65	I&E	Ring & Band	Viton	45704
1963-65	I&E	Umbrella	Nitrile	15782
1963-65	I&E	Umbrella	Poly	25782
<b>7.2L 440 C.I., V8, Vin A, D, K, L, M, T, U, V</b>				
1966-78	I	Umbrella	Nitrile	15616
1966-78	I	All-Rubber	Poly	25616
1966-78	I	Umbrella	Nylon	35240
1966-78	I	All-Rubber	Viton	45241
1966-78	E	Umbrella	Nitrile	15977
1966-78	E	Umbrella	Poly	25977
1966-78	E	Umbrella	Nylon	35240
1966-78	E	Umbrella	Viton	45977
<b>8.0L 488 C.I., V10 Vin E "CAR" Viper</b>				
1992-03	I	Metal Clad	Viton	NUV0821-EO
1992-03	E	Metal Clad	Viton	NUV0821-FO
<b>Cummins</b>				
<b>3.9L 239 C.I. L4, 4B &amp; 4BT Turbo Diesel</b>				
	E	Ring & Band	Viton	45805
<b>3.9L 239 C.I. L4, 4B &amp; 4BT Turbo Diesel</b>				
	I&E	Ring & Band	Viton	45802
<b>5.9L 359 C.I. L6, 6B &amp; 6BT 12 Valve Turbo Diesel</b>				
	E	Ring & Band	Viton	45805
<b>5.9L 359 C.I. L6, 6B &amp; 6BT 12 Valve Turbo Diesel</b>				
	I&E	Ring & Band	Viton	45802
<b>5.9L ISB ISB 359 C.I. L6, Turbo-Diesel 24 Valve</b>				
	I	Metal Clad	Viton	55720
	E	Metal Clad	Viton	55719
<b>8.3L 505 C.I. 6C Series L6</b>				
	I&E	Top Hat	Viton	55805
<b>HB-4 L4</b>				
	I&E	Ring & Band	Viton	45802
<b>CS464 12 Valve L6</b>				
	I&E	Top Hat	Viton	55805
<b>HB-6 12 Valve L6</b>				
	I&E	Ring & Band	Viton	45802
<b>L-10 24 Valve L6</b>				
	I&E	Metal Clad	Viton	55859
<b>N-14 L6</b>				
	I&E	Top Hat	Viton	55804
<b>NH/NT Series 855 C.I. L6</b>				
	I&E	1-Ring	Teflon/Rubber	2214
<b>NH180 L6</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>NH195 L6</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>NVH450, V1486, VT1486, VT600 V12</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>Daewoo</b>				
<b>2.0L 2000cc, L4, Vin Z "X20SE Isuzu"</b>				
1999-02	I&E	Metal Clad	Viton	55717
<b>2.2L 2200cc, L4, Vin 2 "X22SE Isuzu"</b>				
1999-02	I&E	Metal Clad	Viton	55717

Part # Material Guide					
15000 Series	25000 Series	35000 Series	45000 Series	55000 Series	Part #'s in <b>BOLD</b> are common replacements
Nitrile - 225°F	Polyacrylic - 350°F	Nylon - 375°F	Viton - 400°F	Viton/Metal Clad - 400°F	



# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Detroit Diesel</b>				
<b>60 Series</b>				
	I&E	Metal Clad	Viton	55860
<b>53 Series 2 Valve Head 2, 3, 4, 6, &amp; 8 Cylinder</b>				
	E	1-Ring	Teflon/Rubber	9010
	E	Metal Clad	Viton	55853
	E	Ring & Band	Teflon	DT1208
	E	1-Ring	Teflon/Rubber	1208
<b>71 Series</b>				
	E	1-Ring	Teflon/Rubber	1811
	E	1-Ring	Teflon/Rubber	9010
	E	Metal Clad	Viton	55853
<b>92 Series</b>				
	E	1-Ring	Teflon/Rubber	9010
	E	Metal Clad	Viton	55853
<b>8.2L, V8, Naturally Aspirated &amp; Turbo</b>				
	I&E	Metal Clad	Viton	55852
<b>Ford</b>				
<b>1.3L 1295cc, 81 C.I., L4,</b>				
1981-85	I&E	All Rubber	Nitrile	15144
1981-85	I&E	1-Spring	Poly	25144
<b>1.3L 1295cc, 81 C.I., L4, Valve, Vin H, K</b>				
1988-97	I&E	Metal Clad	Viton	55833
<b>1.6L 1598cc, 98 C.I., L4, Vin L, W</b>				
1971-92	I&E	All Rubber	Nitrile	15144
1971-92	I&E	1-Spring	Poly	25144
1971-92	I&E	Positive	Poly	25923
1971-92	I&E	Metal Clad	Viton	NUV0877-EO
1971-92	I&E	All-Rubber	Viton	45923
1971-92	I&E	Ring & Band	Teflon	DT1711
<b>1.6L 1598cc, 98 C.I., L4, Vin Z "X20SE Isuzu"</b>				
1991-94	I&E	Metal Clad	Viton	55857
<b>1.6L 1598cc, 98 C.I., L4, Vin 5 "B6 Mazda"</b>				
1988-89	I&E	Metal Clad	Viton	55833
<b>1.6L 1598cc, 98 C.I., L4, Vin 6 "Turbo"</b>				
1991-94	I&E	Metal Clad	Viton	55831
<b>1.8L 112 C.I., L4, Vin 8 "Mazda"</b>				
1994-96	I	Metal Clad	Viton	55861
1994-96	E	Metal Clad	Viton	55710
1991-93	I&E	Metal Clad	Viton	55857
<b>1.9L 116 C.I., L4, Vin 9, J</b>				
1992-96	I&E	All Rubber	Nitrile	15144
1992-96	I&E	1-Spring	Poly	25144
1992-96	I&E	Positive	Viton	45144
1985-94	I&E	Metal Clad	Viton	NUV0877-EO
1985-91	I&E	1-Spring	Viton	45145
<b>2.0L 1989cc, 122 C.I., L4, Vin P</b>				
1997-04	I&E		Viton	NUV0877-EO
<b>2.0L 122 C.I., L4, Vin 3, Z "ZETEC"</b>				
1995-04	I&E	Top Hat	Viton	55819

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>2.0L 1989cc, 122 C.I., L4, Vin A "Mazda"</b>				
1994-97	I	Metal Clad	Viton	55861
1994-97	E	Metal Clad	Viton	55710
1993	I&E	Metal Clad	Viton	55831
<b>2.0L 1989cc, 122 C.I., L4, Vin X</b>				
1971-74	I&E	All Rubber	Nitrile	15144
1971-74	I&E	1-Spring	Poly	25144
1971-74	I&E	Positive	Viton	45144
<b>2.0L 1989cc, 122 C.I., L4, Vin C</b>				
1983-88	I&E	Ring & Band	Nitrile	15483
1983-88	I&E	2-Ring	Nitrile	15736
1983-88	I&E	Ring & Band	Poly	25483
1983-88	I&E	2-Ring	Poly	25736
1983-88	I&E	Ring & Band	Viton	45483
1983-88	I&E	Ring & Band	Viton	45736
1983-88	I&E	Ring & Band	Teflon	DT1711
1987-88	I	Metal Clad	Viton	55847
1987-88	E	Metal Clad	Viton	55846
<b>2.2L 2184cc, 133 C.I., L4, Vin L "Turbo Mazda"</b>				
1988-92	I&E	Positive	Poly	25923
1988-92	I&E	Umbrella	Viton	45120
1988-92	I&E	All-Rubber	Viton	45923
1988-92	I&E	Metal Clad	Viton	55833
<b>2.2L 134 C.I. L4, E, E134, JE, B8PE</b>				
1953-78	I&E	Umbrella	Nitrile	15101
1953-78	I&E	Umbrella	Poly	25101
<b>2.3L 140 C.I., L4, Vin A</b>				
1995-97	I&E	Metal Clad	Viton	55854
<b>2.3L 140 C.I., L4, Vin A,M,S, X "HSC"</b>				
1985-94	I	Metal Clad	Viton	55847
1985-94	E	Metal Clad	Viton	55846
<b>2.3L 140 C.I., L4, Vin E "TURBO Mitsubishi" - A,B,2,T,W Ford"</b>				
1977-94	I&E	2-Ring	Nitrile	15736
1977-94	I&E	2-Ring	Poly	25736
1977-94	I&E	Ring & Band	Viton	45736
1985-87	I&E	Metal Clad	Viton	55608
<b>2.3L 140 C.I., L4, Vin T, W "Turbo", Vin R "HSC"</b>				
1977-88	I&E	2-Ring	Nitrile	15736
1977-88	I&E	Ring & Band	Nitrile	15483
1977-88	I&E	2-Ring	Poly	25736
1977-88	I&E	Ring & Band	Poly	25483
1977-88	I&E	Ring & Band	Viton	45736
1977-88	I&E	Ring & Band	Viton	45483
1977-88	I&E	Ring & Band	Teflon	DT1711
<b>2.3L 140 C.I., L4, Vin A, Y</b>				
1974-86	I&E	Umbrella	Nitrile	15120
1974-86	I&E	2-Ring	Nitrile	15704
1974-86	I&E	Umbrella	Poly	25120
1974-86	I&E	2-Ring	Poly	25704
1974-86	I&E	Umbrella	Nylon	35563
1974-86	I&E	Umbrella	Viton	45120
1974-86	I&E	Ring & Band	Viton	45704
1974-86	I&E	Ring & Band	Teflon	DT1711

## Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>2.4L 144 C.I., L6</b>				
1960-64	I&E	Umbrella	Nitrile	<b>15124</b>
1960-64	I&E	Umbrella	Poly	<b>25124</b>
1960-64	I&E	Umbrella	Nylon	<b>35129</b>
1960-64	I&E	1-Ring	Teflon/Rubber	<b>1610</b>
<b>2.5L 153 C.I., L4, Vin C</b>				
1999-01	I&E	Top Hat	Viton	<b>55822</b>
<b>2.5L 153 C.I., L4, Vin C - Ranger</b>				
1998	I&E	Metal Clad	Viton	<b>55854</b>
<b>2.5L 153 C.I., L4, Vin D "HSC"</b>				
1986-91	I	Metal Clad	Viton	<b>55847</b>
1986-91	E	Metal Clad	Viton	<b>55846</b>
1986-90	I&E	Umbrella	Nitrile	<b>15120</b>
1986-90	I&E	Ring & Band	Nitrile	<b>15483</b>
1986-90	I&E	Umbrella	Poly	<b>25120</b>
1986-90	I&E	Ring & Band	Poly	<b>25483</b>
1986-90	I&E	Umbrella	Nylon	<b>35563</b>
1986-90	I&E	Umbrella	Viton	<b>45120</b>
1986-90	I&E	Ring & Band	Viton	<b>45483</b>
<b>2.5L 155 C.I., V6, Vin G, L "DURATEC"</b>				
1995-02	I&E	Top Hat	Viton	<b>55802</b>
<b>2.5L 2450cc, 152 C.I., V6, Vin B "Mazda KL"</b>				
1993-97	I	Metal Clad	Viton	<b>55861</b>
1993-97	E	Metal Clad	Viton	<b>55710</b>
<b>2.8L 172 C.I. L4, Diesel</b>				
1958-64	I&E	Umbrella	Nitrile	<b>15101</b>
1958-64	I&E	Umbrella	Poly	<b>25101</b>
<b>2.8L 172 C.I. L4, Vin B8PD, D, JD, JD-5, 172GF</b>				
1955-78	I&E	Umbrella	Nitrile	<b>15241</b>
1955-78	I&E	Umbrella	Poly	<b>25241</b>
1955-78	I&E	Umbrella	Nylon	<b>35140</b>
<b>2.8L 170 C.I., L6, Vin F</b>				
1962-72	I&E	Umbrella	Nitrile	<b>15113</b>
1962-72	I&E	Umbrella	Poly	<b>25113</b>
1962-72	I&E	Umbrella	Nylon	<b>35129</b>
1962-72	I&E	1-Ring	Teflon/Rubber	<b>1610</b>
<b>2.8L 171 C.I., V6, Vin S</b>				
1974-83	I&E	All Rubber	Nitrile	<b>15144</b>
1974-83	I&E	1-Spring	Poly	<b>25144</b>
1974-83	I&E	Positive	Viton	<b>45144</b>
<b>2.9L 177 C.I. L6</b>				
1986-90	I&E	Metal Clad	Viton	<b>45396</b>
<b>3.0L 182 C.I., V6, Vin 1 "DURATEC"</b>				
1996-05	I&E	Top Hat	Viton	<b>55802</b>
<b>3.0L 182 C.I., V6, Vin 1, W "VG30E Nissan"</b>				
1993-02	I	Metal Clad	Viton	<b>55828</b>
1993-02	E	Ring & Spring	Viton	<b>45604</b>
<b>3.0L 182 C.I., V6, Vin 1, 2, U "VULCAN"</b>				
1986-99	I	Ring & Band	Viton	<b>45356</b>
1986-99	E	Ring & Band	Viton	<b>45357</b>

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>3.1L 192 C.I. L4, Diesel</b>				
1972-78	I	Umbrella	Nitrile	<b>15241</b>
1972-78	I	Umbrella	Poly	<b>25241</b>
1972-78	I	Umbrella	Nylon	<b>35140</b>
<b>3.3L 3275cc, V6, Vin T "VG33E NISSAN"</b>				
1999-02	I	Metal Clad	Viton	<b>55704</b>
<b>3.3L 200 C.I., L6, Vin B, T, X</b>				
1963-83	I&E	Umbrella	Nitrile	<b>15113</b>
1963-83	I&E	Umbrella	Poly	<b>25113</b>
1963-83	I&E	Umbrella	Nylon	<b>35129</b>
1963-83	I&E	1-Ring	Teflon/Rubber	<b>1610</b>
<b>3.6L 221 C.I., V8</b>				
1962-63	I&E	Ring & Band	Nitrile	<b>15483</b>
1962-63	I&E	Ring & Band	Poly	<b>25483</b>
1962-63	I&E	Ring & Band	Viton	<b>45483</b>
<b>3.7L 223 C.I., L6</b>				
1954-64	I&E	Umbrella	Nitrile	<b>15249</b>
1954-64	I&E	Ring & Band	Nitrile	<b>15483</b>
1954-64	I&E	Ring & Band	Poly	<b>25483</b>
1954-64	I&E	Umbrella	Nylon	<b>35140</b>
1954-64	I&E	Ring & Band	Viton	<b>45483</b>
1954-64	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1954-64	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.7L 223 C.I., L6, TRUCK</b>				
1954-64	I&E	Umbrella	Nitrile	<b>15249</b>
1954-64	I&E	2-Ring	Nitrile	<b>15704</b>
1954-64	I&E	2-Ring	Poly	<b>25704</b>
1954-64	I&E	Umbrella	Nylon	<b>35140</b>
1954-64	I&E	Ring & Band	Viton	<b>45704</b>
1954-64	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1954-64	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.8L 232 C.I., V6, Vin 3, 4, R</b>				
1999-03	I&E	Top Hat	Viton	<b>55822</b>
1996-98	I&E	Metal Clad	Viton	<b>55854</b>
1989-95	I	Metal Clad	Viton	<b>55850</b>
1989-95	E	Metal Clad	Viton	<b>55851</b>
1982-88	I&E	Umbrella	Nitrile	<b>15120</b>
1982-88	I&E	Umbrella	Poly	<b>25120</b>
1982-88	I&E	Umbrella	Nylon	<b>35595</b>
1982-88	I&E	Ring & Band	Viton	<b>45704</b>
<b>3.9L 240 C.I. L6, C5PF</b>				
1965-74	I&E	Umbrella	Nitrile	<b>15115</b>
1965-74	I&E	Ring & Band	Nitrile	<b>15483</b>
1965-74	I&E	Umbrella	Poly	<b>25115</b>
1965-74	I&E	Ring & Band	Poly	<b>25483</b>
1965-74	I&E	Umbrella	Nylon	<b>35140</b>
1965-74	I&E	Ring & Band	Viton	<b>45483</b>
1965-74	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1965-74	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.9L 240 C.I., L6, Vin A</b>				
1965-84	I&E	2-Ring	Nitrile	<b>15704</b>
1965-84	I&E	2-Ring	Poly	<b>25704</b>

**Part # Material Guide**

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F
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Part #'s in **BOLD** are common replacements

# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>3.9L 239 C.I., V8,</b>				
1954-55	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1954-55	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.0L 245 C.I., V6, Vin E, K</b>				
1997-05	I&E	Top Hat	Viton	<b>55820</b>
<b>4.0L 245 C.I., V6, Vin X "VGE4 German"</b>				
1998-01	I&E	Metal Clad	Viton	<b>45396</b>
<b>4.0L 240 C.I. L6</b>				
1986-93	I&E	Umbrella	Nitrile	<b>15124</b>
1986-93	I&E	Umbrella	Poly	<b>25124</b>
1986-93	I&E	Metal Clad	Viton	<b>45396</b>
1969-74	I&E	Umbrella	Nitrile	<b>15113</b>
1969-74	I&E	Umbrella	Poly	<b>25113</b>
1969-74	I&E	Umbrella	Nylon	<b>35129</b>
<b>4.1L 250 C.I., L6, Vin C, L</b>				
1969-80	I&E	Umbrella	Nitrile	<b>15113</b>
1969-80	I&E	Umbrella	Poly	<b>25113</b>
1969-80	I&E	Umbrella	Nylon	<b>35129</b>
1969-80	I&E	1-Ring	Teflon/Rubber	<b>1610</b>
<b>4.2L 256 C.I., V6, Vin 2 "TRITON"</b>				
1999-04	I&E	Top Hat	Viton	<b>55822</b>
1997-98	I&E	Metal Clad	Viton	<b>55854</b>
<b>4.2L 255 C.I., V8, Vin D</b>				
1980-82	I&E	Umbrella	Nitrile	<b>15241</b>
1980-82	I&E	2-Ring	Nitrile	<b>15736</b>
1980-82	I&E	Umbrella	Poly	<b>25241</b>
1980-82	I&E	2-Ring	Poly	<b>25736</b>
1980-82	I&E	Umbrella	Nylon	<b>35140</b>
1980-82	I&E	All-Rubber	Viton	<b>45241</b>
1980-82	I&E	Viton Insert	Viton	<b>45900</b>
<b>4.5L 272 C.I., V8</b>				
1956-57	I&E	Umbrella	Nitrile	<b>15101</b>
1955-57	I&E	2-Ring	Nitrile	<b>15704</b>
1955-57	I&E	Umbrella	Poly	<b>25101</b>
1955-57	I&E	2-Ring	Poly	<b>25704</b>
1955-57	I&E	Ring & Band	Viton	<b>45704</b>
<b>4.6L 281 C.I., V8, Vin R, V, Y "InTech"</b>				
1995-04	I&E	Top Hat	Viton	<b>55686</b>
<b>4.6L 281 C.I., V8, Vin 6, 9, W</b>				
1992-93	I&E	Top Hat	Viton	<b>55801</b>
<b>4.7L 289 C.I., V8, Vin C</b>				
1963-68	I&E	Umbrella	Nitrile	<b>15124</b>
1963-68	I&E	Umbrella	Poly	<b>25124</b>
1963-68	I&E	Umbrella	Nylon	<b>35129</b>
1963-68	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1963-68	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.8L 292 C.I., V8,</b>				
1955-64	I&E	Umbrella	Nitrile	<b>15115</b>
1955-64	I&E	Umbrella	Nitrile	<b>15101</b>
1955-64	I&E	2-Ring	Nitrile	<b>15704</b>
1955-64	I&E	Umbrella	Poly	<b>25115</b>
1955-64	I&E	Umbrella	Poly	<b>25101</b>
1955-64	I&E	2-Ring	Poly	<b>25704</b>
1955-64	I&E	Umbrella	Nylon	<b>35140</b>
1955-64	I&E	Ring & Band	Viton	<b>45704</b>
1955-64	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1955-64	I&E	Ring & Band	Teflon	<b>DT1811</b>

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>4.9L 300 C.I. L6, C5PG, 300GF</b>				
1965-94	I&E	Ring & Band	Nitrile	<b>15483</b>
1965-94	I&E	Umbrella	Nitrile	<b>15115</b>
1965-94	I&E	O-Ring	Nitrile	<b>15333</b>
1965-94	I&E	Ring & Band	Poly	<b>25483</b>
1965-94	I&E	Umbrella	Poly	<b>25115</b>
1965-94	I&E	O-Ring	Poly	<b>25333</b>
1965-94	I&E	Umbrella	Nylon	<b>35140</b>
1965-94	I&E	Ring & Band	Viton	<b>45483</b>
1965-94	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1965-94	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.9L 300 C.I., L6, Vin Z "LPG", Vin Y "Light Duty"</b>				
1991-96	I	2-Ring	Nitrile	<b>15704</b>
1991-96	I	2-Ring	Poly	<b>25704</b>
1991-96	I	Ring & Band	Viton	<b>45704</b>
1991-96	E	Ring & Band	Nitrile	<b>15483</b>
1991-96	E	Ring & Band	Poly	<b>25483</b>
1991-96	E	Ring & Band	Viton	<b>45483</b>
<b>4.9L 300 C.I., L6, F-250 PICKUP</b>				
1965-91	I&E	Umbrella	Nitrile	<b>15241</b>
1965-91	I&E	Umbrella	Poly	<b>25241</b>
1965-91	I&E	All-Rubber	Viton	<b>45241</b>
<b>5.0L 302 C.I., V8, Vin F, G, N, P</b>				
1968-95	I&E	Umbrella	Nitrile	<b>15124</b>
1968-95	I&E	Ring & Band	Nitrile	<b>15483</b>
1968-95	I&E	Umbrella	Poly	<b>25124</b>
1968-95	I&E	Ring & Band	Poly	<b>25438</b>
1968-95	I&E	Umbrella	Nylon	<b>35595</b>
1968-95	I&E	Ring & Band	Viton	<b>45483</b>
1968-95	I&E	Ring & Band	Viton	<b>45704</b>
1968-95	I&E	Ring & Band	Viton	<b>45736</b>
1968-95	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1968-95	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.0L 302 C.I., V8, Vin F</b>				
1969-01	I&E	Viton Insert	Viton	<b>45900</b>
1969-01	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1969-01	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.0L 302 C.I., V8, Vin N, P</b>				
1993-01	I&E	Metal Clad	Viton	<b>55862</b>
1993-01	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1993-01	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.0L 302 C.I., V8, Vin E, F, T, N, P</b>				
1990-95	I	Metal Clad	Viton	<b>55847</b>
1990-95	E	Metal Clad	Viton	<b>55846</b>
<b>5.1L 312 C.I., V8</b>				
1956-57	I&E	2-Ring	Nitrile	<b>15704</b>
1956-57	I&E	2-Ring	Poly	<b>25704</b>
1956-57	I&E	Ring & Band	Viton	<b>45704</b>
1956-57	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1956-57	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.4L 330 C.I., V8, Vin A, R "In-Tech"</b>				
1995-04	I&E	Top Hat	Viton	<b>55686</b>
<b>5.4L 330 C.I., V8, Motor Home</b>				
1964-79	I&E	Umbrella	Nitrile	<b>15118</b>
1964-79	I&E	Umbrella	Poly	<b>25118</b>
1964-79	I&E	Umbrella	Nylon	<b>35566</b>

## Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements





# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>5.4L 330 C.I., V8, Medium Duty</b>				
1975-77	I&E	Ring & Band	Nitrile	15076
1975-77	I&E	Umbrella	Nitrile	15108
1975-77	I&E	2-Ring	Poly	<b>25076</b>
1975-77	I&E	Umbrella	Poly	25108
1975-77	I&E	Umbrella	Nylon	35025
<b>5.4L 332 C.I., V8</b>				
1958-59	I&E	Umbrella	Nitrile	15108
1958-59	I&E	Umbrella	Poly	<b>25108</b>
1958-59	I&E	1-Ring	Teflon/Rubber	1612
1958-59	I&E	Ring & Band	Teflon	DT1612
<b>5.8L 351 C.I., V8, Vin R "LIGHTNING"</b>				
1993-95	I	2-Ring	Nitrile	<b>15736</b>
1993-95	I	2-Ring	Poly	25736
1993-95	I	Ring & Band	Viton	45736
1993-95	E	2-Ring	Poly	25701
<b>5.8L 351 C.I., V8, 351W Car &amp; Truck</b>				
1986-93	I	Ring & Band	Viton	45399
1986-93	I	Metal Clad	Viton	N32478
1986-93	E	Umbrella	Nylon	35595
<b>5.8L 351 C.I., V8, 351W, 351M Vin H Car</b>				
1969-93	I&E	Umbrella	Nitrile	15124
1969-93	I&E	Ring & Band	Nitrile	15483
1969-93	I&E	Umbrella	Poly	<b>25124</b>
1969-93	I&E	Ring & Band	Poly	25483
1969-93	I&E	Umbrella	Nylon	35140
1969-93	I&E	Ring & Band	Viton	45483
<b>5.8L 351 C.I., V8, 351M</b>				
1969-91	I&E	2-Ring	Nitrile	<b>15736</b>
1969-91	I&E	2-Ring	Poly	25736
<b>5.8L 351 C.I., V8, 351W, 351M Truck</b>				
1975-89	I&E	Umbrella	Nitrile	15124
1975-89	I&E	2-Ring	Nitrile	15704
1975-89	I&E	Ring & Band	Nitrile	15483
1975-89	I&E	Umbrella	Poly	<b>25124</b>
1975-89	I&E	2-Ring	Poly	25704
1975-89	I&E	Ring & Band	Poly	25483
1975-89	I&E	Umbrella	Nylon	35140
1975-89	I&E	Ring & Band	Viton	45483
1975-89	I&E	1-Ring	Teflon/Rubber	1811
1975-89	I&E	Ring & Band	Teflon	DT1811
<b>5.8L 351 C.I., V8, 351C (2 &amp; 4 BBL) Car</b>				
1970-74	I	Umbrella	Nylon	35140
1970-74	E	Umbrella	Nylon	35563
1970-74	I	Ring & Band	Viton	45704
1970-74	E	Ring & Band	Viton	45483
1970-74	I&E	Umbrella	Nitrile	15126
1970-74	I&E	Ring & Band	Nitrile	15483
1970-74	I&E	Umbrella	Nitrile	15124
1970-74	I&E	Umbrella	Poly	<b>25124</b>
1970-74	I&E	Ring & Band	Poly	25483
1970-74	I&E	1-Ring	Teflon/Rubber	1811
1970-74	I&E	Ring & Band	Teflon	DT1811

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>5.8L 351 C.I., V8, 351C (2 &amp; 4 BBL) Truck</b>				
1973-77	I&E	Umbrella	Nitrile	15126
1973-77	I&E	2-Ring	Nitrile	15704
1973-77	I&E	Umbrella	Poly	25126
1973-77	I&E	2-Ring	Poly	<b>25704</b>
1973-77	I&E	Ring & Band	Viton	45704
1973-77	I&E	1-Ring	Teflon/Rubber	1811
1973-77	I&E	Ring & Band	Teflon	DT1811
<b>5.8L 352 C.I., V8</b>				
1958-66	I&E	Ring & Band	Nitrile	15076
1958-66	I&E	Umbrella	Nitrile	15118
1958-66	I&E	2-Ring	Poly	25076
1958-66	I&E	Umbrella	Poly	<b>25118</b>
1958-66	I&E	Ring & Band	Teflon	DT1612
1965-67	I&E	Umbrella	Nitrile	15108
1965-67	I&E	Umbrella	Poly	25108
1965-67	I&E	Umbrella	Nylon	35025
1965-67	I&E	Ring & Band	Teflon	DT1612
<b>5.9L 359 C.I., V8, Vin K</b>				
1964-78	I&E	O-Ring	Nitrile	15333
1964-78	I&E	O-Ring	Poly	25333
<b>5.9L 360 C.I., V8, Vin Y</b>				
1968-76	I&E	Ring & Band	Nitrile	15076
1968-76	I&E	Umbrella	Nitrile	15108
1968-76	I&E	2-Ring	Poly	25076
1968-76	I&E	Umbrella	Poly	<b>25108</b>
1968-76	I&E	Umbrella	Nylon	35025
<b>5.9L 361 C.I., V8</b>				
1964-66	I&E	Umbrella	Nitrile	15118
1964-66	I&E	O-Ring	Nitrile	15333
1964-66	I&E	Umbrella	Poly	<b>25118</b>
1964-66	I&E	O-Ring	Poly	25333
1964-66	I&E	O-Ring	Viton	45333
<b>5.9L 361 C.I., V8</b>				
1958-59	I&E	Umbrella	Nitrile	15108
1958-59	I&E	Umbrella	Poly	25108
1958-59	I&E	Umbrella	Nylon	35025
<b>6.1L 370 C.I., V8, Vin A, H</b>				
1979-91	I&E	Umbrella	Nitrile	15118
1979-91	I&E	Ring & Band	Nitrile	15483
1979-91	I&E	Umbrella	Poly	<b>25118</b>
1979-91	I&E	Ring & Band	Poly	25483
1979-91	I&E	Umbrella	Nylon	35025
1979-91	I&E	Ring & Band	Viton	45483
1979-91	I&E	Ring & Band	Teflon	DT1811
<b>6.4L 389 C.I., V8</b>				
1975-78	I&E	Umbrella	Nitrile	15118
1975-78	I&E	O-Ring	Nitrile	15333
1975-78	I&E	Umbrella	Poly	<b>25118</b>
1975-78	I&E	O-Ring	Poly	25333
1975-78	I&E	Umbrella	Nylon	35025
1975-78	I&E	O-Ring	Viton	45333

**Part # Material Guide**

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>6.4L 390 C.I., V8, Vin Y</b>				
1961-76	I&E	Ring & Band	Nitrile	<b>15076</b>
1961-76	I&E	Umbrella	Nitrile	<b>15108</b>
1961-76	I&E	2-Ring	Poly	<b>25076</b>
1961-76	I&E	Umbrella	Poly	<b>25108</b>
1961-76	I&E	Umbrella	Nylon	<b>35025</b>
<b>6.4L 391 C.I., V8, Vin F</b>				
1964-78	I&E	Umbrella	Nitrile	<b>15118</b>
1964-78	I&E	Ring & Band	Nitrile	<b>15483</b>
1964-78	I&E	Umbrella	Poly	<b>25118</b>
1964-78	I&E	Ring & Band	Poly	<b>25483</b>
1964-78	I&E	Umbrella	Nylon	<b>35025</b>
1964-78	I&E	Ring & Band	Viton	<b>45483</b>
<b>6.6L 400 C.I., V8, Vin S, Z</b>				
1971-82	I	Umbrella	Nitrile	<b>15124</b>
1971-82	I	Umbrella	Poly	<b>25124</b>
1971-82	I	Umbrella	Nylon	<b>35140</b>
1971-82	E	Umbrella	Nitrile	<b>15101</b>
1971-82	E	Umbrella	Poly	<b>25101</b>
1971-82	E	Umbrella	Nylon	<b>35563</b>
1970-79	I&E	Ring & Band	Nitrile	<b>15483</b>
1970-79	I&E	Ring & Band	Poly	<b>25483</b>
1970-79	I&E	Ring & Band	Viton	<b>45483</b>
1970-79	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1970-79	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>6.6L 401 C.I., I6, CF600/800 SERIES</b>				
1986-94	I&E	Metal Clad	Viton	<b>55858</b>
<b>6.6L 401 C.I., V8, Vin H</b>				
1958-76	I&E	Umbrella	Nitrile	<b>15105</b>
1958-76	I&E	2-Ring	Nitrile	<b>15704</b>
1958-76	I&E	Umbrella	Poly	<b>25105</b>
1958-76	I&E	Umbrella	Nylon	<b>35793</b>
<b>6.6L 406 C.I., V8</b>				
1962-65	I&E	Ring & Band	Nitrile	<b>15076</b>
1962-65	I&E	Umbrella	Nitrile	<b>15108</b>
1962-65	I&E	2-Ring	Poly	<b>25076</b>
1962-65	I&E	Umbrella	Poly	<b>25108</b>
1962-65	I&E	Umbrella	Nylon	<b>35025</b>
1962-65	I&E	All-Rubber	Viton	<b>45241</b>
<b>6.7L 410 C.I., V8</b>				
1966-67	I&E	Umbrella	Nitrile	<b>15108</b>
1966-67	I&E	Umbrella	Poly	<b>25108</b>
1966-67	I&E	Umbrella	Poly	<b>25118</b>
1966-67	I&E	Umbrella	Nylon	<b>35025</b>
1966-67	I&E	All-Rubber	Viton	<b>45241</b>
<b>6.8L 415 C.I., V10 Vin S "Heavy Duty TRITON"</b>				
1997-04	I&E	Top Hat	Viton	<b>55686</b>
<b>6.9L 420 C.I., V8, Vin 1 "Navistar"</b>				
1983-87	I&E	Spring & Band	Viton	<b>45813</b>
1983-87	E	Umbrella	Nylon	<b>35566</b>

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>7.0L 428 C.I., V8, Vin P, Q, R</b>				
1966-70	I&E	Ring & Band	Nitrile	<b>15076</b>
1966-70	I&E	Umbrella	Nitrile	<b>15108</b>
1966-70	I&E	2-Ring	Poly	<b>25076</b>
1966-70	I&E	Umbrella	Poly	<b>25108</b>
1966-70	I&E	Umbrella	Nylon	<b>35025</b>
1966-70	I&E	All-Rubber	Viton	<b>45241</b>
<b>7.0L 429 C.I., V8, Vin 8 "Medium Duty"</b>				
1991-98	I	2-Ring	Nitrile	<b>15704</b>
1991-98	I	2-Ring	Poly	<b>25704</b>
1991-98	I	Ring & Band	Viton	<b>45704</b>
1991-98	E	2-Ring	Nitrile	<b>15736</b>
1991-98	E	2-Ring	Poly	<b>25736</b>
1991-98	E	Ring & Band	Viton	<b>45736</b>
<b>7.0L 429 C.I., V8, Vin C, J, K, N, Z</b>				
1968-83	I&E	Umbrella	Nitrile	<b>15241</b>
1968-83	I&E	Ring & Band	Nitrile	<b>15483</b>
1968-83	I&E	2-Ring	Nitrile	<b>15736</b>
1968-83	I&E	Umbrella	Poly	<b>25241</b>
1968-83	I&E	Ring & Band	Poly	<b>25486</b>
1968-83	I&E	2-Ring	Poly	<b>25736</b>
1968-83	I&E	Umbrella	Nylon	<b>35025</b>
1968-83	I&E	Ring & Band	Viton	<b>45483</b>
1968-83	I&E	Ring & Band	Viton	<b>45736</b>
<b>7.0L 429 C.I., V8, Vin J "Medium Duty"</b>				
1991-98	I	2-Ring	Nitrile	<b>15704</b>
1991-98	I	2-Ring	Poly	<b>25704</b>
1991-98	I	Ring & Band	Viton	<b>45736</b>
1991-98	E	Ring & Band	Nitrile	<b>15483</b>
1991-98	E	Ring & Band	Poly	<b>25483</b>
1991-98	E	Ring & Band	Viton	<b>45483</b>
<b>7.0L 429 C.I., V8, Vin K "Medium Duty"</b>				
1979-91	I&E	Umbrella	Nitrile	<b>15118</b>
1979-91	I&E	Umbrella	Nitrile	<b>15116</b>
1979-91	I&E	Umbrella	Poly	<b>25118</b>
1979-91	I&E	All-Rubber	Poly	<b>25616</b>
1979-91	I&E	Umbrella	Nylon	<b>35140</b>
1979-91	I&E	All-Rubber	Viton	<b>45241</b>
<b>7.3L 445 C.I., V8, Vin C, K "Navistar"</b>				
1988-94	I&E	Ring & Band	Nitrile	<b>15076</b>
1988-94	I&E	2-Ring	Poly	<b>25076</b>
1988-94	I&E	Umbrella	Nylon	<b>35566</b>
<b>7.3L 445 C.I., V8, Vin F "Navistar Turbo Direct Inj." "Power Stroke"</b>				
1994-03	I&E	Top Hat	Viton	<b>55815</b>
<b>7.3L 445 C.I., V8, Vin M "Navistar"</b>				
1988-94	I&E	Spring & Band	Viton	<b>45813</b>
<b>7.5L 460 C.I. V8, 460L, S, G, 875 R</b>				
1992-94	I	Metal Clad	Viton	<b>55845</b>
1992-94	E	Ring & Band	Nitrile	<b>15483</b>
1992-94	E	Ring & Band	Poly	<b>25483</b>
1992-94	E	Ring & Band	Viton	<b>45483</b>
1972-92	I&E	Umbrella	Nitrile	<b>15241</b>
1972-92	I&E	Umbrella	Poly	<b>25241</b>
1972-92	I&E	Umbrella	Nylon	<b>35240</b>
1972-92	I&E	All-Rubber	Viton	<b>45241</b>

### Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Ford (Cont.)</b>				
<b>7.5L 460 C.I., V8, Vin A, C</b>				
1968-87	I&E	Ring & Band	Nitrile	15076
1968-87	I&E	2-Ring	Poly	25076
1968-87	I&E	Umbrella	Nylon	35566
<b>7.5L 460 C.I., V8, Vin A, J, L</b>				
1987-92	I	Ring & Band	Viton	45806
1987-92	E	Ring & Band	Viton	45807
1973-87	I&E	Umbrella	Nitrile	15616
1973-87	I&E	All-Rubber	Poly	25616
1973-87	I&E	Umbrella	Nylon	35025
1973-87	I&E	All-Rubber	Viton	<b>45241</b>
<b>7.5L 460 C.I. V8, 460L, S, G, 875 R</b>				
1986-92	I&E	2-Ring	Nitrile	15704
1986-92	I&E	2-Ring	Poly	25704
1986-92	I&E	Ring & Band	Viton	45704
<b>7.5L 460 C.I., V8, Vin G "Includes LPG"</b>				
1992-97	I&E	Ring & Band	Viton	45736
<b>7.8L 475 C.I., V8, Vin J "Medium Duty"</b>				
1973-79	I&E	Umbrella	Nitrile	<b>15105</b>
1973-79	I&E	Umbrella	Poly	25105
1973-79	I&E	Umbrella	Nylon	35793
<b>7.8L 477 C.I. V8, B8PM, M</b>				
1958-81	I&E	Umbrella	Nitrile	<b>15105</b>
1958-81	I&E	Umbrella	Poly	25105
1958-81	I&E	Umbrella	Nylon	35793
<b>8.7L 534 C.I. V8, B8PN, N</b>				
1958-70	I&E	Umbrella	Nitrile	<b>15105</b>
1958-70	I&E	Umbrella	Nitrile	15105
1958-70	I&E	Umbrella	Nylon	35793
<b>8.8L 534 C.I., V8, Vin L "Medium Duty"</b>				
1958-81	I&E	Umbrella	Nitrile	<b>15105</b>
1958-81	I&E	Umbrella	Poly	25105
1958-81	I&E	Umbrella	Nylon	35793
<b>General Motors</b>				
<b>1.0L 993cc, 61 C.I., L3, Geo Vin 6 "G10 Suzuki"</b>				
1989-00	I&E	Metal Clad	Viton	55836
<b>1.0L 993cc, 61 C.I., L3, Chevy Vin 5, M "G10 Suzuki"</b>				
1985-88	I&E	Metal Clad	Viton	55830
<b>1.3L 1295cc, 79 C.I., L4, Geo Vin 9 "G13BA Suzuki"</b>				
1995-97	I&E	Metal Clad	Viton	55830
<b>1.3L 1295cc, 79 C.I., L4, Chevy Vin 2 "G13BB Suzuki"</b>				
1998-01	I&E	Metal Clad	Viton	55836
<b>1.4L 1393cc, 85 C.I., L4, Vin I</b>				
1976-77	I&E	Ring & Band	Viton	45506
<b>1.5L 1471cc, 92 C.I., L4, Vin 7, K "4XC1 Isuzu"</b>				
1985-89	I&E	Metal Clad	Viton	55825
<b>1.6L 1588cc, 98 C.I., L4, Geo Vin 6 "G16KV Suzuki"</b>				
1994-00	I&E	Metal Clad	Viton	55836
<b>1.6L 1588cc, 98 C.I., L4, Geo Vin 6 "4XE1 Isuzu"</b>				
1990-93	I&E	Metal Clad	Viton	55831

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>1.6L 1588cc, 98 C.I., L4, Geo Vin 5 "4AGE Toyota" "4XE1W Isuzu"</b>				
1990-92	I&E	Metal Clad	Viton	55831
<b>1.6L 1588cc, 98 C.I., L4, Geo Vin 5, 6 "4AF, 4AFE Toyota"</b>				
1989-97	I&E	Metal Clad	Viton	55831
<b>1.6L 1588cc, 98 C.I., L4, Geo Vin U "G16KC Suzuki"</b>				
1989-95	I&E	Metal Clad	Viton	55830
<b>1.6L 1588cc, 98 C.I., L4, Vin 6 "Korean"</b>				
1988-93	I&E	Metal Clad	Viton	45519
<b>1.6L 1588cc, 98 C.I., L4, Vin 5 "4AGE Toyota"</b>				
1988	I&E	Metal Clad	Viton	55831
<b>1.6L 1588cc, 98 C.I., L4, Vin 4 "4A1C Toyota"</b>				
1985-88	I&E	Metal Clad	Viton	55825
<b>1.6L 98 C.I., L4, Vin 9, C, E</b>				
1976-87	I	Ring & Band	Viton	45506
1976-87	E	Ring & Band	Viton	45802
<b>1.8L 1788cc, 110 C.I., L4, GeoVin 8 "4XF1 Isuzu" "7AFE Toyota"</b>				
1992-97	I&E	Metal Clad	Viton	55831
<b>1.8L 1762cc, 110 C.I., L4, Vin 8 "1ZZFE Toyota"</b>				
1998-02	I&E	Metal Clad	Viton	55709
<b>1.8L 1819cc, 110 C.I., L4, Vin D "4FB1 Isuzu" Vin N "Isuzu"</b>				
1972-86	I&E	Ring & Spring	Viton	45604
<b>1.8L 112 C.I., L4, Vin G</b>				
1982	I	Ring & Band	Viton	45506
1982	E	Ring & Band	Viton	45802
<b>1.8L 1816cc, 110 C.I., L4, Vin B "G180Z Isuzu"</b>				
1976-79	I&E	Ring & Spring	Viton	45604
<b>1.8L 1762cc, 110 C.I., L4, Vin L "2ZZGE Toyota" "High Output"</b>				
2003-05	I&E	Metal Clad	Viton	55724
<b>1.8L 1762cc, 110 C.I., L4, Vin 8 "1ZZFE Toyota"</b>				
2003-05	I&E	Metal Clad	Viton	55709
<b>1.9L 119 C.I., L4, Vin A "Isuzu"</b>				
1982-85	I&E	Ring & Spring	Viton	45604
<b>2.0L 122 C.I., L4, Vin Y</b>				
1983-89	I	Ring & Band	Viton	45506
1983-89	E	Ring & Band	Viton	45802
<b>2.0L 1995cc, 122 C.I., L4, Vin C "J20A Suzuki"</b>				
1999-03	I&E	Metal Clad	Viton	55861
<b>2.0L 122 C.I., L4, Vin H "Brazil"</b>				
1988-94	I&E	Metal Clad	Viton	45519
<b>2.2L 134 C.I., L4, Vin 4, 5</b>				
1998-03	I&E	Top Hat	Viton	55813
<b>2.2L 134 C.I., L4, Vin 4, 5</b>				
1994-97	I&E	Ring & Band	Viton	45819
<b>2.2L 134 C.I., L4, Vin S "Isuzu"</b>				
1981-84	I&E	Metal Clad	Viton	55827
<b>2.2L 134 C.I., L4, Vin 4, G</b>				
1990-93	I	Ring & Band	Viton	45506
1990-93	E	Ring & Band	Viton	45802

Engine Parts

### Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>2.3L 138 C.I., I4, Vin D "Quad 4"</b>				
1984-95	I&E	Metal Clad	Viton	55845
1988-91	I&E	Positive	Viton	<b>55225</b>
<b>2.3L 140 C.I., I4, Vin A, B</b>				
1971-77	I&E	Umbrella	Nitrile	<b>15120</b>
1971-77	I&E	Ring & Band	Nitrile	15483
1971-77	I&E	Umbrella	Poly	25120
1971-77	I&E	Ring & Band	Poly	25483
1971-77	I&E	Umbrella	Nylon	35563
1971-77	I&E	Umbrella	Viton	45120
1971-77	I&E	Ring & Band	Viton	45483
1971-77	I&E	1-Ring	Teflon/Rubber	1811
1971-77	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>2.4L 146 C.I., I4, Vin T, LD9</b>				
1996-02	I&E	Metal Clad	Viton	55708
<b>2.5L 2500cc, V6, Vin 4 "H25A Suzuki"</b>				
2001-04	I&E	Metal Clad	Viton	55861
<b>2.5L 151 C.I., I4, Vin U "Pontiac"</b>				
1987-93	I	Ring & Band	Viton	45875
1987-93	E	Ring & Band	Viton	45877
<b>2.5L 153 C.I., I4</b>				
1962-86	I&E	2-Ring	Nitrile	15736
1962-86	I&E	O-Ring	Nitrile	15333
1962-86	I&E	Umbrella	Nitrile	<b>15120</b>
1962-86	I&E	Ring & Band	Nitrile	15483
1962-86	I&E	2-Ring	Poly	25736
1962-86	I&E	O-Ring	Poly	<b>25333</b>
1962-86	I&E	Umbrella	Poly	25120
1962-86	I&E	Ring & Band	Poly	25483
1962-86	I&E	Umbrella	Nylon	35563
1962-86	I&E	O-Ring	Viton	45333
1962-86	I&E	Umbrella	Viton	45120
1962-86	I&E	Ring & Band	Viton	45483
1962-86	I&E	1-Ring	Teflon/Rubber	1811
1962-86	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>2.5L 153 C.I., I4</b>				
1986-95	I	Ring & Band	Viton	45506
1986-95	E	Ring & Band	Viton	45802
<b>2.7L 164 C.I., V6</b>				
1964-69	I&E	Umbrella	Nitrile	15120
1964-69	I&E	2-Ring	Nitrile	15704
1964-69	I&E	Umbrella	Poly	<b>25120</b>
1964-69	I&E	2-Ring	Poly	25704
1964-69	I&E	Umbrella	Nylon	35563
1964-69	I&E	Umbrella	Viton	45120
1964-69	I&E	Ring & Band	Viton	45704
1964-69	I&E	1-Ring	Teflon/Rubber	1811
1964-69	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>2.8L 169 C.I., I4, Vin 8 "Vortec"</b>				
2004-05	I&E	Top Hat	Viton	55821
<b>2.8L 173 C.I., V6, Vin S, W</b>				
1988-92	I	Ring & Band	Viton	45397
1988-92	E	Ring & Band	Viton	45398

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>2.8L 173 C.I., V6, Vin 1, 7, B, S, W, X, Z</b>				
1980-87	I&E	Umbrella	Nitrile	15120
1980-87	I&E	O-Ring	Nitrile	15333
1980-87	I&E	2-Ring	Nitrile	15704
1980-87	I&E	Umbrella	Poly	<b>25120</b>
1980-87	I&E	O-Ring	Poly	<b>25333</b>
1980-87	I&E	2-Ring	Poly	25704
1980-87	I&E	Umbrella	Nylon	35563
1980-87	I&E	Umbrella	Viton	45120
1980-87	I&E	O-Ring	Viton	45333
1980-87	I&E	Ring & Band	Viton	45704
1980-87	I&E	1-Ring	Teflon/Rubber	1811
1980-87	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.0L 181 C.I., V6, Vin L</b>				
1988-92	I	Metal Clad	Viton	N32690
1988-92	E	Ring & Band	Viton	45205
<b>3.0L 181 C.I., V6, Vin R</b>				
1997-01	I&E	Metal Clad	Viton	55717
<b>3.0L 181 C.I., V6, Vin L, E</b>				
1982-87	I&E	2-Ring	Nitrile	15736
1982-87	I&E	Ring & Band	Poly	25483
1982-87	I&E	2-Ring	Poly	25736
1982-87	I&E	Ring & Band	Viton	45483
<b>3.0L 181 C.I. "Buick"</b>				
1982-83	I&E	2-Ring	Nitrile	15205
1982-83	I&E	Umbrella	Nitrile	15120
1982-83	I&E	2-Ring	Poly	<b>25205</b>
1982-83	I&E	Umbrella	Poly	25120
1982-83	I&E	Umbrella	Nylon	35563
1982-83	I&E	Ring & Band	Viton	45205
1982-83	I&E	Umbrella	Viton	45120
1982-83	I&E	1-Ring	Teflon/Rubber	1811
1982-83	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.1L 189 C.I., V6, Vin J</b>				
2000-05	I&E	Top Hat	Viton	55816
<b>3.1L 189 C.I., V6, Vin W, T</b>				
1989-94	I	Ring & Band	Viton	45397
1985-94	E	Ring & Band	Viton	45398
<b>3.1L 189 C.I., V6, Vin D</b>				
1990-95	I&E	Umbrella	Nitrile	15120
1990-95	I&E	O-Ring	Nitrile	15333
1990-95	I&E	Umbrella	Poly	<b>25120</b>
1990-95	I&E	O-Ring	Poly	<b>25333</b>
1990-95	I&E	Umbrella	Viton	45120
1990-95	I&E	O-Ring	Viton	45333
1990-95	I&E	1-Ring	Teflon/Rubber	1811
1990-95	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>3.1L 189 C.I., V6, Vin M</b>				
1994-99	I&E	Top Hat	Viton	55811

## Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements



# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>3.2L 194 C.I., L6</b>				
1962-67	I&E	Umbrella	Nitrile	15120
1962-67	I&E	O-Ring	Nitrile	15333
1962-67	I&E	Ring & Band	Nitrile	15483
1962-67	I&E	2-Ring	Nitrile	15736
1962-67	I&E	Umbrella	Poly	<b>25120</b>
1962-67	I&E	O-Ring	Poly	<b>25333</b>
1962-67	I&E	Ring & Band	Poly	25483
1962-67	I&E	2-Ring	Poly	25736
1962-67	I&E	Umbrella	Nylon	35563
1962-67	I&E	Umbrella	Viton	45120
1962-67	I&E	O-Ring	Viton	45333
1962-67	I&E	Ring & Band	Viton	45483
1962-67	I&E	1-Ring	Teflon/Rubber	1811
1962-67	I&E	Ring & Band	Teflon	DT1811
<b>3.2L 196 C.I., V6, Vin C "Buick"</b>				
1978-79	I&E	Umbrella	Nitrile	15120
1978-79	I&E	2-Ring	Nitrile	15205
1978-79	I&E	Umbrella	Poly	25120
1978-79	I&E	2-Ring	Poly	<b>25205</b>
1978-79	I&E	Umbrella	Nylon	35563
1978-79	I&E	Umbrella	Viton	45120
1978-79	I&E	Ring & Band	Viton	45205
1978-79	I&E	1-Ring	Teflon/Rubber	1811
1978-79	I&E	Ring & Band	Teflon	DT1811
<b>3.2L 198 C.I., V6</b>				
1962-63	I&E	Umbrella	Nitrile	15120
1962-63	I&E	Ring & Band	Nitrile	15483
1962-63	I&E	Umbrella	Poly	25120
1962-63	I&E	Ring & Band	Poly	25483
1962-63	I&E	Umbrella	Nylon	35563
1962-63	I&E	Umbrella	Viton	45120
1962-63	I&E	Ring & Band	Viton	<b>45483</b>
1962-63	I&E	1-Ring	Teflon/Rubber	1811
1962-63	I&E	Ring & Band	Teflon	DT1811
<b>3.3L 200 C.I., V6, Vin M</b>				
1978-79	I&E	Umbrella	Nitrile	15120
1978-79	I&E	O-Ring	Nitrile	15333
1978-79	I&E	Ring & Band	Nitrile	15483
1978-79	I&E	2-Ring	Nitrile	15736
1978-79	I&E	Umbrella	Poly	<b>25120</b>
1978-79	I&E	O-Ring	Poly	<b>25333</b>
1978-79	I&E	Ring & Band	Poly	25483
1978-79	I&E	2-Ring	Poly	25736
1978-79	I&E	Umbrella	Nylon	35563
1978-79	I&E	Umbrella	Viton	45120
1978-79	I&E	O-Ring	Viton	45333
1978-79	I&E	1-Ring	Teflon/Rubber	1811
1978-79	I&E	Ring & Band	Teflon	DT1811
<b>3.3L 204 C.I., V6, Vin N</b>				
1989-93	I&E	2-Ring	Nitrile	15736
1989-93	I&E	Ring & Band	Nitrile	15483
1989-93	I&E	2-Ring	Poly	25736
1989-93	I&E	Ring & Band	Poly	25483
1989-93	I&E	Ring & Band	Viton	<b>45483</b>

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>3.4L 207 C.I., V6, Vin E</b>				
2000-05	I&E	Top Hat	Viton	55816
<b>3.4L 207 C.I., V6, Vin E, F</b>				
1996-99	I&E	Top Hat	Viton	55811
<b>3.4L 207 C.I., V6, Vin S</b>				
1993-95	I&E	2-Ring	Nitrile	15704
1993-95	I&E	2-Ring	Poly	25704
1993-95	I&E	Ring & Band	Viton	45704
<b>3.4L 207 C.I., V6, Vin X</b>				
1991-97	I&E	Metal Clad	Viton	55845
<b>3.5L 214 C.I., V6, Vin H</b>				
1999-03	I&E	Top Hat	Viton	55821
<b>3.5L 215 C.I., L8, "Olds Aluminum"</b>				
1961-63	I&E	Umbrella	Nitrile	15249
1961-63	I&E	Ring & Band	Nitrile	15483
1961-63	I&E	Ring & Band	Poly	25483
1961-63	I&E	Umbrella	Nylon	35595
1961-63	I&E	Ring & Band	Viton	45483
<b>3.5L 216 C.I., L6</b>				
1948-53	I&E	O-Ring	Nitrile	15333
1948-53	I&E	O-Ring	Poly	25333
1948-53	I&E	O-Ring	Viton	45333
<b>3.7L 225 C.I., V6</b>				
1964-65	I&E	2-Ring	Nitrile	15736
1964-65	I&E	Ring & Band	Nitrile	15483
1964-65	I&E	2-Ring	Poly	25736
1964-65	I&E	Ring & Band	Poly	25483
1964-65	I&E	Ring & Band	Viton	<b>45483</b>
<b>3.8L 229 C.I., V6, Vin 9, K</b>				
1980-84	I&E	Umbrella	Nitrile	15120
1980-84	I&E	O-Ring	Nitrile	15333
1980-84	I&E	Ring & Band	Nitrile	15483
1980-84	I&E	2-Ring	Nitrile	15736
1980-84	I&E	Umbrella	Poly	<b>25120</b>
1980-84	I&E	O-Ring	Poly	<b>25333</b>
1980-84	I&E	Ring & Band	Poly	25483
1980-84	I&E	2-Ring	Poly	25736
1980-84	I&E	Umbrella	Nylon	35563
1980-84	I&E	Umbrella	Viton	45120
1980-84	I&E	Ring & Band	Viton	45483
1980-84	I&E	1-Ring	Teflon/Rubber	1811
1980-84	I&E	Ring & Band	Teflon	DT1811
<b>3.8L 230 C.I., L6, Vin S "Chevrolet"</b>				
1963-69	I&E	Umbrella	Nitrile	15120
1963-69	I&E	O-Ring	Nitrile	15333
1963-69	I&E	Ring & Band	Nitrile	15483
1963-69	I&E	2-Ring	Nitrile	15736
1963-69	I&E	Umbrella	Poly	<b>25120</b>
1963-69	I&E	O-Ring	Poly	<b>25333</b>
1963-69	I&E	Ring & Band	Poly	25483
1963-69	I&E	2-Ring	Poly	25736
1963-69	I&E	Umbrella	Nylon	35563
1963-69	I&E	Umbrella	Viton	45120
1963-69	I&E	O-Ring	Viton	45333
1963-69	I&E	Ring & Band	Viton	45483
1963-69	I&E	1-Ring	Teflon/Rubber	1811
1963-69	I&E	Ring & Band	Teflon	DT1811

**Part # Material Guide**

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F
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Part #'s in **BOLD** are common replacements

# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>3.8L 231 C.I., V6, Vin L</b>				
1978-95	I	Metal Clad	Viton	<b>N32690</b>
1992-95	E	Ring & Band	Viton	<b>45205</b>
<b>3.8L 231 C.I., V6, Vin 1, 4 "Supercharged"</b>				
2000-05	I	Ring & Band	Viton	<b>45808</b>
2000-05	E	Ring & Band	Viton	<b>45809</b>
1991	I	Ring & Band	Nitrile	<b>15483</b>
1991	I	Ring & Band	Poly	<b>25483</b>
1991	I	Umbrella	Nylon	<b>35563</b>
1991	I	Ring & Band	Viton	<b>45483</b>
1991	E	2-Ring	Nitrile	<b>15205</b>
1991	E	2-Ring	Poly	<b>25205</b>
1991	E	Ring & Band	Viton	<b>45205</b>
<b>3.8L 231 C.I., V6, Vin 7, 9 "Turbo Buick"</b>				
1984-87	I	Ring & Band	Nitrile	<b>15483</b>
1984-87	I	Ring & Band	Poly	<b>25483</b>
1984-87	I	Umbrella	Nylon	<b>35563</b>
1984-87	I	Ring & Band	Viton	<b>45483</b>
1984-87	E	2-Ring	Nitrile	<b>15205</b>
1984-87	E	2-Ring	Poly	<b>25205</b>
1984-87	E	Ring & Band	Viton	<b>45205</b>
1977-95	E	Ring & Band	Nitrile	<b>15483</b>
1977-95	E	Ring & Band	Poly	<b>25483</b>
1977-95	E	Umbrella	Nylon	<b>35563</b>
1977-95	E	Ring & Band	Viton	<b>45483</b>
<b>3.9L 239 C.I., L4, Vin L "Turbo Cummins"</b>				
1989-91	I&E	Ring & Band	Viton	<b>45805</b>
1989-91	I&E	Ring & Band	Viton	<b>45802</b>
<b>3.9L 235 C.I., I6</b>				
1941-62	I&E	Umbrella	Nitrile	<b>15120</b>
1941-62	I&E	O-Ring	Nitrile	<b>15333</b>
1941-62	I&E	Ring & Band	Nitrile	<b>15483</b>
1941-62	I&E	2-Ring	Nitrile	<b>15736</b>
1941-62	I&E	Umbrella	Poly	<b>25120</b>
1941-62	I&E	O-Ring	Poly	<b>25333</b>
1941-62	I&E	Ring & Band	Poly	<b>25483</b>
1941-62	I&E	2-Ring	Poly	<b>25736</b>
1941-62	I&E	Umbrella	Nylon	<b>35563</b>
1941-62	I&E	Umbrella	Viton	<b>45120</b>
1941-62	I&E	O-Ring	Viton	<b>45333</b>
1941-62	I&E	Ring & Band	Viton	<b>45483</b>
1941-62	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1941-62	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.1L 250 C.I., I6, Vin D</b>				
1966-79	I&E	2-Ring	Nitrile	<b>15704</b>
1966-79	I&E	2-Ring	Poly	<b>25704</b>
1966-79	I&E	Ring & Band	Viton	<b>45704</b>
<b>4.1L 250 C.I., V8, Vin 7, 8 "Cadillac"</b>				
1982-88	I&E	Positive	Viton	<b>55341</b>
<b>4.1L 250 C.I., I6, Vin C, D, L, N, P, Q, S (Cont. on Column)</b>				
1966-84	I&E	Umbrella	Nitrile	<b>15120</b>
1966-84	I&E	O-Ring	Nitrile	<b>15333</b>
1966-84	I&E	Ring & Band	Nitrile	<b>15483</b>

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>4.1L 250 C.I., I6, Vin C, D, L, N, P, Q, S (Cont.)</b>				
1966-84	I&E	2-Ring	Nitrile	<b>15736</b>
1966-84	I&E	Umbrella	Poly	<b>25120</b>
1966-84	I&E	O-Ring	Poly	<b>25333</b>
1966-84	I&E	Ring & Band	Poly	<b>25483</b>
1966-84	I&E	2-Ring	Poly	<b>25736</b>
1966-84	I&E	Umbrella	Nylon	<b>35563</b>
1966-84	I&E	Umbrella	Viton	<b>45120</b>
1966-84	I&E	O-Ring	Viton	<b>45333</b>
1966-84	I&E	Ring & Band	Viton	<b>45483</b>
1966-84	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1966-84	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.1L 252 C.I., V6, Vin 4 "Buick" .605 Guide</b>				
1980-84	I&E	Umbrella	Nitrile	<b>15120</b>
1980-84	I&E	2-Ring	Nitrile	<b>15205</b>
1980-84	I&E	Umbrella	Poly	<b>25120</b>
1980-84	I&E	2-Ring	Poly	<b>25205</b>
1980-84	I&E	Umbrella	Nylon	<b>35563</b>
1980-84	I&E	Umbrella	Viton	<b>45120</b>
1980-84	I&E	Ring & Band	Viton	<b>45205</b>
1980-84	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1980-84	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.1L 252 C.I., V6, Vin 4 "Buick" .552 Guide</b>				
1980-87	I&E	Umbrella	Nitrile	<b>15120</b>
1980-87	I&E	Ring & Band	Nitrile	<b>15483</b>
1980-87	I&E	Umbrella	Poly	<b>25120</b>
1980-87	I&E	Ring & Band	Poly	<b>25483</b>
1980-87	I&E	Umbrella	Nylon	<b>35563</b>
1980-87	I&E	Umbrella	Viton	<b>45120</b>
1980-87	I&E	Ring & Band	Viton	<b>45483</b>
1980-87	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1980-87	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.2L 256 C.I., I6, Vin S</b>				
2002-04	I&E	Top Hat	Viton	<b>55821</b>
<b>4.3L 262 C.I., V6, Vin W</b>				
1996-02	I&E	Metal Clad	Viton	<b>55703</b>
<b>4.3L 262 C.I., V6, Also 1975-76</b>				
1985-96	I&E	O-Ring	Nitrile	<b>15333</b>
1985-96	I&E	Umbrella	Nitrile	<b>15120</b>
1985-96	I&E	Ring & Band	Nitrile	<b>15483</b>
1985-96	I&E	O-Ring	Poly	<b>25333</b>
1985-96	I&E	Umbrella	Poly	<b>25120</b>
1985-96	I&E	Ring & Band	Poly	<b>25483</b>
1985-96	I&E	Umbrella	Nylon	<b>35563</b>
1985-96	I&E	O-Ring	Viton	<b>45333</b>
1985-96	I&E	Umbrella	Viton	<b>45120</b>
1985-96	I&E	Ring & Band	Viton	<b>45483</b>
1985-96	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1985-96	I&E	Ring & Band	Teflon	<b>DT1811</b>

## Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements





# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>4.4L 267 C.I., V8, Vin J "Chevrolet"</b>				
1979-82	I&E	Ring & Band	Viton	<b>45483</b>
1979-82	I&E	O-Ring	Nitrile	<b>15333</b>
1979-82	I&E	Umbrella	Nitrile	<b>15120</b>
1979-82	I&E	O-Ring	Poly	<b>25333</b>
1979-82	I&E	Umbrella	Poly	<b>25120</b>
1979-82	I&E	Umbrella	Nylon	<b>35563</b>
1979-82	I&E	Ring & Band	Viton	<b>45433</b>
1979-82	I&E	Umbrella	Viton	<b>45120</b>
1979-82	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1979-82	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.5L 273 C.I., V8, Vin 3, 5, 8 "Cadillac"</b>				
1988-92	I&E	Positive	Viton	<b>55341</b>
1988-92	I&E	Metal Clad	Viton	<b>NUV0756-EO</b>
<b>4.6L 281 C.I., V8, Vin 9, A, Y "Northstar"</b>				
2000-05	I&E	Top Hat	Viton	<b>55821</b>
1993-99	I&E	Top Hat	Viton	<b>55806</b>
<b>4.6L 283 C.I., V8</b>				
1957-67	I&E	Ring & Band	Viton	<b>45483</b>
1957-67	I&E	O-Ring	Nitrile	<b>15333</b>
1954-67	I&E	Umbrella	Nitrile	<b>15120</b>
1954-67	I&E	Ring & Band	Viton	<b>45433</b>
1954-67	I&E	O-Ring	Poly	<b>25333</b>
1954-67	I&E	Umbrella	Poly	<b>25120</b>
1954-67	I&E	Umbrella	Nylon	<b>35563</b>
1954-67	I&E	Umbrella	Viton	<b>45120</b>
1954-67	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1954-67	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.8L 293 C.I., V8, Vin V</b>				
2001-04	E	Top Hat	Viton	<b>55818</b>
2001-04	I	Top Hat	Viton	<b>55817</b>
1999-01	I&E	Metal Clad	Viton	<b>55716</b>
<b>4.8L 292 C.I., I6, Vin S, T</b>				
1963-89	I&E	Ring & Band	Viton	<b>45483</b>
1963-89	I&E	O-Ring	Nitrile	<b>15333</b>
1963-89	I&E	Umbrella	Nitrile	<b>15120</b>
1963-89	I&E	O-Ring	Poly	<b>25333</b>
1963-89	I&E	Umbrella	Poly	<b>25120</b>
1963-89	I&E	Umbrella	Nylon	<b>35563</b>
1963-89	I&E	O-Ring	Viton	<b>45333</b>
1963-89	I&E	Umbrella	Viton	<b>45120</b>
1963-89	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1963-89	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>4.9L 300 C.I., V8, Vin B "Cadillac"</b>				
1991-95	I&E	Positive	Viton	<b>55341</b>
1991-95	I&E	Metal Clad	Viton	<b>NUV0756-EO</b>
<b>4.9L 301 C.I., V8, Vin W, Y (Cont. on Next Column)</b>				
1968-81	I&E	Umbrella	Nitrile	<b>15120</b>
1968-81	I&E	2-Ring	Nitrile	<b>15704</b>
1968-81	I&E	Umbrella	Poly	<b>25120</b>

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>4.9L 301 C.I., V8, Vin W, Y (Cont.)</b>				
1968-81	I&E	2-Ring	Poly	<b>25704</b>
1968-81	I&E	Umbrella	Nylon	<b>35563</b>
1968-81	I&E	Umbrella	Viton	<b>45120</b>
1968-81	I&E	Ring & Band	Viton	<b>45704</b>
1968-81	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1968-81	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.0L 305 C.I., V8</b>				
1998-02	I&E	Metal Clad	Viton	<b>55703</b>
<b>5.0L 305 C.I. &amp; 307 C.I. V8</b>				
1967-95	I&E	Umbrella	Nitrile	<b>15120</b>
1967-95	I&E	O-Ring	Nitrile	<b>15333</b>
1967-95	I&E	Ring & Band	Nitrile	<b>15483</b>
1967-95	I	Umbrella	Nylon	<b>35563</b>
1967-95	E	Umbrella	Nylon	<b>35240</b>
1967-95	I&E	Umbrella	Poly	<b>25120</b>
1967-95	I&E	O-Ring	Poly	<b>25333</b>
1967-95	I&E	Ring & Band	Poly	<b>25483</b>
1967-95	I&E	Umbrella	Viton	<b>45120</b>
1967-95	I&E	O-Ring	Viton	<b>45333</b>
1967-95	I&E	Ring & Band	Viton	<b>45483</b>
1967-95	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1967-95	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.3L 323 C.I., V8</b>				
2001-04	I	Top Hat	Viton	<b>55817</b>
2001-04	E	Top Hat	Viton	<b>55818</b>
1999-01	I&E	Metal Clad	Viton	<b>55716</b>
<b>5.4L 327 &amp; 330 C.I., V8</b>				
1962-69	I&E	Umbrella	Nitrile	<b>15120</b>
1962-69	I&E	O-Ring	Nitrile	<b>15333</b>
1962-69	I&E	Ring & Band	Nitrile	<b>15483</b>
1962-69	I&E	2-Ring	Nitrile	<b>15389</b>
1962-69	I&E	Umbrella	Poly	<b>25120</b>
1962-69	I&E	O-Ring	Poly	<b>25333</b>
1962-69	I&E	Ring & Band	Poly	<b>25483</b>
1962-69	I&E	Ring & Band	Poly	<b>25389</b>
1962-69	I&E	Umbrella	Nylon	<b>35563</b>
1962-69	I&E	Umbrella	Viton	<b>45120</b>
1962-69	I&E	O-Ring	Viton	<b>45333</b>
1962-69	I&E	Ring & Band	Viton	<b>45483</b>
1962-69	I&E	1-Ring	Teflon/Rubber	<b>1811</b>
1962-69	I&E	Ring & Band	Teflon	<b>DT1811</b>
<b>5.6L 340 C.I., V8</b>				
1966-67	I&E	2-Ring	Nitrile	<b>15389</b>
1966-67	I&E	Ring & Band	Poly	<b>25389</b>
<b>5.7L 350 C.I., V8, Vin G "LS1"</b>				
2001-04	I	Top Hat	Viton	<b>55817</b>
2001-04	E	Top Hat	Viton	<b>55818</b>
1997-01	I&E	Metal Clad	Viton	<b>55716</b>
<b>5.7L 350 C.I., V8, Vin P "LT1"</b>				
1994-97	I&E	Metal Clad	Viton	<b>55703</b>
<b>5.7L 350 C.I., V8, Vin R</b>				
1996-02	I&E	Metal Clad	Viton	<b>55703</b>

Part # Material Guide					
15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements

# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>5.7L 350 C.I., Diesel</b>				
1977-85	I&E	Umbrella	Nitrile	15120
1977-85	I&E	2-Ring	Nitrile	15704
1977-85	I&E	Ring & Band	Nitrile	15483
1977-85	I	Umbrella	Nylon	35563
1977-85	E	Umbrella	Nylon	35595
1977-85	I&E	Umbrella	Poly	25120
1977-85	I&E	2-Ring	Poly	25704
1977-85	I&E	Ring & Band	Poly	25483
1977-85	I&E	Umbrella	Viton	45120
1977-85	I&E	Ring & Band	Viton	45704
1977-85	I&E	Ring & Band	Viton	45483
1977-85	I&E	1-Ring	Teflon/Rubber	1811
1977-85	I&E	Ring & Band	Teflon	DT1811
<b>5.7L 350 C.I.</b>				
1967-93	I&E	O-Ring	Nitrile	15333
1967-93	I&E	Umbrella	Nitrile	15120
1967-93	I&E	2-Ring	Nitrile	15704
1967-93	I&E	Ring & Band	Nitrile	15483
1967-93	I	Umbrella	Nylon	35563
1967-93	E	Umbrella	Nylon	35595
1967-93	I&E	O-Ring	Poly	25333
1967-93	I&E	Umbrella	Poly	25120
1967-93	I&E	2-Ring	Poly	25704
1967-93	I&E	Ring & Band	Poly	25483
1967-93	I&E	O-Ring	Viton	45333
1967-93	I&E	Umbrella	Viton	45120
1967-93	I&E	Ring & Band	Viton	45704
1967-93	I&E	Ring & Band	Viton	45483
1967-93	I&E	1-Ring	Teflon/Rubber	1811
1967-93	I&E	Ring & Band	Teflon	DT1811
<b>5.8L 351 C.I., V6</b>				
1966-71	I&E	O-Ring	Nitrile	15333
1966-71	I&E	O-Ring	Poly	25333
1966-71	I&E	O-Ring	Viton	45333
<b>5.8L 351 C.I., V6</b>				
1960-65	I&E	2-Ring	Nitrile	15736
1960-65	I&E	2-Ring	Poly	25736
1960-65	I&E	Ring & Band	Viton	45736
<b>6.0L 364 C.I., V8, Vin N, U</b>				
2001-05	I	Top Hat	Viton	55817
2001-05	E	Top Hat	Viton	55818
1999-01	I&E	Metal Clad	Viton	55716
<b>6.0L 368 C.I., V8, Vin 6 "Cadillac"</b>				
1980-84	I&E	Metal Clad	Viton	N32690
<b>6.0L 366 C.I., V8</b>				
1966-98	I&E	Umbrella	Nitrile	15118
1966-98	I&E	Ring & Band	Nitrile	15483
1966-98	I&E	Umbrella	Poly	25118
1966-98	I&E	Ring & Band	Poly	25483
1966-98	I&E	Umbrella	Nylon	35025
1966-98	I&E	Ring & Band	Viton	45483

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>6.2L 379 C.I., V8, Vin C, J</b>				
1982-93	I	O-Ring	Nitrile	15333
1982-93	I	O-Ring	Poly	25333
1982-93	I	O-Ring	Viton	45333
1982-93	E	Ring & Band	Nitrile	15076
1982-93	E	2-Ring	Poly	25076
1982-93	E	Metal Clad	Viton	55718
<b>6.4L 389 C.I., V8</b>				
1959-78	I&E	O-Ring	Nitrile	15333
1959-78	I&E	O-Ring	Poly	25333
1959-78	I&E	O-Ring	Viton	45333
<b>6.5L 395 C.I., V8</b>				
1992-02	I	O-Ring	Nitrile	15333
1992-02	I	O-Ring	Poly	25333
1992-02	I	O-Ring	Viton	45333
1992-02	E	Ring & Band	Nitrile	15076
1992-02	E	2-Ring	Poly	25076
<b>6.5L 396 C.I., V8</b>				
1966-70	I&E	Umbrella	Nitrile	15612
1966-70	I&E	Ring & Band	Nitrile	15076
1966-70	I&E	Umbrella	Poly	25612
1966-70	I&E	2-Ring	Poly	25076
1966-70	I&E	Umbrella	Nylon	35819
1966-70	I&E	Umbrella	Viton	45616
<b>6.6L 400 C.I., V8, Vin 1 "Duramax"</b>				
2001-04	I&E	Metal Clad	Viton	55723
<b>6.6L 400 C.I., V8, Small block</b>				
1975-80	I&E	O-Ring	Nitrile	15333
1975-80	I&E	Umbrella	Nitrile	15120
1975-80	I&E	2-Ring	Nitrile	15704
1975-80	I&E	O-Ring	Poly	25333
1975-80	I&E	Umbrella	Poly	25120
1975-80	I&E	2-Ring	Poly	25704
1975-80	I&E	Umbrella	Nylon	35563
1975-80	I&E	O-Ring	Viton	45333
1975-80	I&E	Umbrella	Viton	45120
1975-80	I&E	Ring & Band	Viton	45704
1975-80	I&E	1-Ring	Teflon/Rubber	1811
1975-80	I&E	Ring & Band	Teflon	DT1811
<b>6.6L 400 C.I., V8, Big block</b>				
1970-72	I&E	Umbrella	Nitrile	15612
1970-72	I&E	Ring & Band	Nitrile	15483
1970-72	I&E	Umbrella	Poly	25612
1970-72	I&E	Ring & Band	Poly	25483
1970-72	I&E	Umbrella	Viton	45616
1970-72	I&E	Ring & Band	Viton	45483
<b>6.6L 402 C.I., V8, Vin S, U "Big Block"</b>				
1970-72	I&E	Umbrella	Nitrile	15612
1970-72	I&E	Ring & Band	Nitrile	15076
1970-72	I&E	Umbrella	Poly	25612
1970-72	I&E	2-Ring	Poly	25076
1970-72	I&E	Umbrella	Nylon	35025
1970-72	I&E	Umbrella	Viton	45616

### Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements



# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>6.6L 403 C.I., V8, Vin K "Olds"</b>				
1977-79	I	Umbrella	Nylon	35595
1977-79	E	Umbrella	Nylon	35823
1977-79	I&E	Umbrella	Nitrile	15120
1977-79	I&E	Ring & Band	Poly	25483
1977-79	I&E	Umbrella	Poly	25120
1977-79	I&E	Umbrella	Nylon	35595
1977-79	I&E	Ring & Band	Nitrile	15483
1977-79	I&E	Ring & Band	Viton	45483
1977-79	I&E	Umbrella	Viton	45120
1977-79	I&E	1-Ring	Teflon/Rubber	1811
1977-79	I&E	Ring & Band	Teflon	DT1811
<b>6.7L 409 C.I., V8</b>				
1961-65	I&E	Umbrella	Nitrile	15612
1961-65	I&E	Ring & Band	Nitrile	15483
1961-65	I&E	2-Ring	Nitrile	15736
1961-65	I&E	Umbrella	Poly	25612
1961-65	I&E	Ring & Band	Poly	25483
1961-65	I&E	2-Ring	Poly	25736
1961-65	I&E	Umbrella	Nylon	35025
1961-65	I&E	Umbrella	Viton	45616
1961-65	I&E	Ring & Band	Viton	45483
<b>6.9L 421 C.I., V8</b>				
1963-64	I&E	Ring & Band	Nitrile	15483
1963-64	I&E	O-Ring	Nitrile	15333
1963-64	I&E	2-Ring	Nitrile	15736
1963-64	I&E	Ring & Band	Poly	25483
1963-64	I&E	O-Ring	Poly	25333
1963-64	I&E	2-Ring	Poly	25736
1963-64	I&E	Umbrella	Nylon	35025
1963-64	I&E	Ring & Band	Viton	45483
1963-64	I&E	O-Ring	Viton	45333
1963-64	I&E	1-Ring	Teflon/Rubber	1811
1963-64	I&E	Ring & Band	Teflon	DT1811
<b>7.0L 425 C.I., V8</b>				
1965-67	I&E	O-Ring	Nitrile	15333
1965-67	I&E	Ring & Band	Nitrile	15483
1965-67	I&E	O-Ring	Poly	25333
1965-67	I&E	Ring & Band	Poly	25483
1965-67	I&E	Umbrella	Nylon	35025
1965-67	I&E	O-Ring	Viton	45333
1965-67	I&E	Ring & Band	Viton	45483
1965-67	I&E	1-Ring	Teflon/Rubber	1811
1965-67	I&E	Ring & Band	Teflon	DT1811
<b>7.0L 427 C.I., V8</b>				
1966-69	I&E	O-Ring	Nitrile	15333
1966-69	I&E	Umbrella	Nitrile	15612
1966-69	I&E	O-Ring	Poly	25333
1966-69	I&E	Umbrella	Poly	25612
1966-69	I&E	Umbrella	Nylon	35025
1966-69	I&E	O-Ring	Viton	45333
1966-69	I&E	Umbrella	Viton	45616
1966-69	I&E	1-Ring	Teflon/Rubber	1812

Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>7.0L 427 C.I., V8, Heavy Duty Double Spring</b>				
1968-90	I&E	Ring & Band	Nitrile	15076
1968-90	I&E	Umbrella	Nitrile	15612
1968-90	I&E	2-Ring	Poly	25076
1968-90	I&E	Umbrella	Poly	25612
1968-90	I&E	Umbrella	Nylon	35819
1968-90	I&E	Umbrella	Nylon	35025
1968-90	I&E	Umbrella	Viton	45616
<b>7.0L 428 C.I., V8</b>				
1967-69	I&E	Ring & Band	Nitrile	15483
1967-69	I&E	Ring & Band	Poly	25483
1967-69	I&E	Umbrella	Nylon	35025
1967-69	I&E	Ring & Band	Viton	45483
1967-69	I&E	1-Ring	Teflon/Rubber	1811
1967-69	I&E	Ring & Band	Teflon	DT1811
<b>7.0L 430 C.I., V8</b>				
1967-70	I&E	Umbrella	Nitrile	15612
1967-70	I&E	Ring & Band	Nitrile	15076
1967-70	I&E	Umbrella	Poly	25612
1967-70	I&E	2-Ring	Poly	25076
1967-70	I&E	Umbrella	Nylon	35240
1967-70	I&E	Umbrella	Viton	45616
<b>7.1L 432 C.I., V6</b>				
1973-74	I&E	O-Ring	Nitrile	15333
1973-74	I&E	O-Ring	Poly	25333
1973-74	I&E	O-Ring	Viton	45333
<b>7.4L 454 C.I., V8, CAR</b>				
1970-00	I&E	Umbrella	Nitrile	15612
1970-00	I&E	2-Ring	Nitrile	15736
1970-00	I&E	Umbrella	Poly	25612
1970-00	I&E	2-Ring	Poly	25736
1970-00	I&E	Umbrella	Nylon	35025
1970-00	I&E	Umbrella	Viton	45616
<b>7.4L 454 C.I., V8, "Double Spring Truck"</b>				
1973-00	I&E	Umbrella	Nitrile	15612
1973-00	I&E	Ring & Band	Nitrile	15076
1973-00	I&E	Umbrella	Poly	25612
1973-00	I&E	2-Ring	Poly	25076
1973-00	I&E	Umbrella	Nylon	35025
1973-00	I&E	Umbrella	Nylon	35819
1973-00	I&E	Umbrella	Viton	45616
<b>7.5L 455 C.I., V8, Vin P, R, T, U, V, W</b>				
1968-78	I&E	Umbrella	Nitrile	15101
1968-78	I&E	Ring & Band	Nitrile	15483
1968-78	I&E	Umbrella	Poly	25101
1968-78	I&E	Ring & Band	Poly	25483
1968-78	I&E	Umbrella	Nylon	35563
1968-78	I&E	Umbrella	Viton	45616
1968-78	I&E	Ring & Band	Viton	45483
1968-78	I&E	Ring & Band	Teflon	DT1711

**Part # Material Guide**

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>General Motors (Cont.)</b>				
<b>7.7L 472 C.I., V8, Vin R</b>				
1968-78	I&E	Ring & Band	Nitrile	15076
1968-78	I&E	Umbrella	Nitrile	15612
1968-78	I&E	2-Ring	Poly	<b>25076</b>
1968-78	I&E	Umbrella	Poly	25612
1968-78	I&E	Umbrella	Nylon	35563
1968-78	I&E	Ring & Band	Viton	45483
1968-78	I&E	Ring & Band	Teflon	DT1711
<b>8.1L 496 C.I., V8, Vin G "Vortec"</b>				
2001-05	I&E	Metal Clad	Viton	55722
<b>8.2L 500 C.I., V8, Vin S</b>				
1970-76	I&E	2-Ring	Nitrile	15704
1970-76	I&E	Umbrella	Nitrile	15120
1970-76	I&E	2-Ring	Poly	<b>25704</b>
1970-76	I&E	Umbrella	Poly	25120
1970-76	I&E	Umbrella	Nylon	35563
1970-76	I&E	Ring & Band	Viton	45704
1970-76	I&E	Ring & Band	Teflon	DT1711
<b>11.6L, 702 C.I., V12</b>				
1960-63	I&E	O-Ring	Nitrile	15333
1960-63	I&E	O-Ring	Poly	25333
1960-63	I&E	O-Ring	Viton	45333
<b>Honda</b>				
<b>1.2L 1237cc L4 EB2-EB3</b>				
1974-79	I&E	Positive	Viton	45606
<b>1.3L 1335cc L4 EN1</b>				
1980-83	I&E	Metal Clad	Viton	55542
<b>1.3L 1335cc L4 EJ1</b>				
1981-83	I&E	Metal Clad	Viton	55542
<b>1.3L 1342cc L4 EV1-EV2</b>				
1984-86	I&E	Positive	Viton	45606
<b>1.3L 1342cc L4 D13A2-D15A1</b>				
1987	I&E	Positive	Viton	45606
<b>1.5L 1488cc L4 ED1-ED2 ED3-ED4</b>				
1975-79	I&E	Metal Clad	Viton	55542
<b>1.5L 1488cc L4 EM1</b>				
1980-83	I&E	Positive	Viton	45606
<b>1.5L 1488cc L4 EW1-EW2 D15A2</b>				
1984-88	I&E	Positive	Viton	45606
<b>1.5L 1488cc L4 EW3-EW4 D15A3</b>				
1985-87	I&E	Positive	Viton	45606
<b>1.6L 1597cc L4 EF1-EF2</b>				
1976-78	I&E	Positive	Viton	45606
<b>1.8L 1751cc L4 EK1</b>				
1979-83	I&E	Metal Clad	Viton	55542
<b>2.0L 1955cc, L4, BS</b>				
1986-89	I&E	Ring & Spring	Viton	45811
<b>2.0L 1958cc, L4, B20A5</b>				
1988-91	I&E	Ring & Spring	Viton	45811

Year	I/E	Style	Material	Part #
<b>Honda (Cont.)</b>				
<b>2.0L 1958cc, L4, "B20A3"</b>				
1988-90	I&E	Ring & Spring	Viton	45811
<b>2.0L 1972cc, L4, B20B4</b>				
1997-98	I&E	Metal Clad	Viton	55835
<b>2.0L 1972cc, L4, B20Z2</b>				
1999-01	I&E	Metal Clad	Viton	55835
<b>2.1L 2056cc, L4, B21A1</b>				
1990-91	I&E	Ring & Spring	Viton	45811
<b>2.2L 2156cc, L4, H22A1</b>				
1990-01	I	Metal Clad	Viton	55848
1990-01	E	Metal Clad	Viton	55849
<b>2.3L 2254cc, L4, F23A1, F23A4, F23A5, F23A7</b>				
1998-02	I	Metal Clad	Viton	55848
1998-02	E	Metal Clad	Viton	55849
<b>2.3L 2259cc, L4, H23A1</b>				
1992-96	I&E	Metal Clad	Viton	55835
<b>2.4L 2354cc, L4, K24A4</b>				
2003-05	I	Metal Clad	Viton	55848
<b>2.4L 2354cc, L4,</b>				
2003-05	E	Metal Clad	Viton	55849
<b>2.6L 2559cc, L4, 4ZE1 "Isuzu"</b>				
1994-96	I&E	Ring & Spring	Viton	45604
<b>2.7L 2675cc, V6, C27A4</b>				
1995-97	I&E	Metal Clad	Viton	55835
<b>3.0L 2997cc, V6, J30A1</b>				
2000-05	I	Metal Clad	Viton	55848
2000-02	E	Metal Clad	Viton	55849
<b>3.2L 3165cc, V6, 6VD1 "Isuzu"</b>				
1994-97	I&E	Metal Clad	Viton	55831
1994-97	I&E	Metal Clad	Viton	55831
<b>3.5L 3474cc, V6, J35A1</b>				
1999-04	I	Metal Clad	Viton	55848
1999-04	E	Metal Clad	Viton	55849
<b>Hyundai</b>				
<b>1.5L 1468cc, L4</b>				
1986-94	I&E	Positive	Viton	45606
<b>1.6L 1596cc, L4</b>				
1992-95	I&E	Positive	Viton	45606
<b>2.0L 1997cc, L4</b>				
1992-98	I&E	Positive	Viton	45606
<b>2.4L 2351cc, L4</b>				
1999-05	I&E	Positive	Viton	45606
<b>3.0L 2972cc, V6</b>				
2001	E	Positive	Viton	45606
1990-98	I&E	Metal Clad	Viton	55608
<b>3.5L 3500cc, V6</b>				
2002-05	E	Positive	Viton	45606
<b>IHC</b>				
<b>1.8L 113 C.I. L4, C113</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>2.0L 123 C.I. L4, U123 POWER UNIT, SUPER A1 AND AV1, SUPER C, 100, 100HC, 200</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>2.2L 135 C.I. L4, 91, 93, 201, 330, 340, 404, 2404, IND. LO-BOY, T5, TC5, T340, T340A - C135</b>				
	I&E	1-Ring	Teflon/Rubber	1811

## Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>IHC (Cont.)</b>				
<b>2.4L 146 C.I. L4, 424, 500, 500C, 660, 770, 780, 2424 - C146</b>				
	I&E	Umbrella	Nitrile	15120
	I&E	Umbrella	Poly	<b>25120</b>
	I&E	Umbrella	Viton	45120
<b>2.5L 152 C.I. L4, 122, H, HV, I4, IU4, 04, W, W4 -C152</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>2.5L 153 C.I. L4, 93, 105, 203, 210, 225, 230, 275, 375, 444, 504, 2444, 2500, 2504, 3514, 4000 - C153</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>2.7L 164 C.I. L4, SUPER H, HV, W4, U164 - C164</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>2.7L 166 C.I. L4, 340, TD340, D166</b>				
		2-Ring	Poly	25076
<b>2.9L 175 C.I. L4, 375, 454, 464, 2400A, 2400B, 2405B, 2410B, 2412B, 3400A, 3514, T7 SERIES C175</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>3.1L 188 C.I. L4, 504, 2504, 3514, H25B, S7A, S7B - D188</b>				
	I&E	2-Ring	Poly	25076
<b>3.6L 221 C.I. L6, 205, 260, 315, 460, 606, 4006, 3616 - C221</b>				
	I&E	O-Ring	Nitrile	15333
<b>3.8L 232 C.I. L6, 275, 375</b>				
	I&E	Ring & Band	Viton	45736
<b>3.9L 236 C.I. L6, 315, 460, 606, 2606, 3616, UD236, H30A, H30B, H30B-F, H30B-R - D236</b>				
	I&E	2-Ring	Poly	25076
<b>4.0L 248 C.I. L4, I6, IV6, M, MV, 06, 056, T6, U6, W6 - C248</b>				
	I&E	2-Ring	Poly	25076
<b>4.3L 264 C.I. L4, SUPER M, MV, W6, U264, 400, W400, T6-61 - C264</b>				
	I&E	2-Ring	Poly	25076
<b>4.3L 263 C.I. L6, 50, 403, 560, 615, 656, 660, 706, 2656, 2706, 3600A, 3800A, 3850, UC263</b>				
	I&E	O-Ring	Nitrile	15333
<b>4.6L 281 C.I. L4, 450, W450 - C281</b>				
	I&E	2-Ring	Poly	25076
<b>4.6L 282 C.I. L6,</b>				
	I	2-Ring	Poly	25076
<b>4.6L 282 C.I. L6, 403, 503 - C282</b>				
	I&E	Umbrella	Nitrile	15126
<b>4.8L 291 C.I. L6, 616, 622, 666, 706, 756, 766, 2706, 2756, 9000, HYDRO 70 - C291</b>				
	I&E	Umbrella	Nitrile	15126
<b>4.9L 301 C.I. L6, C301</b>				
	I&E	Umbrella	Nitrile	15126
<b>5.9L 360 C.I. L6</b>				
	I&E	Top Hat	Viton	55809
<b>7.6L 466 C.I. L6</b>				
	I&E	Top Hat	Viton	55812
	I&E	Top Hat	Viton	55809
	I&E	Oil Shield	Viton	55731
<b>8.7L 530 C.I. L6</b>				
	I&E	Top Hat	Viton	55812
	I&E	Top Hat	Viton	55808
	I&E	Top Hat	Viton	55812

Year	I/E	Style	Material	Part #
<b>I.H.C. NAVISTAR</b>				
<b>2.5L 152 C.I. L4</b>				
	I&E	O-Ring	Nitrile	15333
<b>3.2L 196 C.I. L4</b>				
	I&E	O-Ring	Nitrile	15333
<b>3.8L 232 C.I. L6</b>				
1969-78	I&E	Umbrella	Nylon	35566
<b>4.2L 258 C.I. L6</b>				
1971-78	I&E	Umbrella	Nitrile	15320
<b>5.6L 345 C.I. V8</b>				
	I&E	O-Ring	Nitrile	15333
<b>5.9L 360 C.I. L6</b>				
	I&E	Top Hat	Viton	55809
<b>6.4L 392 C.I. V8</b>				
	I&E	O-Ring	Nitrile	15333
<b>6.6L 400 C.I. V8</b>				
1974-75	I&E	Umbrella	Nylon	35566
<b>6.9L 420 C.I. V8</b>				
1983-87	I&E	Spring & Band	Viton	45813
1983-87	E	Umbrella	Nylon	35566
<b>7.3L 444 C.I. V8</b>				
1988-93	I&E	Spring & Band	Viton	45813
1988-93	E	Umbrella	Nylon	35566
<b>7.5L 461 C.I. V8</b>				
	I&E	O-Ring	Nitrile	15333
<b>7.6L 466 C.I. L6</b>				
	I&E	Top Hat	Viton	55809
	I&E	Oil Shield	Viton	55731
	I&E	Top Hat	Viton	55812
	I&E	Top Hat	Viton	55808
<b>7.8L 478 C.I. V8</b>				
	I&E	O-Ring	Nitrile	15333
<b>8.7L 530 C.I. L6</b>				
	I&E	Top Hat	Viton	55812
	I&E	Top Hat	Viton	55808
<b>9.0L 549 C.I. V8</b>				
	I&E	O-Ring	Nitrile	15333
<b>SD240 12 Valve L6</b>				
	I&E	O-Ring	Nitrile	15333
<b>Isuzu</b>				
<b>1.5L 1471cc, L4, Vin 7, K "4XC1"</b>				
1985-89	I&E	Metal Clad	Viton	55825
<b>1.6L 1588cc, L4, Vin 4 "4XE1W TURBO" 4XE1W, 4XE1</b>				
1989-93	I&E	Metal Clad	Viton	55831
<b>1.8L 1817cc, L4, Vin B, P "4FB1"</b>				
1981-87	I&E	Ring & Spring	Viton	45604
<b>1.8L 1817cc, L4, Vin 8 "4XF1"</b>				
1992	I&E	Metal Clad	Viton	55831
<b>2.0L 1994cc, L4, Vin F "4ZC1 TURBO"</b>				
1985-89	I&E	Ring & Spring	Viton	45604
<b>2.2L 2180cc, L4, Vin D, "X22SE"</b>				
1998-03	I&E	Metal Clad	Viton	55717
<b>2.2L 2180cc, L4, Vin 4, 5 "GM"</b>				
1998-00	I&E	Top Hat	Viton	55813
1996-97	I&E	Ring & Band	Viton	45819

Engine Parts

### Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are common replacements

# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Isuzu (Cont.)</b>				
<b>2.2L 2238cc, L4, Vin S "C223"</b>				
1981-87	I&E	Metal Clad	Viton	55714
<b>2.2L 2238cc, L4, Vin S "C223"</b>				
1981-87	I&E	Metal Clad	Viton	55827
<b>2.2L 2180cc, L4</b>				
1996-97	I&E	Ring & Band	Viton	45819
<b>2.3L 2254cc, L4, Vin L "4ZD1"</b>				
1986-95	I&E	Metal Clad	Viton	55714
1986-95	I&E	Ring & Spring	Viton	45604
<b>2.3L 2254cc, L4</b>				
1998-99	I	Metal Clad	Viton	55848
1998-99	E	Metal Clad	Viton	55849
<b>2.6L 2559cc, L4, Vin E "4ZE1"</b>				
1989-97	I&E	Ring & Spring	Viton	45604
<b>2.8L 2827cc, V6, Vin R "GM LL2"</b>				
1989-91	I&E	O-Ring	Nitrile	15333
<b>3.1L 3137cc, V6, Vin Z "GM CPC"</b>				
1992-94	I	Ring & Band	Viton	45803
1992-94	E	Ring & Band	Viton	45398
1991	I	Metal Clad	Viton	55845
1991	E	O-Ring	Nitrile	15333
<b>3.2L 3165cc, V6, Vin V "6VD1"</b>				
1992-97	I&E	Metal Clad	Viton	55831
<b>4.2L 256 C.I., L6, Vin S "GM"</b>				
2003-04	I&E	Top Hat	Viton	55821
<b>5.3L 323 C.I., V8, Vin P "GM"</b>				
2003-04	I	Top Hat	Viton	55817
2003-04	E	Top Hat	Viton	55818
<b>4BD1T &amp; 4BD2T Industrial L4</b>				
	I&E	Metal Clad	Viton	55711
<b>6BD1T &amp; 6BD2T Industrial L6</b>				
	I&E	Metal Clad	Viton	55711
<b>John Deere</b>				
<b>2.9L 3029 L3</b>				
	I&E	Ring & Band	Viton	45398
<b>3.9L 4039 L4</b>				
	I&E	Ring & Band	Viton	45398
<b>4.5L 4045 L4</b>				
	I&E	Ring & Band	Viton	45398
<b>5.9L 6059 L6</b>				
	I&E	Ring & Band	Viton	45398
<b>6.8L 6068 L6</b>				
	I&E	Ring & Band	Viton	45398
<b>Komatsu</b>				
<b>12.2L 743 C.I. L6</b>				
	I&E	1-Ring	Teflon/Rubber	1811
<b>14.0L 855 C.I. L6</b>				
	I&E	1-Ring	Teflon/Rubber	2214
<b>Mack</b>				
<b>E6350-2 Valve Diesel L6</b>				
	E	Metal Clad	Viton	55715
<b>E6350-4 Valve Diesel L6</b>				
	I&E	Metal Clad	Viton	55707
<b>E7-4 Valve Diesel L6</b>				
	I&E	Metal Clad	Viton	55707

Year	I/E	Style	Material	Part #
<b>Mack (Cont.)</b>				
<b>E7-E7ECH 4 Valve Diesel L6</b>				
	I&E	Metal Clad	Viton	55707
<b>END673, ENDT673, ET673, ETAG73 "12 Valve" Diesel &amp; Turbo Diesel L6</b>				
	E	Metal Clad	Viton	55715
<b>END707, END711 "12 Valve" L6</b>				
	E	Metal Clad	Viton	55715
<b>ENDT675, ETSX675 "12 Valve" Diesel L6</b>				
	E	Metal Clad	Viton	55715
<b>ENDT676, ETSX676 "12 Valve" L6</b>				
	E	Metal Clad	Viton	55715
<b>Mazda</b>				
<b>1.5L 1490cc, L4</b>				
1981-85	I&E	Metal Clad	Viton	55607
<b>1.6L 1586cc, L4</b>				
1971-77	I&E	Metal Clad	Viton	55607
<b>1.6L 1597cc, L4</b>				
1992-95	E	Metal Clad	Viton	55710
1994-95	I	Metal Clad	Viton	55861
1986-94	I&E	Metal Clad	Viton	55833
<b>1.6L 1597cc, L4 B6E Turbo</b>				
1988-89	I&E	Metal Clad	Viton	55831
<b>1.8L 1839cc, L4</b>				
1995-04	I	Metal Clad	Viton	55861
1995-04	E	Metal Clad	Viton	55710
1990-95	I&E	Metal Clad	Viton	55831
<b>2.0L 1970cc, L4</b>				
1979-84	I&E	Metal Clad	Viton	55607
<b>2.0L 1991cc, L4</b>				
2001-04	I&E	Top Hat	Viton	55819
1994-03	I	Metal Clad	Viton	55861
1994-03	E	Metal Clad	Viton	55710
1993	I&E	Metal Clad	Viton	55831
<b>2.0L 1998cc, L4</b>				
1984-87	I&E	Metal Clad	Viton	55826
<b>2.2L 2184cc, L4, V8 "F2"</b>				
1988-92	I&E	Metal Clad	Viton	55833
<b>2.2L 2184cc, L4</b>				
1987-93	I&E	Metal Clad	Viton	55826
<b>2.3L 2295cc, L4</b>				
1995-98	I&E	Metal Clad	Viton	55854
<b>2.3L 2254cc, V6</b>				
1995-02	I	Metal Clad	Viton	55861
1995-02	E	Metal Clad	Viton	55710
<b>2.3L 2295cc, L4</b>				
1994	I&E	Ring & Band	Viton	45736
1994	I	Metal Clad	Viton	55847
1994	E	Metal Clad	Viton	55846
<b>2.5L 2492cc, L4</b>				
1999-01	I&E	Top Hat	Viton	55822
<b>2.5L 2497cc, V6</b>				
1993-02	I	Metal Clad	Viton	55861
1993-02	E	Metal Clad	Viton	55710

## Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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# Valve Stem Seals

Year	I/E	Style	Material	Part #
<b>Mazda (Cont.)</b>				
<b>2.6L 2606cc, L4</b>				
1989-94	I&E	Metal Clad	Viton	55833
<b>2.6L 2555cc, L4</b>				
1987-88	I&E	Ring & Band	Viton	45736
<b>2.6L 2555cc, L4</b>				
1987-88	I&E	Metal Clad	Viton	55608
<b>3.0L 2954cc, V6</b>				
1993-95	I	Metal Clad	Viton	55861
1993-95	E	Metal Clad	Viton	55710
<b>3.0L 2954cc, V6</b>				
1990-98	I&E	Metal Clad	Viton	55833
<b>3.0L 2954cc, V6, Vin 1 "FORD"</b>				
2001-04	I&E	Top Hat	Viton	55802
<b>3.0L 2954cc, V6, Vin U "FORD"</b>				
1994-99	I	Ring & Band	Viton	45356
1994-99	E	Ring & Band	Viton	45357
<b>3.0L 2954cc, V6</b>				
1992	I&E	Metal Clad	Viton	55831
<b>3.0L 2954cc, V6</b>				
1988-98	E	Metal Clad	Viton	55826
<b>4.0L 4016cc, V6, Vin X "VGE4 FORD"</b>				
1991-00	I&E	Metal Clad	Viton	45396
<b>4.0L 4016cc, V6, Vin E "FORD"</b>				
2001-05	I&E	Top Hat	Viton	55820
<b>Mitsubishi</b>				
<b>1.5L 1468cc, L4, Vin A, "4G15", Vin J "G4DJ", Vin K "G15B", Vin X "4G15"</b>				
1985-02	I&E	Positive	Viton	45606
<b>1.5L 1439cc L4, 4G33 Forklift Mitsubishi</b>				
	I&E	Ring & Band	Viton	45736
	I&E	Metal Clad	Viton	55608
<b>1.6L 1597cc, L4, Vin Y "4G61", Vin Z "4G61 TURBO"</b>				
1989-92	I&E	Positive	Viton	45606
<b>1.6L 1597cc, L4, Vin F "G32B TURBO"</b>				
1985-88	I&E	Metal Clad	Viton	55608
<b>1.8L 1755cc, L4, Vin B, T "4G37"</b>				
1990-94	I&E	Metal Clad	Viton	55608
<b>1.8L 1795cc, L4, Vin 4 "G62B"</b>				
1983	I&E	Metal Clad	Viton	55608
<b>1.8L 1795cc, L4, Vin G "G62B TURBO"</b>				
1984-88	I&E	Metal Clad	Viton	55608
<b>1.8L 1834cc, L4, Vin C, D, "4G93"</b>				
1992-02	I&E	Metal Clad	Viton	55653
<b>2.0L 1997cc L4, 4G63T</b>				
1990-99	I&E	Positive	Viton	45606
<b>2.0L 1997cc, L4, Vin D, "4G63 TURBO"</b>				
2003-05	I&E	Positive	Viton	45606
<b>2.0L 1997cc, L4, Vin E, R "4G63"</b>				
1989-94	I&E	Positive	Viton	45606
<b>2.0L 1997cc, L4, Vin F, U, "4G63 TURBO"</b>				
1990-99	I&E	Positive	Viton	45606

Year	I/E	Style	Material	Part #
<b>Mitsubishi (Cont.)</b>				
<b>2.0L 1997cc, L4, Vin 5, D "G63B"</b>				
1983-89	I&E	Metal Clad	Viton	55608
<b>2.0L 1997cc, L4, Vin V "4G63"</b>				
1989-92	I&E	Metal Clad	Viton	55608
<b>2.0L 1996cc L4, Chrysler Engine</b>				
1995-99	I&E	Top Hat	Viton	55654
<b>2.0L 1997cc, L4, Vin Y, "420A Chrysler"</b>				
1995-99	I&E	Top Hat	Viton	55654
<b>2.0L 2000cc, L4, Vin E, "4G94"</b>				
2002-04	I&E	Metal Clad	Viton	55653
<b>2.3L 2346cc, L4, Vin 9, J "4D55"</b>				
1983-85	I&E	Metal Clad	Viton	55608
<b>2.4L 2351cc, L4, "4G64"</b>				
1994-95	I&E	Positive	Viton	45606
<b>2.4L 2351cc, L4, Vin L "G64B"</b>				
1985-88	I&E	Metal Clad	Viton	55608
<b>2.4L 2351cc, L4, Vin G, W</b>				
1989-94	I&E	Metal Clad	Viton	55608
<b>2.4L 2351cc, L4, Vin F, "4G69"</b>				
2004	I&E	Metal Clad	Viton	55653
<b>2.4L 2351cc, L4, Vin G, Y, "4G64"</b>				
1993-04	I&E	Metal Clad	Viton	55653
<b>2.6L 2555cc, L4, Vin 7, E "G54B"</b>				
1983-89	I&E	Metal Clad	Viton	55608
<b>2.6L 2555cc, L4, Vin H, N "G54B TURBO"</b>				
1986-89	I&E	Metal Clad	Viton	55608
<b>3.0L 2972cc V6, 6G72</b>				
1991-99	I&E	Positive	Viton	45606
<b>3.0L 2972cc, V6, Vin H, S, "6G72"</b>				
1988-99	I&E	Metal Clad	Viton	55608
<b>3.0L 2972cc, V6, Vin F, H, L, P, "6G72"</b>				
1997-04	I	Metal Clad	Viton	55653
1997-04	E	Metal Clad	Viton	55659
<b>3.5L 3497cc, V6, Vin M "6G74"</b>				
1994-96	I&E	Positive	Viton	45606
<b>3.5L 3497cc, V6, Vin P, R, "6G74"</b>				
1997-04	I	Metal Clad	Viton	55653
1997-04	E	Metal Clad	Viton	55659
<b>3.8L 3797cc, V6, Vin S, "6G75"</b>				
2003-05	I	Metal Clad	Viton	55653
2003-04	E	Metal Clad	Viton	55659
<b>Nissan</b>				
<b>1.2L 1237cc, L4, Vin C, "A12A"</b>				
1980-82	I&E	Metal Clad	Viton	55603
<b>1.3L 1288cc, L4, Vin H, "A13"</b>				
1974	I&E	Metal Clad	Viton	55603
<b>1.4L 1393cc, L4, Vin H, P, "A14"</b>				
1975-81	I&E	Metal Clad	Viton	55603
<b>1.5L 1488cc, L4, Vin H, M, "E15" "E15S"</b>				
1982-84	I&E	Metal Clad	Viton	55829
<b>1.5L 1488cc, L4, Vin P, "A15"</b>				
1980-82	I&E	Metal Clad	Viton	55823

### Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F
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Part #'s in **BOLD** are common replacements

# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Nissan (Cont.)</b>				
<b>1.6L 1597cc, L4, CA16DE</b>				
1987	I&E	Metal Clad	Viton	55834
<b>1.6L 1597cc, L4, Vin A, E, "GA16DE"</b>				
1991-99	I&E	Metal Clad	Viton	55840
<b>1.6L 1597cc, L4, Vin M, P, "E16" "E16S" "E16L"</b>				
1983-88	I&E	Metal Clad	Viton	55829
<b>1.6L 1597cc, L4, Vin G, "GA16I"</b>				
1989-90	I	Metal Clad	Viton	55834
1989-90	E	Metal Clad	Viton	55838
<b>1.7L 1688cc, L4, Vin S, "CD17"</b>				
1983-85	I&E	Metal Clad	Viton	55828
<b>1.8L 1809cc, L4, QG18DE</b>				
2000-04	I&E	Metal Clad	Viton	55840
<b>1.8L 1809cc, L4, Vin C, "CA18DE"</b>				
1988-89	I&E	Metal Clad	Viton	55834
<b>1.8L 1809cc, L4, Vin C, "CA18E TURBO"</b>				
1984-86	I&E	Metal Clad	Viton	55828
<b>1.8L 1770cc, L4, Vin H, P, "L18"</b>				
1973-74	I&E	Ring & Spring	Viton	45604
<b>2.0L 1952cc, L4, Vin F, "Z20"</b>				
1975-83	I&E	Ring & Spring	Viton	45604
<b>2.0L 1974cc, L4, Vin H, "CA20S"</b>				
1982-89	I&E	Metal Clad	Viton	55828
<b>2.0L 1998cc, L4, Vin B, G, "SR20DE"</b>				
1991-01	I&E	Metal Clad	Viton	55834
<b>2.2L 2187cc, L4, Vin M, "Z22"</b>				
1981-82	I&E	Ring & Spring	Viton	45604
<b>2.2L 2187cc, L4, Vin R, "Z22E"</b>				
1982-83	I&E	Ring & Spring	Viton	45604
<b>2.4L 2389cc, L4, Vin N, "Z24"</b>				
1983-97	I&E	Ring & Spring	Viton	45604
<b>2.4L 2389cc, L4, Vin F, H, S, "KA24E"</b>				
1989-94	I	Metal Clad	Viton	55828
1989-94	E	Metal Clad	Viton	55839
<b>2.4L 2393cc, L6, Vin H, "L24E"</b>				
1977-84	I&E	Ring & Spring	Viton	45604
<b>2.4L 2389cc, L4, Vin A, B, D, M, "KA24DE"</b>				
1996-04	I&E	Metal Clad	Viton	55704
<b>2.4L 2389cc, L4, Vin F, H, S, "KA24E"</b>				
1995-97	I	Metal Clad	Viton	55704
<b>2.5L 2488cc, L4, Vin J, "SD25"</b>				
1983-86	I&E	Ring & Spring	Viton	45604
<b>2.6L 2565cc, L6, Vin R, "L26"</b>				
1974	I&E	Ring & Spring	Viton	45604
<b>2.8L 2753cc, L6, Vin H, "L28E"</b>				
1975-83	I&E	Ring & Spring	Viton	45604
<b>2.8L 2793cc, L6, Vin S, "LD28"</b>				
1981-83	I&E	Ring & Spring	Viton	45604
<b>3.0L 2960cc, V6, Vin C, "VG30DETT TURBO"</b>				
1990-01	I&E	Metal Clad	Viton	55834
1984-89	I	Metal Clad	Viton	55828

Year	I/E	Style	Material	Part #
<b>Nissan (Cont.)</b>				
<b>3.0L 2960cc, V6, Vin 1, H, W, "VG30, VG30E"</b>				
1984-98	E	Ring & Spring	Viton	45604
1994-98	I	Metal Clad	Viton	55828
1984-94	I	Metal Clad	Viton	55704
<b>3.3L 3275cc, V6, Vin A, "VG33E"</b>				
1996-03	I	Metal Clad	Viton	55704
1996-03	E	Ring & Spring	Viton	45604
<b>3.5L 3500cc, V6, VQ35DE</b>				
2001-03	I&E	Metal Clad	Viton	55834
<b>Perkins</b>				
<b>3A152 Diesel L3</b>				
	I&E	Ring & Band	Viton	45804
<b>3AD152 Direct Injection Diesel L3</b>				
	I&E	Ring & Band	Viton	45804
<b>4A203 Diesel, 4AD203 Direct Inj. Diesel L4</b>				
	I&E	Ring & Band	Viton	45804
<b>A4.236 Diesel L4</b>				
	I&E	1-Ring	Teflon/Rubber	1812
<b>6.305 Diesel 12 Valve L6</b>				
	I&E	Ring & Band	Viton	45804
<b>A6.354 &amp; AT6.354 TURBO &amp; ATC6.354</b>				
	I&E	Umbrella	Nitrile	15120
	I&E	Umbrella	Poly	25120
	I&E	Umbrella	Viton	45120
<b>D354, 6.354 Diesel 12 Valve L6</b>				
	I&E	Umbrella	Nitrile	15120
	I&E	Umbrella	Poly	25120
	I&E	Umbrella	Viton	45120
<b>T6.354 Turbo Diesel 12 Valve L6</b>				
	I&E	Umbrella	Nitrile	15120
	I&E	Umbrella	Poly	25120
	I&E	Umbrella	Viton	45120
<b>Saab</b>				
<b>2.0L 1985cc, L4, Vin 3, D, J, B201I, B202I, B202L</b>				
1973-88	I&E	Ring & Band	Viton	45736
1973-88	I&E	Metal Clad	Viton	55608
<b>Saturn</b>				
<b>1.9L 116 C.I. L4, VIN 7</b>				
1999-02	I&E	Top Hat	Viton	55814
1991-98	I&E	Top Hat	Viton	55803
<b>3.0L 181 C.I., V6, Vin R</b>				
2000-04	I&E	Metal Clad	Viton	55717
<b>Sterling</b>				
<b>2.5L 2494cc, V6</b>				
1987-90	I	Ring & Spring	Viton	45811
1987-90	E	Metal Clad	Viton	55835
<b>Subaru</b>				
<b>1.2L 1189cc, L3, Vin 7, 8 "EF12"</b>				
1987-94	I&E	Metal Clad	Viton	55844

## Part # Material Guide

15000 Series Nitrile - 225°F	25000 Series Polyacrylic - 350°F	35000 Series Nylon - 375°F	45000 Series Viton - 400°F	55000 Series Viton/Metal Clad - 400°F	Part #'s in <b>BOLD</b> are common replacements
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Year	I/E	Style	Material	Part #
<b>Subaru (Cont.)</b>				
<b>1.8L 1781cc, H4, Vin 4, 5, 7 "EA82 TURBO"</b>				
1985-97	E	Metal Clad	Viton	55844
<b>2.0L 1994cc, H4</b>				
2002-05	I	Metal Clad	Viton	55842
2002-05	E	Metal Clad	Viton	55843
<b>2.2L 2212cc, H4, Vin 3, 4, 6, EJ222, EJ22E, EJ22EZ</b>				
1990-01	I	Metal Clad	Viton	55842
1990-01	E	Metal Clad	Viton	55843
<b>2.5L 2458cc, H4, Vin 6, EJ25D</b>				
1996-04	I	Metal Clad	Viton	55842
1996-04	E	Metal Clad	Viton	55843
<b>2.7L 2672cc, H6, Vin 8, 9 "ER27"</b>				
1989-91	I&E	Metal Clad	Viton	55844
<b>3.3L 3318cc, H6, Vin 3, 8 "EG33D"</b>				
1992-97	I	Metal Clad	Viton	55842
1992-97	E	Metal Clad	Viton	55843
<b>Suzuki</b>				
<b>1.3L 1298cc, L4, G13K, G13BB</b>				
1989-01	I&E	Metal Clad	Viton	55836
<b>1.3L 1298cc, L4, G13A, G13BA</b>				
1986-97	I&E	Metal Clad	Viton	55830
<b>1.6L 1590cc, L4, G16B, G16KV</b>				
1992-01	I&E	Metal Clad	Viton	55836
<b>1.6L 1590cc, L4, G16KC</b>				
1989-95	I&E	Metal Clad	Viton	55830
<b>1.8L 1840cc, L4, Vin 2, 4 "J18A"</b>				
1996-02	I&E	Metal Clad	Viton	55861
<b>2.0L 1998cc, L4, J20A</b>				
1999-03	I&E	Metal Clad	Viton	55861
<b>2.5L 2500cc, V6, H25A</b>				
2001-03	I&E	Metal Clad	Viton	55861
<b>2.7L 2737cc, V6, H27A</b>				
2001-03	I&E	Metal Clad	Viton	55861
<b>Toyota</b>				
<b>1.2L 1166cc, L4, Vin K, "3KC"</b>				
1975-78	I&E	Metal Clad	Viton	55614
<b>1.3L 1290cc, L4, Vin K, "4KC"</b>				
1981-82	I&E	Metal Clad	Viton	55614
<b>1.3L 1290cc, L4, Vin K, "4KE"</b>				
1983-84	I&E	Metal Clad	Viton	55614
<b>1.5L 1456cc, L4, Vin E, "3E", "3EE"</b>				
1987-94	I&E	Metal Clad	Viton	55831
<b>1.5L 1497cc, L4, Vin C, E, "5EFE"</b>				
1992-98	I	Metal Clad	Viton	55831

Year	I/E	Style	Material	Part #
<b>Toyota (Cont.)</b>				
<b>1.6L 1588cc, L4, Vin A,T, "2TC", "4AF", "4AFE", "4AGE", "4AGEC", "4AGELC", "4AGE Supercharged"</b>				
1971-97	I&E	Metal Clad	Viton	55614
<b>1.8L 1762cc, L4,</b>				
2000-04	I&E	Metal Clad	Viton	55724
<b>1.8L 1770cc, L4, Vin T, "3TC"</b>				
1980-82	I&E	Metal Clad	Viton	55614
<b>1.8L 1839cc, L4, Vin C, "1CTLC TURBO"</b>				
1984-85	I&E	Metal Clad	Viton	55614
<b>1.8L 1762cc, L4, Vin A, B, "7AFE"</b>				
1993-97	I&E	Metal Clad	Viton	55831
<b>1.8L 1762cc, L4, Vin R, "1ZZFE"</b>				
1998-04	I&E	Metal Clad	Viton	55709
<b>2.0L 1995cc, L4, Vin S, "2SELC"</b>				
1983-86	I&E	Metal Clad	Viton	55614
<b>2.0L 1998cc, L4, Vin S, "3SGTE TURBO"</b>				
1988-95	I&E	Metal Clad	Viton	55861
<b>2.0L 1998cc, L4, Vin P, "3SFE" TRUCK, "3SGELC"</b>				
1986-00	I&E	Metal Clad	Viton	55831
<b>2.0L 1998cc, L4,</b>				
2001-03	I&E	Metal Clad	Viton	55709
<b>2.2L 2189cc, L4, Vin R,Y, "2OR", "4YEC", 4Y Forklift</b>				
1975-80	I&E	Metal Clad	Viton	55614
<b>2.2L 2164cc, L4, Vin G, S, "5SFE"</b>				
1990-01	I&E	Metal Clad	Viton	55831
<b>2.3L 2253cc, I6, Vin "2M"</b>				
1968-72	I	Top-Hat	Viton	55610
1968-72	E	Metal Clad	Viton	55532
<b>2.4L 2366cc, L4, Vin R, "22R"</b>				
1981-90	I&E	Metal Clad	Viton	55614
<b>2.4L 2366cc, L4, Vin R, "22RE"</b>				
1989-95	I	Metal Clad	Viton	55614
1989-95	E	Metal Clad	Viton	55614
<b>2.4L 2366cc, L4, Vin R, "22REG"</b>				
1986-89	I&E	Metal Clad	Viton	55614
<b>2.4L 2438cc, L4, Vin A, K, "2TZFE"</b>				
1991-97	I&E	Metal Clad	Viton	55861
<b>2.4L 2438cc, L4, Vin L, U, "2RZFE"</b>				
1995-04	I	Metal Clad	Viton	55831
1995-04	E	Metal Clad	Viton	55710
<b>2.4L 2398cc, L4, 2AZFE</b>				
2001-04	I&E	Metal Clad	Viton	55709
<b>2.5L 2508cc, V6, Vin V, "2VZFE"</b>				
1988-91	I&E	Metal Clad	Viton	55831

### Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are common replacements



# Valve Stem Seals



Year	I/E	Style	Material	Part #
<b>Toyota (Cont.)</b>				
<b>2.6L 2563cc, L6, Vin M, "4M"</b>				
1974-80	I	Top-Hat	Viton	55610
1974-80	E	Metal Clad	Viton	55532
<b>2.7L 2694cc, L4, Vin M, U, "3RZFE"</b>				
1994-04	I	Metal Clad	Viton	55831
1995-04	E	Metal Clad	Viton	55710
<b>2.8L 2754cc, L6, Vin M, "5MGE"</b>				
1982-88	I&E	Metal Clad	Viton	55614
<b>2.8L 2759cc, L6, Vin M, "5ME"</b>				
1981-82	I	Top-Hat	Viton	55610
1981-82	E	Metal Clad	Viton	55532
<b>3.0L 2997cc, L6, Vin D, J, "2JZGE"</b>				
1994-98	I&E	Metal Clad	Viton	55861
<b>3.0L 2997cc, L6, Vin E, J, "2JZGE TURBO"</b>				
1994-98	I	Metal Clad	Viton	55831
<b>3.0L 2997cc, L6, Vin D, J, 2JZGE "Lexus"</b>				
1992-03	I&E	Metal Clad	Viton	55861
<b>3.0L 2995cc, V6, Vin F, G, "1MZFE"</b>				
1994-04	I	Metal Clad	Viton	55706
1994-04	E	Metal Clad	Viton	55709
<b>3.0L 2954cc, L6, Vin M, "7MGE", "7MGTE TURBO"</b>				
1986-92	I&E	Metal Clad	Viton	55831
<b>3.0L 2959cc, V6, Vin V, "3VZFE"</b>				
1988-95	I&E	Metal Clad	Viton	55614
1988-93	E	Metal Clad	Viton	55614
<b>3.0L 2959cc, V6, Vin V, "3VZFE"</b>				
1992-93	I	Metal Clad	Viton	55841
<b>3.3L 3300cc, V6, 3MZFE</b>				
2004	I	Metal Clad	Viton	55706
2004	E	Metal Clad	Viton	55709
<b>3.4L 3378cc, V6, Vin N, V, "5VZFE"</b>				
1995-04	I	Metal Clad	Viton	55841
<b>3.4L 3378cc, V6, Vin N, V, "5VZFE"</b>				
1995-04	E	Metal Clad	Viton	55710
<b>3.9L 3878cc, L6, Vin F, "F Industrial"</b>				
1967-74	I&E	Metal Clad	Viton	55824
<b>4.0L 3969cc, V8, Vin H, U, 1UZFE "Toyota"</b>				
1990-97	I&E	Metal Clad	Viton	55831
<b>4.0L 3969cc, V8, Vin H, U, 1UZFE "Toyota"</b>				
1998-00	I	Metal Clad	Viton	55709
<b>4.0L 4000cc, V6, 1GRFE</b>				
2003-04	E	Metal Clad	Viton	55709
<b>4.0L 3956cc, L6, Vin F, "3FE"</b>				
1988-92	I&E	Metal Clad	Viton	55824

Year	I/E	Style	Material	Part #
<b>Toyota (Cont.)</b>				
<b>4.2L 4227cc, L6, Vin F, "2F" "2F Industrial"</b>				
1977-87	I&E	Metal Clad	Viton	55824
<b>4.3L 4293cc, V8, 3UZFE "Lexus"</b>				
2001-04	I	Metal Clad	Viton	55709
<b>4.5L 4477cc, L6, Vin D, J, "1FZFE"</b>				
1993-97	I&E	Metal Clad	Viton	55825
<b>4.7L 4663cc, V8, Vin T, "2UZFE"</b>				
1998-04	I	Metal Clad	Viton	55709
<b>Volkswagen</b>				
<b>1.5L 1457cc, L4</b>				
1978-92	I&E	Metal Clad	Viton	55620
<b>1.6L 1588cc, L4, Vin H, CV, MD, MF "TURBO"</b>				
1982-86	I&E	Metal Clad	Viton	55620
<b>1.6L 1588cc, L4, Vin EE, EJ, YG, YH, YK</b>				
1976-80	I&E	Metal Clad	Viton	55620
<b>1.7L 1715cc, L4, Vin A, B, EN, JF, WT</b>				
1981-84	I&E	Metal Clad	Viton	55620
<b>1.8L 1780cc, L4, Vin B, C, "PL"</b>				
1987-89	I&E	Metal Clad	Viton	55688
<b>1.8L 1780cc, L4, Vin A, B, C, K, 2H, ABG, GX, HT, JH, JN, MZ, PF, RD, RV, UM</b>				
1983-92	I&E	Metal Clad	Viton	55620
<b>1.9L 1896cc, L4, Vin F, G, J, 1Z, AAZ, AHU, ALH, BEW "TURBO"</b>				
1996-03	I&E	Metal Clad	Viton	55688
<b>2.0L 1984cc, L4, Vin B, C, E, J, "9A"</b>				
1990-02	I&E	Metal Clad	Viton	55688
<b>2.2L 2226cc, L5, Vin B, E, JT, KX</b>				
1985-88	I&E	Metal Clad	Viton	55620
<b>2.5L 2459cc, L5, Vin C, D, E, AAF, ACU</b>				
1992-95	I&E	Metal Clad	Viton	55620
<b>2.8L 2792cc V6,</b>				
1992-02	I&E	Metal Clad	Viton	55688
<b>Volvo</b>				
<b>2.1L 2127cc, L4, Vin 4, 41, 45, B21F, B21FT</b>				
1976-85	I&E	Metal Clad	Viton	55603
<b>2.3L 2316cc, L4, Vin 8, B230F, B230FD</b>				
1983-95	I&E	Metal Clad	Viton	55603
<b>2.4L 2383cc L6 Vin 7, D24</b>				
1983-84	I&E	Metal Clad	Viton	55603
<b>2.7L 2673cc, V6, Vin 61, 65, B27F</b>				
1976-86	I&E	Metal Clad	Viton	55603
<b>2.8L 2849cc V6, Vin 6, B28F</b>				
1980-85	I&E	Metal Clad	Viton	55603

## Part # Material Guide

15000 Series  
Nitrile - 225°F

25000 Series  
Polyacrylic - 350°F

35000 Series  
Nylon - 375°F

45000 Series  
Viton - 400°F

55000 Series  
Viton/Metal Clad - 400°F

Part #'s in **BOLD** are  
common replacements



# Rear Crank/Timing Cover Seals



## Rear Crank & Timing Cover Seals

Each seal meets or exceeds OEM quality standards, competitively priced.

<b>Acura</b>									
Engine	Cyl.	Year	Pcs.	Material	Rear Crank Seal Part #	Comments	Timing Cover Seal Part #	Comments	
1.8L/1797cc DOHC	L4	1996	1	Viton	<b>NAH3732-MO</b>				
1.8L/1834cc B18A1 DOHC	L4	1990-93	1	Viton	<b>NAH3732-MO</b>				
2.5L/2456cc G25A1,G25A4 SOHC	L4	1992-96	1	Viton	<b>NAH3732-MO</b>				
<b>AMC/Jeep</b>									
2.46L/150 OHV	L4	1987-95	1		<b>77040</b>		<b>14226</b>		
3.3L/201 OHV	V6	1990-95	1		<b>38168</b>				
3.8L/232 OHV	L6	1964-79	1		<b>38168</b>				
4.0L/242 OHV	L6	1987-95	1		<b>38168</b>		<b>14226</b>		
4.2L/258 OHV	L6	1971-90	2		<b>18690</b>		<b>14226</b>		
5.0L/304 OHV	V8	1970-79	2		<b>18693</b>				
5.9L/360 OHV	V8	1970-78	2		<b>18693</b>		<b>34235</b>	2 pc.	
6.6L/401 OHV	V8	1971-76	2		<b>18693</b>				
<b>Chrysler</b>									
1.4L/1410cc SOHC (Mitsu.)	L4	1982-84	1	Silicone	<b>18810</b>		<b>NBHH687-BO</b>	(1980-84)	
1.5L/1468cc SOHC (Mitsu.)	L4	1991-95	1	Silicone	<b>18810</b>				
		1985-90	1	Silicone	<b>18810</b>		<b>NBHH687-BO</b>		
1.6L/1595cc DOHC (Mitsu.)	L4	1989-90	1	Viton	<b>18811</b>		<b>18856</b>		
1.6L/1597cc SOHC (Mitsu.)	L4	1980-88	1	Silicone	<b>18810</b>		<b>18856</b>		
		1991-95					<b>18857</b>		
		1989-90	1	Silicone	<b>18810</b>		<b>18856</b>		
2.0L/1997cc SOHC,DOHC (Mitsu.)	L4	1983-86	1	Silicone	<b>38408</b>				
		1987-95	1	Viton	<b>18811</b>				
		1983-91					<b>18856</b>		
		1991-95					<b>18858</b>		
2.2L/135 SOHC	L4	1981-94	1		<b>38168</b>				
2.3L/2346cc Diesel Vin "D" (Mitsu.)	L4	1984-86	1	Viton	<b>18811</b>		<b>18856</b>		
		1983	1	Silicone	<b>38408</b>		<b>18856</b>		
2.4L/2351cc SOHC (Mitsu.)	L4	1994-95					<b>18858</b>	18856(1990)	
		1990-92	1	Viton	<b>18811</b>				
2.5L/151 OHV Vin "B" (GM)	L4	1980-83	1	Viton	<b>78460</b>		<b>74241</b>		
2.5L/153 SOHC	L4	1986-95	1		<b>38168</b>				
		1987-89	1	Viton	<b>18811</b>				
2.6L/2555cc SOHC (Mitsu.)	L4	1980-86	1	Silicone	<b>38408</b>				
		1984-86	1	Silicone	<b>78244</b>		<b>74241</b>		
2.8L/173 Vin "W" (GM)	V6	1984-86	1	Silicone	<b>78244</b>		<b>74241</b>		
3.0L/2972cc DOHC (Mitsu.)	V6	1991-95	1	Viton	<b>18820</b>		<b>18826</b>		
3.0L/2972cc SOHC (Mitsu.)	V6	1990-95	1	Viton	<b>78562</b>		<b>18857</b>		
		1987-90	1	Viton	<b>78562</b>				
3.3L/201 OHV	V6	1990-95	1		<b>38168</b>				
3.5L/215 SOHC	V6	1993-95	1		<b>38168</b>				
3.8L/230 OHV	V6	1991-95	1		<b>38168</b>				
5.2L/318 OHV	V8	1957-89	2		<b>38198</b>		<b>34235</b>	2 pc.	
5.6L/340 OHV	V8	1968-73	2		<b>38198</b>		<b>34235</b>	2 pc.	
5.9L/360 OHV	V8	1971-92	2		<b>38378</b>		<b>34235</b>	2 pc.	
6.6L/400 OHV	V8	1972-78	2		<b>38213</b>				
7.2L/440 OHV	V8	1966-78	2		<b>38213</b>				
<b>Ford</b>									
1.6L/98 SOHC	L4	1981-85	1	Silicone	<b>78245</b>				
			1	Poly	<b>NUH0164-GO</b>				
2.0L/122 SOHC	L4	1983-89	1	Silicone	<b>68102</b>				
			1	Viton	<b>68103</b>				
			1	Poly	<b>NUH0164-GO</b>				
2.3L/140 OHC Car/Truck	L4	1981-94	1	Silicone	<b>68102</b>				
			1	Viton	<b>68103</b>				
			1	Poly	<b>NUH0164-GO</b>				
2.3L/140 HSC OHV	L4	1984-94	1	Silicone	<b>78245</b>				
2.5L/153 HSC OHV	L4	1986-90	1	Silicone	<b>78245</b>				
2.8L/171 OHV	V6	1983-86	1	Silicone	<b>68419</b>		<b>64257</b>	w/flange	
							<b>64258</b>	w/o flange	





# Rear Crank/Timing Cover Seals

## Ford (Cont.)

Engine	Cyl.	Year	Pcs.	Material	Rear Crank Seal Part #	Comments	Timing Cover Seal Part #	Comments
2.9L/177 OHV	V6	1986-92	1	Silicone	68419		64257	w/flange
							64258	w/o flange
3.0L/183 OHV	V6	1986-97	1	Silicone	78245		64257	w/flange
3.3L/200 OHV	V6	1963-83					NAD7795-E0	
3.8L/232 Fuel Injected OHV	V6	1983-93	1	Poly	NUH0164-GO		64257	w/flange(1982-93)
			1	Silicone	68102		64258	w/o flange(1982-93)
			1	Viton	68103			
3.8L/232 Carbureted OHV	V6	1982-83	2		68288			
4.0L/244 Truck OHV	V6	1990-94	1	Silicone	68419		64257	w/flange
							64258	w/o flange
4.2L/250 OHV	L6	1969-80	2		68288		64257	w/flange
							64258	w/o flange
4.2L/255	V6	1997	1	Poly	NUH0164-GO			
			1	Silicone	68102			
			1	Viton	68103			
4.2L/255	V8	1980-92	2		68288		64257	w/flange
							64258	w/o flange
4.9L/300 Truck OHV	L6	1980-97	1	Silicone	68107		64257	w/flange
			1	Viton	NUH0819-E1		64258	w/o flange
			1	Poly	NUH0164-GO		64257	w/flange(1980-97)
5.0L/302 Fuel Injected OHV	V8	1980-94	1	Silicone	68102		64258	w/o flange(1980-97)
			1	Viton	68103			
5.0L/302 Carbureted OHV	V8	1968-80	2		68288		64257	w/flange
							64258	w/o flange
5.4L/330 OHV	V8	1964-78	2		68592		64257	w/flange
5.8L/351W OHV	V8	1983-97	1	Silicone	68107		64257	w/flange(1980-97)
			1	Viton	NUH0819-E1		64258	w/o flange(1980-97)
5.8L/351C,M OHV	V8	1969-83	2		68145		64258	w/o flange
6.9L/420 Navistar/Intl. - Diesel OHV	V8	1983-88	2		68592			
7.5L/460 OHV	V8	1980-85	2		68135			

## GM

1.6L/98 OHC	L4	1980-83					74241	
1.8L/112 Pontiac VIN J,O SOHC	L4	1982-84	1	Viton	78762	5.5mm wide	74241	(1982-83)
			1	Viton	78244	10mm wide		
2.0L/122 Chevrolet OHV	L4	1983-89	1	Viton	78762	5.5mm wide	74241	(1982-84)
			1	Viton	78244	10mm wide		
2.2L/134 Chevrolet 2, G OHV	L4	1990-97	1	Viton	78244	10mm wide		
2.3L/138 Olds. Quad IV A, D DOHC	L4	1988-96	1	Viton	78591		18721	
2.3L/138 Quad IV SOHC	L4	1992-94					N32586/N32587	
2.4L/146 Chevrolet Quad T DOHC	L4	1996-02	1	Viton	78591		18721	
2.5L/151 Pontiac OHV	L4	1980-83	1	Viton	78460		74241	
		1982-87	2	Poly	78452			
2.8L/173 Chevrolet W, Z OHV	V6	1980-85	1	Viton	78762	5.5mm wide	74241	(1980-93)
		1983-93	1	Viton	78244	10mm wide		
3.0L/181 Buick OHV	V6	1982-88	2		78390			
3.1L/189 Chevrolet D,V,W OHV	V6	1987-97	1	Viton	78244	10mm wide	74241	(1990)
3.3L/204 Buick OHV	V6	1989-90	2		78390			
3.4L/207 Chevrolet S OHV	V6	1993-95	1	Viton	78244	10mm wide		
			2	Poly	78764			
3.8L/229 Chevrolet	V6	1980-84	2	Silicone	78512	wide double-lip	74241	
			2	Viton	78513	wide double-lip		
3.8L/231 Buick OHV	V6	1975-91	2		78390			
4.1L/250 Chevrolet OHV	L6	1979-84					74241	
4.1L/252 Buick OHV	V6	1980-84	2		78390			
4.1L/252 Cadillac OHV	V8	1985-88	1	Viton	78396		18723	
		1982-85	2		78221			
4.3L/262 Chevrolet OHV	V6	1986-95	1	Silicone	78461	0.040 I.D.	74241	(1985-94)
			1	Viton	78464			

# Rear Crank/Timing Cover Seals



## GM (Cont.)

Engine	Cyl.	Year	Pcs.	Material	Rear Crank Seal Part #	Comments	Timing Cover Seal Part #	Comments
4.3L/265 "W" OHV	V8	1994-96	1	Silicone	<b>78461</b>	0.040 I.D.		
			1	Viton	<b>78464</b>			
4.5L/273 Cadillac OHV	V8	1988-92	1	Viton	<b>78396</b>		<b>18723</b>	
4.8L/292 OHV	L6	1980-90					<b>74241</b>	
4.9L/300 Cadillac OHV	V8	1991-95	1	Viton	<b>78396</b>		<b>18723</b>	
5.0L/305 Chevrolet OHV F.I.	V8	1986-95	1	Silicone	<b>78461</b>	0.040 I.D.		
			1	Viton	<b>78464</b>		<b>74241</b>	
5.0L/305 Chevrolet OHV Carb.	V8	1967-85	2	Poly	<b>78764</b>			
			2	Silicone	<b>78512</b>	wide double-lip	<b>74241</b>	
			2	Viton	<b>78513</b>	wide double-lip		
5.0L/305 Chevrolet OHV Carb.	V8	1960-75	2		<b>78463</b>			
5.0L/307 Oldsmobile OHV	V8	1980-90	2		<b>18690</b>		<b>74288</b>	
5.4L/327 Chevrolet OHV	V8	1962-69	2	Poly	<b>78764</b>			
			2	Silicone	<b>78512</b>	wide double-lip	<b>74241</b>	
			2	Viton	<b>78513</b>	wide double-lip		
			1	Silicone	<b>78461</b>	0.040 I.D.		
5.7L/350 Chevrolet OHV	V8	1986-95	1	Viton	<b>78464</b>		<b>74241</b>	
			2	Poly	<b>78764</b>			
			2	Silicone	<b>78512</b>	wide double-lip	<b>74241</b>	
			2	Viton	<b>78513</b>	wide double-lip		
5.7L/350 Chevrolet OHV	V8	1961-85	2		<b>18690</b>		<b>74288</b>	
6.0L/366 Chevrolet Truck OHV	V8	1966-90	2		<b>78228</b>		<b>NUB0142-E0</b>	
6.0L/368 Cadillac OHV	V8	1980-85	2		<b>78241</b>			
6.2L/381 Chevy. Truck Diesel	V8	1982-96	2		<b>78446</b>		<b>NUB0142-E0</b>	
6.5L/396 Chevrolet OHV	V8	1965-72	2		<b>78228</b>		<b>NUB0142-E0</b>	
			2	Poly	<b>78764</b>			
6.6L/400 SB Chevrolet OHV	V8	1970-76	2	Silicone	<b>78512</b>	wide double-lip	<b>74241</b>	
			2	Viton	<b>78513</b>	wide double-lip		
6.6L/400 BB Chevrolet OHV	V8	1971-72	2		<b>78228</b>		<b>NUB0142-E0</b>	
6.6L/401 "M" OHV	V8	1973-77	2		<b>78463</b>			
6.6L/403 Oldsmobile OHV	V8	1965-69	2		<b>68135</b>			
7.0L/427 Chevrolet OHV	V8	1966-69	2		<b>78228</b>			
7.4L/454 OHV	V8	1970-90	2		<b>78228</b>			
7.4L/454	V8	1991-99	1	Viton	<b>18730</b>		<b>NUB0142-E0</b>	
7.5L/455 Oldsmobile OHV	V8	1968-76	2		<b>68135</b>			

## Aluminum Rear Crank Seal Retainer

### Fits GM V6 4.3L & V8 305/350

Don't gamble on your work, reclaiming the O.E. retainer could be a problem. Those aluminum units develop stress fractures and are often the cause of failure. We offer a replacement kit that includes a rear main seal (#78461 silicone) which has a .040" smaller ID that compensates for reground & polished crankshafts.



Description	Part #
*Retainer, Silicone Seal & Gasket	6517
Retainer, Viton Seal & Gasket	6517V
Aluminum Retainer Only	6518
Gasket Only	6519
Viton Seal	78464
*Silicone Seal (.040 Smaller I.D.)	78461

\*For reground or polished crankshafts.

## Honda

1.3L/1335cc EJ1,EM1 SOHC	L4	1980-83	1	Poly	<b>NAH6924-Y0</b>		
1.3L/1342cc EV1,D13A2 SOHC	L4	1984-87					<b>NBH2259-G0</b>
1.5L/1488cc EW,D15A SOHC	L4	1984-87	1	Poly	<b>NBH013-B0</b>		<b>NBH2259-G0</b>
1.5L/1493cc D15B1,2,6 SOHC	L4	1988-91	1	Poly	<b>NBH013-B0</b>		<b>NBH2259-G0</b>
1.5L/1493cc D15B7,8,D15Z1 SOHC	L4	1992-95	1	Viton	<b>NAH3732-M0</b>		
1.6L/1590cc D16A6 SOHC	L4	1988-91	1	Poly	<b>NBH013-B0</b>		<b>NBH2259-G0</b>
1.6L/1590cc D16Z6 SOHC	L4	1992-95	1	Viton	<b>NAH3732-M0</b>		
		1981-83	1	Silicone	<b>NBH1034-E0</b>		
1.8L/1751cc EK1 SOHC	L4	1980	1	Poly	<b>NAH6924-Y0</b>		
1.8L/1829cc A18A,ES,ET SOHC	L4	1983-87	1	Poly	<b>NBH013-B0</b>		
2.0L/1955cc A20A,BS,BT SOHC	L4	1985-90	1	Poly	<b>NBH013-B0</b>		<b>NAH2077-F0</b>
2.0L/1958cc B20A3,5 SOHC/DOHC	L4	1990-91	1	Viton	<b>NAH3732-M0</b>		
2.1L/2056cc DOHC	L4	1990-91	1	Viton	<b>NAH3732-M0</b>		
2.2L/2156cc F22A1,4,6,F22B1 SOHC	L4	1990-96	1	Viton	<b>NAH3732-M0</b>		
2.3L/2259cc H23A1 SOHC	L4	1992-95	1	Viton	<b>NAH3732-M0</b>		



# Rear Crank/Timing Cover Seals

## ISUZU

Engine	Cyl.	Year	Pcs.	Material	Rear Crank Seal Part #	Comments	Timing Cover Seal Part #	Comments
1.5L/1471cc 4XC1 SOHC(FWD)	L4	1985-91	1	Silicone	<b>18800</b>		<b>18851</b>	(1986)
1.5L/1471cc 4XC1 SOHC(RWD)	L4	1985-91	1	Silicone	<b>18801</b>			
1.9L/1949cc G200Z SOHC	L4	1983-87	1	Silicone	<b>18801</b>		<b>18851</b>	
2.3L/2254cc 4ZD1 SOHC	L4	1993-95	1	Silicone	<b>18802</b>		<b>18851</b>	
		1988-92	1	Silicone	<b>18805</b>		<b>18851</b>	
2.6L/2559cc 4ZE1 SOHC	L4	1991-94	1	Silicone	<b>18802</b>		<b>18851</b>	
		1988-90	1	Silicone	<b>18805</b>		<b>18851</b>	

## Mazda

1.5L/1490cc SOHC	L4	1981-85	1	Silicone	<b>18806</b>		<b>18855</b>	
1.6L/1597cc B6,B6T SOHC/DOHC	L4	1986-95	1	Silicone	<b>18807</b>			
1.8L/1839cc BP SOHC, BP-ZE DOHC	L4	1990-94	1	Viton	<b>18807</b>			
2.0L/1970cc MA SOHC	L4	1980-85					<b>NAH2791-G1</b>	
2.2L/2184cc F2,F2-T SOHC	L4	1987-88	1	Viton	<b>77017</b>			
2.6L/2555cc AM1 SOHC	L4	1987-88	1	Viton	<b>18811</b>		<b>18860</b>	

## Mitsubishi

1.5L/1468cc G15B,4G15,G4AJ SOHC	L4	1985-96	1	Silicone	<b>18810</b>			
1.6L/1595cc 4G61 DOHC	L4	1989-92	1	Viton	<b>18811</b>		<b>18856</b>	
1.6L/1597cc G32B(incl.Turbo) SOHC	L4	1985-88	1	Silicone	<b>18810</b>		<b>18856</b>	
1.8L/1755cc 4G37 SOHC	L4	1992-94	1	Silicone	<b>18810</b>			
		1989-91	1	Viton	<b>18811</b>		<b>18856</b>	(1989-90)
1.8L/1795cc G62B(incl.Turbo) SOHC	L4	1983-88	1	Viton	<b>18811</b>		<b>18856</b>	
1.8L/1834cc 4G93 SOHC	L4	1992-94	1	Viton	<b>18812</b>		<b>18857</b>	
2.0L/1997cc 4G63 SOHC/DOHC/Turbo	L4	1993-94	1	Viton	<b>18812</b>		<b>18858</b>	(1992-94)
		1983-92		Viton	<b>18811</b>		<b>18856</b>	(1983-91)
2.3L/2346cc 4D55 Diesel SOHC	L4	1983-85	1	Viton	<b>18811</b>		<b>18856</b>	
2.6L/2555cc G54B SOHC	L4	1983-89	1	Viton	<b>18811</b>		<b>18860</b>	
3.0L/2972cc 6G72 DOHC	V6	1988-94	1	Viton	<b>18820</b>		<b>18857</b>	

## Nissan

1.6L/1597cc GA16DE DOHC	L4	1991-93	1	Viton	<b>18821</b>			
1.6L/1597cc SOHC	L4	1989-90	1	Viton	<b>18821</b>		<b>18862</b>	(1983-88)
1.8L/1780cc CD17 Diesel SOHC	L4	1983-86	1	Viton	<b>18821</b>		<b>18864</b>	
1.8L/1809cc CA18DE DOHC	L4	1988-89	1	Viton	<b>18821</b>			
2.0L/1952cc Z20/E/S SOHC	L4	1980-85					<b>18866</b>	
2.0L/1974cc CA20S SOHC	L4	1982-89	1	Viton	<b>18821</b>		<b>18864</b>	(1987-89)
2.0L/1998cc SR20DE DOHC	L4	1991-95					<b>18868</b>	
2.2L/2187cc Z22/E SOHC	L4	1981-83					<b>18866</b>	
2.4L/2389cc KA24E,DE SOHC/DOHC	L4	1989-94					<b>18868</b>	
2.4L/2389cc Z24/I SOHC	L4	1983-89					<b>18866</b>	
2.4L/2393cc L24,L24E SOHC	L6	1980-84					<b>18866</b>	
2.8L/2753cc L28,E,ET SOHC	L6	1980-83					<b>18866</b>	
3.0L/2960cc VG30... SOHC/DOHC	V6	1985-95	1	Viton	<b>18821</b>		<b>18864</b>	

## Toyota

1.3L/1290cc 4K,4KE OHV	L4	1981-82					<b>NAH2304-PO</b>	
1.5L/1456cc 3E,3EE SOHC	L4	1987-94	1	Viton	<b>18824</b>		<b>18825</b>	
1.5L/1497cc 5EFE DOHC	L4	1992-96	1	Viton	<b>18824</b>		<b>18825</b>	(1992-95)
1.6L/1587cc 4AC,F,G,L SOHC/DOHC	L4	1995-96	1	Viton	<b>18870</b>		<b>18826</b>	(1988-89)
1.8L/1762cc 7AFE DOHC	L4	1993-95	1	Viton	<b>18870</b>			
1.8L/1770cc 3TC OHV	L4	1980-82					<b>NAH2304-PO</b>	
2.2L/2189cc 20R SOHC	L4	1980	1	Silicone	<b>18830</b>		<b>18874</b>	
		1986-95	1	Silicone	<b>18831</b>		<b>18875</b>	
2.4L/2366cc 22R,22RE,22REC SOHC	L4	1981-85	1	Silicone	<b>18830</b>		<b>18874</b>	
2.6L/2563cc 4M,4ME SOHC	L6	1980	1	Silicone	<b>18830</b>		<b>18874</b>	
2.8L/2759cc 5ME,5MGE SOHC/DOHC	L6	1981-88	1	Silicone	<b>18830</b>		<b>18874</b>	(1981-82)
3.0L/2954cc 7MGE, 7MGTE DOHC	L6	1986-92	1	Silicone	<b>18830</b>			
3.0L/2958cc 3VZE SOHC	V6	1988-94	1	Viton	<b>18832</b>			
4.2L/4230cc 2F OHV	L6	1985-87					<b>NBE2698-E0</b>	



## Silver Seal Black Powder Coated "OEM Style" Oil Pans With Nearly 300 Domestic And Import Applications

### Acura, AMC, Chrysler (Pictures Start on Pg. 149)

Acura						
Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
1.6L	1590	L4	1986-89	Integra	TW6770B	
1.8L	1834	L4	1990-01	Integra (Exc. GS-R & Type-R)	TW6771B	
2.2L	2156	L4	1997	CL	TW6613B	
2.3L	2254	L4	1998-99	CL	TW6773B	
AMC						
2.5L	151	L4	1980-83	Eagle, Concord, Spirit	TW6762B	
5.0L	304	V8	1970-81	Ambassador, Gremlin, Hornet, Javelin, CJ/DJ Series	TW6585	
5.9L	360	V8	1970-88	Ambassador, Cherokee, Javelin, J Series, Wagoneer	TW6585	
6.6L	401	V8	1971-78	Ambassador, Cherokee, J10/20, Matador, Wagoneer	TW6585	
Chrysler (Includes Dodge, Plymouth)						
1.5L	1468	L4	1987-94	Colt, Excel, Mirage, Precis, Scoupe, Summit	TW6512B	No Baffle
1.5L	1468	L4	1990-96	Colt, Mirage, Precis, Summit	TW6511B	W/Baffle
1.6L	1596	L4	1989-92	Colt, Elantra, Mirage, Summit	TW6708B	
1.6L	1596	L4	1989	Colt, Mirage	TW6709B	
2.0L	1996	L4	1995-96	Neon	TW6557B	
2.0L	1996	L4	1995-99	Avenger, Eclipse, Sebring, Talon	TW6504B	
2.0L	1997	L4	1989-92	2000 GTX, Galant, Laser, Talon, Sonata(92-95)	TW6708B	
2.0L	1997	L4	1990-92	2000 GTX, Eclipse, Galant, Laser, Talon	TW6709B	
2.4L	2429	L4	1995-00	Breeze, Cirrus, Stratus, Sebring	TW6711B	
2.5L	2507	L4	1986-95	Mini-Van, Acclaim, Daytona, LeBaron, Shadow	TW6508B	
2.8L	170	L6	1960-69	Dodge Pickup/Van, Barracuda, Dart, Lancer, Valiant	TW225T	
3.0L	2972	V6	1987-00	Mini-Van, Acclaim, Daytona, LeBaron, Spirit	TW6507B	
3.2L	198	L6	1962-74	Dodge Pickup/Van, Barracuda, Dart, Duster, Scamp	TW225T	
3.3L	201	V6	1990-02	Mini-Van, Dynasty, Imperial, New Yorker	TW6505B	W/O Oil Level Sensor
3.3L	201	V6	1990-02	Mini-Van, Dynasty, New Yorker	TW6506B	W/Oil Level Sensor
3.5L	3497	V6	1993-97	Concorde, Intrepid, LHS, New Yorker, Vision	TW6705B	
3.7L	225	L6	1960-87	Dodge Pickup/Van, Dart, Duster, Fury, LeBaron	TW225T	
3.8L	230	V6	1991-02	Mini-Van, Imperial, New Yorker	TW6505B	W/O Oil Level Sensor
3.8L	230	V6	1991-02	Mini-Van, New Yorker	TW6506B	W/Oil Level Sensor
3.9L	239	V6	1987-91	Dakota, Dodge Pickup & Van	TW6710B	
3.9L	239	V6	1992-03	Dakota, Durango, Dodge Pickup & Van	TW6716B	
5.2L	318	V8	1971-91	Dodge Pickup, Dodge/Plymouth Van, Ramcharger	TW6509B	
5.2L	318	V8	1965-72	Barracuda, Challenger, Charger, Dart, Satellite	TW6569B	
5.2L	318	V8	1973-89	Caravelle, Challenger, Diplomat, Fifth Avenue	TW6706B	
5.2L	318	V8	1992-97	Dodge Pickup & Van, Ramcharger	TW6712B	
5.2L	318	V8	1994-01	Dodge Pickup & Van, Grand Cherokee	TW6713B	W/O Oil Level Sensor
5.2L	318	V8	1992-03	Dakota, Durango, Dodge Van	TW6715B	
5.6L	340	V8	1965-72	Barracuda, Challenger, Charger, Dart, Satellite	TW6569B	
5.6L	340	V8	1973-89	Caravelle, Challenger, Diplomat, Fifth Avenue	TW6706B	
5.9L	360	V8	1971-91	Dodge Pickup, Dodge/Plymouth Van, Ramcharger	TW6702B	
5.9L	360	V8	1992-97	Dodge Pickup & Van, Ramcharger	TW6712B	



# Oil Pans

## Chrysler, Cummins, Ford

### Chrysler (Cont.)

Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
5.9L	360	V8	1994-02	Dodge Pickup & Van	TW6713B	W/O Oil Level Sensor
5.9L	360	V8	1998-03	Dakota, Durango, Dodge Van	TW6715B	
5.9L	361	V8	1958-66	Belvedere, Custom, Fury, Newport, Polara, Savoy	TW6563B	
5.9L	361	V8	1962-64	Mopar Big Block "B", 7 quart, 7" Extra Deep Pan	TW5750B	
6.3L	383	V8	1959-71	Dodge Pickup, Belvedere, D/W Series, Dart, 300	TW6563B	
6.3L	383	V8	1959-71	Mopar Big Block "B", 7 quart, 7" Extra Deep Pan	TW5750B	
6.6L	400	V8	1971-78	Dodge Pickup/Van,Charger,Fury,Monaco,Satellite	TW6563B	
6.6L	400	V8	1971-78	Mopar Big Block "B", 7 quart, 7" Extra Deep Pan	TW5750B	
6.8L	413	V8	1959-65	300, Custom, Dart, Imperial, New Yorker, T&C	TW6563B	
6.8L	413	V8	1961-65	Mopar Big Block "RB", 7 quart, 7" Extra Deep Pan	TW5750B	
7.0L	426	V8	1963-71	Challenger, Charger, Cuda, Duster, Roadrunner	TW6563B	
7.0L	426	V8	1965-71	Mopar Big Block "HEMI",7 quart,7" Extra Deep Pan	TW5750B	
7.2L	440	V8	1966-79	Dodge Pickup/Van, Charger, Cuda, Roadrunner	TW6563B	
7.2L	440	V8	1966-79	Mopar Big Block "RB", 7 quart, 7" Extra Deep Pan	TW5750B	

### Cummins

	N14		1980-02	Cummins N14 Front Sump	TW6701B	
	N14		1980-02	Cummins N14 Rear Sump	TW6799B	

### Ford (Includes Lincoln, Mercury)

1.3L	1295	L4	1988-93	Festiva	TW6618B	W/Baffle
1.6L	1598	L4	1987-89	Mercury Tracer; Mazda 323	TW6618B	W/Baffle
2.0L	1989	L4	1993-03	Probe; Mazda 626, MX-6, Protégé	TW6780B	
2.2L	2184	L4	1988-92	Probe; Mazda 626, MX-6	TW6622B	W/O Oil Level Sensor
2.2L	133	L4	1989-92	Probe (includes GT)	TW6513B	W/Oil Level Sensor
2.3L	140	L4	1987-90	Mustang	TW6745B	W/O Oil Level Sensor
2.3L	140	L4	1985-86	Capri,Cougar,LTD,Marquis,Mustang,Mercur XR4	TW6745B	W/O Oil Level Sensor
2.3L	140	L4	1985-86	Capri, Cougar, LTD, Marquis, Mustang	TW6746B	W/Oil Level Sensor
2.5L	2450	V6	1993-02	Probe GT, Mazda 626,MX-6,Millenia	TW6781B	
2.8L	171	V6	1983-86	Aerostar, Bronco II, Ranger	TW6728B	W/O Oil Level Sensor
2.9L	177	V6	1986	Bronco II, Ranger	TW6728B	W/O Oil Level Sensor
2.9L	177	V6	1986-92	Bronco II, Ranger	TW6729B	W/Oil Level Sensor
3.0L	182	V6	1986-90	Taurus, Sable	TW6516B	W/O Oil Level Sensor
3.0L	182	V6	1986-90	Taurus, Aerostar, Sable	TW6517B	W/Oil Level Sensor
3.0L	182	V6	1991-99	Taurus, Tempo, Windstar, Sable	TW6514B	W/O Oil Level Sensor
3.0L	182	V6	1991-98	Taurus, Windstar, Sable, Probe(90-92)	TW6515B	W/Oil Level Sensor
3.0L	182	V6	1990-92	Aerostar, Ranger	TW6518B	
3.0L	182	V6	1993-97	Aerostar, Ranger, Mazda B3000(94-01)	TW6545B	W/Oil Level Sensor
3.0L	182	V6	1993-01	Ranger, Mazda B3000, Aerostar(97)	TW6546B	W/O Oil Level Sensor
3.0L	2960	V6	1994-98	Mercury Villager, Nissan Quest	TW6783B	W/Oil Level Sensor
3.0L	2960	V6	1994-98	Mercury Villager, Nissan Quest	TW6784B	W/O Oil Level Sensor
3.3L	3275	V6	1999-02	Mercury Villager, Nissan Quest	TW6783B	W/Oil Level Sensor
3.3L	3275	V6	1999-02	Mercury Villager, Nissan Quest	TW6784B	W/O Oil Level Sensor
3.8L	232	V6	1988-95	Taurus, Sable, Continental, Windstar(95-98)	TW6730B	W/O Oil Level Sensor
3.8L	232	V6	1988-95	Taurus, Sable, Continental, Windstar(95-98)	TW6731B	W/Oil Level Sensor
4.2L	255	V8	1981-82	F-100 Pickup	TW6414B	
4.2L	255	V8	1980-82	Capri, Cougar, Fairmont, LTD, Mustang, T-Bird	TW6405B	W/O Oil Level Sensor
4.2L	255	V8	1980-82	Fairmont, LTD, Mustang, Thunderbird, Cougar	6513B	Front Sump,No Dipstick

## Ford, General Motors

Ford (Cont.)						
Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
4.2L	255	V8	1980	Granada, Monarch	TW6742B	No Baffle
4.2L	255	V8	1980	Granada, Monarch	TW6743B	W/Baffle
4.2L	256	V8	2004	F-150 Pickup	TW6747B	
4.3L	260	V8	1963-64	Fairlane, Falcon, Mustang, Comet, Cyclone	6513B	
4.6L	281	V8	1991-02	Crown Victoria, Grand Marquis, Town Car	TW6734B	
4.6L	281	V8	1997-04	Expedition, F-150, F-250 Pickup	TW6747B	
4.6L	281	V8	1997-04	E-150, E-250 Econoline Van	TW6748B	
4.7L	289	V8	1963-68	Fairlane, Falcon, Galaxie, LTD, Mustang, Torino	6513B	
4.7L	289	V8	1964-68	Comet,Cougar,Fairlane,Falcon,Mustang,Torino	TW6742B	No Baffle
4.7L	289	V8	1964-68	Comet,Cougar,Fairlane,Falcon,Mustang,Torino	TW6743B	W/Baffle
4.9L	300	L6	1983-96	Bronco, Ford Pickup, Ford Van	TW6543B	
4.9L	300	L6	1980-82	Bronco, Ford Pickup, Ford Van	TW6725B	Dipstick Tube In Pan
4.9L	300	L6	1967-79	Ford Pickup	TW6744B	
5.0L	302	V8	1980-96	Bronco, Ford Pickup, Ford Van	TW6414B	
5.0L	302	V8	1981-84	Ford Van	TW6542B	Dipstick Tube In Pan
5.0L	302	V8	1979-95	Capri,Cougar,Crown Vic,Mustang,T-Bird,Town Car	TW6405B	W/O Oil Level Sensor
5.0L	302	V8	1981-95	Capri,Cougar,Crown Vic,Mustang,T-Bird,Mark VII	TW6406B	W/Oil Level Sensor
5.0L	302	V8	1978-79	Capri, Fairmont, LTD, Marquis, Mustang, Zephyr	TW6407B	Dipstick Tube In Pan
5.0L	302	V8	1968-80	Comet,Cougar,Fairlane,Falcon,Mustang,Torino	TW6742B	No Baffle
5.0L	302	V8	1968-80	Comet,Cougar,Fairlane,Falcon,Mustang,Torino	TW6743B	W/Baffle
5.0L	302	V8	1968-90	Crown Vic, LTD, Mustang, Torino, T-Bird, Mark VI	6513B	Front Sump
5.4L	330	V8	1997-03	Expedition, Ford Pickup, Navigator	TW6747B	
5.4L	330	V8	1997-04	Ford Van	TW6748B	
5.8L	351	V8	1969-90	Crown Vic,LTD,Mustang,Torino,Galaxie 500,Cougar	6514B	Front Sump,No Dipstick
5.8L	351	V8	1988-97	Bronco, F Series Pickup, Ford Van	TW6415B	
5.8L	351	V8	1981-87	Bronco, F Series Pickup, Ford Van	TW6727B	Dipstick Tube In Pan
5.8L	351	V8	1979-91	Crown Victoria, Grand Marquis, LTD	TW6733B	Dipstick Tube In Pan
5.8L	351C,351M	V8	1970-79	Ford Pass. Car, 351C, 351M, 400	6514CB	Front Sump
5.8L	352	V8	1966-67	Pickup, Wagon, Galaxie, Meteor, Monterey(61-62)	TW6561B	
6.4L	390	V8	1961-77	Pickup, Wagon, Fairlane, Galaxie, Mustang, T-Bird	TW6561B	
6.6L	400	V8	1977	Lincoln Continental, Mark V	TW6560B	Front Sump
6.6L			1988-91	Ford New Holland	TW6732B	
6.7L	406	V8	1961-65	Custom, Galaxie, Sunliner, Victoria, Monterey	TW6561B	
6.9L	420	V8	1983-87	Ford Pickup, Ford Van	TW6416B	
7.0L	427	V8	1963-68	Fairlane, Galaxie, T-Bird, Station Wagon, Comet	TW6561B	
7.0L	429	V8	1968-73	Galaxie 500,LTD,T-Bird,Wagon,Torino(Exc.Boss)	TW6560B	Front Sump
7.3L	445	V8	1988-94	Ford Pickup, Ford Van	TW6416B	
7.3L	445	V8	1994-96	Ford Pickup, Ford Van	TW6740B	
7.3L	445	V8	1997-03	Excursion, Ford Pickup & Van	TW6741B	
7.5L	460	V8	1968-78	Custom 500,LTD,Torino;Continental,Mark III,IV,V	TW6560B	Front Sump
7.5L	460	V8	1983-89	Ford F-250, F-350 Pickup	TW6735B	Screw-in Dipstick Tube
7.5L	460	V8	1989-92	Ford F-250, F-350, F-450 Pickup	TW6558	Push-in Dipstick Tube
7.5L	460	V8	1993-94	Ford F-250, F-350, F-450 Pickup	TW6736B	
7.5L	460	V8	1995-97	Ford F-250, F-350, F-450 Pickup	TW6736B	
7.8L	460		1988-91	Ford New Holland	TW6732B	
General Motors						
1.0L	993	L3	1985-95	Firefly, Metro, Sprint; Suzuki Swift,Forsa	TW6754B	
1.0L	993	L3	1996-00	Firefly, Metro	TW6769B	
1.3L	1295	L4	1992-95	Firefly, Metro; Suzuki Swift(89-95)	TW6631B	
1.3L	1295	L4	1996-01	Firefly, Metro; Suzuki Swift	TW6763B	





# Oil Pans

## General Motors

### General Motors (Cont.)

Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
1.6L	1588	L4	1985-92	Nova, Prizm; Toyota Corolla,MR2	TW6633B	W/O Oil Cooler
1.6L	1588	L4	1989-95	Tracker, Sunrunner; Suzuki Sidekick	TW6632B	
1.6L	1590	L4	1996-00	Tracker, Sunrunner; Suzuki Sidekick,Vitara,X-90	TW6764B	
1.6L	1587	L4	1989-92	Geo Prizm; Toyota Celica,Corolla,MR2	TW6635B	W/O Oil Cooler
1.6L	1587	L4	1993-97	Geo Prizm; Toyota Corolla	TW6639B	
1.9L	116	L4	1991-02	Saturn SC,SL,SW Series	TW6757B	
2.0L	122	L4	1987-92	Firenza, Grand Am, LeMans, Skyhawk, Sunbird	TW6605B	W/O Oil Level Sensor
2.0L	122	L4	1993-94	Sunbird	TW6606B	W/Oil Level Sensor
2.0L	122	L4	1987-89	Beretta, Cavalier, Corsica, Firenza, Tempest	TW6582B	W/O Oil Level Sensor
2.2L	134	L4	1990-02	Beretta, Cavalier, Century, Ciera,Corsica, Sunfire	TW6582B	W/O Oil Level Sensor
2.2L	134	L4	1990-02	Beretta, Cavalier, Century, Ciera,Corsica, Sunfire	TW6583B	W/Oil Level Sensor
2.5L	151	L4	1978-93	Camaro,Celebrity,Century,Cutlass,Fiero,S10,S15	TW6762B	
2.8L	173	V6	1987-89	Beretta, Cavalier, Century, Cutlass, Grand Prix	TW6587B	W/O Oil Level Sensor
2.8L	173	V6	1980-86	6000, Celebrity, Century, Cutlass, Citation, Fiero	TW6581B	
2.8L	173	V6	1982-86	Blazer, Camaro, Firebird, S10/S15 Pickup 4X2	TW6750B	
2.8L	173	V6	1987-93	Blazer, Camaro, Firebird, S Series Pickup	TW6751B	
3.0L	181	V6	1985-88	Calais, Delta 88, Grand Am, Skylark, Somerset	TW6410B	W/O Oil Level Sensor
3.1L	189	V6	1988-95	Beretta,Cutlass,Grand Prix,Lumina,Regal,6000	TW6587B	W/O Oil Level Sensor
3.1L	189	V6	1990-92	Camaro, Firebird	TW6751B	
3.3L	204	V6	1989-93	Century, Cutlass Calais/Ciera, Skylark	TW6410B	W/O Oil Level Sensor
3.4L	207	V6	1991-94	Cutlass Supreme, Grand Prix, Lumina	TW6587B	W/O Oil Level Sensor
3.4L	207	V6	1995-97	Cutlass Supreme,Grand Prix,Lumina,Monte Carlo	TW6588B	W/Oil Level Sensor
3.8L	231	V6	1995-98	LeSabre, Park Avenue, Mini-Van(95)	TW6752B	W/O Oil Level Sensor
3.8L	231	V6	1995-04	Delta 88,Grand Prix,Impala,Monte Carlo,Regal	TW6753B	W/Oil Level Sensor
3.8L	231	V6	1990-94	Bonneville,Delta 88,LeSabre,Regal,Mini-Van(92-94)	TW6408B	W/O Oil Level Sensor
3.8L	231	V6	1990-95	Bonneville,Delta 88,LeSabre,Regal,Mini-Van(92-94)	TW6409B	W/Oil Level Sensor
3.8L	231	V6	1986-90	Bonneville,Century,Ciera,Delta 88,98,Elektra	TW6410B	W/O Oil Level Sensor
3.8L	231	V6	1988-90	Reatta, Riviera, Toronado	TW6758B	W/Oil Level Sensor
4.3L	265	V8	1994-96	Caprice	TW6404B	4 Qt.; W/ Oil Level Sensor
4.3L	262	V6	1986-96	Chev./GMC Pickup, Mini-Van & Van	TW6412B	
4.3L	262	V6	1988-95	Blazer S10, Jimmy S15, S10/S15 Pickup 4X2	TW6413B	
4.4L	267	V8	1980-82	Camaro,Caprice,Impala,LaSabre,Malibu,Regal	TW6401B	Dipstick On Pass. Side
4.4L	267	V8	1979	El Camino, LeMans, Malibu, Monte Carlo	TW6402B	Dipstick Tube In Pan
4.6L	283	V8	1963-67	Chev./GMC Pickup, Bel Air, Biscayne, Impala	TW6400B	Dipstick On Driver Side
5.0L	305	V8	1986-02	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6403B	4 Qt.;W/O Oil Level Sensor
5.0L	305	V8	1991-93	Caprice, Roadmaster(91)	TW6404B	4 Qt.;W/Oil Level Sensor
5.0L	305	V8	1980-85	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6401B	Dipstick On Pass. Side
5.0L	305	V8	1968-79	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6400B	Dipstick On Driver Side
5.0L	305	V8	1978-79	Century, Cutlass, Grand Prix, Malibu, Regal	TW6402B	Dipstick Tube In Pan
5.4L	327	V8	1964-69	Chev./GMC Pickup, Bel Air, Camaro, Impala	TW6400B	Dipstick On Driver Side
5.7L	350	V8	1986-02	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6403B	4 Qt.;W/O Oil Level Sensor
5.7L	350	V8	1991-97	Camaro,Caprice,Firebird,Fleetwood,Roadmaster	TW6404B	4 Qt.; W/ Oil Level Sensor
5.7L	350	V8	1980-85	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6401B	Dipstick On Pass. Side
5.7L	350	V8	1967-79	Chev./GMC Pickup & Van,Blazer, Pass. Cars	TW6400B	Dipstick On Driver Side
5.7L	350	V8	1978-79	Century, Cutlass Cruiser, Malibu	TW6402B	Dipstick Tube In Pan
5.7L	350	V8	1986-02	Chev./Gmc Pickup & Van, Suburban	TW6759B	5 Quart
5.7L	350 (Marine)	V8	1986-Up	Chevy Small Block - Marine Applications 86 & up	TW6760B	

# General Motors, Honda, Hyundai, International

## General Motors (Cont.)

Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
6.2L	379	V8	1982-91	Chev./GMC Pickup & Van, Suburban, Blazer	TW6765B	
6.2L	379	V8	1992-93	Chev./Gmc Pickup & Van, Suburban	TW6766B	
6.5L	395	V8	1992-02	Chev./Gmc Pickup & Van, Suburban, Yukon, Tahoe	TW6766B	
6.5L	396	V8	1966-70	Camaro, Chevelle, Malibu, Nova, Beaumont	TW6761B	
6.5L	396	V8	1966-70	GM Mark 4 Engine (not Corvette)	TW6550B	
6.6L	400	V8	1980	Chev./Gmc Pickup & Van, Suburban	TW6401B	Dipstick On Pass. Side
6.6L	400	V8	1970-79	Chev./GMC Pickup & Van, Blazer, Pass. Cars	TW6400B	Dipstick On Driver Side
6.6L	402	V8	1970-72	Camaro, Chevelle, Chev./Gmc Pickup, Suburban	TW6761B	
6.6L	402	V8	1970-72	GM Mark 4 Engine (not Corvette)	TW6550B	
7.4L	454	V8	1970-78	Camaro, Chevelle, Chev./Gmc Pickup, Van, Suburban	TW6761B	
7.4L	454	V8	1970-95	GM Mark 4 Engine (not Corvette)	TW6550B	
7.4L	454	V8	1991-00	Chev./Gmc Pickup & Van, Suburban	TW6767B	
7.4L	330-455	V8	All	Oldsmobile 330-455 All years (except 1975 400)	TW6484B	
7.4L	301-455	V8	1974-81	Pontiac 301-455	TW6586B	

## Honda

1.3L	1342	L4	1984-87	Civic	TW6770B	
1.5L	1487	L4	1984-87	Civic, CRX	TW6770B	
1.5L	1487	L4	1988-95	Civic, Civic Del Sol, CRX	TW6609B	
1.6L	1590	L4	1986-89	Integra	TW6770B	
1.6L	1590	L4	1988-95	Civic, Civic Del Sol, CRX	TW6609B	
1.6L	1590	L4	1994-00	Civic, Civic Del Sol	TW6771B	
1.6L	1590	L4	1996-00	Civic (SOHC)	TW6772B	
1.8L	1829	L4	1983-87	Prelude, Accord SE-I(85)	TW6611B	
1.8L	1829	L4	1984-85	Accord	TW6612B	
2.0L	1955	L4	1985-89	Accord, Prelude	TW6611B	
2.0L	1972	L4	1997-01	Honda CRV	TW6615B	
2.2L	2156	L4	1990-97	Accord, Odyssey, Prelude; Acura CL(97)	TW6613B	
2.3L	2259	L4	1992-96	Prelude	TW6613B	
2.3L	2254	L4	1998-02	Accord, Odyssey; Acura CL, Isuzu Oasis(98-99)	TW6773B	

## Hyundai

1.5L	1468	L4	1990-94	Excel, Scoupe(91-92)	TW6512B	No Baffle
1.5L	1495	L4	1993-94	Scoupe (Exc. Turbo)	TW6774B	No Baffle
1.5L	1495	L4	1995-02	Accent, Scoupe(95 Exc. Turbo)	TW6775B	W/Baffle
1.5L	1495	L4	1993-94	Scoupe (Turbo)	TW6776B	
1.5L	1495	L4	1995	Scoupe (Turbo)	TW6777B	
1.6L	1596	L4	1992-95	Elantra	TW6708B	
1.6L	1600	L4	2001-04	Accent	TW6775B	W/Baffle
1.8L	1836	L4	1993-95	Elantra	TW6708B	
1.8L	1796	L4	1996-98	Elantra, Tiburon(97)	TW6778B	
2.0L	1997	L4	1992-95	Sonata	TW6708B	
2.0L	1975	L4	1997-01	Tiburon, Elantra(99-00)	TW6778B	

## International

7.3L	445	V8	Pre 93	International Navistar (Diesel)	TW6417B	
7.3L	445	V8	1981-97	International DT466, DTA466 (Rear Sump)	TW6720B	Rear Sump
7.3L	445	V8	1981-97	International DT360	TW6722B	
7.3L	445	V8	1994-01	International DTA466, DT408 & DT530	TW6723B	W/O Pan Heater
7.3L	445	V8	1994-01	International DT466, DT530	TW6724B	W/Pan Heater



# Oil Pans

## Isuzu, Jeep, Mazda, Mitsubishi, Nissan

Isuzu						
Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
2.2L	2156	L4	1996-97	Oasis	TW6613B	
2.3L	2254	L4	1998-99	Oasis	TW6773B	
Jeep						
2.5L	150	L4	1986-95	Cherokee,Comanche,Wagoneer,Wrangler,CJ7(86)	TW6616B	
2.5L	151	L4	1980-83	CJ5, CJ7, Scrambler	TW6762B	
3.8L	232	L6	1971-78	CJ5, CJ6, DJ5, Jeepster(73), Wagonner(71)	TW6707B	
4.0L	242	L6	1987-91	Cherokee, Comanche, Wagoneer, Wrangler	TW6703B	W/O Oil Level Sensor
4.0L	242	L6	1992-01	Cherokee, Grand Cherokee, Wagoneer, Wrangler	TW6703B	W/O Oil Level Sensor
4.0L	242	L6	1992-97	Cherokee, Grand Cherokee, Wrangler	TW6704B	W/Oil Level Sensor
4.2L	258	L6	1972-90	CJ5, CJ6, J10, Cherokee, Wagoneer, Wrangler	TW6707B	
5.2L	318	V8	1993-98	Grand Cherokee, Grand Wagoneer(93)	TW6713B	W/O Oil Level Sensor
5.2L	318	V8	1993	Grand Cherokee	TW6714B	W/Oil Level Sensor
5.9L	360	V8	1998	Grand Cherokee	TW6713B	W/O Oil Level Sensor
Mazda						
1.5L	1489	L4	1995	Protégé	TW6620B	W/Baffle
1.6L	1598	L4	1986-87	323	TW6726B	No Baffle
1.6L	1598	L4	1988-89	323; Ford Festiva; Mercury Tracer	TW6618B	W/Baffle
1.6L	1597	L4	1990-01	323, MX-3, Protégé	TW6619B	
1.6L	1597	L4	1994-96	MX-3	TW6620B	W/Baffle
1.8L	1839	L4	1990-91	323	TW6619B	
1.8L	1845	V6	1992-94	MX-3	TW6781B	
1.8L	1839	L4	1999-00	Protégé	TW6780B	
2.0L	1998	L4	1983-87	626	TW6623B	
2.0L	1989	L4	1993-03	626, MX-6, Protégé; Ford Probe	TW6780B	
2.2L	2184	L4	1988-92	626, MX-6; Ford Probe	TW6622B	W/O Oil Level Sensor
2.2L	2184	L4	1987-93	B2200 Pickup	TW6779B	
2.5L	2497	V6	1993-02	626, MX-6, Millenia; Ford Probe GT	TW6781B	
3.0L	2954	V6	1994-01	B3000 Pickup; Ford Ranger, Aerostar	TW6545B	W/Oil Level Sensor
3.0L	2954	V6	1994-01	B3000 Pickup; Ford Ranger, Aerostar	TW6546B	W/O Oil Level Sensor
3.0L	2954	V6	1988-98	MPV 2WD, 929(88-91)	TW6782B	
Mitsubishi						
1.5L	1468	L4	1987-94	Mirage, Precis	TW6512B	No Baffle
1.5L	1468	L4	1990-96	Mirage, Precis	TW6511B	W/Baffle
1.6L	1597	L4	1989	Mirage	TW6709B	
1.6L	1597	L4	1991-92	Mirage	TW6708B	
2.0L	1997	L4	1989-92	Eclipse, Galant (w/o Turbo)	TW6708B	
2.0L	1997	L4	1990-92	Eclipse, Galant (w/Turbo)	TW6709B	
2.0L	1997	L4	1995-99	Eclipse (w/o Turbo)	TW6504B	
Nissan						
1.6L	1597	L4	1989-99	200SX, NX, Pulsar NX, Sentra	TW6626B	
1.8L	1809	L4	1989	Pulsar NX (SOHC)	TW6626B	
2.4L	2389	L4	1993-01	Altima	TW6785B	
3.0L	2960	V6	1994-98	Quest; Mercury Villager	TW6783B	W/O Oil Level Sensor
3.0L	2960	V6	1994-98	Quest; Mercury Villager	TW6784B	W/Oil Level Sensor
3.0L	2960	V6	1989-94	Maxima	TW6786B	
3.3L	3275	V6	1999-02	Quest; Mercury Villager	TW6783B	W/O Oil Level Sensor
3.3L	3275	V6	1999-02	Quest; Mercury Villager	TW6784B	W/Oil Level Sensor



## Subaru, Suzuki, Toyota

Subaru						
Liter	CI/CC	Eng.	Year	Application (Reference Only)	Part #	Comments
1.8L	1781	H4	1993-97	Impreza	TW6788B	
2.2L	2212	H4	1990-92	Legacy	TW6787B	
2.2L	2212	H4	1992-99	Impreza, Legacy	TW6788B	
2.5L	2458	H4	1996-04	Forester, Legacy, Impreza(98)	TW6787B	
2.5L	2458	H4	2000-04	Legacy	TW6788B	
Suzuki						
1.0L	993	L3	1985-93	Forsa, Swift; Chev.Sprint,Geo Metro,Pont.Firefly	TW6754B	
1.3L	1295	L4	1989-95	Swift; Chev./Geo Metro, Pontiac Firefly	TW6631B	
1.3L	1295	L4	1996-01	Swift; Chev./Geo Metro, Pontiac Firefly	TW6763B	
1.6L	1590	L4	1989-95	Sidekick; Chev./Geo Tracker, Pont.Sunrunner	TW6632B	
1.6L	1590	L4	1992-95	Esteem, Swift	TW6631B	
1.6L	1590	L4	1996-00	Esteem	TW6763B	
1.6L	1590	L4	1996-01	Sidekick,X90,Vitara;Chev./Geo Tracker,Sunrunner	TW6764B	
Toyota						
1.5L	1456	L4	1987-94	Paseo, Tercel	TW6789B	
1.5L	1497	L4	1995-99	Paseo, Tercel	TW6645B	
1.6L	1588	L4	1984-88	Corolla, MR2; Chev.Nova, Geo Prizm	TW6633B	W/O Oil Cooler
1.6L	1587	L4	1985-88	Corolla, MR2	TW6634B	W/O Oil Cooler
1.6L	1587	L4	1988-93	Celica, Corolla, MR2; Geo Prizm	TW6635B	W/O Oil Cooler
1.6L	1587	L4	1988-91	Corolla, MR2	TW6636B	W/O Oil Cooler
1.6L	1587	L4	1988-92	Corolla 4WD	TW6638B	
1.6L	1587	L4	1993-97	Corolla; Geo Prizm	TW6639B	
2.0L	1998	L4	1986-91	Camry, Celica	TW6790B	
2.0L	1998	L4	1996-00	Rav4	TW6790B	
2.2L	2164	L4	1992-01	Camry , Solara(99-01)	TW6642B	
2.2L	2164	L4	1990-99	Celica, MR2	TW6790B	
2.2L	2189	L4	1979-80	Toyota Pickup 2WD (20R Eng.)	TW6791B	
2.2L	2189	L4	1979-80	Toyota Pickup 4WD	TW6792B	
2.4L	2366	L4	1981-95	Toyota Pickup 2WD, 4Runner(90-91, 4WD;A.T.)	TW6791B	
2.4L	2366	L4	1981-95	Toyota Pickup 4WD, 4Runner	TW6792B	
2.4L	2366	L4	1990-91	4Runner 2WD & 4WD w/Manual Trans.	TW6792B	

### Oil Pans (Acura, AMC)

Sorted by Part #

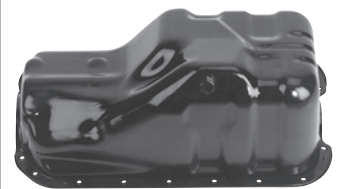
Page	Application	Page	Application
151	Chrysler	155	Honda, Hyundai, Int., Isuzu, Jeep
151-152	Cummins, Ford	156	Jeep, Mazda, Mitsubishi, Nissan
153	Ford, GM	157	Subaru, Suzuki, Toyota
154	GM, Honda		

**Acura (2.2L)**



**TW6613B**

**Acura (1.6L)**



**TW6770B**

**Acura (1.8L)**



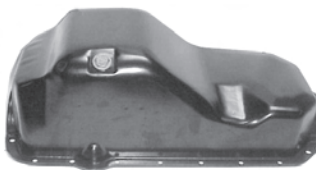
**TW6771B**

**Acura (2.3L)**



**TW6773B**

**AMC (304,360,401)**



**TW6585**

**AMC (2.5L)**



**TW6762B**



# Oil Pans

## Oil Pans (Chrysler)

Chrysler (170,198,225)



**TW225T**

Chrysler  
(361,383,400,413,426,440)



**TW5750B**

Chrysler (2.0L)



**TW6504B**

Chrysler (3.3L, 3.8L)



(w/o Oil Level Sensor)

**TW6505B**

Chrysler (3.3L, 3.8L)



(w/Oil Level Sensor)

**TW6506B**

Chrysler (3.0L)



**TW6507B**

Chrysler (2.5L)



**TW6508B**

Chrysler (318)



**TW6509B**

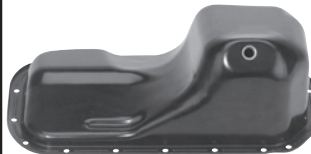
Chrysler (1.5L, 2.4L)



(w/Baffle)

**TW6511B**

Chrysler (1.5L)



(w/o Baffle)

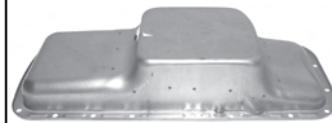
**TW6512B**

Chrysler (2.0L)



**TW6557B**

Chrysler  
(361,383,400,413,426,440)



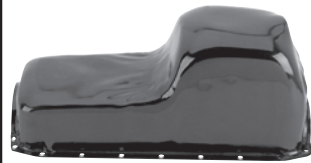
**TW6563B**

Chrysler (318,340)



**TW6569B**

Chrysler (360)



**TW6702B**

Chrysler (3.5L)



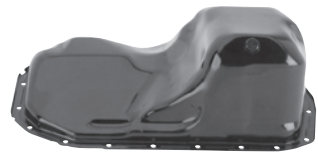
**TW6705B**

Chrysler (318,340)



**TW6706B**

Chrysler (1.6L, 2.0L)



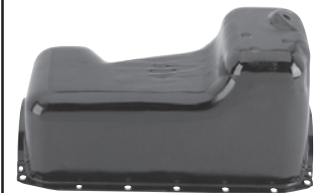
**TW6708B**

Chrysler (1.6L, 2.0L)



**TW6709B**

Chrysler (3.9L)



**TW6710B**

Chrysler (2.4L)



**TW6711B**

Chrysler (318,360)



**TW6712B**

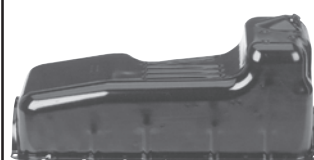
Chrysler (318,360)



(w/o Oil Level Sensor)

**TW6713B**

Chrysler (318,360)



**TW6715B**

Chrysler (3.9L)



**TW6716B**

## Oil Pans (Cummins, Ford)

**Cummins (N-14)**



(Front Sump)

**TW6701B**

**Cummins (N-14)**



(Rear Sump)

**TW6799B**

**Ford (255,260,289,302)**



(Front Sump, No Dipstick)

**6513B**

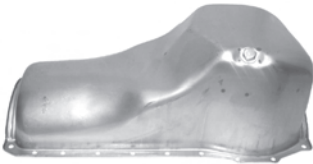
**Ford (351W)**



(Front Sump, No Dipstick)

**6514B**

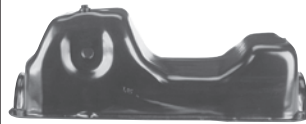
**Ford (351C,351M,400)**



(Front Sump)

**6514CB**

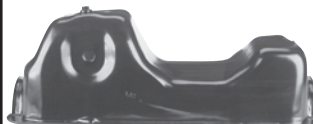
**Ford (302, 5.0L)**



(w/o Oil Level Sensor)

**TW6405B**

**Ford (302)**



(w/Oil Level Sensor)

**TW6406B**

**Ford (302)**



(Dipstick Tube In Pan)

**TW6407B**

**Ford (255,302)**



**TW6414B**

**Ford (351W)**



**TW6415B**

**Ford (6.9L, 7.3L)**



**TW6416B**

**Ford (2.2L)**



(w/Oil Level Sensor)

**TW6513B**

**Ford (3.0L)**



(w/o Oil Level Sensor)

**TW6514B**

**Ford (3.0L)**



(w/Oil Level Sensor)

**TW6515B**

**Ford (3.0L)**



(w/o Oil Level Sensor)

**TW6516B**

**Ford (3.0L)**



(w/Oil Level Sensor)

**TW6517B**

**Ford (1.3L, 1.6L)**



**TW6518B**

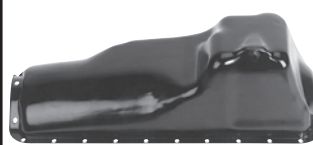
**Ford (289,302)**



(Dipstick Tube In Pan)

**TW6542B**

**Ford (300, 4.9L)**



**TW6543B**

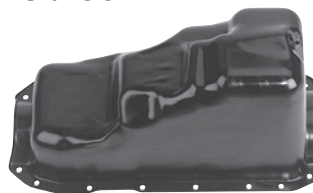
**Ford (3.0L)**



(w/Oil Level Sensor)

**TW6545B**

**Ford (3.0L)**



(w/o Oil Level Sensor)

**TW6546B**

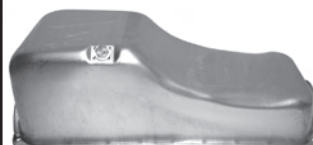
**Ford (460)**



(Push-In Dipstick Tube)

**TW6558**

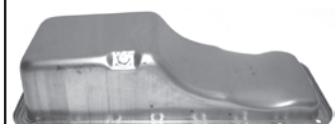
**Ford (400,460)**



(Front Sump)

**TW6560B**

**Ford (390,427)**



**TW6561B**

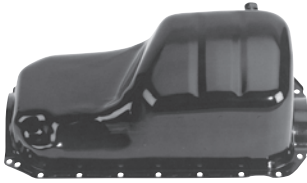




# Oil Pans

## Oil Pans (Ford)

**Ford (1.3L, 1.6L)**



(w/Baffle)

**TW6618B**

**Ford (2.2L)**



(w/o Oil Level Sensor)

**TW6622B**

**Ford (300, 4.9L)**



(Dipstick Tube In Pan)

**TW6725B**

**Ford (351W)**



(Dipstick Tube In Pan)

**TW6727B**

**Ford (2.8L, 2.9L)**



(w/o Oil Level Sensor)

**TW6728B**

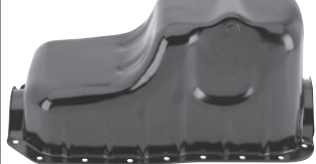
**Ford (2.9L)**



(w/Oil Level Sensor)

**TW6729B**

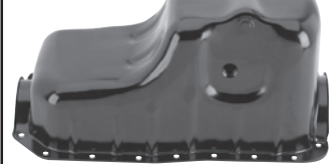
**Ford (3.8L)**



(w/o Oil Level Sensor)

**TW6730B**

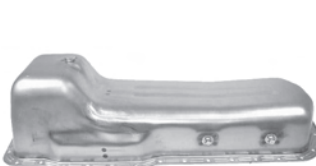
**Ford (3.8L)**



(w/Oil Level Sensor)

**TW6731B**

**Ford (400)**



**TW6732B**

**Ford (351W)**



(Dipstick Tube In Pan)

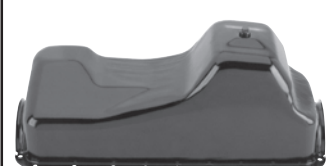
**TW6733B**

**Ford (4.6L)**



**TW6734B**

**Ford (460)**



(Screw-In Dipstick Tube)

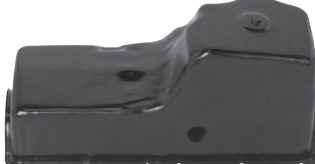
**TW6735B**

**Ford (460)**



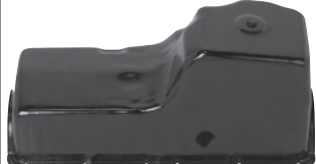
**TW6736B**

**Ford (7.3L)**



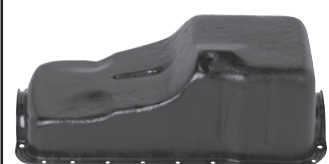
**TW6740B**

**Ford (7.3L)**



**TW6741B**

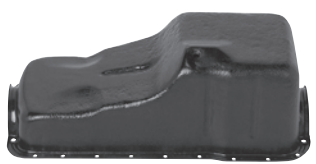
**Ford (289,302)**



(w/o Baffle)

**TW6742B**

**Ford (289,302)**



(w/Baffle)

**TW6743B**

**Ford (300, 4.9L)**



**TW6744B**

**Ford (2.3L)**



(w/o Oil Level Sensor)

**TW6745B**

**Ford (2.3L)**



(w/Oil Level Sensor)

**TW6746B**

**Ford (4.2L, 4.6L)**



**TW6747B**

**Ford (4.6L)**



**TW6748B**

**Ford (2.0L)**



**TW6780B**

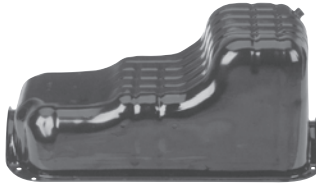
**Ford (2.5L)**



**TW6781B**

## Oil Pans (Ford, GM)

**Ford (3.0L, 3.3L)**



(w/Oil Level Sensor)

**TW6783B**

**Ford (3.0L, 3.3L)**



(w/o Oil Level Sensor)

**TW6784B**

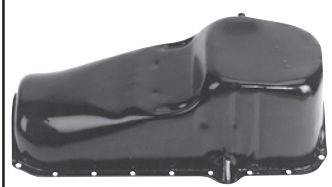
**GM (283,305,327,350)**



(Dipstick on Driver Side.)

**TW6400B**

**GM (267,305,350)**



(Dipstick on Passenger Side.)

**TW6401B**

**GM (267,305,350)**



(Dipstick Tube in Pan)

**TW6402B**

**GM (305,350)**



(4 Qt., w/o Oil Level Sensor)

**TW6403B**

**GM (265,305,350)**



(4 Qt., w/Oil Level Sensor)

**TW6404B**

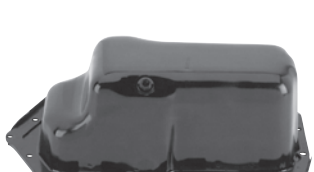
**GM (3.8L)**



(w/o Oil Level Sensor)

**TW6408B**

**GM (3.8L)**



(w/Oil Level Sensor)

**TW6409B**

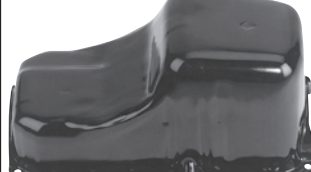
**GM (3.8L)**



(w/o Oil Level Sensor)

**TW6410B**

**GM (4.3L)**



**TW6412B**

**GM (4.3L)**



**TW6413B**

**GM (330-455 Olds)**



**TW6484B**

**GM (454)**



**TW6550B**

**GM (2.8L)**



**TW6581B**

**GM (2.0L, 2.2L)**



(w/o Oil Level Sensor)

**TW6582B**

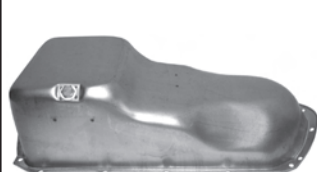
**GM (2.2L)**



(w/Oil Level Sensor)

**TW6583B**

**GM (301-455 Pontiac)**



**TW6586B**

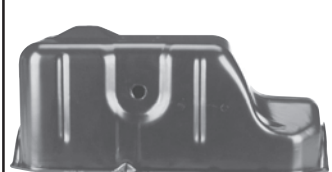
**GM (3.1L, 3.4L)**



(w/o Oil Level Sensor)

**TW6587B**

**GM (3.4L)**



(w/Oil Level Sensor)

**TW6588B**

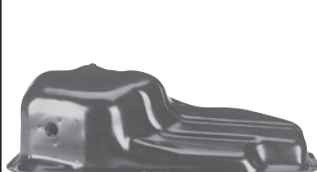
**GM (2.0L)**



(w/o Oil Level Sensor)

**TW6605B**

**GM (2.0L)**



(w/Oil Level Sensor)

**TW6606B**

**GM (1.3L)**



**TW6631B**

**GM (1.6L)**



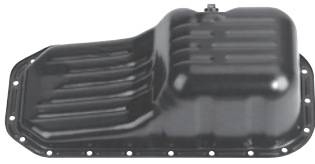
**TW6632B**



# Oil Pans

## Oil Pans (GM, Honda)

GM (1.6L)



(w/o Oil Cooler)

**TW6633B**

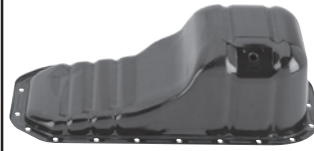
GM (1.6L)



(w/o Oil Cooler)

**TW6635B**

GM (1.6L)



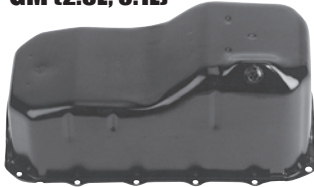
**TW6639B**

GM (2.8L)



**TW6750B**

GM (2.8L, 3.1L)



**TW6751B**

GM (3.8L)



(w/o Oil Level Sensor)

**TW6752B**

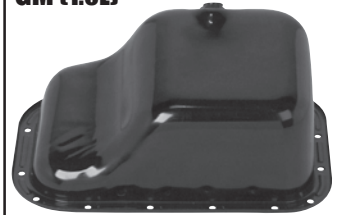
GM (3.8L)



(w/Oil Level Sensor)

**TW6753B**

GM (1.0L)



**TW6754B**

GM (1.9L)



**TW6757B**

GM (3.8L)



(w/Oil Level Sensor)

**TW6758B**

GM (3.5L)



(5 Quart)

**TW6759B**

GM (3.5L Marine)



**TW6760B**

GM (3.9L)



**TW6761B**

GM (2.5L)



**TW6762B**

GM (1.3L)



**TW6763B**

GM (1.6L)



**TW6764B**

GM (6.2L)



**TW6765B**

GM (6.2L)



**TW6766B**

GM (4.5L)



**TW6767B**

GM (1.0L)



**TW6769B**

Honda (1.5L)



**TW6609B**

Honda (1.8L, 2.0L)



**TW6611B**

Honda (1.8L)



**TW6612B**

Honda (2.2L, 2.3L)



**TW6613B**



## Oil Pans (Honda, Hyundai, International, Isuzu, Jeep)

<p><b>Honda (2.0L)</b></p>  <p><b>TW6615B</b></p>	<p><b>Honda (1.3L, 1.5L, 1.6L)</b></p>  <p><b>TW6770B</b></p>	<p><b>Honda (1.6L)</b></p>  <p><b>TW6771B</b></p>	<p><b>Honda (1.6L)</b></p>  <p><b>TW6772B</b></p>
<p><b>Honda (2.3L)</b></p>  <p><b>TW6773B</b></p>	<p><b>Hyundai (1.5L)</b> (w/o Baffle)</p>  <p><b>TW6512B</b></p>	<p><b>Hyundai (1.6L, 1.8L, 2.0L)</b></p>  <p><b>TW6708B</b></p>	<p><b>Hyundai (1.5L)</b> (w/o Baffle)</p>  <p><b>TW6774B</b></p>
<p><b>Hyundai (1.5L)</b> (w/Baffle)</p>  <p><b>TW6775B</b></p>	<p><b>Hyundai (1.5L)</b></p>  <p><b>TW6776B</b></p>	<p><b>Hyundai (1.5L)</b></p>  <p><b>TW6777B</b></p>	<p><b>Hyundai (1.8L, 2.0L)</b></p>  <p><b>TW6778B</b></p>
<p><b>International (7.3L, Pre-93)</b></p>  <p><b>TW6417B</b></p>	<p><b>International (7.3L)</b> (Rear Sump)</p>  <p><b>TW6720B</b></p>	<p><b>International (7.3L)</b></p>  <p><b>TW6722B</b></p>	<p><b>International (7.3L)</b> (w/o Pan Heater)</p>  <p><b>TW6723B</b></p>
<p><b>International (7.3L)</b> (w/Pan Heater)</p>  <p><b>TW6724B</b></p>	<p><b>Isuzu (2.2L)</b></p>  <p><b>TW6613B</b></p>	<p><b>Isuzu (2.3L)</b></p>  <p><b>TW6773B</b></p>	<p><b>Jeep (2.5L)</b></p>  <p><b>TW6616B</b></p>
<p><b>Jeep (4.0L)</b> (w/o Oil Level Sensor)</p>  <p><b>TW6703B</b></p>	<p><b>Jeep (4.0L)</b> (w/Oil Level Sensor)</p>  <p><b>TW6704B</b></p>	<p><b>Jeep (258, 3.8L)</b></p>  <p><b>TW6707B</b></p>	<p><b>Jeep (318,360)</b> (w/o Oil Level Sensor)</p>  <p><b>TW6713B</b></p>



# Oil Pans

## Oil Pans (Jeep, Mazda, Mitsubishi, Nissan)

Jeep (318)



(w/Oil Level Sensor)

**TW6714B**

Jeep (2.5L)



**TW6762B**

Mazda (3.0L)



(w/Oil Level Sensor)

**TW6545B**

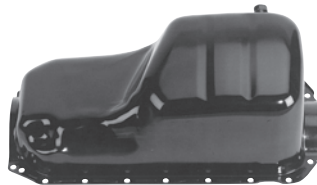
Mazda (3.0L)



(w/o Oil Level Sensor)

**TW6546B**

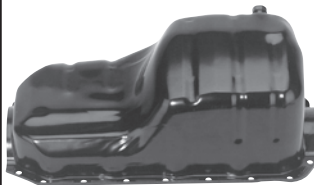
Mazda (1.6L)



(w/Baffle)

**TW6618B**

Mazda (1.6L, 1.8L)



**TW6619B**

Mazda (1.5L, 1.6L)



(w/Baffle)

**TW6620B**

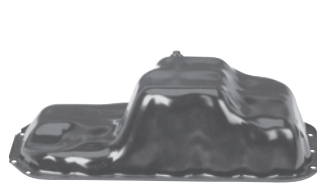
Mazda (2.2L)



(w/o Oil Level Sensor)

**TW6622B**

Mazda (2.0L)



**TW6623B**

Mazda (1.6L)



(w/o Baffle)

**TW6726B**

Mazda (2.2L)



**TW6779B**

Mazda (1.8L)



**TW6780B**

Mazda (1.8L, 2.5L)



**TW6781B**

Mazda (3.0L)



**TW6782B**

Mitsubishi (2.0L)



**TW6504B**

Mitsubishi (1.5L)



(w/Baffle)

**TW6511B**

Mitsubishi (1.5L)



(w/o Baffle)

**TW6512B**

Mitsubishi (1.6L)



**TW6708B**

Mitsubishi (2.0L)



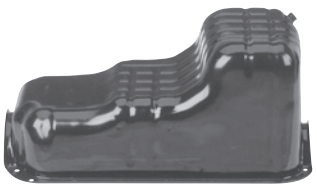
**TW6709B**

Nissan (1.8L)



**TW6626B**

Nissan (3.0L, 3.3L)



(w/o Oil Level Sensor)

**TW6783B**

Nissan (3.0L, 3.3L)



(w/Oil Level Sensor)

**TW6784B**

Nissan (2.4L)



**TW6785B**

Nissan (3.0L)



**TW6786B**

## Oil Pans (Subaru, Suzuki, Toyota)

Subaru (2.2L, 2.5L)



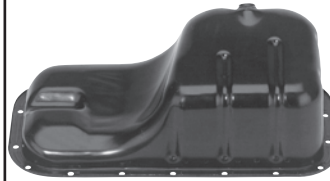
**TW6787B**

Subaru (1.8L, 2.2L, 2.5L)



**TW6788B**

Suzuki (1.3L, 1.6L)



**TW6631B**

Suzuki (1.6L)



**TW6632B**

Suzuki (1.0L)



**TW6754B**

Suzuki (1.3L, 1.6L)



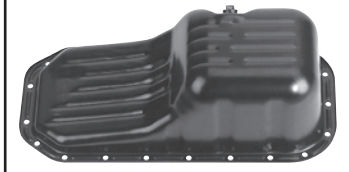
**TW6763B**

Suzuki (1.6L)



**TW6764B**

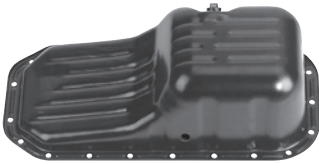
Toyota (1.6L)



(w/o Oil Cooler)

**TW6633B**

Toyota (1.6L)



(w/Oil Cooler)

**TW6634B**

Toyota (1.6L)



(w/o Oil Cooler)

**TW6635B**

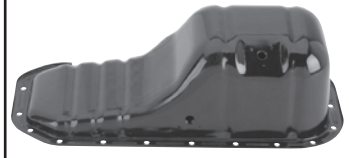
Toyota (1.6L)



(w/Oil Cooler)

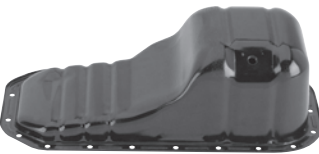
**TW6636B**

Toyota (1.6L)



**TW6638B**

Toyota (1.6L)



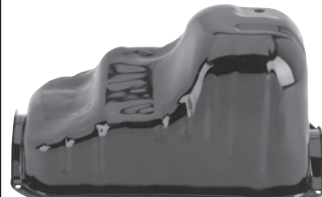
**TW6639B**

Toyota (2.2L)



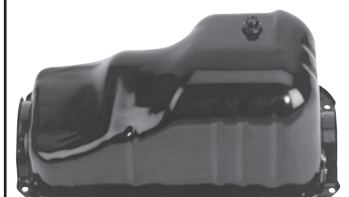
**TW6642B**

Toyota (1.5L)



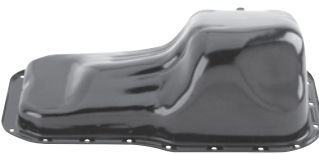
**TW6645B**

Toyota (1.5L)



**TW6789B**

Toyota (2.0L, 2.2L)



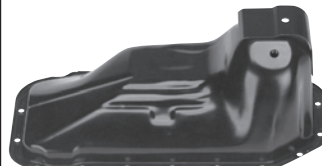
**TW6790B**

Toyota (2.2L, 2.4L)



**TW6791B**

Toyota (2.4L)



**TW6792B**



**We Accept The Following Major Credit Cards**







# Unplated Rebuilder Oil Pans

## Unplated Steel Stock Replacement Oil Pans

### SB Chevy

4 Qt. Capacity

Year	Dipstick	Style	Part #
1955-79	Driver's Side	2 pc. Rear Seal	6500
1980-85	Passenger Side	2 pc. Rear Seal	6501
1986-Up	Passenger Side	1 pc. Rear Seal	6503

### SB Chevy

Custom Design, Extra Step for Virtually All Applications

Year	Dipstick	Style	Part #
All Years	Either Side	1 pc. Rear Seal	TW3700

### BB Chevy

396-454 w/Baffle

Year	Model	Part #
1965-95	Mark IV (does not fit Corvette)	TW6550
1965-92	Extra Clearance Pan	TW6550A

### Olds/Pontiac

Year	Model	Part #
1974-81	Pontiac 301-455	TW6586
	Oldsmobile 330-455 (All except 1975 400)	TW6484

### Ford

Year	Model	Part #
1987-93	5.0 302 Mustang (Dual Sump)	6540
1965-87	260, 289, 302 (Front Sump Car)	6513
All	351W (Front Sump Car)	6514
1970-79	351C, 351M, 400	6514C
1958-76	390, 406, 427	TW6561
1968-79	429, 460 (Front Sump Car)	TW6560

### Chrysler/Dodge

Year	Model	Part #
Early	Dodge Early 273, 318, 340 Car Only	TW6569
All	Mopar 361, 383, 400, 413, Hemi 426	TW6563
1966-Up	BB Mopar Hemi 361-440 & 426 (7" Extra Deep Pan)	TW5750
	Pick-Up for Hemi Pan (for B&RB) 3/8"-18 Threads	TW7050
	Pick-Up for Hemi Pan (Stock Hemi) 3/8"-18 Threads	TW7051



Engine Parts

# Dress-Up Replacement Oil Pans



## SB Chevy "Finned" Polished Aluminum Oil Pans

4 Qt. Capacity, Drain Plug & Mounting Bolts Included

Year	Dipstick	Style	Part #
1955-79	Driver's Side	2 pc. Rear Seal	TW5290
1980-85	Passenger Side	2 pc. Rear Seal	TW5295
1986-Up	Passenger Side	1 pc. Rear Seal	TW5300



TW5290



TW5295

## Chrome Plated Steel Stock Replacement Oil Pans

SB Chevy

4 Qt. Capacity

Year	Dipstick	Style	Part #
1955-79	Driver's Side	2 pc. Rear Seal	6500CP
1955-79	Driver's Side	2 pc. Rear Seal	6500OR (Orange)
1980-85	Passenger Side	2 pc. Rear Seal	6501CP
1986-Up	Passenger Side	1 pc. Rear Seal	6503CP



6500CP/OR



6501CP

Buick/Olds/Pontiac

Year	Model	Part #
1975-83	Buick 14 Bolt	OPB231CP
1974-81	Pontiac 301-455	TW6586CP
Oldsmobile 330-455 (All Except 1975 400)		TW6484CP



6503CP



OPB231CP

BB Chevy

396-454 w/Baffle

Year	Style	Part #
1965-92	Extra Clearance Pan	TW6550ACP



TW6586CP



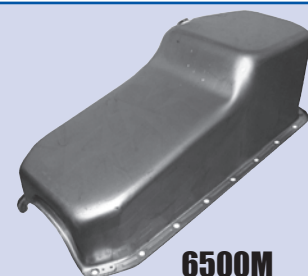
TW6484CP



TW6550ACP

## Marine Oil Pans (No Baffle, Unplated)

Make	Year	Dipstick	Style	Part #
SB Chevy	1955-79	Driver's Side	2 pc. Rear Seal	6500M
SB Chevy	1980-85	Passenger Side	2 pc. Rear Seal	6501M
SB Chevy	1986-Up	Passenger Side	1 pc. Rear Seal	6503M
BB Chevy	1965-95	Mark IV (does not fit Corvette)		TW6550M



6500M

Engine Parts

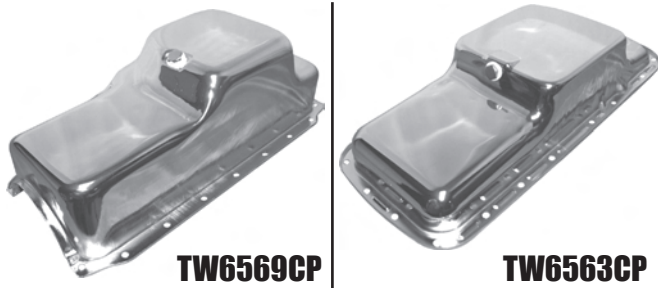


# Chrome Oil Pans/Accessories

## Chrome Plated Steel Stock Replacement Oil Pans

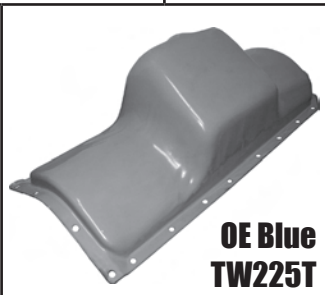
### Chrysler/Dodge (Stock Capacity)

Year	Make/Model	Part #
1964-87	Dodge Early 273, 318, 340 Car Only	TW6569CP
All	Chrysler Mopar 361, 383, 400, 413, Hemi 426, 440	TW6563CP
All	Dodge Truck Slant 6 170, 198, 225 (Blue Paint)	TW225T



TW6569CP

TW6563CP



OE Blue  
TW225T

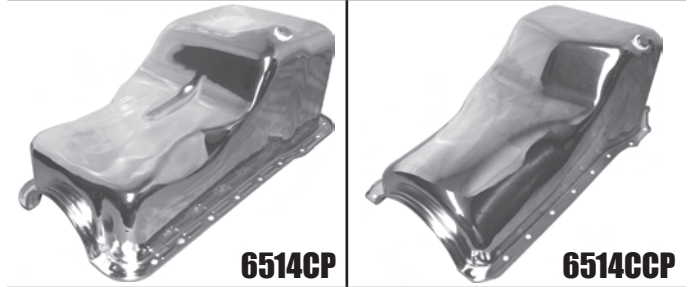
### Ford (Stock Capacity)

Year	Make/Model	Part #
1983-93	5.0 302 Mustang (Dual Sump)	6540CP
1965-87	260, 289, 302 (Front Sump Car)	6513CP
1967-87	351W (Front Sump Car)	6514CP
1970-80	351,351M,400 (Front Sump Car)	6514CCP
1958-76	390, 406, 427 (Front Sump Car)	TW6561CP
1968-78	429, 460 (Front Sump Car)	TW6560CP



6540CP

6513CP



6514CP

6514CCP

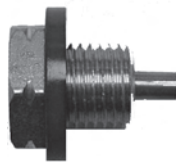


TW6561CP

TW6560CP

## Oil Pan Drain Plugs

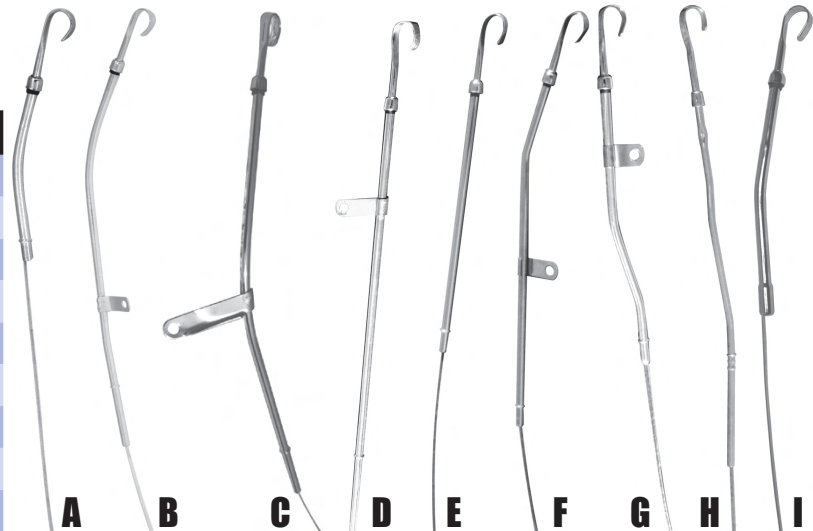
Style	Part #
Replaces 1/2" Self Tapping Type Drain Plug	4243
Double Oversized to Replace 1/2" Drain Plug	4244
Magnetic (1/2"-20 Thread)	4245
Magnetic - 14mm	4246



## Chrome Engine Dip Sticks

Dress-Up Style To Replace O.E.

Description	Pic	Part #
Chevy SB Thru-77	A	TW6505CP
Chevy SB 1980-82	B	TW6534CP
Chevy SB 1982-85	C	TW6522CP
Chevy BB 1965-90	D	TW6538CP
Chrysler 318, 340, 360	E	TW6541CP
Chrysler 383, 426, 440	F	TW6542CP
Ford 260, 289, 302	G	TW6535CP
Olds 350-455/Pontiac 403	H	TW6536CP
Pontiac V8 Exc. 389/403	I	TW6537CP



A

B

C

D

E

F

G

H

I



# Custom/Race Oil Pans



## Aluminum Racing Oil Pans

100% fabricated in the U.S.A. We offer many combinations built to your specifications. All pans feature a teflon coated, uni-directional windage screen with our race proven trap door design and baffled sump areas. Pans are 100% heli-arc welded inside and out! Pans include a steel welded pickup assembly to ensure a perfect fit, oil pan bolts, and magnetic oil pan drain plug. Melling® pumps are exclusively used in our pan kits.

**Order optional equipment with code following part number. (Ex. TW9210AC = TW9210 + Stroker Notches & Driver Side Dip)**

### Chevy

**Available Options Include:**

Stroker Notches (A), HV Oil Pump Kit (B), Driver Side Dip (C), Passenger Side Dip (D), & Camaro or Chevelle Frame (E)

Style	Oil Pump Kit?	Capacity w/Filter	Front Depth	Rear Depth	Sump Length	Part #
<b>SB Chevy - Circle Track Pans</b>						
Pre 86	Y	7 qts.	4.5"	7.5"	14"	TW9210
86-Up	Y	7 qts.	4.5"	7.5"	14"	TW9211
<b>SB Chevy - Drag Racing Pans</b>						
Pre 86	Y	6 qts.	4.5"	8"	10"	TW9020
Pre 86	N	6 qts.	4.5"	8"	10"	TW9021
86-Up	Y	6 qts.	4.5"	8"	10"	TW9030
86-Up	N	6 qts.	4.5"	8"	10"	TW9031
Rocket/Iron Eagle	Y	6 qts.	4.5"	8"	10"	TW9065
<b>BB Chevy - Drag Racing Pans</b>						
Gen 4	Y	6 qts.	4.5"	8"	10"	TW9040
Gen 4	N	6 qts.	4.5"	8"	10"	TW9041
Gen 5 & 6	Y	6 qts.	4.5"	8"	10"	TW9050
Gen 5 & 6	N	6 qts.	4.5"	8"	10"	TW9051

### Ford (Includes Oil Pump Kit)

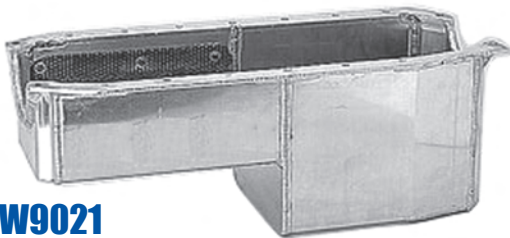
**Available Options Include:**

Stroker Notches (A) & HV Oil Pump Kit (B)

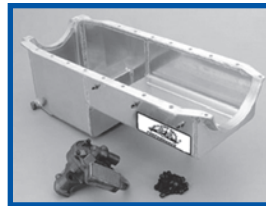
Style	Capacity w/Filter	Front Depth	Rear Depth	Sump Length	Part #
<b>SB Ford - Drag Racing Pans</b>					
302 Rear Sump Fox	6 qts.	4.5"	8"	10"	TW9059
302 Front Sump	6 qts.	8"	5"	9"	TW9060
351W Front Sump	6 qts.	8"	5"	9"	TW9061
351W Rear Sump Fox	6 qts.	8"	5"	9"	TW9062
351C Rear Sump	6 qts.	8"	5"	9"	TW9063
<b>BB Ford - Drag Racing Pans</b>					
429-460 Rear Sump	7 qts.	5"	8"	10"	TW9069
429-460 Front Sump	7 qts.	8"	5"	10"	TW9070

### Chrysler (Includes Oil Pump Kit)

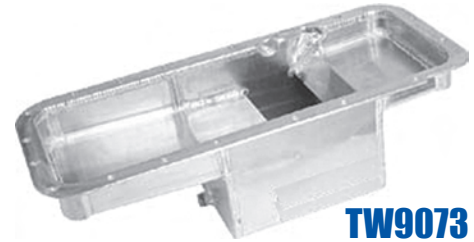
Style	Capacity w/Filter	Center Sump Depth	Part #
<b>SB Chrysler - Drag Racing Pans</b>			
318 & 340	6 qts.	9-1/2"	TW9071
360	6 qts.	9-1/2"	TW9072
<b>BB Chrysler - Drag Racing Pans</b>			
383-440, Hemi	6 qts.	9-1/2"	TW9073



TW9021



TW9040



TW9073

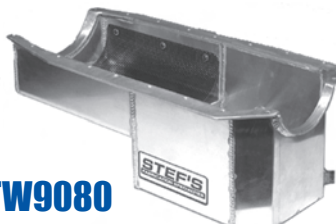
## STEP'S Bracket/Pro Street Race Pans

**Big Block Chevy Super Gas Aluminum Pan (Full Kickout Pan).** Includes High Volume Performance Melling® Oil Pump.

Application	Capacity w/Filter	Front Depth	Rear Depth	Part #
OEM Gen 4	5 qts.	4-1/2"	7"	TW91417
OEM Gen 4	6 qts.	4-1/2"	8"	TW91418
OEM Gen 4	7 qts.	4-1/2"	9"	TW91419
OEM Gen 4	8 qts.	4-1/2"	10"	TW91410



TW91417



TW9080

## STEP'S Pro Nostalgia Series Pans

Includes Matching Pickup/Pump Assemblies, Mounting Hardware, and Magnetic Oil Pan Drain Plug.

Application	Capacity w/Filter	Front Depth	Rear Depth	Sump Length	Part #
455 Buick	6 qts.	4-1/2"	8"	10"	TW9075
350-455 Olds	6 qts.	4-1/2"	8"	10"	TW9080
409 Chevy	6 qts.	4-1/2"	8"	10"	TW9085
348 Chevy	6 qts.	4-1/2"	8"	10"	TW9086
392-417 Chrysler Donovan	6 qts.	4-1/2"	8"	10"	TW9090
351C Front	6 qts.	8"	4-1/2"	10"	TW9092
All Ford FE	5 qts.	8"	2-1/2"	10"	TW90935
All Ford FE	6 qts.	9"	2-1/2"	10"	TW90936
All Ford FE	7 qts.	10"	2-1/2"	10"	TW90937
389-455 Pontiac	6 qts.	4-1/2"	8"	10"	TW9095

Engine Parts



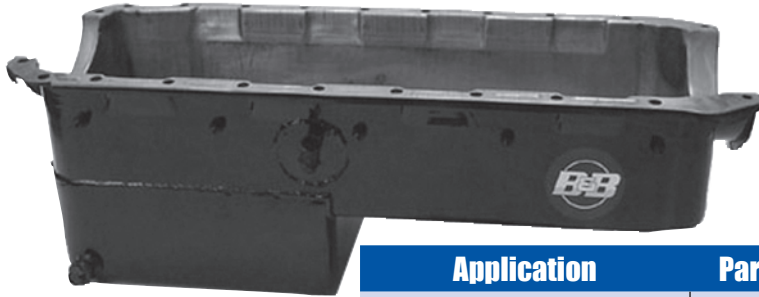
# Oil Pans - Drag Racing



## Steel Drag Racing Pan

### Super Comp - Super Gas - Bracket Series

Features built-in crank scrapers. Rear sump trap door with sophisticated oil control. Clears 3-7/8" stroke cranks with steel rods. Use with all popular starter flywheel combinations. 8" deep, 7 quart capacity. Fits most Chassis (except Chevy II). Jig welded .055 USA steel. Uses standard block mounted oil filter. Includes magnetic oil drain, oil pick-up, and bolts. Comes in a black finish.



Application	Part #
Small Block Chevy	TW5170
Big Block Chevy Mark IV	TW5175

## Weekend Drag Racer Pans

7009CP



### Small Block Chevy 1955-79, 283-350

Driver's Side Dipstick, 8-1/4" Deep, Rear Trap Door, 7 Qt. Capacity.

Finish	Part #
Zinc	TW5150
Chevy Orange	7009
Chrome Plated	7009CP
Pick-Up Tube	TW7009

TW7009



TW7008CP



### Big Block Chevy 1965-Up, 396-454

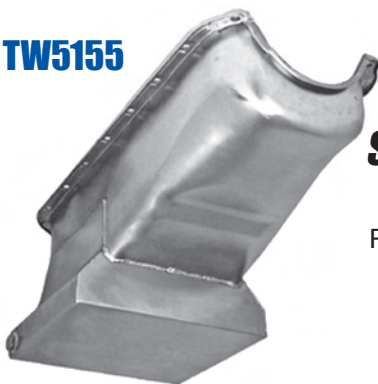
Driver's Side Dipstick, 8-1/4" Deep, Rear Trap Door, 6 Qt. Capacity.

Finish	Part #
Zinc	TW7008Z
Chevy Orange	TW7008A
Chrome Plated	TW7008CP
Pick-Up Tube	TW7008

TW7008



TW5155



### Small Block Chevy 1980-85

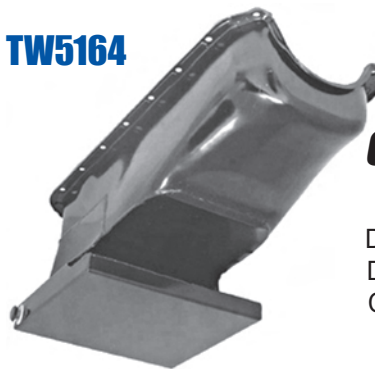
Passenger Side Dipstick, 8-1/4" Deep, Rear Trap Door, 7 Qt. Capacity

Finish	Part #
Zinc	TW5155
Chevy Orange	TW5154
Pick-Up Tube	TW7009

TW7009



TW5164



### Chevy Nova/Monza 1962-67

Driver's Side Dipstick, 8-1/4" Deep, Rear Trap Door, 7 Qt. Capacity (Will not fit power.)

Finish	Part #
Black	TW5164
Unplated	TW5165
Pick-Up Tube	TW7009

TW7009



Engine Parts

# Oil Pans - Circle Track



## Steel Circle Track Pan

**Late Model Stock Cars, Sportsman, & Pro Stock Racers**

**SB Chevy Hardcore Circle Track Pan, Not For The Light Hearted!**

Features built-in scrapers & unidirectional screen to reduce windage and create more horsepower. Extended sump wings and trap door baffles control oil under continuous cornering, braking, and acceleration! Clears 3-7/8" stroke cranks with steel rods. Use with popular starter flywheel combos. 7" deep, 6 quart capacity. Use with block mounted oil filter. Boss for remote dipstick and oil temp sensor. Includes magnetic drain plug, high volume oil pump screen, and hardware!



**Part #TW5280**

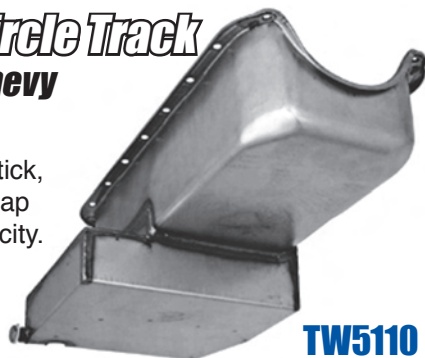


## Circle Track Pans

### Standard Circle Track Small Block Chevy

**1955-79**

Driver's Side Dipstick,  
7-1/4" Deep, 2 Trap  
Doors, 6 Qt. Capacity.



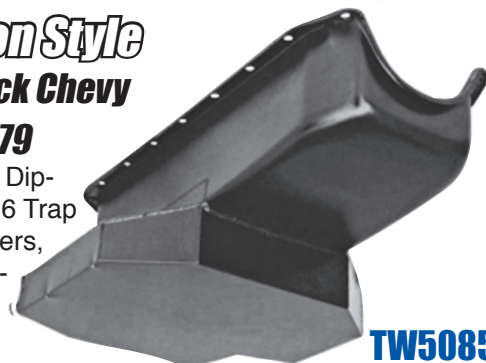
**TW5110**

Finish	Part #
Zinc	TW5100
Unplated	TW5110
Black OEM	TW5105
Pick-Up Tube (Std.)	TW7106
Pick-Up Tube (Hi-Vol.)	TW7107

### Champion Style Small Block Chevy

**1955-79**

Driver's Side Dip-  
stick, 7" Deep, 6 Trap  
Doors, 2 Runners,  
3 Crank Scrap-  
ers, 7 Qt.  
Capacity.



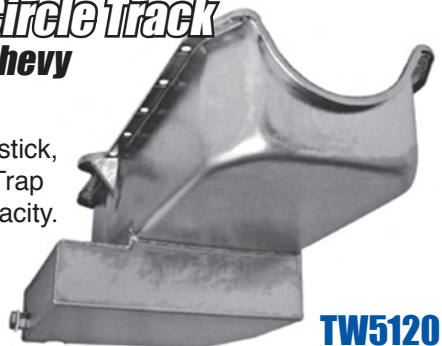
**TW5085**

Finish	Part #
Zinc	TW5080
Unplated	TW5090
Black OEM	TW5085
Pick-Up Tube (Std.)	TW7102
Pick-Up Tube (Hi-Vol.)	TW7103

### Standard Circle Track Small Block Chevy

**1980-85**

Driver's Side Dipstick,  
7-1/4" Deep, 2 Trap  
Doors, 6 Qt. Capacity.



**TW5120**

Finish	Part #
Zinc	TW5120
Unplated	TW5130
Black OEM	TW5140
Pick-Up Tube (Std.)	TW7106
Pick-Up Tube (Hi-Vol.)	TW7107

### Claimer Style Small Block Chevy

**1955-79**

Driver's Side Dipstick,  
Made with Thicker  
Material, 2 Trap Doors,  
Crank Scraper with  
Windage Tray,  
Reinforced Rails,  
4 Qt. Capacity.



**TW5240**

Finish	Part #
Zinc	TW5220
Unplated	TW5240
Black OEM	TW5260
Pick-Up Tube (Std.)	TW7100
Pick-Up Tube (Hi-Vol.)	TW7110

Engine Parts








# Aluminum Valve Covers

## Fabricated Aluminum Racing Valve Covers



Application	Style	Part #
SB Chevy	Standard	TW9500FV
SB Chevy	Center Bolt	TW9501FV
SB Chevy	w/Billet Rail	TW9502FV
BB Chevy	Standard	TW9503FV
BB Chevy	w/Billet Rail	TW9504FV
SB Ford	Standard	TW9505FV

## Chevy Aluminum Valve Covers

Style	Year	Description	Polished/Chrome	Baffle (Y/N)	# of Holes	Part #
<b>SB Chevy</b>						
 <p><b>CNC Flame Logo Polished</b></p>	1958-85	Short 2-9/16"	Polished	Y	1	TW4830
	1958-85	Short 2-9/16"	Polished	N	1	TW4860
	1958-85	Short 2-9/16"	Chrome	Y	1	TW4840
	1958-85	Tall 3-11/16"	Polished	Y	1	TW4810
	1958-85	Tall 3-11/16"	Polished	N	1	TW4850
	1958-85	Tall 3-11/16"	Chrome	Y	1	TW4820
	1986-Up	Short, Center Bolt Down	Polished	Y	1	TW4890
	1986-Up	Short, Center Bolt Down	Chrome	Y	1	TW4900
 <p><b>Smooth Polished</b></p>	1958-85	Short 2-9/16"	Polished	Y	1	TW4790
	1958-85	Short 2-9/16"	Polished	N	1	TW4710
	1958-85	Short 2-9/16"	Chrome	Y	1	TW4800
	1958-85	Short 2-9/16"	Chrome	N	1	TW4720
	1958-85	Short 2-9/16"	Polished	N	0*	TW4670
	1958-85	Tall 3-11/16"	Polished	Y	1	TW4770
	1958-85	Tall 3-11/16"	Polished	N	1	TW4690
	1958-85	Tall 3-11/16"	Chrome	Y	1	TW4780
	1958-85	Tall 3-11/16"	Chrome	N	1	TW4700
	1958-85	Tall 3-11/16"	Polished	N	0*	TW4650
1986-Up	Short, Center Bolt Down	Polished	Y	1	TW4910	
1986-Up	Short, Center Bolt Down	Polished	Y	2	TW4920	
1986-Up	Short, Center Bolt Down	Polished	Y	1/2	TW4940	
1986-Up	Short, Center Bolt Down	Polished	N	0*	TW4870	
 <p><b>CNC Ball Milled</b></p>	1958-85	Short 2-9/16"	Polished	Y	1	TW4750
	1958-85	Short 2-9/16"	Polished	N	1	TW4630
	1958-85	Short 2-9/16"	Chrome	Y	1	TW4760
	1958-85	Short 2-9/16"	Chrome	N	1	TW4640
	1958-85	Tall 3-11/16"	Polished	Y	1	TW4730
	1958-85	Tall 3-11/16"	Polished	N	1	TW4610
	1958-85	Tall 3-11/16"	Chrome	Y	1	TW4740
	1958-85	Tall 3-11/16"	Chrome	N	1	TW4620
	1986-Up	Short, Center Bolt Down	Polished	Y	1	TW4960
	1986-Up	Short, Center Bolt Down	Polished	Y	2	TW4930
	1986-Up	Short, Center Bolt Down	Polished	Y	1/2	TW4950
	1986-Up	Short, Center Bolt Down	Chrome	Y	1	TW4970
<b>BB Chevy</b>						
<b>CNC Flame Logo</b>	1965-95	Tall 3-11/16"	Polished	N	1	TW5020
	1965-95	Tall 3-11/16"	Chrome	N	1	TW5030
<b>Smooth</b>	1965-95	Tall 3-11/16"	Polished	N	1	TW5040
	1965-95	Tall 3-11/16"	Chrome	N	1	TW5050
	1965-95	Tall 3-11/16"	Polished	Y	0*	TW5000
<b>CNC Ball Milled</b>	1965-95	Tall 3-11/16"	Polished	N	1	TW4990
	1965-95	Tall 3-11/16"	Chrome	N	1	TW4980

\*Customize - No Hole, Drill Your Own Plumbing

## Small Block Chevy

**305-350 Stock Replacement**  
(1978-86) With Baffle

Description	Part #
Chrome Steel 2-5/8"	6511CP
Unplated Steel 2-5/8"	6511
Chrome Steel 3-5/8"	TW6553CP



(1.25" Dia. Hole, Use TW4804 Oil Cap)

**305-350 Stock Replacement**  
Short (1978-86)  
With Baffle, Wire Harness

Description	Part #
Chrome Steel 2-5/8"	6541CP
Unplated Steel 2-5/8"	6541



(.900" Dia. Hole, Use TW4804 Oil Cap)

**305-350 Stock Replacement**  
(1986-Up) Center Bolt Down  
With Baffle

Description	Part #
Chrome Steel 2-5/8"	6506CP
Unplated Steel 2-5/8"	6506



(1.25" Dia. Hole, Use 6539 Oil Cap)

## 350 Logo

(1958-85) Chrome Steel w/Baffle

Description	Part #
Short 2-5/8"	TW4510
Tall 3-5/8"	TW4500



## 327 Logo

(1958-85) Chrome Steel w/Baffle

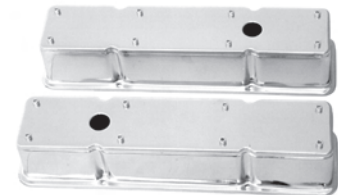
Description	Part #
Short 2-5/8"	TW4530
Tall 3-5/8"	TW5070



## 283-350 "Two Piece"

(1958-85) Chrome Steel (No Baffle)

Description	Part #
Tall 3-3/4"	TW4600

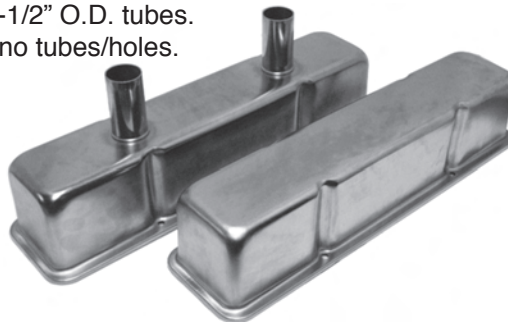


## Steel Circle Track

**Fits 1958-86 SB Chevy (Baffled)**

Driver side cover is 4-1/8" L x 1-1/2" O.D. tubes.  
Passenger side cover is plain, no tubes/holes.

Description	Part #
Zinc Plated	TW4590
Black Paint	TW4580
Unplated	TW4570



## Chevy V6 4.3L

**Truck Only**

Short (1985-93) With Baffle

Description	Part #
Unpainted Steel	TW6502



(.900" Dia. Hole, Use 6539 Oil Cap)

## Big Block Chevy

**454 Logo - Chrome Steel**  
With Baffle 396-502  
(1965-95)

Description	Part #
Short 2-5/8"	TW5060
Tall 3-5/8"	TW4520



## Smooth Polished - Steel

(1965-95) 396, 454, 502 w/Baffle

Description	Part #
Chrome Stock Hgt.	TW6551CP
Unplated Stock Hgt.	TW6551
Chrome 3-5/8" Tall	TW6556CP



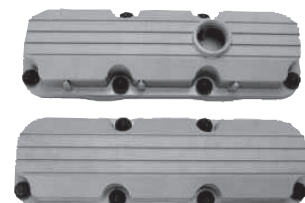
(1.25" Dia. Hole, Use 6539 Oil Cap)

## Buick 3800 (Plastic)

**Vin K**

Complete w/Gaskets, 6 Bolts,  
and Grommets

Description	Part #
Plastic, Right Bank	IL625R
Plastic, Left Bank	IL625L





# Valve Covers

## Ford

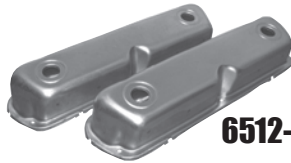
### Smooth Polished Steel

Fits 1962-Up Ford 260, 289, 302, 351W, 5.0L w/Baffle

Description	Part #
Chrome Steel 3-1/2"	6512CP
Unplated Steel 3-1/2"	6512
Unplated (Two Hole)	6512-2

(1.25" Dia. Hole, Use 6539 Oil Cap)

**Our Most Popular  
Ford Valve Cover!**



6512-2



6512CP

### 390/427 Stock Replacement

Fits 1958-76 Ford 390/427

Description	Part #
Chrome Steel 3-7/8"	TW5205



### 6.9L/7.3L Navistar Stock Replacement Oil Pans

For 1983-88 6.9L/7.3L Ford & International, Black Paint



Description	Part #
OE #1805454C1	TW54C1



Description	Part #
OE #1805647C1, w/EGR	TW47C1



Description	Part #
OE #1813319C1, w/Bracket	TW19C1



Description	Part #
OE #1813271C1, w/Oil fill	TW71C1

### Smooth Polished Steel

Fits 1968-Up Ford BB 429-460 w/Baffle

Description	Part #
Chrome Steel 3-11/16"	TW5210

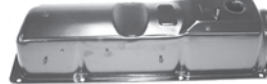


### 2.3, 2.5L SB Ford



Description	Part #
Black Paint	XFT1010

OE #F5TE6582AE



Description	Part #
Black Paint	XFT1030



Description	Part #
Black Paint	XFT1040

OE #E9JE-6582AA



Description	Part #
Black Paint	XFT1050

### Boss 302 Stock Replacement

Fits 1970-Up Ford Boss 302, 351C, 351M w/Baffle

Description	Part #
Chrome Steel 3"	TW5180



## AMC/Jeep

### 232/258 Stock Replacement

Fits 1964-80 AMC/Jeep 199, 232, 258  
Three Hole Cover w/Baffle

Description	Part #
Chrome Steel 3-1/2"	TW6587CP



(1.25" Dia. Hole)

## Chrysler

### 318/340/360 Stock Replacement

Chrome Steel, Fits 1964-73 318, 340, 360, w/Baffle

Desc.	Part #
3-1/4"	TW6572CP



(1.25" Dia. Hole, Use 6539 Oil Cap)



# Valve Cover Accessories



## Wing Nuts

Style	Length	Thread	Part #	
Anodized Aluminum T-Bar	Red	4-3/4"	1/4"-20 x 1-1/4"	TW6526
	Blue	4-3/4"	1/4"-20 x 1-1/4"	TW6527
	Gold	4-3/4"	1/4"-20 x 1-1/4"	TW6528
	Silver	4-3/4"	1/4"-20 x 1-1/4"	TW6530
Chrome Steel T-Bar	4"	1/4"-20 x 1-3/8"	TW6529	
	5"	1/4"-20 x 1-3/8"	TW6525	
Chrome Steel	3-1/2"	1/4"-20 x 1"	TW6523	
	3-1/2"	5/16"-18 x 1"	TW6524	
Chrome Steel Hex Head Mini Bolt	1-3/8"	1/4"-20 x 1-3/8"	TW6531	
Black Steel Replacement Stud	1-3/8"	1/4"-20 x 1-3/8"	TW6532	



## Grommets (Push-In Style)

Make	Style	I.D.	O.D.	Part #
Chevy	PCV w/Foam	N/A	1-1/4"	TW9358N
Chevy	Short Valve Cover	3/4"	1"	TW4400
Chevy	Tall Valve Cover	1"	1-1/4"	TW6510
Ford	Valve Cover	3/4"	1-1/8"	TW9760
Chevy	Valve Cover	1/2"	1-1/4"	6507



## Oil Caps (Chrome)

Type	Style	Application	Part #
Twist-In	Steel	Most GM Valve Covers	TW4804
Push-In	Plastic	For 1.25" Dia. Hole	6539
Screw-In	Plastic	GM 1987-Up	TW4805
Push-In	Plastic	GM1987-Up	TW4807



## Breather Caps

Style	Part #
3/4" Neck*	TW7200
1" Neck*	TW7202
3/4" Neck w/PCV Tube"	TW7203
2-3/4" Dia.	TW7201



## Valve Cover Hold Downs

Finish	Length	Part #
Chrome Steel	4-1/4"	TW6520
Chrome Steel	1-1/2"	TW6521
O.E. Style Cast	4-7/8"	TW4440



## Baffles For Aluminum

Fits Small Block Chevy Valve Covers

Tall - Part #TW4420

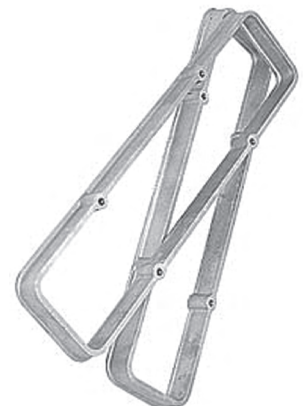
Short - Part #TW4430



## Aluminum Valve Cover Spacers

Use with stock valve covers when modified valve train is used. Priced per set.

Description	Part #
SB Chevy 1.150"	AV900
BB Chevy 1.150"	AV910
Ford Cleveland 1.200"	AV920
Ford 429/460 1.400"	AV930
Ford 260-302-351W 1.200"	AV940



Engine Parts



# Timing Covers

## SB Chevy Timing Covers

### Chrome Aluminum

Description	Part #
Cover Only	TW3500
Complete Kit*	TW3500KT



### Polished Aluminum

Description	Part #
Cover Only	TW3510
Complete Kit*	TW3510KT



\*Complete Kit Includes Cover, Seals, and Bolts.

## SB Chevy Aftermarket Style Cover 8" Balancer Car or Truck (Bolt-On Tab)

Small Block Chevy Timing Cover fits 1985-92 car or truck applications. Cover includes bolt-on tab to fit 8" balancer. 2 finishes to choose from, chrome or steel. Chrome cover available in kit form which includes cover, seal, gaskets, and bolts. Replaces OEM #10243967.

Finish	Part #
Unplated	6544
Chrome	6544CP
Chrome Kit	6544KCP



## SB Chevy Direct OEM Replacement Timing Covers

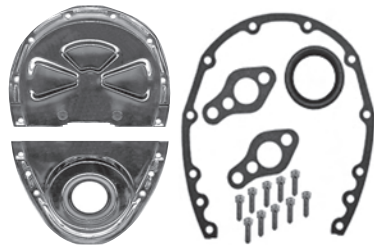
Our Small Block Chevy Direct OEM Replacement Covers are made with high quality materials and have welded on tabs. Chrome Kits include cover, seal, gaskets, and bolts.



Year	Description	Finish	Part #
1985-91	8" Balancer Truck (OE #12531283)	Unplated	6504
		Chrome	6504CP
		Chrome Kit	6504KCP
1992-95	7" Balancer Truck or Van (OE #12523972)	Unplated	6504LA
1982-93	7" Balancer Car (OE #1233974)	Unplated	6504A
1987-95	7" Balancer Truck or Van (OE #12523972)	Unplated	6504L
		Chrome	6504LCP
		Chrome Kit	6504LKCP

## SB Chevy Chrome Steel 2 Piece Timing Cover Sets

Includes Cover, Seal, & Bolts  
Part #TW6506CP



Includes Cover & Gaskets  
Part #TW3520



## SB Chevy Timing Cover Accessories

### Timing Cover Seal - Part #74288

### SB & BB Timing Cover Bolts

Finish	Part #
Black	S8424
Chrome	S6040BOLT

### SB Timing Cover Gaskets

3 Piece Set for 1 Piece Covers

Part #TW3599



TW3599

### Aluminum Bolt-On Timing Tabs

Works with 6", 7", and 8" balancers.

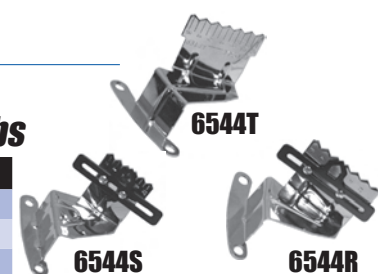
Finish	Part #
Polished	6544AT
Chrome	6544CT



6544CT

### SB Chevy Chrome Bolt-On Timing Tabs

Fits Balancer	Part #
6", 7", 8"	6544T
7" w/Pointer	6544S
8" w/Pointer	6544R



6544T

6544S

6544R



## Chevy Timing Covers

### Stock Replacement 4.3L

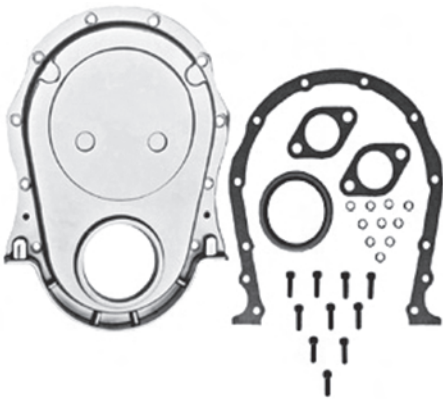
#### Timing Cover

Fits 1985-92  
"No Balance Shaft"  
Applications



### Unplated Steel - Part #6504L6

### BB Chevy 396-454 Aluminum Timing Covers



Description	Chrome Part #	Polished Part #
Cover Only	TW6540	TW6545
Complete Kit	TW6540KT	TW6545KT

Kit Includes Cover, Seals, and Bolts

### BB Chevy 396-454 Steel Timing Covers

#### Unplated Part #TW6552

#### Chrome Part #TW6552CP



### BB Chevy Timing Cover Accessories

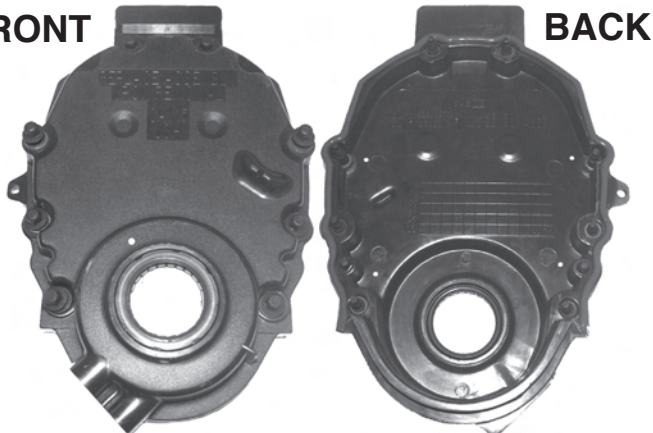
Type	Style	Part #
Timing Tabs	No Pointer	6997
Timing Tabs	8" w/Pointer	6997A
Gasket Kit for Aluminum or Steel Timing Covers		TW6552

## Plastic Timing Covers

### For Late Model GM Applications

Our new timing covers for 262, 4.3, and 305-350 GM models are OEM quality plastic replacements. All four versions include a built-in seal and bolts.


without Sensor Hole



**FRONT** **BACK**

**305, 350 GM, 1996-Up**  
w/Sensor (OEM #12558343, 93800970) - **Part #6508**  
w/o Sensor (OEM #12562818) - **Part #6508WO**

with Sensor Hole



**FRONT** **BACK**

**4.3 GM, 1996-Up**  
w/Sensor (OEM #12554555, 93445880) - **Part #6509**  
w/o Sensor (OEM #12554557) - **Part #6509WO**

## GM Camaro/Corvette/Firebird Timing Cover

General Motors 5.7L - Camaro, Corvette, Firebird 93-94 LT1  
Aluminum, OEM #12551636



**Part #TW6903**







# Timing Covers

## Jeep Timing Covers

**1983-90, 4 Cyl., 2.5L**  
**1965-90, 6 Cyl., 232 & 258**

**NEW**



**Part #TW6810**

**1993-Up, 6 Cyl., 4.0L**  
**1993-Up, 4 Cyl., 2.5L**

**NEW**



**Part #TW6811**

**1973-91, V8 AMC 304, 260, 401**

**NEW**



**Part #TW6820**

**Oil Pump Kit - Part #TW6821**

Engine Parts

## Buick Timing Cover Kits

1964-86 V6, 196, 231, 252, & 350 RWD applications. No plates required! Includes tall gears, distributor gaskets, oil pump springs, relief valve, and timing cover seals. Drilled at bottom to accept 14 or 20 bolt pattern pans.

**High Volume Timing Cover (Part #6571KTS) has 50% more oil PSI than a Standard Replacement Cover (Part #6570KTS).**

### Aluminum High Volume Kit

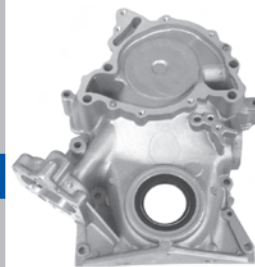
<b>Master Kit</b> <b>Part #6571KTS</b> <b>Includes:</b> Timing Cover, Cover Seal, Oil Pump Kit, Oil Filter Adaptor	<b>Standard Kit</b> <b>Part #6571HI</b> <b>Includes:</b> Timing Cover, Cover Seal, Oil Pump Kit
---	--

### Stock Replacement Std. Volume Kit

<b>Master Kit</b> <b>Part #6570KTS</b> <b>Includes:</b> Timing Cover, Cover Seal, Oil Pump Kit, Oil Filter Adaptor	<b>Standard Kit</b> <b>Part #6570SC</b> <b>Includes:</b> Timing Cover, Cover Seal, Oil Pump Kit
---	--

**Complete Cover to Block to Water Pump Gasket Set**  
**Part #6570GS**

**Timing Mark for Std. & High Volume Cover**  
**Part #6570TM**



## Buick Timing Cover

FWD only (80-85)  
3.0L & 3.8L Dist.  
Driven, Includes  
**Part #6573** TC Seal



**Alum. Cover - Part #TW6750**  
**Gasket Kit - Part #6570GS**

## Timing Mark

Timing Mark for  
6570SC & 6571HI  
Buick 231 Timing Covers



**Part #6570TM**

## Buick Oil Pump Kit

Complete Kit includes  
filter housing,  
springs, washers,  
and a relief  
valve.



Description	Part #
Complete Kit	6570FA
Filter Housing Only	6570HS
Gears, Spring, & Relief Valve Only	6570PK

## Oil Filter Housing

For use with 6571HI, 6570SC, and TW6750 Buick Timing Covers.

**Metric "Thread" - Part #6570HS**  
**Std. USA "Thread" - Part #6577HS**

## HARD TO FIND!

## Buick 455 Timing Cover

1967-76 Buick 400, 430, 455 Applications. Front Mounted Seal.

**Cover & Seal Only - Part #TW455**



## General Motors Timing Covers

### General Motors 2.5L

**NEW** 4 Cylinder, 82-90



Steel with Seals  
OEM #10044605  
**Part #TW6900**

### General Motors 2.5L

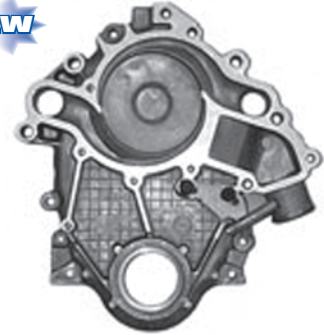
**NEW** 4 Cylinder, 77-81



Steel with Seals  
OEM #1044605  
**Part #TW6901**

### General Motors 2.8L-3.1L

**NEW**

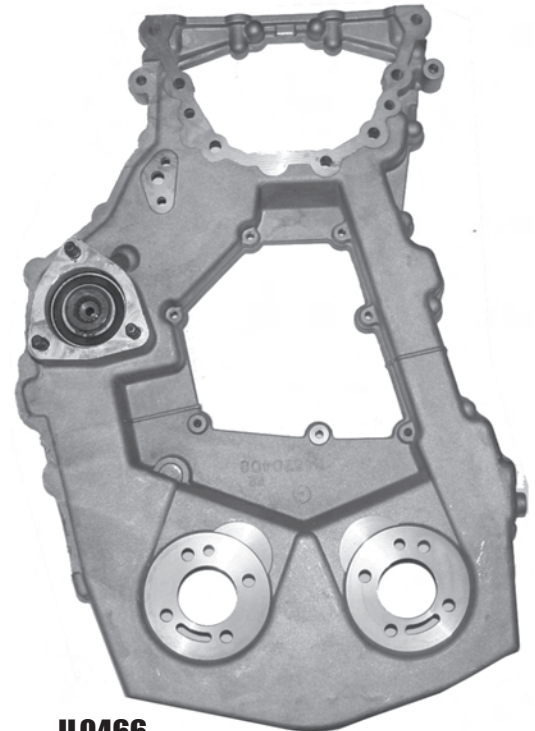


OEM #12509037  
**Part #TW6902**

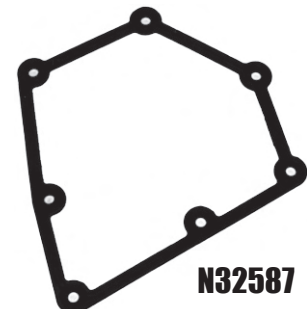
## O.E. GM Quad 4 (138 L4) Timing Covers & Component Engine Parts

Replacement parts for SOHC & DOHC "Quad 4's"

Year	Description	OE #	Part #
<b>SOHC Quad 4</b>			
92-94	Aluminum Timing Cover Housing	24570608	IL0608
92-94	Steel Timing cover	24573027	IL3027
92-94	Timing Chain	24572394	IL2394
92-94	Timing Chain Guide	24572049	IL2049
92-94	Timing Cover Housing Gasket	24570577	N32586
92-94	Timing Cover Gasket	24570409	N32587
93-94	Inner Valve Cover Gasket	24572857	N32601
93-94	Outer Valve Cover Gasket	24572858	N32602
92-93	Inner Valve Cover Gasket	22535393	N32583
92-93	Outer Valve Cover Gasket	22535394	N32584
<b>DOHC Quad 4</b>			
93-96	Aluminum Timing Cover Housing	24570466	IL0466
93-96	Steel Timing Cover	24572039	IL2038
93-96	Timing Cover Housing Gasket	24570452	N32585
93-96	Timing Cover Gasket	24570409	N32587
93-96	Valve Cover Gasket (Inner Intake - 2nd Design)	24572857	N32601
93-96	Valve Cover Gasket (Outer Inner - 2nd Design)	24572858	N32602
93-96	Valve Cover Gasket (Inner Exh. - 2nd Design)	24572872	N32621
93-96	Valve Cover Gasket (Outer Exh. - 2nd Design)	24572873	N32620
87-93	Valve Cover Gasket (Inner Intake - 1st Design)	22535393	N32583
87-93	Valve Cover Gasket (Outer Inner - 1st Design)	22535394	N32584
87-93	Valve Cover Gasket (Inner Exh. - 1st Design)	22535391	N32581
87-93	Valve Cover Gasket (Outer Exh. - 1st Design)	22535392	N32582
<b>Quad 4 Component Engine Parts</b>			
87-96	Timing Cover Seal	22531277	NUH0403FO
87-96	Timing Cover Cam Seal	22533550	NUH0404EO
87-96	Valve Spring Retainer	22531219	IL1219
87-96	Oil Pump Pick-Up Screen	22539133	IL9133
87-96	Oil Pan Baffle	22536409	IL6409
92-94	Engine Lift Hook Bracket	24570038	IL0038
90-96	Power Steering Arm Bracket	24570077	IL0077
87-96	Thermostat Housing Gasket	22532248	IL2248
90-96	Strut Mount Spacer Bracket	22536457	IL6457



IL0466



N32587



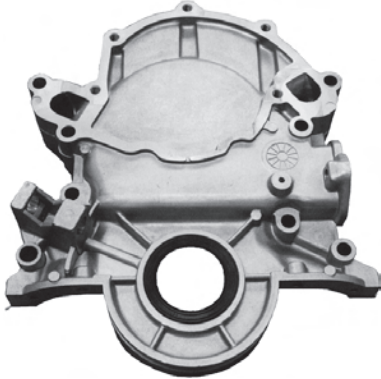


# Timing Covers

## Ford Timing Covers

**289, 302, 351W, 67-92**

Includes Dipstick Plug & T/C Seal. V-Belt Drive.

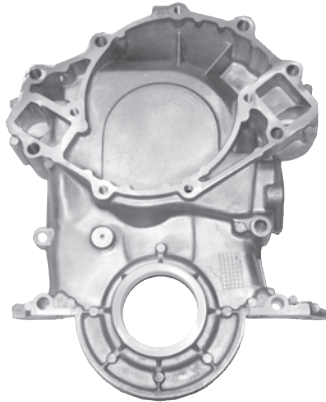


**Part #TW6600**

**Timing Mark - Part #TW6600T**

**460, 65-97**

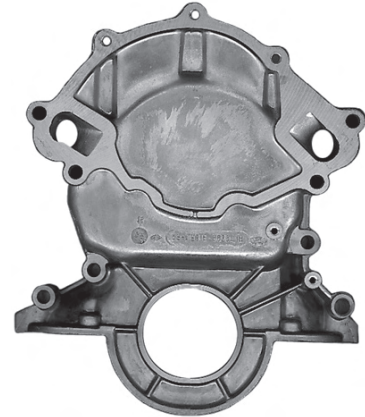
Aluminum Cover Includes Dipstick Plug & T/C Seal. V-Belt Drive.



**Part #TW6657KT**

**302, 351 Truck, 87-97**

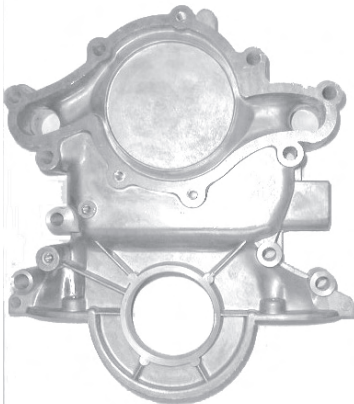
Aluminum Rev. Flow Serpentine Belt Drive & T/C Seal.



**Part #TW6650**

**5.0 Explorer/Mountaineer VIN P**

96-01, Includes Timing Cover Seal. Replaces OEM #F67E6P041AA



**Part #TW6606**

**302 V8, Elec. Fuel Pump, 81-95**

Includes Seal. OEM #E8AE-6019A.

**NEW**

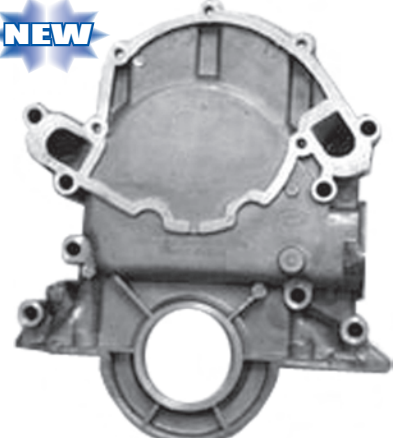


**Part #TW6607**

**302-351 V8, 69-84**

Includes Seal. OEM #E3AE-6059BB.

**NEW**

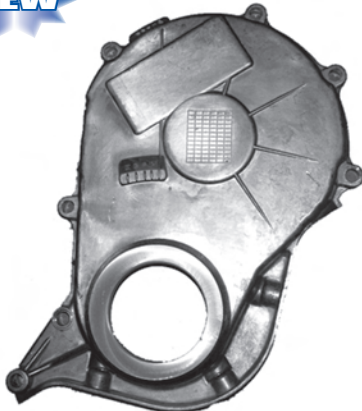


**Part #TW6608**

**300 6 Cyl., 65-Up**

OEM #E6TE-6059

**NEW**



**Part #TW6611**

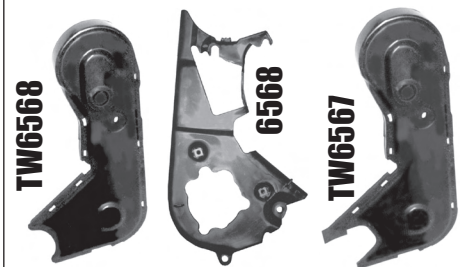
**1.6L, 85-90**

Plastic, Replaces OEM# E9FZ6019A.



**Outer - Part #6620**

**2.3L**



OEM #E4AE6E004-BA (74-91 Outer)

**Part #TW6568**

OEM #D4FZ6019B (74-91 Inner)

**Part #6568**

OEM #F3ZZ6019A (91-Up Outer)

**Part #TW6567**

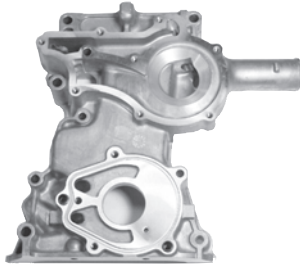


# Timing Covers

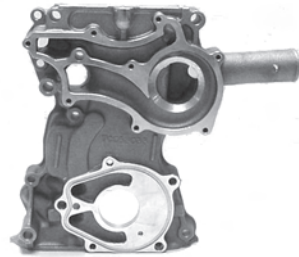


## Toyota Timing Covers

**20R/22R Early 78-84 22REC Exc. Turbo 85-96**



**Part #TW22R**

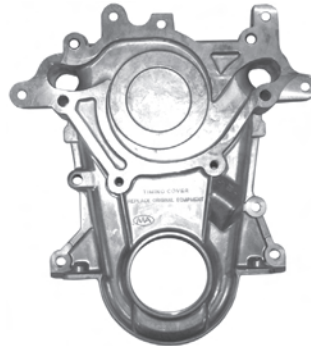


**Part #TW22REC**

## Chrysler/Dodge Timing Covers

**NEW Chrysler V8**

318-360 91-94  
OEM #53020196



**Part #TW6805**

**Dodge V6, V8**

V6 3.9L, V8 318,340,360  
Includes Seal

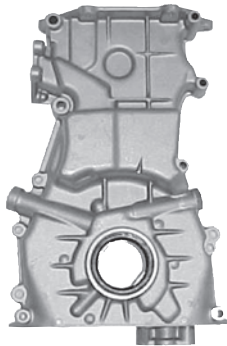


**Part #TW6800**

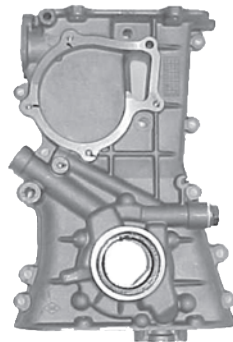
## Nissan Timing Covers

Engine	Liter	Years	Nissan #	Part #
KA24E	2.4L	1990-95	13500-30R00	TW6907
GA16	1.6L	1989-90	13500-77A00	TW6908
GA16DE	1.6L	1991-96	13500-53401	TW6909
KA24DE	2.4L	1991-94	13500-53F00	TW6906
KA24DE	2.4L	1993-97	13500-1E402	TW6905
SR20DE	2.0L	1991-00	13500-53J00	TW6904

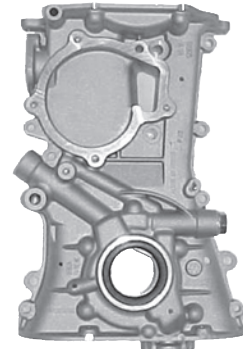
Note: All Timing Covers Include Oil Pump & Crankshaft Seals



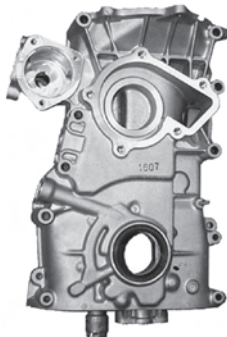
**TW6907**



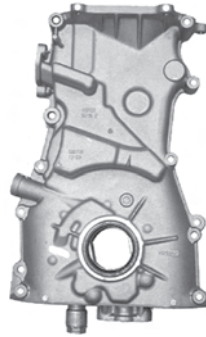
**TW6908**



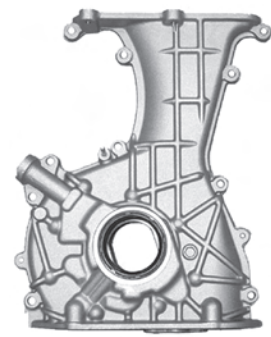
**TW6909**



**TW6906**



**TW6905**



**TW6904**



# Pulleys

## Polished Aluminum Pulleys

Highly Polished, Lightweight, 6.60" Diameter

	Crankshaft Lower Pulleys					Water Pump Upper Pulleys			
	<b>SB Chevy</b> 283-350 1955-68	<b>SB Chevy</b> 283-350 1969-85	<b>BB Chevy</b> 396-454 1965-68	<b>BB Chevy</b> 396-454 1969-Up	<b>NEW</b> BB Mopar	<b>SB Chevy</b> 283-350 1955-68	<b>SB Chevy</b> 283-350 1969-85	<b>BB Chevy</b> 396-454 1965-68	<b>BB Chevy</b> 396-454 1969-Up
<b>Single Groove</b>									
	Part #PU1000	Part #PU1003	Part #PU1006		Part #PU8800P	Part #PU1110	Part #PU1112	Part #PU1114	
<b>Double Groove</b>									
	Part #PU1001	Part #PU1004	Part #PU1007		Part #PU8801P	Part #PU1111	Part #PU1113	Part #PU1115	Part #PU1117
<b>Triple Groove</b>						<b>Stainless Steel Bolt for Water Pump Pulleys</b> Tapered head to fit SB & BB Chevy Aluminum Pulleys			
	Part #PU1002	Part #PU1005	Part #PU1008	Part #PU1009	Part #PU8802P	<b>Part #PUB1000</b>			

## Chrome Steel Pulleys **NEW**

For Short Water Pumps

	Crankshaft Lower Pulleys			Water Pump Upper Pulleys			
<b>SB Chevy</b> 283-350 1955-68 Note: Mounting bolt circle is 1.75" Dia.							
	Single Groove 6.8" Diameter Part #PU9602	Double Groove 7.3" Diameter Part #PU9603	Triple Groove Part #PU9603-1	Single Groove 7.1" Diameter Part #PU9600N	Single Groove w/Holes Part #PU9600X	Double Groove 6.4" Diameter Part #PU9601N	Double Groove w/Holes Part #PU9601X
	Crankshaft Lower Pulleys		Water Pump Upper Pulleys				
<b>BB Chevy</b> 396-454 1969-Up Note: Mounting bolt circle is 2.3" Dia.							
	Triple Groove 7.8" Diameter Part #PU9724		Double Groove 6.3" Diameter Part #PU9815	Double Groove 7.6" Diameter Part #PU9816	Double Groove 6.3" Diameter Part #PU9723		

## **NEW** For Long Water Pumps

	Crankshaft Lower Pulleys			Water Pump Upper Pulleys		
<b>SB Chevy</b> 283-350 1969-85 Note: Mounting bolt circle is 2.3" Dia.						
	Single Groove 6.9" Diameter Part #PU9606	Double Groove 6.9" Diameter Part #PU9607	Triple Groove 7.8" Diameter Part #PU9608	Single Groove 6.3" Diameter Part #PU9604N	Double Groove 6.3" Diameter Part #PU9605N	Double Groove w/Holes Part #PU9605X

## Crankshaft Add-On Pulley **NEW**

Single Groove, 6.8" Diameter, For AC Units.

Application	Part #	Use With
293-350 SB Chevy	PU9817	PU9603
396-454 BB Chevy	PU9818	PU9816

## 5.0L Ford Mustang **NEW**

Chrome Steel Water Pump Pulley

All years except 1985-86 w/T-5 Trans.  
Single Groove, 4.8" Diameter






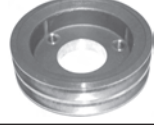


**Part #PU9451**





## Aluminum Racing "Reduction" Pulleys

Silver Seal Race Proven racing pulleys are not for the average engine. Designed for racing applications to eliminate drag brought on by turning belt driven accessories faster than designed. Power is increased by driving accessories such as water pumps and alternators at correct RPM ranges. Reduction pulleys also prevent premature failure of accessories caused by increased RPM in race engines. All race pulleys are precision die cast, then CNC machined to exact tolerances. These deep groove pulleys are constructed to properly align with existing pulleys and contain the belt(s) at racing engine speeds.

### Crankshaft Pulleys

Description	Part #	
<b>SB Chevy 1955-68</b> Single Groove, 30% Reduction	<b>UP4050</b>	
<b>SB Chevy 1955-68</b> Double Groove, 25% Reduction	<b>UP4060</b>	
<b>SB Chevy 1955-68</b> Double Groove, 25% Reduction, offsets pulley forward .225", use 3/4" diameter shaft water pump.	<b>UP4090</b>	
<b>SB Chevy 1969-Up</b> Single Groove, 50% Reduction	<b>UP4100</b>	
<b>SB Chevy 1969-Up</b> Double Groove, 50% Reduction	<b>UP4110</b>	
<b>BB Chevy 1955-68</b> Double Groove, 25% Reduction	<b>UP4210</b>	
<b>BB Chevy 1969-Up</b> Double Groove, 50% Reduction	<b>UP4260</b>	
<b>Ford 221-302 Std.</b> Single Groove, 40% Reduction, 3-Bolt	<b>UP4500</b>	

### Alternator Pulleys

<b>GM &amp; Ford</b> Single Groove, 5" Diameter	<b>UP4800</b>	
<b>GM &amp; Ford</b> Single Groove, 4-1/4" Diameter	<b>UP4810</b>	

## Aluminum Serpentine Belt Pulley Sets Highly Polished Aluminum, Lighter & Stronger

### Ford NEW

Description	Part #
<b>4.6L</b> Mustang GT 2001-04, Cobra 2001	<b>UP2270P</b>
<b>4.6L</b> Mustang GT 1999-00 (CNC Billet)	<b>UP2255P</b>
<b>4.6L</b> Mustang GT 1996-98, Cobra 1996-99	<b>UP2250P</b>
<b>5.0L</b> Mustang 1994-95 (CNC Billet)	<b>UP1065P</b>
<b>5.0L</b> Mustang/Truck 1979-93 (CNC Billet)	<b>UP2010P</b>
<b>5.0L</b> 1979 & Later (CNC Billet)	<b>UP1000P</b>

### GM NEW

<b>F-Body LT1</b> 1993-97 (1 Pc.) (CNC Billet)	<b>UP4076P</b>
<b>4.3L, 305, 350</b> Truck 1997-00	<b>UP4090P</b>
<b>4.3L, 305, 350</b> Truck 1988-96 (Short)	<b>UP4300PS</b>
<b>4.3L, 305, 350</b> Truck 1988-96 (Long)	<b>UP4300PL</b>
<b>Camaro/ Firebird</b> 1988-92	<b>UP4400P</b>
<b>454</b> Truck 1994-96	<b>UP5061P</b>
<b>454</b> Truck 1988-93	<b>UP5060P</b>





# Repair Sleeves

## Harmonic Balancer Repair Sleeves

Designed to easily solve the problem of oil leakage around the timing chain cover seal. This leak is caused by the constant wear of the front shaft seal on the O.D. of the balancer neck. A new seal will not always solve the problem, as it will expand beyond it's proper working diameter. The repair sleeve is made from quality steel and provides a better than new seal surface.



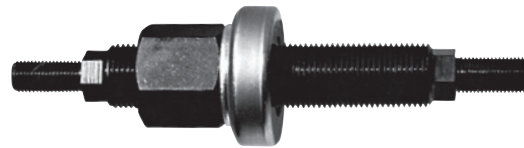
Application	Balancer O.D.	Sleeve Height	Part #
Toy.20/22R	1.760	0.580	HB4133
SB Chevy	1.797	0.850	HB4121*
GM 2.8L	1.797	1.050	HB4127
AMC L6	1.817	0.875	HB1121
Ford L6	1.845	0.660	HB3121
Ford/Pont.	1.905	1.180	HB4128
Ford/Intl.Tr.	1.911	0.740	HB3122
Ford V8	1.911	0.930	HB3124
Ford L6	1.912	0.620	HB3123

Application	Balancer O.D.	Sleeve Height	Part #
Olds/AMC	2.033	0.730	HB4124
BB Mopar	2.218	1.040	HB2122
SB Mopar	2.218	1.180	HB2124
SB Mopar	2.280	0.795	HB2121
Mopar L6	2.280	0.930	HB2123
BB Chevy	2.368	0.800	HB4123
BB Ford	2.406	0.795	HB4125
Ford Diesel	2.480	0.790	HB4155

\*HB4121A - 18 Pack of HB4121 - Save 10%!



**Harmonic Balancer Puller**  
Part #4600



**Harmonic Balancer Installer Tool**  
Part #HBP100



**Harmonic Balancer Puller/Installer Kit**  
Part #HBP100K

## Crankshaft Steel Repair Sleeves

- Transfers Heat to Crank, not to Seal
- Eliminates Welding & Re grinding
- RMS Finish 12-17, Ideal for Seal
- Lasts over 150,000 Miles



Original Shaft Diameter	Sleeve Part #	Installer Tool Part #
1.221	RS145	IT134
1.372	RS144	IT134
2.375	RS141	IT141
2.831	RS152	IT152
2.988	RS139	IT139
2.991	RS137	IT139
3.147	RS146	IT146
3.228	RS153	N/A
3.381	RS143	IT133
3.465	RS133	IT133

Original Shaft Diameter	Sleeve Part #	Installer Tool Part #
3.466	RS140	IT133
3.538	RS147	N/A
3.584	RS142	IT131
3.625	RS131	IT131
3.625	RS135	IT135
3.737	RS138	IT132
3.748	RS132*	IT132
3.750	RS3208	IT3208
3.751	RS136	IT132
4.324	RS156	IT156

\*Part #RS132: The front seal area of the crank must be ground .026" and sleeve will bring seal area to standard.

# Harmonic Balancers



## Harmonic Balancers

Silver Seal now offers 97 part numbers covering the most popular domestic and import applications. Our balancers are manufactured to meet or exceed OEM quality. Balancers include Woodruff Keys and Mounting Bolts (where necessary).

### Warning Signs for Harmonic Balancer Replacement

- Front Main Seal Leaks
- Excessive Engine Vibration
- Inability To Correctly Set The Ignition Timing
- Rubber Deterioration Between The Hub & Outer Ring
- Slipping/Squealing Drive Belts or Accelerated Belt Wear
- Excessive Wear on the Keyways, Crank, or Balancer Hub
- Pulley Grooves with a Polished Spot are Signs of a Warped Balancer



### AMC - Eagle - Jeep

Liter	CI/CC	Engine	Year	Application (Reference Only)	Part#	Comments
1.6L	1595	L4	1989-90	Passenger (OE# MD377604)	HBH181	Mitsubishi supplied engine
2.0L	1997	L4	1990-94	Passenger (OE# MD377604)	HBH181	Mitsubishi supplied engine
			1995-98	Talon w/Turbo (OE# MD377604)		
2.4L	2351	L4	1994-96	Passenger (OE# MD377604)	HBH181	Mitsubishi supplied engine
2.5L	151	L4	1983-90	Passenger & Truck (OE#3242886)	HBJ101	Utilizes flat belt (serpentine)
2.8L	173	V6	1982-87	SUV & Truck (OE#14085401)	HBG161	
3.8L	232	L6	1975-80	Passenger & Truck (OE#J3225201)	HBJ106	Utilizes 1-1/4" ring thickness
4.0L	242	L6	1987-03	SUV & Truck (OE#33002920)	HBJ104	Utilizes flat belt (serpentine)
4.23L	258	L6	1975-80	Passenger & Truck (OE#J3225201)	HBJ106	Utilizes 1-1/4" ring thickness
5.9L	360	V8	1973-91	Passenger & Truck (OE#3230131)	HBJ100	Includes bolt, key & washer.

### Chrysler - Dodge - Plymouth

2.0L	1997	L4	1990-94	Compact (OE#MD377604)	HBH181	Mitsubishi built engine
2.4L	2351	L4	1994	Van (OE#MD377604)	HBH181	Mitsubishi built engine
			1989	Raider (OE#MD311472)	HBD189	Utilizes one serpentine and one v-belt
3.0L	2972	L4	1990-91	D-50 Truck (OE#MD311472)		
3.9L	239	V6	1987-91	Truck/Van (OE#4173443)	HBD102	Utilizes oil slinger
5.2L	318	V8	1972-91	Passenger & Truck (OE#4173443)	HBD102	Utilizes oil slinger
5.6L	340	V8	1972-91	Passenger & Truck (OE#4173443)	HBD102	Utilizes oil slinger
5.9L	360	V8	1972-93	Passenger & Truck (OE#4173447)	HBD103	

### Ford - Lincoln - Mercury

1.9L	116	L4	1991-96	Compact Passenger (OE#F7CZ6316BA)	HBF125	Utilizes pulse ring
2.3L	140	L4	1992-94	Tempo/Topaz HSC engine	HBF123	Bolt, key & washer included
3.0L	183	V6	1986-89	Passenger & Van (OE#E8DE6316A & BA)	HBF200	Excluding SHO engines
3.0L	183	V6	1990-94	Passenger, Truck, & Van (OE#F0DE6316BA)	HBF201	Excluding SHO engines
3.0L	183	V6	1995-03	Passenger (OE#F8DE6316AA)	HBF126	Cast iron replaces aluminum, discard pulse ring, Mazda built engine
3.2L	187	V6	1993-95	SHO Passenger (OE#F3DZ6B321A)	HBF118	With A.T., Yamaha built engine
3.4L	203	V6	1996-99	SHO Passenger (OE#F6DZ6B321AA)	HBF122	Yamaha built engine
3.8L	232	V6	1988-95	Passenger (OE#F4DZ6B321A)	HBF119	
4.0L	240	L6	1965-70	Truck (OE#E3TZ6312E)	HBF112	Three groove v-belt
4.0L	244	V6	1990-03	Truck-Explorer-Ranger (OE#F0TZ6B321A)	HBF127	
4.3L	260	V8	1962-65	Passenger (OE#C5AZ6312B)	HBF107	Utilizes 3-bolt hub
4.6L	281	V8	1992-03	Passenger & Truck (OE#F3AE6316AA)	HBF117	SOHC from 6/25/92
4.7L	289	V8	1964-68	Passenger (OE#C5AZ6312B)	HBF107	Utilizes 3-bolt hub, excluding 271 HP
4.9L	300	L6	1965-86	Truck (OE#E3TZ6312E)	HBF112	Three groove v-belt
4.9L	300	L6	1987-95	Truck (OE#E7TZ6312A)	HBF114	Utilizes serpentine flat belt
4.9L	300	L6	1996	Truck & Van (OE#F6TE6316GA)	HBF202	Utilizes serpentine flat belt
5.0L	302	V8	1970	Passenger (OE#D7TZ6316A)	HBF108	"Boss" engine
5.0L	302	V8	1970-80	Passenger & Truck (OE#D7TZ6316A)	HBF108	
5.0L	302	V8	1970-80	Passenger & Truck (OE#D8TZ6316B)	HBF109	Has 4-bolt hub for accessory pulleys
5.0L	302	V8	1981-84	Truck - Van only (OE#E1TZ6316D)	HBF111	EEC system utilized
5.0L	302	V8	1984-95	Passenger & Truck (OE#E4TZ6316A)	HBF113	Does not utilize EEC system
5.4L	342	V8	1997-00	Truck (OE#F75Z6312AC)	HBF124	
5.8L	351W	V8	1981-97	Passenger & Truck (OE#E8TZ6316B)	HBF116	Does not utilize EEC system
5.8L	351M	V8	1971-82	Passenger & Truck (OE#several)	HBF199	Modified engine
6.6L	400M	V8	1971-82	Passenger & Truck (OE#several)	HBF199	Modified engine
7.3L	445	V8	1988-94	Truck Diesel (OE#E8TZ6316A)	HBF115	Without turbo, indirect injection
7.3L	445	V8	1995-97	Truck Diesel (OE#180164321AB)	HBF120	Utilizes 8-rib serpentine belt
7.5L	460	V8	1979-95	Truck (OE#D9TZ6316C)	HBF110	Use with original weighted spacer in 1979
7.5L	460	V8	1996-97	Truck (OE#F5TE6316CA)	HBF121	





# Harmonic Balancers

## GMC - Chevrolet - Buick - Cadillac - Oldsmobile - Pontiac

Liter	CI/CC	Engine	Year	Application (Reference Only)	Part#	Comments
2.3L	140	L4	1987-02	Passenger (OE#24575562)	<b>HBC165</b>	
2.4L	145	L4	1987-02	Passenger (OE#24575562)	<b>HBC165</b>	
2.5L	151	L4	1987-92	Passenger (OE#10101369)	<b>HBC147</b>	
2.8L	173	V6	1982-87	Passenger & Truck (OE#14085401)	<b>HBC161</b>	Rear Wheel Drive applications
2.8L	173	V6	1983-86	Passenger (OE#14083394)	<b>HBC160</b>	Transversed mounted Chevy built engine
2.8L	173	V6	1988-89	Passenger (OE#1400630)	<b>HBC162</b>	Rear Wheel Drive applications
2.8L	173	V6	1988-93	S-Series Truck (OE#14100630)	<b>HBC162</b>	
3.1L	189	V6	1987-94	Passenger (OE#24504611)	<b>HBC170</b>	
3.1L	189	V6	1994-00	Passenger & Van (OE#24504609)	<b>HBC164</b>	Chevrolet built engine
3.3L	204	V6	1989-90	Passenger (OE#12339997)	<b>HBC153</b>	Buick built engine two pulse rings, bolt, key, & washer incl.
3.3L	204	V6	1991-92	Passenger (OE#24501985)	<b>HBC149</b>	Buick built engine, two pulse rings
3.3L	204	V6	1993	Mid-size Passenger (OE#24502175)	<b>HBC203</b>	Buick built engine two pulse rings
3.4L	207	V6	1994-00	Passenger & Van (OE#24504609)	<b>HBC164</b>	Chevrolet built engine
3.7L	230	L6	1966-73	Passenger & Truck (OE#3896590)	<b>HBC139</b>	2-groove v-belt with narrow center band
3.8L	229	V6	1978-84	Passenger (OE#14082324)	<b>HBC159</b>	
3.8L	231	V6	1986-88	Passenger (OE#25527381)	<b>HBC166</b>	Buick built engine, replaces all steel dampner
3.8L	231	V6	1988-90	Passenger (OE#25535485)	<b>HBC167</b>	Buick built engine VIN "C"
3.8L	231	V6	1990-92	Passenger (OE#24501201)	<b>HBC171</b>	Alt. OE#25534911
3.8L	231	V6	1991-92	Passenger (OE#88960259)	<b>HBC206</b>	With Supercharger
3.8L	231	V6	1993-94	Passenger (OE#24502176)	<b>HBC172</b>	Alt. OE#24503065
3.8L	231	V6	1993-95	Passenger (OE#88960265)	<b>HBC207</b>	With Supercharged engine - Alt. OE#24507414
3.8L	231	V6	1995	Passenger (OE#88960264)	<b>HBC208</b>	With Supercharger - Alt.OE#'s 24503041, 24504739
3.8L	231	V6	1995-03	Passenger (OE#24504737)	<b>HBC173</b>	Buick built engine
3.8L	231	V6	1996-03	Passenger (OE#12563268)	<b>HBC154</b>	Supercharged Buick built engine
4.1L	250	L6	1966-73	Passenger & Truck (OE#3896590)	<b>HBC139</b>	2-groove v-belt with narrow center band
4.1L	250	L6	1975-76	Passenger & Truck (OE#352153)	<b>HBC133</b>	2-groove v-belt with wide center band
4.1L	250	L6	1977-84	Passenger & Truck (OE#458149)	<b>HBC134</b>	2-groove v-belt
4.1L	252	V8	1985-88	Passenger (OE#12589753)	<b>HBC156</b>	Cadillac built engine
4.3L	260	V8	ALL	Passenger (OE#22506730)	<b>HBC163</b>	Oldsmobile built engine
4.3L	262	V8	1969-75	Passenger (OE#6272223)	<b>HBC143</b>	6 inch, solid inertia ring
4.3L	262	V6	1985-95	Passenger & Truck (OE#10172764)	<b>HBC151</b>	
4.3L	262	V6	1993-97	Passenger (OE#12551138)	<b>HBC155</b>	
4.5L	273	V8	1988-92	Passenger (OE#12589753)	<b>HBC156</b>	Cadillac built engine
4.6L	283	V8	1965-68	Passenger (OE#3896904)	<b>HBC140</b>	6-1/8" dia., Nodular crank, 12 o'clock timing, 3/4" ring
4.8L	292	L6	1975-89	Truck (OE#3857352)	<b>HBC169</b>	Alt. OE#10141202
4.9L	300	V8	1991-95	Passenger (OE#12589753)	<b>HBC156</b>	Cadillac built engine
5.0L	305	V8	1969-95	Passenger & Truck (OE#6272221)	<b>HBC174</b>	6-3/4 inch, 2 o'clock timing, solid inertia ring
5.0L	305	V8	1977-86	Truck (OE#458653)	<b>HBC135</b>	8 inch, 12 o'clock timing, hollow back inertia ring
5.0L	305	V8	1977-93	Passenger & Truck (OE#458653)	<b>HBC168</b>	6-3/4 inch, 12 o'clock timing, hollow back inertia ring
5.0L	307	V8	1965-68	Passenger (OE#3896904)	<b>HBC140</b>	6-1/8" dia., Nodular crank, 12 o'clock timing, 3/4" ring
5.0L	307	V8	1969-72	Passenger (OE#6272223)	<b>HBC143</b>	6 inch, solid inertia ring
5.0L	307	V8	ALL	Passenger (OE#22506730)	<b>HBC163</b>	Oldsmobile built engine
5.4L	327	V8	1965-68	Passenger (OE#3896904)	<b>HBC140</b>	6-1/8" dia., Nodular crank, 12 o'clock timing, 3/4" ring
5.4L	327	V8	1969	Passenger & Truck (OE#6272221)	<b>HBC174</b>	6-3/4 inch, 2 o'clock timing, solid inertia ring
5.7L	350	V8	1968-79	Passenger (OE#477682)	<b>HBC136</b>	Pontiac built engine
5.7L	350	V8	1969-95	Passenger & Truck (OE#6272221)	<b>HBC174</b>	6-3/4 inch, 2 o'clock timing, solid inertia ring
5.7L	350	V8	1969-96	Passenger & Truck (OE#6272222)	<b>HBC141</b>	8 inch, 2 o'clock timing, solid inertia ring
5.7L	350	V8	1977-86	Truck (OE#458653)	<b>HBC135</b>	8 inch, 12 o'clock timing, hollow back inertia ring
5.7L	350	V8	1977-93	Passenger & Truck (OE#458653)	<b>HBC168</b>	6-3/4 inch, 12 o'clock timing, hollow back inertia ring
5.7L	350	V8	1993-97	Passenger (OE#12551138)	<b>HBC155</b>	
5.7L	350	V8	1996-02	Truck (OE#10243271)	<b>HBC152</b>	
5.7L	350	V8	1998-02	Camaro - Firebird (OE#12553118)	<b>HBC157</b>	
5.7L	350	V8	2004	GTO (OE#12553118)	<b>HBC157</b>	
5.7L	350	V8	ALL	Passenger (OE#22506730)	<b>HBC163</b>	Oldsmobile built engine
6.2L	381	V8	1982-93	Truck (OE#14022671)	<b>HBC158</b>	Diesel engine
6.2L	381	V8	1988-93	Truck & Van (OE#12557345)	<b>HBC205</b>	Diesel engine "PULLEY ONLY"
6.5L	396	V8	1965-70	Passenger & Truck (OE#3860010)	<b>HBC177</b>	375 horse engine
6.5L	396	V8	1966-72	Passenger & Truck (OE#386008)	<b>HBC138</b>	325 / 330 / 350 horse engines
6.5L	395	V8	1994-02	Truck (OE#10154688)	<b>HBC150</b>	Diesel engine
6.5L	395	V8	1994-02	Truck & Van (OE#12557345)	<b>HBC205</b>	Diesel engine "PULLEY ONLY"



# Harmonic Balancers



## GMC - Chevrolet - Buick - Cadillac - Oldsmobile - Pontiac (Cont.)

Liter	CI/CC	Engine	Year	Application (Reference Only)	Part#	Comments
6.6L	400	V8	1968-79	Passenger (OE#477682)	<b>HBC136</b>	Pontiac built engine
6.6L	400SB	V8	1970-80	Passenger & Truck (OE#6272225)	<b>HBC144</b>	External balanced engine
6.6L	402	V8	1970-72	Passenger & Truck (OE#386008)	<b>HBC138</b>	350 horse engine
6.6L	403	V8	ALL	Passenger (OE#22506730)	<b>HBC163</b>	Oldsmobile built engine
7.0L	427	V8	1965-70	Passenger (OE#3860010)	<b>HBC177</b>	425 horse engine
7.0L	427	V8	1966-72	Corvette (OE#3860008)	<b>HBC138</b>	390 / 400 horse engine
7.4L	454	V8	1973-90	Passenger & Truck (OE#10141212)	<b>HBC148</b>	
7.4L	454	V8	1991-97	Truck (OE#10101160)	<b>HBC146</b>	
7.5L	455	V8	1968-79	Passenger (OE#477682)	<b>HBC136</b>	Pontiac built engine

## Honda

2.2L	2156	L4	1990-93	Accord (OE#13810PT1003)	<b>HBH195</b>	Top pulley has 4 grooves, lower has 3 grooves
2.2L	2156	L4	1992-96	Prelude (OE#13810PT1003)	<b>HBH195</b>	Excluding VTEC engine, top pulley has 4 grooves, lower has 3 grooves
2.2L	2156	L4	1994-97	Accord-Odyssey (OE#13810POA003)	<b>HBH194</b>	Top pulley has 5 grooves, lower has 3 grooves
2.3L	2259	L4	1992-96	Prelude (OE#13810PT1003)	<b>HBH195</b>	Excluding VTEC engine, top pulley has 4 grooves, lower has 3 grooves

## Hyundai

1.5L	G4EK	L4	1993	Scoupe (OE#2312422001)	<b>HBH178</b>	Non-turbo application
1.5L	G4EK	L4	1994-99	Accent - Scoupe (OE#2312422020)	<b>HBH179</b>	
1.5L	G4DJ	L4	1990-94	Excel - Scoupe (OE#2312424010)	<b>HBH180</b>	Mitsubishi built engine
1.6L	1595	L4	1992-95	Compact (OE#2312433111)	<b>HBH181</b>	Mitsubishi built engine
1.8L	1836	L4	1993-95	Compact (OE#2312433111)	<b>HBH181</b>	Mitsubishi built engine
2.0L	1997	L4	1992-98	Compact (OE#2312433111)	<b>HBH181</b>	Mitsubishi built engine
3.0L	2972	V6	1989-98	Compact (OE#2312935010)	<b>HBH182</b>	Mitsubishi built engine (exclusive to Hyundai)

## Isuzu

2.8L	173	V6	1989-91	Truck (OE#14100630)	<b>HBC162</b>	
3.1L	3160	V6	1991-94	Truck (OE#14100630)	<b>HBC162</b>	

## Mazda

3.0L	183	V6	1994	B3000 Truck (OE#F0DE6316BA)	<b>HBF201</b>	
3.0L	183	V6	1995-00	B3000 Truck (OE#F8DE6316AA)	<b>HBF126</b>	Cast iron replaces aluminum, discard pulse ring
4.0L	244	V6	1990-03	Truck-B4000, Navajo (OE#F0TZ6B321A)	<b>HBF127</b>	

## Mitsubishi

1.5L	1468	L4	1990-94	Precis (OE#2312424010)	<b>HBH180</b>	
1.6L	1595	L4	1989-92	Compact (OE#MD377604)	<b>HBH181</b>	
2.0L	1997	L4	1990-98	Compact (OE#MD377604)	<b>HBH181</b>	
2.0L	1998	L4	1995-99	Eclipse Compact (OE#MD377604)	<b>HBH181</b>	With turbo
2.4L	2351	L4	1993-99	Compact (OE#MD377604)	<b>HBH181</b>	
3.0L	2972	V6	1989-00	Montero (OE#MD311472)	<b>HBD189</b>	Utilizes one serpentine and one v-belt
3.0L	2972	V6	1990-94	Compact Truck (OE#MD311472)	<b>HBD189</b>	Utilizes one serpentine and one v-belt
3.0L	2972	V6	1997-00	Montero Sport (OE#MD311472)	<b>HBD189</b>	Utilizes one serpentine and one v-belt
3.5L	3497	V6	1994-99	Montero (OE#MD311472)	<b>HBD189</b>	Utilizes one serpentine and one v-belt

## Saab

2.0L	1985	L4	1985-94	900-series (OE#9107665)	<b>HBS190</b>	89-93 w/turbo, 94 conv. w/turbo - w/o timing trigger
2.0L	1985	L4	1973-84	99 & 900-series (OE#7501950)	<b>HBS191</b>	
2.0L	1985	L4	1985-94	900-series (OE#8789315)	<b>HBS192</b>	Without turbo
2.0L	1985	L4	1986-90	9000-series (OE#9321530)	<b>HBS193</b>	With turbo

## Toyota

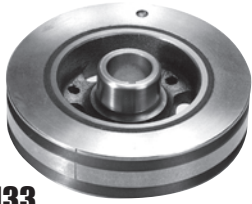
2.4L	2366	L4	1978-84	All 20R, 22R, & 22RE	<b>HBT197</b>	Gas engine
2.4L	2366	L4	1985-95	All (OE#1347035020)	<b>HBT183</b>	Utilizes 2 v-belts and oil slinger
3.0L	2959	L6	1988-95	Truck (OE#1340865011)	<b>HBT198</b>	With or without power steering, gas engine
4.0L	3956	L6	1988-92	Landcruiser (OE#1347061030)	<b>HBT187</b>	
4.2L	258	L6	1973-87	Landcruiser (OE#1347061010)	<b>HBT184</b>	Non-A/C single pulley
4.2L	258	L6	1973-87	Landcruiser (OE#1347061010)	<b>HBT185</b>	With A/C three v-belt pulleys
4.2L	258	L6	1973-87	Landcruiser (OE#1347060120)	<b>HBT186</b>	Non-A/C double pulley

## Volvo

2.3L	2259	L4	1989-91	740 & 940-series (OE#91351957)	<b>HBV196</b>	DOHC B234F engines
2.3L	2316	L4	1985-95	240-940 series (OE#91351940)	<b>HBV188</b>	Gas engine



# Harmonic Balancers



**HBC133**



**HBC134**



**HBC135**



**HBC136**



**HBC138**



**HBC139**



**HBC140**



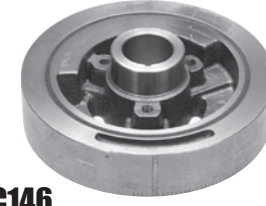
**HBC141**



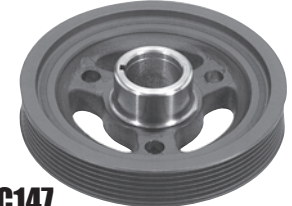
**HBC143**



**HBC144**



**HBC146**



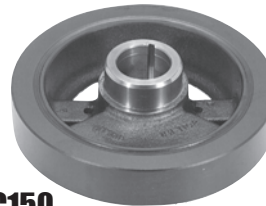
**HBC147**



**HBC148**



**HBC149**



**HBC150**



**HBC151**



**HBC152**



**HBC153**



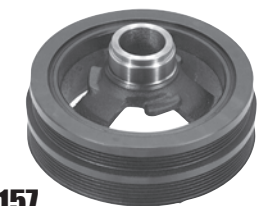
**HBC154**



**HBC155**



**HBC156**



**HBC157**



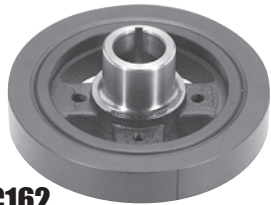
**HBC158**



**HBC159**



**HBC160**



**HBC162**



**HBC163**



**HBC164**



**HBC165**



**HBC166**



**HBC167**




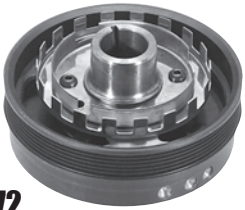






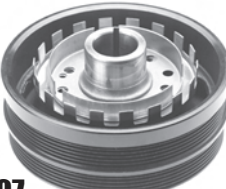


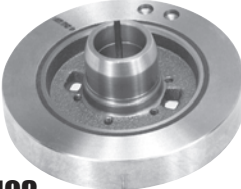

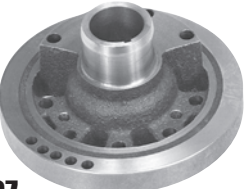



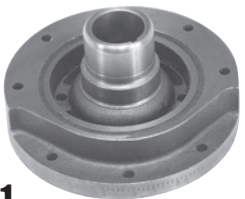


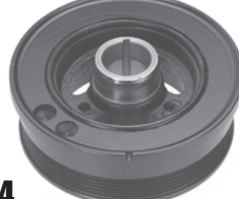



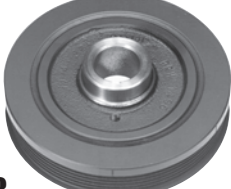







**HBC168**



# Harmonic Balancers



 <b>HBC169</b>	 <b>HBC170</b>	 <b>HBC171</b>	 <b>HBC172</b>
 <b>HBC173</b>	 <b>HBC174</b>	 <b>HBC177</b>	 <b>HBC203</b>
 <b>HBC205</b>	 <b>HBC206</b>	 <b>HBC207</b>	 <b>HBC208</b>
 <b>HBD102</b>	 <b>HBD103</b>	 <b>HBD189</b>	 <b>HBF107</b>
 <b>HBF108</b>	 <b>HBF109</b>	 <b>HBF110</b>	 <b>HBF111</b>
 <b>HBF112</b>	 <b>HBF113</b>	 <b>HBF114</b>	 <b>HBF115</b>
 <b>HBF116</b>	 <b>HBF117</b>	 <b>HBF118</b>	 <b>HBF119</b>
 <b>HBF120</b>	 <b>HBF121</b>	 <b>HBF122</b>	 <b>HBF123</b>





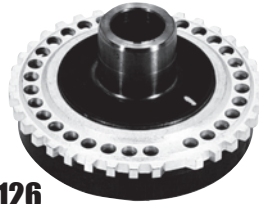
# Harmonic Balancers



**HBF124**



**HBF125**



**HBF126**



**HBF127**



**HBF199**



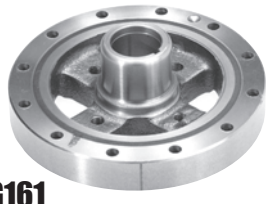
**HBF200**



**HBF201**



**HBF202**



**HBG161**



**HBH178**



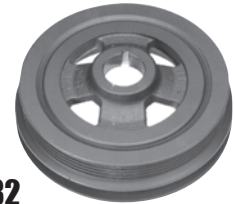
**HBH179**



**HBH180**



**HBH181**



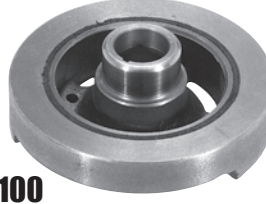
**HBH182**



**HBH194**



**HBH195**



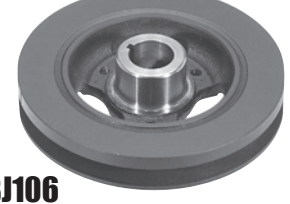
**HBJ100**



**HBJ101**



**HBJ104**



**HBJ106**



**HBS190**



**HBS192**



**HBS193**



**HBT183**



**HBT184**



**HBT185**



**HBT186**



**HBT187**



**HBT197**



**HBT198**



**HBV188**



**HBV196**

# Racing Manifolds/Headers

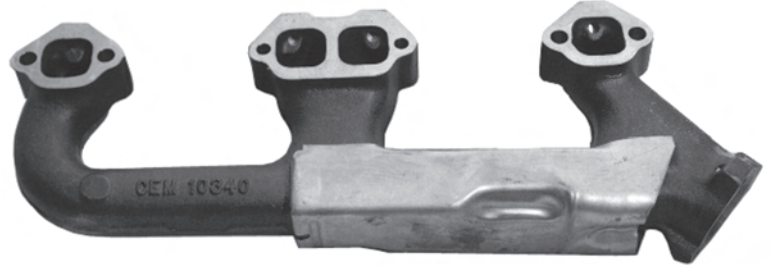


## Cast Iron Claimer Exhaust Small Block Chevy

"Ram's Horn" Straight center dump outlet cast iron exhaust manifolds. Uses include pure stock dirt track racing where stock cast iron exhaust manifolds are required by sanctioning bodies. Performance gains have been realized over other aftermarket stock cast iron exhaust manifolds offered in the industry, even the 2-1/4" diameter dump. Most aftermarket 2-1/4" dump manifolds have small cylinder port openings restricting flow making the extra diameter virtually useless. Some sanctioning bodies do not allow porting in this area. Our "stocker" exhaust manifold cylinder port openings are typically larger than the stock head port opening on a small block Chevrolet "as cast" allowing for better flow at higher RPM even though the smaller diameter dump outlet is utilized.

Dump	Side	Part #
Center	Left or Right	EMG159
Rear	Left	EMG182
Rear	Right	EMG183

Installation hardware kit included.



## Exhaust Headers

### SB Chevy "Hugger" Set

Fits 1982-Up SB Chevy.  
Includes Gaskets & Hardware.



Style	Part #
Black	EHC350B
Chrome	EHC350CP
Stainless Steel	EHC350SS
Ceramic	EHC350CR

### SB Chevy 283-400 "Shorty" Set

Fits 1967-81 Camaro (Exc. 67-69 w/AC), 1968-87 Chevelle, 1968-79 Chevy II & Nova, 1970-87 Monte Carlo. Includes Gaskets & Hardware.



Style	Part #
Black	EHC400B
Chrome	EHC400CP
Stainless Steel	EHC400SS
Ceramic	EHC400CR

### Ford Mustang 5.0L "Shorty" Set

Fits 1986-95 5.0L.  
Includes Gaskets & Hardware.



Style	Part #
Black	EHF302B
Chrome	EHF302CP
Stainless Steel	EHF302SS
Ceramic	EHF302CR

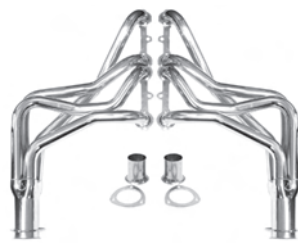
## SB Chevy Pick-Up Header Sets, 1-5/8" Pipe Dia., 3/8" Flange NEW

Fits 1988-95 Chevy Pick-Up.  
Includes Gaskets & Hardware.



Style	Part #
Black	EHT350B
Chrome	EHT350CP
Stainless Steel	EHT350SS
Ceramic	EHT350CR

Fits 1973-85 Chevy Pick-Up.  
Includes Gaskets & Hardware.



Style	Part #
Black	EHT350B-1
Chrome	EHT350CP-1
Stainless Steel	EHT350SS-1
Ceramic	EHT350CR-1

Fits 1966-72 Chevy Pick-Up.  
Includes Gaskets & Hardware.



Style	Part #
Black	EHT350B-2
Chrome	EHT350CP-2
Stainless Steel	EHT350SS-2
Ceramic	EHT350CR-2

## Chrome SB Chevy Exhaust Manifold Dress-up Cover Set

Works with all stock SB Chevy exhaust manifolds. Hardware included.



Part #EHC0350

## Steel 3" Header Reducer With Welded Ring

Small end is 2-1/4" Dia.



Part #EHCZ350

Engine Parts





# Exhaust Manifolds

## Exhaust Manifold Kits

### 122 Part Numbers For Popular Domestic and Import Applications

- Silver Seal Manifolds **include Hardware Kits (Studs, Nuts, etc.), Gaskets, and Heat Shields or Hot Air Stoves as needed.**
- We have eliminated excess inventory by including plugs for EGR ports, A.I.R. tube holes, and O2 sensor holes for applications that do not require these features.
- OEM Manifolds are thinner & lighter than in the past, and are prone to fissure (cracking) caused by thermal expansion, "hot spots" created by heat shields & the corrosive nature of exhaust gases. Due to advanced engineering, we have eliminated, where possible, these inherent weaknesses.

### AMC-Eagle-Jeep

Liter/CI	Eng.	Year	Application (Reference Only)	Part#	Comments
1.5L/1498cc	L4	1989-90	Summit (Mitsubishi engine)	<b>EMD111</b>	
		1991-92	Summit (Mitsubishi engine)	<b>EMD112</b>	
		1993-96	Summit (Mitsubishi engine)	<b>EMD222</b>	Cast Iron, w/heat shields, w/oxygen sensor prov.
2.5L/151	L4	1983-02	Cherokee, CJ, Comanche, Eagle, Wagoneer, Wrangler	<b>EMJ104</b>	w/Heat shield
3.4L/199	L6	1965-68	American, Classic	<b>EMJ101</b>	Cast Iron
		1969-70	Hornet, Rambler		
3.9L/232	L6	1969-79	Ambassador, American, Cherokee, CJ, Classic, Concord, DJ, Gremlin, Hornet, Javelin, Jeepster, J-Series, Marlin, Matador, Pacer, Rambler, Rebel, Spirit, Wagoneer	<b>EMJ101</b>	Cast Iron
4.0L/242	L6	1987-90	Cherokee, Comanche, Wagoneer	<b>EMJ210</b>	Tubular w/heat pipe
		1991-98	Cherokee, Comanche, Grand Cherokee, Wrangler	<b>EMJ211</b>	Tubular design
4.3L/258	L6	1971-79	Ambassador, AMX, Concord, Cherokee, CJ, DJ, Gremlin, Hornet, Javelin, Jeepster, J-Series, Matador, Pacer, Spirit, Wagoneer	<b>EMJ101</b>	Cast Iron
		1981-90	Cherokee, CJ, Concord, Eagle, Grand Wagoneer, J-Series, Spirit, Wagoneer, Wrangler	<b>EMJ103</b>	Cast Iron
5.0L/304	V8	1972-88	Ambassador, AMX, CJ, Cherokee, Javelin, J-Series, Jeepster, Matador, Wagoneer	<b>EMJ244</b>	(Right) Cast Iron w/ or w/o A.I.R.
5.9L/360	V8	1972-91	Ambassador, AMX, Cherokee, Grand Wagoneer, J-Series, Javelin, Jeepster, Matador, Wagoneer	<b>EMJ244</b>	(Right) Cast Iron w/ or w/o A.I.R.
6.6L/401	V8	1972-88	Ambassador, AMX, Cherokee, J-Series, Javelin, Matador, Wagoneer	<b>EMJ244</b>	(Right) Cast Iron w/ or w/o A.I.R.

### Chrysler-Dodge-Plymouth Passenger Cars

1.5L/1468cc	L4	1987-90	Colt non-turbo (Mitsubishi motor)	<b>EMD111</b>	Cast Iron
		1991-92	Colt non-turbo (Mitsubishi motor)	<b>EMD112</b>	Cast Iron
		1993-96	Colt	<b>EMD222</b>	Cast Iron, w/heat shields, w/oxygen sensor provision
2.0L/122	L4	1995-99	Neon	<b>EMD225</b>	Cast Iron, w/heat shield, 2-bolt rd. exh. dump
2.4L/148	L4	1995-00	Breeze, Cirrus, Sebring, Stratus	<b>EMD227</b>	Cast Iron, w/heat shield, 4-bolt sq. exh. dump
3.3L/198	L6	1970-74	Baracuda, Challenger, Dart, Valiant	<b>EMD105</b>	Cast Iron
3.7L/225	L6	1970-83	Aspen, Baracuda, Challenger, Charger, Cordoba, Coronet, Dart, Diplomat, Duster, LeBaron, Mirada, Monaco, Polara, Satellite, Valiant, Volare	<b>EMD105</b>	Cast Iron
5.2L/318	V8	1977-79	All	<b>EMD106</b>	(Left) w/ or w/o A.I.R.
				<b>EMD107</b>	(Right) w/ or w/o AIR or EGR tube, uses heat riser
5.9L/360	V8	1977-80	All	<b>EMD106</b>	(Left) w/ or w/o A.I.R.
				<b>EMD107</b>	(Right) w/ or w/o AIR or EGR tube, uses heat riser

### Dodge-Plymouth Trucks

2.5L/151	L4	1996-02	Dakota	<b>EMJ104</b>	w/heat shield (when needed)
3.3L/198	L6	1970-71	D-series Truck, Ramcharger, Trail Duster, Van	<b>EMD105</b>	Cast Iron
3.7L/225	L6	1970-87	D-series Truck, Ramcharger, Trail Duster, Van	<b>EMD105</b>	Cast Iron
3.9L/239	V6	1987-91	Dakota	<b>EMD232</b>	(Left) w/heat riser w/wo EGR
				<b>EMD109</b>	(Left) Cast Iron
		1994-95	Dakota	<b>EMD108</b>	(Right) w/EGR at rear
				<b>EMD109</b>	(Left) Cast Iron
		1996-99	Dakota	<b>EMD109</b>	(Left) Cast Iron
				<b>EMD109</b>	(Left) Cast Iron
5.2L/318	V8	1977-91	D-series Truck, Ramcharger, Trail Duster, Van B-series	<b>EMD106</b>	(Left) w/ or w/o A.I.R.
				<b>EMD107</b>	(Right) w/ or w/o A.I.R. & EGR tube, uses heat riser
		1994-95	D-series Truck, Van B-series (Gasoline)	<b>EMD109</b>	(Left) Cast Iron
				<b>EMD108</b>	(Right) w/EGR at rear
		1996-01	D-series Truck, Van B-series (Gasoline)	<b>EMD109</b>	(Left) Cast Iron
				<b>EMD109</b>	(Left) Cast Iron
5.9L/360	V8	1977-92	D-series Truck, Ramcharger, Trail Duster, Van B-series	<b>EMD106</b>	(Left) w/ or w/o A.I.R.
				<b>EMD107</b>	(Right) w/ or w/o A.I.R. & EGR tube, uses heat riser
		1994-95	D-series Truck, Van B-series (Gasoline)	<b>EMD109</b>	(Left) Cast Iron
				<b>EMD108</b>	(Right) w/EGR at rear
		1996-01	D-series Truck, Van B-series (Gasoline)	<b>EMD109</b>	(Left) Cast Iron
				<b>EMD109</b>	(Left) Cast Iron



# Exhaust Manifolds



## Dodge-Plymouth Trucks

Liter/Ci	Eng.	Year	Application (Reference Only)	Part#	Comments
6.0L/361	V8	1960-77	Medium Duty Trucks	<b>EMD100</b>	(L. & R.)Center dump,4-bolt fl. w/o AIR,heat riser
		1972-79	D-series Truck, Ramcharger, Trail Duster, M-class Motorhome	<b>EMD102</b>	(Left & Right)Center dump,2-bolt flange w/o A.I.R. heat riser
6.6L/400	V8	1972-78	M-class Motorhome	<b>EMD245</b>	(Right) rear 3/4 dump w/o heat riser or EGR
		1976	Van B-series	<b>EMD102</b>	(L. & R.)Center dump,2-bolt fl.w/o AIR, heat riser
6.8L/413	V8	1972-77	M-class Motorhome	<b>EMD100</b>	(L. & R.)Center dump,4-bolt fl.w/o AIR, heat riser
		1960-77	Medium Duty Trucks		
7.2L/440	V8	1972-79	D-series Truck, Ramcharger, Trail Duster, M-class Motorhome	<b>EMD102</b>	(Left & Right)Center dump,2-bolt flange w/o A.I.R. heat riser
		1972-78	M-class Motorhome	<b>EMD245</b>	(Right) rear 3/4 dump w/o heat riser or EGR

## Ford-Lincoln-Mercury Passenger Cars

2.3L/140	L4	1983-93	Capri, Fairmont, Small LTD, Small Marquis, Mustang, non-turbo (Gas engine)	<b>EMF136</b>	Cast Iron
		1988-94	Tempo, Topaz	<b>EMF115</b>	Cast Iron w/3-stud dump flange
2.5L/153	L4	1986-90	Taurus, Sable	<b>EMF129</b>	Cast Iron
3.0L/183	V6	1986-95	Taurus, Sable (excluding SHO & Flex Fuel)	<b>EMF144</b>	(Rear) Cast Iron
				<b>EMF145</b>	(Front) Cast Iron
3.8L/232	V6	1988-93	Taurus, Sable (1988 Mid-year production)	<b>EMF149</b>	(Rear) Cast Iron
		1988-95	Taurus, Sable (1988 Mid-year production)	<b>EMF150</b>	(Front) Cast Iron
4.0L/240	L6	1965-72	Full Size Sedan & Wagon	<b>EMF118</b>	Cast Iron
4.2L/255	V8	1980-91	Capri, Cougar, Fairmont, Full Size Sedan, Granada, Mustang, Zephyr	<b>EMF146</b>	(Left) Cast Iron w/or w/o oxygen sensor
				<b>EMF146</b>	(Left) Cast Iron w/or w/o oxygen sensor
5.0L/302	V8	1980-85	Capri,Contentinal,Cougar,Fullsize Sedan,Mark Small Marquis,Mustang,Thunderbird,Town Car	<b>EMF122</b>	(R.)Cast Iron w/or w/o heat stove tube or oxygen sensor
		1986-91	Capri,Contentinal,Cougar,Fullsize Sedan,Mark Small Marquis,Mustang,Thunderbird,Town Car	<b>EMF146</b>	(Left) Cast Iron w/or w/o oxygen sensor
				<b>EMF130</b>	(Right)Cast Iron w/or w/o A.I.R. or oxygen sensor
5.8L/351M	V8	1975-79	Cougar,Fullsize Sedan,Montego,T-Bird,Torino	<b>EMF148</b>	(Left) Cast Iron
5.8L/351W	V8	1980-91	Full Size Sedan & Wagon, Town Car	<b>EMF146</b>	(Left) Cast Iron w/or w/o oxygen sensor
6.6L/400M	V8	1975-79	Cougar, Full Size Sedan, LTD II, Mark Montego, Thunderbird, Torino, Town Car	<b>EMF148</b>	(Left) Cast Iron

## Ford Trucks

2.0L/122	L4	1983-88	Ranger	<b>EMF136</b>	Cast Iron
2.3L/140	L4	1983-92	Ranger (Gas engine)	<b>EMF136</b>	Cast Iron
2.9L/177	L4	1986-92	Bronco II, Ranger	<b>EMF153</b>	(Left) Cast Iron
				<b>EMF116</b>	(Right) Cast Iron
3.8L/232	V6	1995	Windstar	<b>EMF150</b>	(Front) Cast Iron
4.0L/240	L6	1965-74	E-series Van, F-series Truck, P-series Truck	<b>EMF118</b>	Cast Iron, uses exhaust dump gasket
		1973-83	Fed.Eng.,Bronco,E-series Van,F&P-series Trk.	<b>EMF118</b>	Cast Iron, uses exhaust dump gasket
		1981-83	Ca.Eng.,E100-250seriesVan,F100-250seriesTrk	<b>EMF123</b>	Cast iron, does not use exhaust dump gasket
4.9L/300	L6	1984-86	Bronco, E350-series Van, F350-series Truck	<b>EMF123</b>	Cast iron, does not use exhaust dump gasket
		1987-96	Bronco, E-series Van, F-series Truck, two piece design	<b>EMF117</b>	(Rear) Cast Iron
				<b>EMF147</b>	(Front) Cast Iron
				<b>EMF139</b>	(Left) Cast Iron, does not have heat riser
		1980-83	Bronco, E-series Van, F-series Truck	<b>EMF122</b>	(R.)Cast Iron w/or w/o heat stove tube or O.sensor
				<b>EMF124</b>	(Left) Cast Iron, utilizes heat riser
		1983-85	Bronco, E-series Van, F-series Truck	<b>EMF139</b>	(Left) Cast Iron, does not have heat riser
5.0L/302	V8			<b>EMF122</b>	(R.)Cast Iron w/or w/o heat stove tube or O.sensor
				<b>EMF139</b>	(Left) Cast Iron, does not have heat riser
		1986-96	Bronco, E-series Van, F-series Truck	<b>EMF138</b>	(Left)Cast Iron,no heat riser,w/oxygen sensor prov.
				<b>EMF130</b>	(Right) w/or w/o EGR provision
				<b>EMF236</b>	(Left) Tubular design
		1996-98	Explorer, Mountaineer (thru 1/98 production)	<b>EMF235</b>	(Right) Tubular design, w/or w/o EGR provision
5.8L/351M	V8	1978-81	Bronco, E-series Van, F-series Truck	<b>EMF148</b>	(Left) Cast Iron
				<b>EMF121</b>	(Right) Cast Iron
				<b>EMF124</b>	(Left) Cast Iron, utilizes heat riser
		1981-87	Bronco, E-series Van, F-series Truck	<b>EMF139</b>	(Left) Cast Iron, does not have heat riser
				<b>EMF126</b>	(Left) Cast Iron, w/or w/o A.I.R. holes
				<b>EMF128</b>	(Right) Cast Iron, w/or w/o A.I.R. holes
				<b>EMF133</b>	(Left) w/A.I.R. holes in top of exhaust ports
5.8L/351W	V8			<b>EMF135</b>	(Left) w/o A.I.R. holes in top of exhaust ports
		1988-96	Bronco, E-series Van, F-series Truck	<b>EMF120</b>	(Left) w/one smog tube hole at rear by dump
				<b>EMF134</b>	(R.)w/AIR holes in top of exh.ports,1 EGR hole front
				<b>EMF132</b>	(Right)w/o A.I.R. holes,EGR provision hole at front
				<b>EMF119</b>	(R.)w/o AIR holes,EGR provision hole at front/rear



# Exhaust Manifolds

## Ford Trucks

Liter/CI	Eng.	Year	Application (Reference Only)	Part#	Comments
5.9L/352	V8	1965-67	F-series Truck	<b>EMF157</b>	(Right) Cast Iron, has 2" exhaust dump opening
5.9L/360	V8	1968-76	F-series Truck	<b>EMF158</b>	(Left) Cast Iron has 2" exhaust dump opening
6.1L/370	V8	1983-90	Medium Duty Truck F-series (Gas)	<b>EMF157</b>	(Right) Cast Iron, has 2" exhaust dump opening
		1991-98	Medium Duty Truck F-series (F.I. Gas)	<b>EMF143</b>	(Left & Right) Cast Iron center dump clamp on style pipe hook up w/A.I.R. holes
6.4L/390	V8	1968-76	F-series Truck	<b>EMF233</b>	(Left & Right) Cast Iron, center dump w/EGR provision by exhaust dump "F1HE" castings
6.6L/400M	V8	1968-76	F-series Truck	<b>EMF158</b>	(Left) Cast Iron has 2" exhaust dump opening
		1977-82	E-series Van, F-series Truck	<b>EMF157</b>	(Right) Cast Iron, has 2" exhaust dump opening
7.0L/429	V8	1983-90	Medium Duty Truck F-series (Gas)	<b>EMF148</b>	(Left) Cast Iron
		1991-98	Medium Duty Truck F-series (F.I. Gas)	<b>EMF121</b>	(Right) Cast Iron
7.5L/460	V8	1975-87	E-series Van, F-series Truck, carbureted	<b>EMF143</b>	(Left & Right) Cast Iron center dump clamp on style pipe hook up w/A.I.R. holes
		1988	E-series Van w/carb	<b>EMF233</b>	(Left & Right) Cast Iron, center dump w/EGR provision by exhaust dump "F1HE" castings
		1988-97	E-series Van, F-series Truck	<b>EMF125</b>	(L.)Cast Iron w/or w/o AIR holes top of exh. ports
				<b>EMF127</b>	(R.)Cast Iron w/or w/o AIR holes top of exh. ports
				<b>EMF125</b>	(L.)Cast Iron w/or w/o AIR holes top of exh. ports
				<b>EMF127</b>	(R.)Cast Iron w/or w/o AIR holes top of exh. ports
				<b>EMF151</b>	(Left) Cast Iron, w/one EGR hole at rear by port
				<b>EMF154</b>	(Left) Cast Iron w/1 EGR hole at front by port & 3 EGR holes at rear between port & exhaust dump
				<b>EMF152</b>	(Right) cast iron, no provisions for EGR holes
				<b>EMF155</b>	(Right) cast iron, w/ provisions for 2 EGR holes at front and rear ports, can be plugged where needed.

## GM Passenger Cars

### Buick

2.0L/122	L4	1985-86	Skyhawk	<b>EMG178</b>	Tubular design w/heat shield
		1987	Skyhawk w/turbo	<b>EMG177</b>	Cast Iron
2.5L/151	L4	1983-91	Skylark, Sommerset, Century(1983-92)	<b>EMG176</b>	Tubular design w/heat shield
3.1L/189	V6	1994-96	Century, Regal, Skylark(Chevy engine)	<b>EMG228</b>	(Rear) Tubular design w/heat shield
3.3L/204	V6	1989-93	Century, Skylark (Buick engine)	<b>EMG230</b>	(Rear) Tubular design w/heat shield
		1977-78	Century, Regal, Skylark(Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
5.0L/305	V8	1979	Skylark (Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978-79	Century, (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1978	Full Size (Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978-86	Century, Fullsize Sedan(Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.7L/350	V8	1977-78	Century, Regal, Skylark (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1978-79	Century (Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1994-95	Full Size Sedan & Wagon	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
				<b>EMG184</b>	(R.)w/AIR pipe fitting front of manifold, w/heat shield

### Cadillac

2.0L/122	L4	1985-86	Cimarron	<b>EMG178</b>	Tubular design w/heat shield
		1994-95	Full Size	<b>EMG184</b>	(R.)w/AIR pipe fitting front of manifold, w/heat shield
5.7L/350	V8	1999-00	Escalade	<b>EMG194</b>	(Left) w/heat shield
					<b>EMG193</b>

### Chevrolet

1.5L/1471cc	L4	1987-89	Spectrum non turbo	<b>EMG202</b>	
2.5L/151	L4	1983-92	Celebrity, Camaro(1982-86), Citation(1983-87)	<b>EMG176</b>	Tubular design w/heat shield
3.1L/189	V6	1995-96	Lumina, Monte Carlo	<b>EMG228</b>	(Rear) Tubular design w/heat shield
		1975	Full Size Sedan & Wagon, Nova	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
4.3L/262	V8	1980	Camaro	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1979-82	El Camino, Full Size Sedan, Monte Carlo	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
4.5L/267	V8	1981	Camaro	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1979-82	El Camino, Full Size Sedan, Monte Carlo	<b>EMG255</b>	(Right) Cast Iron w/heat stove, 3-bolt flange
5.0L/302	V8	1969	Camaro	<b>EMG182</b>	(Left)w/or w/o A.I.R. & oxygen sensor, 3-stud flange
		1976-79	Camaro	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.0L/305	V8	1980-81	Camaro	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1977-79	Chevelle, El Camino, Full Size Sedan/Wagon	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978-86	El Camino, Full Size Sedan, Monte Carlo	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1978-86	El Camino, Full Size Sedan, Monte Carlo	<b>EMG255</b>	(Right) Cast Iron w/heat stove, 3-bolt flange

# Exhaust Manifolds



## GM Passenger Cars

Liter/Ci	Eng.	Year	Application (Reference Only)	Part#	Comments
<b>Chevrolet</b>					
5.0L/307	V8	1969-73	Camaro, Chevelle, Nova(1970-73)	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1969	Nova (Manual Transmission)	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
		1969	Nova (Automatic Transmission)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.5L/327	V8	1969	Camaro	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1965	Corvette, except F.I., Hi-Perf., A.T.	<b>EMG160</b>	(Left)center dump w/front alt. bracket,w/or w/o AIR
		1966-67	Corvette	<b>EMG160</b>	(Left)center dump w/front alt. bracket,w/or w/o AIR
		1966-68	Corvette	<b>EMG201</b>	(Left)center dump w/side alt.bracket,w/or w/o A.I.R
		1969	Full Size Sedan & Wagon	<b>EMG166</b>	(Left) angle back center dump w/or w/o A.I.R.
5.7L/350	V8			<b>EMG159</b>	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
		1969-75	Camaro 145-300 H.P.	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1976-80	Camaro, Nova(1976-79)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1995	Camaro	<b>EMG184</b>	(R.)w/AIR pipe fitting front of manifold,w/heat shield
		1970-75	Chevelle,El Camino,Monte Carlo,Nova,Sprint	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1976-77	Chevelle,El Camino,Monte Carlo,Nova,Sprint	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1969	Corvette	<b>EMG201</b>	(Left)center dump w/side alt.bracket,w/or w/o A.I.R
				<b>EMG159</b>	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
		1970-71	Corvette 330 & 370 H.P.	<b>EMG201</b>	(Left)center dump w/side alt.bracket,w/or w/o A.I.R
		1970-71	Corvette 270, 300, & 350 H.P.	<b>EMG160</b>	(Left)center dump w/front alt. bracket,w/or w/o AIR
1972-80	Corvette	<b>EMG159</b>	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.		
1978	El Camino, Sprint	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange		
1978-80	El Camino, Full Size Sedan, Malibu (gas)	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange		
1969-70	Full Size Sedan & Wagon	<b>EMG166</b>	(Left) angle back center dump w/or w/o A.I.R.		
		<b>EMG159</b>	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.		
1971-75	Full Size Sedan & Wagon	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange		
		<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange		
1976-79	Full Size Sedan & Wagon	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange		
		<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange		
1981-86	Full Size Sedan & Wagon excluding Diesel	<b>EMG197</b>	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield		
1994-95	Full Size Sedan & Wagon	<b>EMG184</b>	(R.)w/AIR pipe fitting front of manifold,w/heat shield		
6.6L/396-402	V8	1966-72	Chevelle, El Camino, Full Size Sedan/Wagon, Monte Carlo, Nova, Sprint, Camaro(1967-72)	<b>EMG164</b>	(Right) w/or w/o A.I.R. in top of ports
6.6L/400SB	V8	1971-75	Chevelle,El Camino,Full Size Sedan/Wagon, Monte Carlo, Sprint	<b>EMG182</b>	(Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1976	Chevelle,El Camino,Full Size Sedan/Wagon, Monte Carlo(1976-77), Sprint	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange		
7.2L/427	V8	1968-69	Full Size Sedan & Wagon	<b>EMG164</b>	(Right) w/or w/o A.I.R. in top of ports
7.4L/454	V8	1970-76	Chevelle, El Camino, Full Size Sedan/Wagon, Monte Carlo, Sprint	<b>EMG164</b>	(Right) w/or w/o A.I.R. in top of ports

## Geo

1.6L/1587cc	L4	1989-97	Prizm (Toyota motor) SOHC	<b>EMT204</b>	w/heat shield, oxygen sensor in exhaust pipe
1.6L/1588cc	L4	1990-93	Storm (Isuzu motor) SOHC	<b>EMG203</b>	

## Oldsmobile

2.0L/122	L4	1985-86	Firenza	<b>EMG178</b>	Tubular design w/heat shield
2.5L/151	L4	1983-92	Calais, Ciera, Omega	<b>EMG176</b>	Tubular design w/heat shield
3.1L/189	V6	1993-96	Ciera, Cutlass (Chevy engine)	<b>EMG228</b>	(Rear) Tubular design w/heat shield
3.3L/204	V6	1989-93	Achieva, Calais, Ciera (Buick engine)	<b>EMG230</b>	(Rear) Tubular design w/heat shield
4.3L/262	V6	1991-94	Bravada	<b>EMG185</b>	(Left) w/heat pipe
				<b>EMG186</b>	(Right)
4.5L/267	V8	1996-01	Bravada	<b>EMG188</b>	(Left)Cast Iron w/heat shield & EGR prov.,w/o AIR
		1981-82	Cutlass	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
5.0L/305	V8	1978-86	Cutlass (Chevy engine)	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
		1977-79	Omega (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.7L/350	V8	1978-79	Cutlass,Full Size Sedans/Wagon(Chev. eng.)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1977-79	Omega (Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978-79	Cutlass (Chevy engine)	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange





# Exhaust Manifolds

## GM Passenger Cars

Liter/CI	Eng.	Year	Application (Reference Only)	Part#	Comments
<b>Pontiac</b>					
2.0L/122	L4	1985-89	Grand Am, Sunbird	<b>EMG178</b>	Tubular design w/heat shield
		1987-90	Sunbird, w/turbo	<b>EMG177</b>	Cast Iron
2.5L/151	L4	1983-91	6000, Fiero, Firebird, Grand Am, Phoenix	<b>EMG176</b>	Tubular design w/heat shield
3.1L/189	V6	1994-96	Grand Prix (Chevy engine)	<b>EMG228</b>	(Rear) Tubular design w/heat shield
3.3L/204	V6	1992-93	Grand Am (Buick engine)	<b>EMG230</b>	(Rear) Tubular design w/heat shield
4.5L/267	V8	1981-82	Grand Prix, LeMans, Full Size Sedan	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
		1977	Full Size Sedan & Wagon, LeMans, Ventura (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.0L/305	V8	1977-81	Firebird, Phoenix (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978-86	Full Size Sedan, Grand Prix, LeMans	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
5.0L/307	V8	1971-72	Ventura (Chevy engine)	<b>EMG182</b>	(Left)w/or w/o A.I.R. & oxygen sensor, 3-stud flange
				<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
5.7L/350	V8	1977-79	Phoenix, Ventura (Chevy engine)	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1978-79	Firebird, LeMans (Chevy engine)	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1978	Lemans	<b>EMG255</b>	(Right) Cast Iron w/heat stove 3-bolt flange
		1995	Firebird	<b>EMG184</b>	(R.)w/AIR pipe fitting front of manifold,w/heat shield

## GM Trucks

2.5L/151	L4	1985-90	Astro, Safari Mini Vans	<b>EMG176</b>	Tubular design w/heat shield
		1985-93	S/T-series compact Truck, Blazer, Jimmy	<b>EMG175</b>	Tubular design w/heat shield
4.1L/250	L6	1979-84	G-series Van, Cab & Chasis, Blazer, C/K Truck, Jimmy, Suburban	<b>EMG246</b>	Cast Iron, dual outlet exhaust dump
		1996-01	Astro, Safari Mini Vans	<b>EMG192</b>	(Left) Cast Iron, w/EGR provision at rear port
		2002	Astro, Safari Mini Vans	<b>EMG187</b>	(Right)Cast Iron, w/o EGR or oxygen sensor prov.
		1996	Express/Savana Full Size Van	<b>EMG192</b>	(Left) Cast Iron, w/EGR provision at rear port
		1995	G-series Van, Cab & Chasis w/4L60E auto transmission	<b>EMG190</b>	(L.)Cast Iron,w/EGR & oxy.sens.hole,w/heat shield
				<b>EMG189</b>	(Right)Cast Iron,w/EGR hole prov., w/heat shield
		1997-02	G-series Van, Cab & Chasis	<b>EMG192</b>	(Left) Cast Iron, w/EGR provision at rear port
4.3L/262	V6	1988-95	S/T-series compact Truck, Blazer, Jimmy	<b>EMG185</b>	(Left) Cast Iron w/heat shield & stove pipe
				<b>EMG186</b>	(Right) Cast Iron
		1996-01	S/T-series compact Truck, Blazer, Jimmy	<b>EMG188</b>	(Left)Cast Iron w/heat shield & EGR prov.,w/o AIR
				<b>EMG187</b>	(Right)Cast Iron, w/o EGR or oxygen sensor prov.
		2002	S/T-series compact Truck, Blazer, Jimmy	<b>EMG187</b>	(Right)Cast Iron, w/o EGR or oxygen sensor prov.
		1988-95	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, Tahoe, Yukon	<b>EMG190</b>	(L.)Cast Iron,w/EGR & oxy.sens.hole,w/heat shield
				<b>EMG189</b>	(Right)Cast Iron,w/EGR hole prov., w/heat shield
4.6L/283	V8	1965-68	Blazer, Jimmy, Truck, Suburban	<b>EMG192</b>	(Left) Cast Iron, w/EGR provision at rear port
				<b>EMG191</b>	(Right) Cast Iron
				<b>EMG160</b>	(Left)center dump w/front alt. bracket,w/or w/o AIR
				<b>EMG166</b>	(Left) angle back center dump w/or w/o A.I.R.
				<b>EMG201</b>	(Left)center dump w/side alt.bracket,w/or w/o A.I.R.
				<b>EMG159</b>	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
				<b>EMG167</b>	(R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.
		1996	Express/Savana Full Size Van	<b>EMG194</b>	(Left) w/EGR provision at rear port, w/heat shield
		1977-82	G-series Van, Cab & Chasis	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1983-86	G-series Van, Cab & Chasis	<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
5.0L/305	V8	1981-86	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	<b>EMG180</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				<b>EMG200</b>	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange
				<b>EMG199</b>	(Right)w/heat shield & EGR provision,3-stud flange
		1995	G-series Van, Cab & Chasis	<b>EMG163</b>	(L.)w/or w/o oxy.sensor or EGR prov,w/heat shield
		1997-00	G-series Van, Cab & Chasis	<b>EMG162</b>	(Right) w/or w/o EGR provision, w/heat shield
		1977-80	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	<b>EMG194</b>	(Left) w/EGR provision at rear port, w/heat shield
				<b>EMG179</b>	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
1981-86	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	<b>EMG183</b>	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange		
		<b>EMG197</b>	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield		
		<b>EMG198</b>	(Right) w/or w/o one E.G.R. hole, 3-stud flange		
		<b>EMG195</b>	(Left) w/or w/o oxygen sensor & EGR hole provisions, male dump, 3-stud flange		
		<b>EMG161</b>	(Right) w/or w/o one EGR hole provision, w/heat shield, male dump, 3-stud flange		
1988-95	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, Tahoe, Yukon	<b>EMG163</b>	(L.)w/or w/o oxy.sensor or EGR prov,w/heat shield		
		<b>EMG162</b>	(Right) w/or w/o EGR provision, w/heat shield		
1996-99	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, Tahoe, Yukon	<b>EMG194</b>	(Left) w/EGR provision at rear port, w/heat shield		
		<b>EMG193</b>	(Right) Cast Iron		

# Exhaust Manifolds



## GM Trucks

Liter/Ci	Eng.	Year	Application (Reference Only)	Part#	Comments
5.0L/307	V8	1968-72	Blazer, Jimmy, Truck, Suburban	EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
				EMG160	(Left)center dump w/front alt. bracket,w/or w/o AIR
		1971-73	G-series Van, Cab & Chasis	EMG166	(Left) angle back center dump w/or w/o A.I.R.
				EMG201	(Left)center dump w/side alt.bracket,w/or w/o A.I.R
				EMG167	(R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.
				EMG182	(Left)w/or w/o A.I.R.&oxygen sensor, 3-stud flange
				EMG182	(Left)w/or w/o A.I.R.&oxygen sensor, 3-stud flange
				EMG183	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				EMG182	(Left)w/or w/o A.I.R.&oxygen sensor, 3-stud flange
				EMG183	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
5.4L/327	V8	1965-68	Blazer, Jimmy, Truck, Suburban	EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
				EMG160	(Left)center dump w/front alt. bracket,w/or w/o AIR
		1969-72	P-Series Truck, Motorhome, Step Van	EMG166	(Left) angle back center dump w/or w/o A.I.R.
				EMG167	(R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.
		1969-72	Blazer, Jimmy, Truck, Suburban	EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
				EMG166	(Left) angle back center dump w/or w/o A.I.R.
		1996	Express/Savana Full Size Van	EMG167	(R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.
				EMG194	(Left) w/EGR provision at rear port, w/heat shield
		1983-90	Forward Control Cab Medium Duty	EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.
				EMG200	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange
1989-93	Forward Control Cab Medium Duty	EMG199	(Right)w/heat shield & EGR provision,3-stud flange		
		EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.		
5.7L/350	V8	1967-70	G-series Van, Cab & Chasis	EMG160	(Left)center dump w/front alt. bracket,w/or w/o AIR
				EMG201	(Left)center dump w/side alt.bracket,w/or w/o A.I.R
		1971-76	G-series Van, Cab & Chasis	EMG182	(Left)w/or w/o A.I.R.&oxygen sensor, 3-stud flange
				EMG179	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1977-84	G-series Van, Cab & Chasis	EMG180	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				EMG179	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1983-84	G-series Van, Cab & Chasis (non LPG)	EMG180	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				EMG180	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1985-87	G-series Van, Cab & Chasis (Engine M,K,L)	EMG200	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange
				EMG199	(Right)w/heat shield & EGR provision,3-stud flange
		1987-94	G-series Van, Cab & Chasis w/700R4, 4L60E, 4L80E auto transmissions	EMG162	(Right) w/or w/o EGR provision, w/heat shield
				EMG200	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange
		1995	G-series Van, Cab & Chasis w/4L60E(A.Trans)	EMG199	(Right)w/heat shield & EGR provision,3-stud flange
				EMG199	(Right)w/heat shield & EGR provision,3-stud flange
1996	G-series Van, Cab & Chasis	EMG200	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange		
		EMG194	(Left) w/EGR provision at rear port, w/heat shield		
1997-02	G-series Van, Cab & Chasis	EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.		
		EMG159	(Right&Left)Cast Iron, center dump w/or w/o A.I.R.		
5.7L/350	V8	1969-72	P-Series Truck, Motorhome, Step Van	EMG166	(Left) angle back center dump w/or w/o A.I.R.
				EMG167	(R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.
		1973-87	P-Series Truck, Motorhome, Step Van (1987 Engine code M )	EMG182	(Left)w/or w/o AIR or oxygen sensor, 3-stud flange
				EMG179	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				EMG183	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1987-90	P-Series Truck, Motorhome, Step Van (1987-88 Engine code K)	EMG200	(Left)w/oxy.sensor & EGR hole prov.,3-stud flange
				EMG199	(Right)w/heat shield & EGR provision,3-stud flange
		1973-81	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	EMG182	(Left)w/or w/o AIR or oxygen sensor, 3-stud flange
				EMG179	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
		1981-82	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, (Engine VIN code L)	EMG183	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
				EMG197	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield
		1982	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, (Engine VIN code M)	EMG179	(Left)w/or w/o AIR or oxy.sensor,3-stud male flange
				EMG183	(Right)w/or w/o A.I.R., w/heat shield, 3-stud flange
		1983-84	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	EMG197	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield
EMG198	(Right) w/or w/o one E.G.R. hole, 3-stud flange				
1985-86	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, (Engine VIN code L)	EMG197	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield		
		EMG197	(Right)3-bolt dump,w/or w/o A.I.R., has heat shield		
1985-86	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, (Engine VIN code M)	EMG163	(L.)w/or w/o oxy.sensor or EGR prov,w/heat shield		
		EMG162	(Right) w/or w/o EGR provision, w/heat shield		
1988-95	VIN C/K Trucks, Blazer, Jimmy, Suburban	EMG195	(Left) w/or w/o oxygen sensor & EGR hole provisions, male dump, 3-stud flange		
		EMG161	(Right) w/or w/o one EGR hole provision, w/heat shield, male dump, 3-stud flange		
1987-91	VIN R/V Trucks, Blazer, Jimmy, Suburban	EMG194	(Left) w/EGR provision at rear port, w/heat shield		
		EMG193	(Right) Cast Iron		
1996-00	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban, Tahoe, Yukon	EMG194	(Left) w/EGR provision at rear port, w/heat shield		
		EMG193	(Right) Cast Iron		



# Exhaust Manifolds

## GM Trucks

Liter/CI	Eng.	Year	Application (Reference Only)	Part#	Comments
6.0L/366	V8	1983-90	Forward Control Cab, Medium Duty	<b>EMG172</b> (Left) w/or w/o A.I.R. holes in top of ports	
				<b>EMG171</b> (Right) w/or w/o A.I.R. holes in top of ports	
		1991-00	Forward Control Cab, Medium Duty	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
		1978-90	Medium Duty Truck (incl. School Buses)	<b>EMG172</b> (Left) w/or w/o A.I.R. holes in top of ports	
6.5L/396-402	V8			<b>EMG171</b> (Right) w/or w/o A.I.R. holes in top of ports	
		1991-00	Medium Duty Truck, Kodiak, Topkick (incl. School Buses)	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
		1997-00	Tilt Cab Trucks Medium Duty	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
6.6L/400SB	V8	1968-69	Blazer, Jimmy, Truck, Suburban	<b>EMG164</b> (Right) w/or w/o A.I.R. in top of ports	
		1970-72	Blazer, Jimmy, Truck, Suburban	<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
				<b>EMG164</b> (Right) w/or w/o A.I.R. in top of ports	
		1975-80	G-series Van, Cab & Chasis	<b>EMG182</b> (Left)w/or w/o A.I.R.& oxygen sensor, 3-stud flange	
				<b>EMG179</b> (Left)w/or w/o AIR or oxy.sensor,3-stud male flange	
7.0L/427	V8	1969-72	P-Series Truck, Motorhome, Step Van	<b>EMG166</b> (Left) angle back center dump w/or w/o A.I.R.	
				<b>EMG167</b> (R.)Cast Iron,ctr.dump angle back,w/or w/o A.I.R.	
		1975-80	VIN C/K/R/V Trucks, Blazer, Jimmy, Suburban	<b>EMG182</b> (Left)w/or w/o AIR or oxygen sensor, 3-stud flange	
				<b>EMG179</b> (Left)w/or w/o AIR or oxy.sensor,3-stud male flange	
				<b>EMG183</b> (Right)w/or w/o A.I.R., w/heat shield, 3-stud flange	
7.4L/454	V8	1983-90	Forward Control Cab Medium Duty	<b>EMG172</b> (Left) w/or w/o A.I.R. holes in top of ports	
				<b>EMG171</b> (Right) w/or w/o A.I.R. holes in top of ports	
		1991-00	Forward Control Cab Medium Duty	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
		1978-90	Medium Duty Truck (incl. School Buses)	<b>EMG172</b> (Left) w/or w/o A.I.R. holes in top of ports	
7.4L/454	V8			<b>EMG171</b> (Right) w/or w/o A.I.R. holes in top of ports	
		1991-00	Medium Duty Truck, Kodiak, Topkick (incl. School Buses)	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
		1997-00	Tilt Cab Trucks Medium Duty	<b>EMG173</b> (Left)	
				<b>EMG174</b> (Right)	
7.4L/454	V8	1989-91	G-series Van, Cab & Chasis	<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
				<b>EMG170</b> (Right)w/or w/o A.I.R. hole provisions,w/heat shield	
		1973-87	P-Series Truck, Motorhome, Step Van	<b>EMG164</b> (Right) w/or w/o A.I.R. in top of ports	
				<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
				<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
7.4L/454	V8	1990-97	P-Series Truck, Motorhome, Step Van	<b>EMG170</b> (Right)w/or w/o A.I.R. hole provisions,w/heat shield	
				<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
		1973-86	Vin C/K Trucks,	<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
				<b>EMG164</b> (Right) w/or w/o A.I.R. in top of ports	
		1987-91	VIN R/V Trucks, Suburban	<b>EMG168</b> (Left)w/or w/o A.I.R. & oxy. sensor hole provisions	
7.4L/454	V8	1988-95	VIN C/K Trucks, Suburban, Tahoe, Yukon	<b>EMG170</b> (Right)w/or w/o A.I.R. hole provisions,w/heat shield	
				<b>EMG229</b> (Left)w/or w/o AIR or oxy.sensor hole w/heat shield	
				<b>EMG231</b> (Right) w/w/o A.I.R. hole provisions, w/heat shield	

## Import/Other

### Honda

1.6L/1590cc VTEC	L4	1997-98	Acura EL	<b>EMH220</b> Cast Iron, no pre-cat converter, w/heat shield	
		1992-95	Civic hatchback (3dr.), sedan (4dr)	<b>EMH220</b> Cast Iron, no pre-cat converter, w/heat shield	
		1993-95	Civic coupe (2dr)	<b>EMH220</b> Cast Iron, no pre-cat converter, w/heat shield	
		1996-98	Civic VTEC	<b>EMH220</b> Cast Iron, no pre-cat converter, w/heat shield	
		1993-97	Civic Del Sol	<b>EMH220</b> Cast Iron, no pre-cat converter, w/heat shield	

### Hyundai

1.5L/1468cc	L4	1990-92	Excel, Scoupe	<b>EMM111</b> Cast Iron	
		1993-94	Excel, Federal & Canadian emissions	<b>EMM111</b> Cast Iron	

### International

2.5L/152	L4	1965-68	Scout, non-turbo	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
3.3L/196	L4	1967-80	Scout	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
3.9L/232	L6	1969-72	Scout	<b>EMJ101</b> Cast Iron	
4.3L/258	L6	1969-74	Scout, Travelall, Truck	<b>EMJ101</b> Cast Iron	
4.4L/266	V8	1967-68	Scout	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
5.0L/304	V8	1965-80	Scout, Travelall, Truck	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
5.7L/345	V8	1965-83	Med. Duty Truck, Pick-up, Scout, Travelall	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
6.6L/392	V8	1965-75	Pick-up, Travelall	<b>EMI206</b> (L.&R.)w/or w/o EGR, 2-bolt flange, ctr.exh.dump	
		1965-83	Medium Duty Truck, Pick-up, Travelall	<b>EMI207</b> (L.&R.)w/or w/o EGR, 3-bolt flange, ctr.exh.dump	
6.6L/400	V8	1974	Travelall	<b>EMJ244</b> (Right) Cast Iron w/or w/o A.I.R.	
6.8L/404	V8	1975-83	All	<b>EMI208</b> (Left & Right) center exhaust dump, 2-bolt flange	
7.3L/446	V8	1975-83	All	<b>EMI208</b> (Left & Right) center exhaust dump, 2-bolt flange	



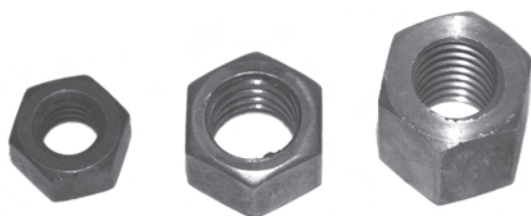
# Exhaust Manifolds



Import/Other		Eng.	Year	Application (Reference Only)	Part#	Comments
<b>Isuzu</b>						
1.5L/1471cc	L4	1987-89	I-Mark non-turbo	<b>EMG202</b>	Cast Iron	
1.6L/1588cc	L4	1991-93	Stylus	<b>EMG203</b>	Cast Iron	
2.6L/2559cc	L4	1988-92	Amigo, P'up, Rodeo, Trooper	<b>EMI209</b>	Cast Iron w/heat shield	
4.3L/262	V6	1997-00	Hombre	<b>EMG188</b>	(Left)Cast Iron w/heat shield & EGR prov., w/o AIR	
				<b>EMG187</b>	(Right)Cast Iron, w/o EGR or oxygen sensor prov.	
<b>Mazda</b>						
1.5L/1490cc	L4	1995-98	Protégé	<b>EMM212</b>	Cast Iron w/heat shield	
<b>Mitsubishi</b>						
		1987-89	Mirage	<b>EMD111</b>	Cast Iron	
		1991-92	Mirage	<b>EMD112</b>	Cast Iron	
1.5L/1468cc	L4	1993-94	Mirage (California/Federal engine)	<b>EMD222</b>	Cast Iron, w/heat shields, w/oxygen sensor prov.	
		1995-96	Mirage (Federal engine emissions)	<b>EMD222</b>	Cast Iron, w/heat shields, w/oxygen sensor prov.	
		1990-94	Precis	<b>EMD111</b>	Cast Iron	
<b>Nissan</b>						
1.6L/1597cc	L4	1987-88	Pulsar, Sentra	<b>EMN213</b>	Cast Iron	
2.2L/2187cc	L4	1981-83	Pick-up	<b>EMN214</b>	Cast Iron w/four EGR provisions, can be plugged.	
		1983	200SX	<b>EMN214</b>	Cast Iron w/four EGR provisions, can be plugged.	
2.4L/2389cc	L4	1984-89	D21, Pathfinder, Pick-up, Van	<b>EMN214</b>	Cast Iron w/four EGR provisions, can be plugged.	
3.0L/2960cc	L4	1989-94	Maxima	<b>EMN216</b>	(Rear) Tubular design w/heat shield	
		1986-97	D21, Pathfinder, Pick-up	<b>EMN215</b>	(Rear) Cast Iron w/heat shield	
<b>Toyota</b>						
		1990-93	Celica	<b>EMT219</b>	Cast Iron w/ dual exhaust dump outlet	
1.6L/1587cc	L4	1990-93	Celica, (California emission)	<b>EMT204</b>	Cast Iron w/heat shield, oxygen sensor in exh.pipe	
		1988-89	Corolla	<b>EMT218</b>	Cast Iron w/oxygen sensor provision in manifold	
		1990-97	Corolla	<b>EMT204</b>	Cast Iron w/heat shield, oxygen sensor in exh.pipe	
1.7L/1762cc	L4	1996-97	Celica (ST)	<b>EMT204</b>	Cast Iron w/heat shield, oxygen sensor in exh.pipe	
		1993-97	Corolla	<b>EMT204</b>	Cast Iron w/heat shield, oxygen sensor in exh.pipe	
2.4L/2366cc	L4	1981-83	Celica, Corona, Pick-up (22R)	<b>EMT226</b>	Cast Iron w/front heat shield, universal	
		1984	4 Runner, Pick-up non-turbo (22R)	<b>EMT226</b>	Cast Iron w/front heat shield, universal	
		1985	Celica (22REC)	<b>EMT226</b>	Cast Iron w/front heat shield, universal	
		1985-95	4 Runner, Pick-up non-turbo (22REC)	<b>EMT226</b>	Cast Iron w/front heat shield, universal	

## Manifold Studs

Size	Application	Part #
5/16 x 18-24 x 1.88	225 Slant 6 Dodge	<b>6403</b>
3/8 x 16 x 1-1/2	AMC	<b>6408</b>
3/8 x 16 x 2-1/4	GM	<b>6410</b>
3/8 x 16 x 50mm	GM	<b>6412</b>
7/16 x 14 x 2-9/16	Ford, Chrysler	<b>6414</b>
7/16 x 14 x 4	Ford	<b>6416</b>
M8 x 1.25 x 47mm	Datsun, VW, Honda	<b>6400</b>
M8x1.25x1.25x52.7mm	3.0L Chry./Mitsu."Intake"	<b>6417</b>
M10 x 1.25 x 44mm	Toyota	<b>6427</b>
M10 x 1.25 x 50mm	Honda Accord, & Toyota	<b>6402</b>
M10 x 1.25 x 54mm	Toyota	<b>6423</b>
M10 x 1.50 x 50mm	Mazda	<b>6404</b>
M12 x 1.75 x 63mm	Ford	<b>6406</b>
5/16-18 x 5/16-24	Water Pump Stud	<b>6430</b>



## Standard Manifold Nuts

Size	Description	Part #
5/16-18 1/2 Hex	USS Coarse Thread	<b>6420</b>
3/8-16 9/16 Hex	USS Coarse Thread	<b>6422</b>
7/16-14 5/8 Hex	USS Coarse Thread	<b>6424</b>

## Brass Manifold Nuts

Size	Description	Part#
3/16-16 9/16 Hex	USS Coarse Thread	<b>6426</b>
7/16-14 5/8" Hex	USS Coarse Thread	<b>6428</b>



# Exhaust Manifolds

## Exhaust Manifold (Part #EMD100 - EMF133)

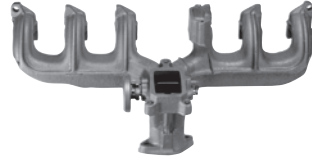
**EMD100**



**EMD102**



**EMD105**



**EMD106**



**EMD107**



**EMD108**



**EMD109**



**EMD111**



**EMD112**



**EMD222**



**EMD225**



**EMD227**



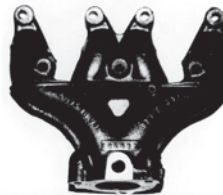
**EMD232**



**EMD245**



**EMF115**



**EMF116**



**EMF117**



**EMF118**



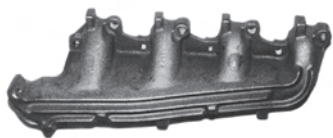
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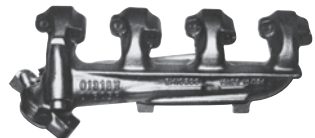
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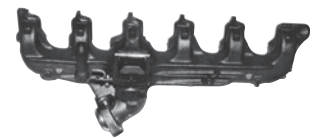
**EMF121**



**EMF122**



**EMF123**



**EMF124**



**EMF125**



**EMF126**



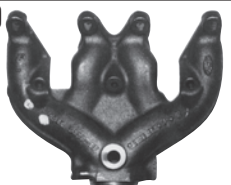
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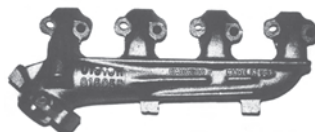
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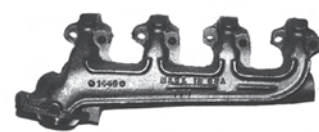
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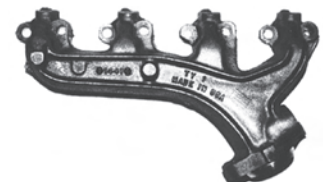
**EMF130**



**EMF132**



**EMF133**



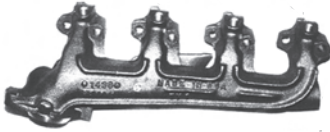


# Exhaust Manifolds

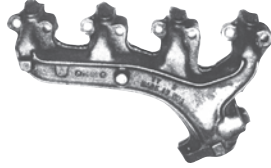


## Exhaust Manifold (Part #EMF134 - EMG168)

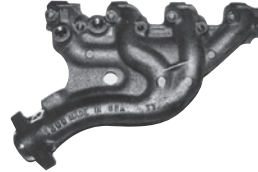
**EMF134**



**EMF135**



**EMF136**



**EMF138**



**EMF139**



**EMF143**



**EMF144**



**EMF145**



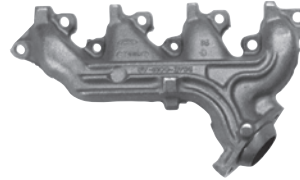
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**EMF147**



**EMF148**



**EMF149**



**EMF150**



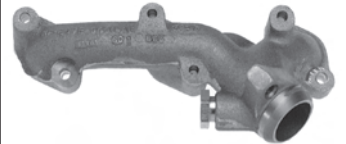
**EMF151**



**EMF152**



**EMF153**



**EMF154**



**EMF155**



**EMF157**



**EMF158**



**EMF233**



**EMF235**



**EMF236**



**EMG159**



**EMG160**



Includes alternator adaptor bracket

**EMG161**



**EMG162**



**EMG163**



**EMG164**



**EMG166**



**EMG167**



**EMG168**



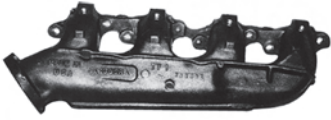




# Exhaust Manifolds

## Exhaust Manifold (Part #EMG170 - EMG203)

**EMG170**



**EMG171**



**EMG172**



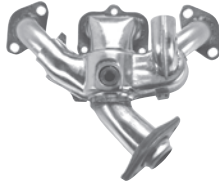
**EMG173**



**EMG174**



**EMG175**



**EMG176**



**EMG177**



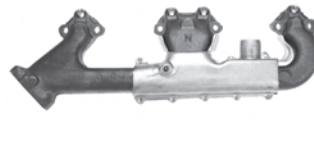
**EMG178**



**EMG179**



**EMG180**



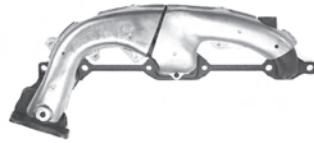
**EMG182**



**EMG183**



**EMG184**



**EMG185**



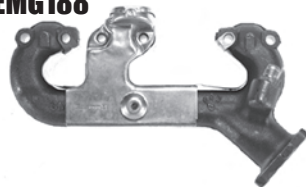
**EMG186**



**EMG187**



**EMG188**



**EMG189**



**EMG190**



**EMG191**



**EMG192**



**EMG193**



**EMG194**



**EMG195**



**EMG197**



**EMG198**



**EMG199**



**EMG200**



**EMG201**

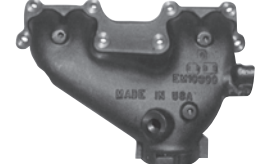


Includes alternator adaptor bracket

**EMG202**



**EMG203**



# Exhaust Manifolds

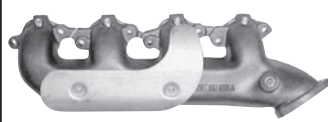


## Exhaust Manifold (Part #EMG228 - EMT226)

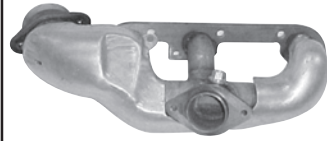
**EMG228**



**EMG229**



**EMG230**



**EMG231**



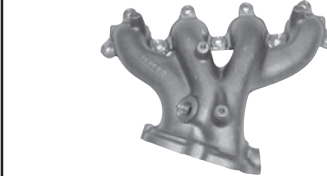
**EMG246**



**EMG255**



**EMH220**



**EMI206**



**EMI207**



**EMI208**



**EMI209**



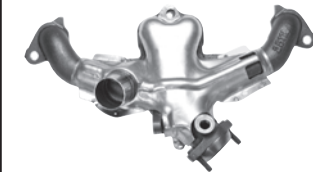
**EMJ101**



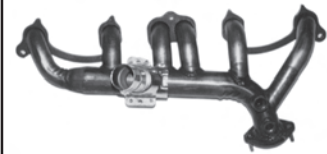
**EMJ103**



**EMJ104**



**EMJ210**



**EMJ211**



**EMJ244**



**EMM212**



**EMN213**



**EMN214**



**EMN215**



**EMN216**



**EMT204**



**EMT218**



**EMT219**



**EMT226**





# O.H.C. Align Bore System

## QUICK-BORE®

### Quick - Easy - Economical

"Quick-Drive" Three-Sided Drill Chuck Adaptor Drive End provides fast on/off release from 1/2" drill motor.  
Part# BTO875T

Align bore aluminum O.H.C. cylinder heads simply and inexpensively. Over one thousand shops big and small now enjoy quick, accurate, high profit rebuilds with this system. **Complete job - setup, align bore, install bearings - in less than 15 minutes!**

Cutter/Reamer No guess work or need to use special micrometers. Special fixed 3 angle cutters require only light pressure (push or pull) to feed cutter through journal bore.

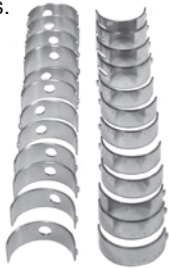
Oversized Bushings provide faster set up time when installing inserts. Oversize bushings eliminate the need to install bearing before continuing line boring operation. Bushings are sized to cutter. Specify BTB and cutter size.  
(Example: BTB14225 for use with BTC14225 Mitsubishi Cutter)

Precision ground and Hardened Drive Bars have replaceable "Quick Drive" bar ends that come with the bar. Bar length is designed for cutting of multi-journals.

Quick Hex Drive Drill Chuck Adaptor  
Part# BTO875H

5/8" Bar Part# BTO6250  
7/8" Bar Part# BTO8750

Our steel backed babbitted OHC journal bearings are stronger and more forgiving than aluminum type bearings.



## Over Fifteen Years Experience Solving Your Overhead Cam Align-Bore Problems!

### No Need To Buy A New Cam!

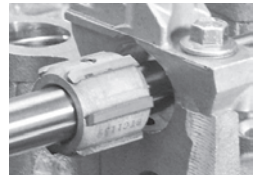
#### Use our .020" Undersized O.H.C. Half Shell Journal Bearings

Regrind old cam to .020" under (.010" off cam journals), align bore head using the same Quick-Bore® cutter and bushings (see page 198-199) as with standard bearings, install undersize bearings and undersize cam.

<b>Chrysler (81-Up)</b> (2.2L, 2.5L)	<b>SPDA1U</b>
<b>Ford (91-Up)</b> (4.6L V8 SOHC)	<b>SFA3U</b>
<b>Honda Accord/Prelude (83-90)</b> (12 Valve 1.3L, 1.5L, 1.8L, 2.0L)	<b>SHA1U</b>
<b>Honda Civic/CXR (84-87)</b> (12 Valve 1.3L, 1.5L)	<b>SHA2U</b>
<b>Isuzu (81-92 Mits. Eng.)</b> (1.8L, 2.0L, 2.3L, 2.6L)	<b>SMIA1U</b>
<b>Mazda/Ford (83-Up)</b> (2.0L, FE, 2.2L)	<b>SMZA2U</b>
<b>Mitsubishi (83-Up)</b> (1.6L, 1.8L, 2.4L, 2.6L)	<b>SMIA1U</b>
<b>Mitsubishi (78-Up)</b> (3.0L V6 SOHC)	<b>SMIA5U</b>
<b>Nissan (87-Up)</b> 2.0L, 2.2L, 2.4L (Z20, Z22, Z24)	<b>SNIA6U</b>
<b>Toyota (74-Up)</b> (2.2L, 20R, 2.4L, 22R, 22REC)	<b>STOA1U</b>

#### Fixed Cutter Reamer

Fixed cutter/reamer has 3 angles which cut and ream in one pass. Cutter can be pushed or pulled through journal. OE standard size cutters, oversized and special cutters available!



#### Alignment Bushing

Precision ground, tapered bushings provide quick & easy alignment for a perfect job every time.



#### Offset Bushing

(+/- .005) Available to raise or lower center line of cam, or when cutting caps and standard cutter is used, specify **OS** after bushing number.

#### Oversize Bushings

Available for faster set up. Eliminate the need to install bearings before continuing align bore operation. Specify BTB and cutter number.  
(Example: BTB11474 for use with BTC11474 cutter.)

#### Bearing Tang Cutters

Designed to fit over the cylinder head and cap dowels to accurately align and cut bearing tang grooves using a flute carbide end mill supplied with jig.





# O.H.C. Align Bore Package



## Quick-Bore® - Part# QB1001

### Machine Shop Standard Package

Save 10% off regular price when you order Standard Package! Covers 19 of the most popular aluminum OHC cylinder head applications for Chrysler, Ford, Isuzu, Mitsubishi, Nissan and Toyota. Includes 4 journal repair bearing cutters, 4 OE journal cutters, 8 drive bar alignment bushings, 5/8" & 7/8" drive bars, and Quick-Bore® Work Center Cabinet. **Also includes FREE!** Allen wrenches for cutter set screws, parts cleaning brush, dead blow hammer, and cutting fluid concentrate.

#### Applications Covered in QB1001 Package

<b>Chrysler</b> 2.2L, 2.5L
<b>Ford</b> 4.6L SOHC, DOHC
<b>Isuzu</b> 1.8L, 2.0L, 2.3L, 2.6L
<b>Mitsubishi</b> 1.6L, 1.8L, 2.0L, 2.2L, 2.4L, 2.6L, 3.0L V6 SOHC
<b>Nissan</b> 2.0L, 2.2L, 2.4L, Z/22, 24, 28
<b>Toyota</b> 2.2L 20R, 2.4L 22R, 3.0L SOHC

#### Part #s Included in QB1001 Package\*

Bearing Cutters	Alignment Bushings	Tang Cutters
BTC14819	BTB13779 (2)	TC104S
BTC14225	BTB13385 (2)	TC100S
BTC13841	BTB13001 (2)	TC102S
BTC11474	BTB1063 (2)	TC105S
OE Cutters	Drive Bars	Work Center Cabinet
BTC1376	BTO8750 (7/8")	QB1000
BTC1336	BTO6250 (5/8")	
BTC1299		
BTC1339		

## Quick-Bore® Work Center Included In Package Above

**QB1000 Work Center Cabinet** is easy to set up! Made of heavy 18 gauge metal with powered metal painted surface. Bench Cabinet. Size: 32" W x 21" D

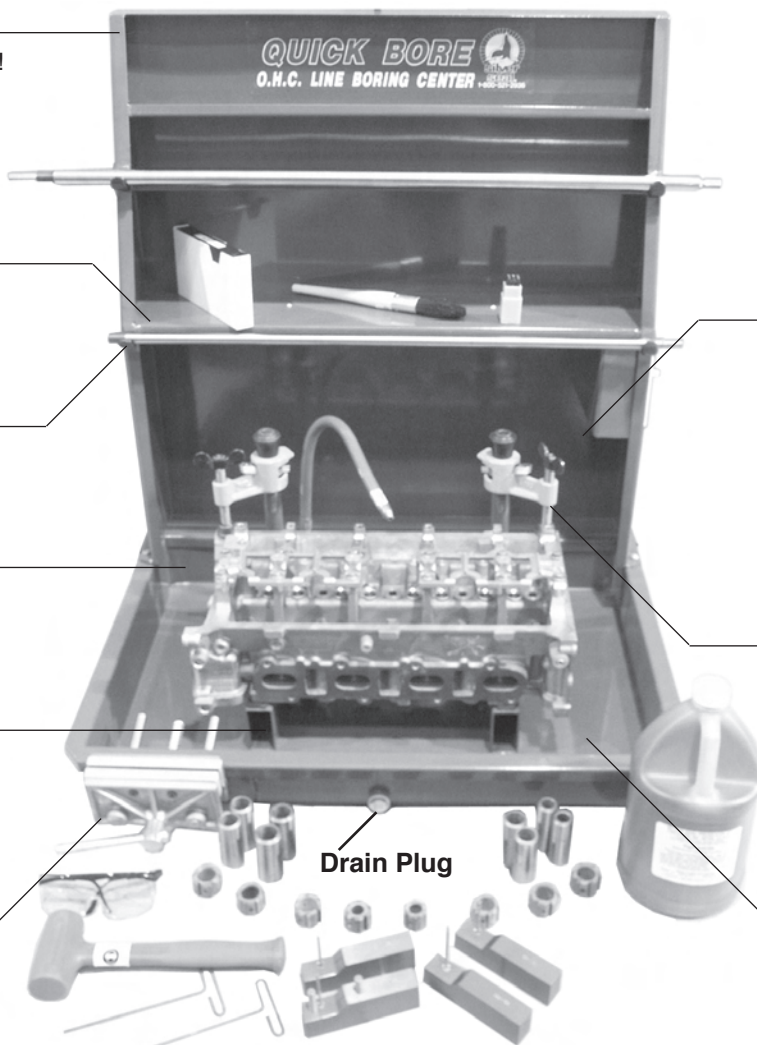
**Storage shelves** accommodate storage of cutter/reamers, bushings, bearings, and accessories.

**Bar hooks** provide storage for both 5/8" BTO6250 (30") and 7/8" BTO8750 (36") drive bars.

**Cutting fluid pump** has extra long, flexible fluid hose with adjustable flow control valve.

**Natural rubber pads** provide a resting place for cylinder head to prevent damaging head gasket surface.

**Aluminum jaw vice** holds journal cap secure when cutting tang or filing.



#### Accessories.

Work Center includes 2 T-handle Allen wrenches for cutters, 1 parts cleaning brush, 1 dead blow hammer (21 oz) and 1 quart aluminum cutting fluid (dilute 20:1)

**Lighted work area.** 24" fluorescent light with safety acrylic diffuser and on/ off switch.

**Protection.** Double GFI receptacle allows you to plug in an electric drill right at the Work Center.

**Fully adjustable clamping system.** Side rails, combined with a rotating ACME screw clamp, hold the cylinder head secure. Allows fast setup and disassembly of jobs.

**Cutting fluid reservoir** holds three gallons of aluminum cutting fluid.

\*Pick and choose the components to customize a system that fits your needs. All cutters, bushings, drive bars, and work center can be sold separately to design the system that works for you.



# O.H.C. Align Bore Applications

Popular OHC Application (When ordering, refer to Cam Diameter if model application is not shown)		Year	Cam Dia.	Bearing Set Part # (Cam position)	Bearing Cutter Part #	Alignment Bushing Part # (Qty. Req.)	Tang Cutter Part #	O.E. Cutter Part #	O.E. Alignment Bushing Part # (Qty. Req.)
<b>ACURA (5 Cyl.)</b>									
2.5L (G25A1, G25A4 SOHC)	1992-98	1.1000	•SHA5	BTC11855*	BTB1102(2)	N/A	BTC11010*	BTB1102(2)	
<b>CHEVROLET (4 Cyl.)</b>									
1.5L	1985-89	1.0215	•SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
1.6L (SOHC/DOHC)	1985-88	1.1025	N/A	N/A	N/A	N/A	BTC11025*	BTB1104(2)	
<b>CHRYSLER (4 Cyl.)</b>									
1.4L (SOHC Mitsubishi Engine)	1979-84	1.8100	SMIA3	BTC18918^	BTB18118(2)	TC100S	BTC18100^	BTB18118(2)	
1.5L (SOHC Mitsubishi Engine)	1985-96	1.8100	SMIA3	BTC18918^	BTB18118(2)	TC100S	BTC18100^	BTB18118(2)	
2.2L, 2.5L (SOHC)	1981-96	1.3760	•SPDA1	BTC14819^	BTB13779(2)	TC104S	BTC1376^	BTB13779(2)	
2.4L, 2.6L (SOHC Mitsubishi Engine)	1989-98	1.3360	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1336^	BTB13385(2)	
Heavy wall bearing appl. (.020 OS)		1.3360	•SMIA2	BTC14971^	BTB13385(2)	N/A	N/A	N/A	
<b>DODGE (4 Cyl.)</b>									
2.0L (DOHC)	1989-Up	1.0220	•SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
<b>FORD</b>									
1.6L (HS SOHC)	1981-85	1.7610	SFA2						
			SFA2-1(1)	BTC18435^	BTB22055(1)				
			SFA2-2(2)	BTC18535^	BTB1792(1)				
			SFA2-3(3)	BTC18635^	BTB1883(1)				
			SFA2-4(4)	BTC18735^					
			SFA2-5(5)	BTC18835^	BTB18025(1)				
1.6L (B6), 1.8L (BP) (Mazda Eng.)	1987-96	1.7100	SMZA1	BTC17931^	BTB17131(2)	N/A	BTC1710^	BTB17131(2)	
1.8L (DOHC Mazda Engine)	1991-Up	1.0215	SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
1.9L (J, 9 SOHC)	1985-96	1.8007	SFA1						
			SFA1-1(1)	BTC19035^	BTB18870(1)				
			SFA1-2(2)	BTC18985^	BTB18020(1)				
			SFA1-3(3)	BTC18935^	BTB22055(1)				
			SFA1-4(4)	BTC18885^					
			SFA1-5(5)	BTC18835^					
2.0L SOHC/DOHC, 2.2L SOHC (Mazda)	1984-97	1.2585	•SMZA2	BTC13439^	BTB12599(2)	N/A	BTC1257^	BTB12599(2)	
3.0L (SOHC, V6 Nissan/Ford Eng.)	1993-98	1.8866	SNIA3L(Left)						
			SNIA2-1 (1,2,3)	BTC19309^	BTB18509(2)				
			SNIA3-2(4)	BTC17538^	BTB16737(1)				
			SNIA3R(Right)						
			SNIA3-1(1)	BTC19702^	BTB18903(1)				
			SNIA2-1 (2,3,4)	BTC19309^	BTB18509(2)				
SNIA3-2(5)	BTC17538^	BTB16737(1)							
4.6L (V8, SOHC)	1991-99	1.0625	•SFA3	BTC11474*	BTB1063(2)	N/A	BTC10625*	BTB1063(2)	
4.6L (V8, DOHC)	1993-96	1.0625	•SFA4	BTC11474*	BTB1063(2)	N/A	BTC10625*	BTB1063(2)	
4.6L (V8, DOHC)	1996-Up	1.0625	•SFA5	BTC11474*	BTB1063(2)	N/A	BTC10625*	BTB1063(2)	
<b>GM (4 Cyl.)</b>									
1.6L (SOHC)	1972-82	1.3390	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1339^	BTB13385(2)	
Heavy wall bearing appl. (.020 OS)		1.3390	•SMIA2	BTC14971^	BTB13385(2)	N/A	N/A	N/A	
1.9L (DOHC)	1991-Up	1.1398	•SGMA2	BTC12655^	BTB11415(2)				
1.9L (SOHC Isuzu Engine)	1982-86	1.3390	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1339^	BTB13385(2)	
Heavy wall bearing appl. (.020 OS)		1.3390	•SMIA2	BTC14971^	BTB13385(2)	N/A	N/A	N/A	
<b>HONDA (4 Cyl.)</b>									
1.3L, 1.5L (SOHC)	1984-89	1.1395	•SHA2	BTC12655^	BTB11415(2)	TC101S	BTC1139*	BTB1142(2)	
1.6L (SOHC)	1992-95	1.1395	•SHA4	BTC12655^	BTB11415(2)	TC101S	BTC1139*	BTB1142(2)	
1.8L, 2.0L (SOHC)	1983-90	1.1395	•SHA1	BTC12655^	BTB11415(2)	TC103S	BTC1139*	BTB1142(2)	
2.0L	1990-Up	1.0615	N/A	N/A	N/A	N/A	BTC10615*	BTB1063(2)	
2.2L (SOHC F22A & B Series)	1990-97	1.1000	•SHA3	BTC11855*	BTB1102(2)	N/A	BTC11010*	BTB1102(2)	
2.2L	1991-93	1.0215	•SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
<b>HYUNDAI (4 Cyl.)</b>									
1.5L (Mitsubishi Engine)	1985-94	1.8100	SMIA3	BTC18918^	BTB18118(2)	TC100S	BTC18100^	BTB18118(2)	
1.6L (Mitsubishi Engine)	1985-90	1.3360	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1336^	BTB13385(2)	
Heavy wall bearing appl. (.020 OS)		1.3360	•SMIA2	BTC14971^	BTB13385(2)	N/A	N/A	N/A	

Legend: \*5/8" Drive Bar Req. (Part #BT06250) ^7/8" Drive Bar Required (Part #BT08750) •Half-Shell Bearings

NOTE: OE Cutters bring head cam journals back to OE standard, use only if replacement bearings are not intended.

# O.H.C. Align Bore Applications



Popular OHC Application (When ordering, refer to Cam Diameter if model application is not shown)		Year	Cam Dia.	Bearing Set Part # (Cam position)	Bearing Cutter Part #	Alignment Bushing Part # (Qty. Req.)	Tang Cutter Part #	O.E. Cutter Part #	O.E. Alignment Bushing Part # (Qty. Req.)
<b>INFINITI (6 Cyl.)</b>									
3.0L (SOHC VG30E)	1990-93	1.8866	SNIA3L(Left)						
			SNIA2-1 (1,2,3)	BTC19309^	BTB18509(2)				
			SNIA3-2(4)	BTC17538^	BTB16737(1)				
			SNIA3R(Right)						
			SNIA3-1(1)	BTC19702^	BTB18903(1)				
			SNIA2-1 (2,3,4)	BTC19309^	BTB18509(2)				
			SNIA3-2(5)	BTC17538^	BTB16737(1)				
<b>ISUZU (4 Cyl.)</b>									
1.8L, 2.0L, 2.3L, 2.6L	1969-97	1.3390	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1339^	BTB13385(2)	
3.2L (DOHC)	1992-Up	1.0615	N/A	N/A	N/A	N/A	BTC10615*	BTB1063(2)	
<b>MAZDA (4 Cyl.)</b>									
1.6L (B6), 1.8L (BP)	1986-94	1.7100	SMZA1	BTC17931^	BTB17131(2)	N/A	BTC1710^	BTB17131(2)	
1.8L (DOHC)	1991-Up	1.0215	•SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
2.0L (FE), 2.2L	1983-Up	1.2585	•SMZA2	BTC13439^	BTB12599(2)	N/A	BTC1257^	BTB12599(2)	
2.6L (G6) & (G80 SOHC)	1989-96	1.1790	•SMZA4	BTC12655^	BTB11815(2)	N/A	BTC1179*	BTB1182(2)	
<b>MITSUBISHI</b>									
1.2L, 1.4L, 1.4L, 1.5L	1983-96	1.8100	SMIA3	BTC18918^	BTB18118(2)	TC100S	BTC18100^	BTB18118(2)	
1.6L, 1.8L, 2.0L, 2.2L, 2.4L, 2.6L	1978-Up	1.3360	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1336^	BTB13385(2)	
Heavy wall bearing appl. (.020 OS)		1.3360	•SMIA2	BTC14971^	BTB13385(2)	N/A	N/A	N/A	
2.0L (SOHC G52B,4G52)	1973-88	1.3360	•SMIA4	BTC14225^	BTB13385(2)	TC100S	BTC1336^	BTB13385(2)	
3.0L (V6 SOHC)	1987-96	1.3360	•SMIA5	BTC14225^	BTB13385(2)	N/A	BTC1336^	BTB13385(2)	
<b>NISSAN (4 Cyl.)</b>									
1.3L (E13), 1.5L (E15), 1.6L (E16)	1979-90	1.6515	SNIA4	BTC17340^	BTB16540(2)	N/A	BTC16500^	BTB16540(2)	
1.6L (GA16I)	1989-90	1.6515	SNIA1	BTC17340^	BTB16540(2)	N/A	BTC16500^	BTB16540(2)	
1.8L (CA18), 2.0L (CA20)	1982-90	1.8090	SNIA5	BTC18914^	BTB18113(2)	N/A	BTC18100^	BTB18118(2)	
2.0L, 2.2L, 2.4L (Z20,22,24)	1979-89	1.2990	•SNIA6	BTC13841^	BTB13001(2)	TC105S	BTC1299^	BTB13001(2)	
3.0L (SOHC & DOHC)	1987-98	1.8866	SNIA3L(Left)						
			SNIA2-1 (1,2,3)	BTC19309^	BTB18509(2)				
			SNIA3-2(4)	BTC17538^	BTB16737(1)				
			SNIA3R(Right)						
			SNIA3-1(1)	BTC19702^	BTB18903(1)				
			SNIA2-1 (2,3,4)	BTC19309^	BTB18509(2)				
3.0L (SOHC)	1984-86	1.8472	SNIA3-2(5)	BTC17538^	BTB16737(1)				
			SNIA2L(left)	BTC19309^	BTB18509(2)				
			SNIA2R(right)	BTC19309^	BTB18509(2)				
<b>SATURN (4 Cyl.)</b>									
1.9L (DOHC)	1991-Up	1.1398	•SGMA2	BTC12655^	BTB11415(2)				
<b>TOYOTA (4 Cyl.)</b>									
2.2L (20R), 2.4L (22R)	1974-Up	1.2990	•STOA1	BTC13841^	BTB13001(2)	TC102S	BTC1299^	BTB13001(2)	
(2,3,4,AC)	1988-Up	1.1025	N/A	N/A	N/A	N/A	BTC11025*	BTB1104(2)	
3.0L (24V/DOHC)	1986	1.0615	N/A	N/A	N/A	N/A	BTC10615*	BTB1063(2)	
3.0L (SOHC)	1989-Up	1.3370	•SMIA1	BTC14225^	BTB13385(2)	TC100S	BTC1336^	BTB13385(2)	
<b>VOLVO (4 Cyl.)</b>									
2.1L, 2.3L	1976-Up	1.1790	•SVOA1	BTC12655^	BTB11815(2)	N/A	BTC1179*	BTB1182(2)	
<b>VOLKSWAGEN (INCLUDES AUDI)</b>									
(Water Cooled)		1.0215	•SEC144	BTC1113*	BTB10225(2)	N/A	BTC10215*	BTB10225(2)	
1.8L (SOHC)	1982-94	1.1070	•SVWA2	BTC11095^	BTB10225(2)	N/A	BTC11070*	BTB10225(2)	
2.0L, 2.1L, 2.2L, 2.3L (5 Cyl.)	1978-Up		1.2575	•SVWA1	BTC13439^	BTB12599(1)	N/A	BTC1256*	BTB12560(1)
			1.1795	•SVWA1	BTC12655^	BTB11815(2)	N/A	BTC1179*	BTB1182(1)

The cam in each of these engines has dual journal sizes as noted to the right. The cutters and bushings for both journal sizes must be used.

Legend: \*5/8" Drive Bar Req. (Part #BT06250) ^7/8" Drive Bar Required (Part #BT08750) •Half-Shell Bearings

**NOTE: OE Cutters bring head cam journals back to OE standard, use only if replacement bearings are not intended.**

## Replacement End Mill for Tang Cutters - Part #TCMILL

Cutters Available for Multiple Cam Journal Size Applications.

Call for Technical Assistance on These Applications:

Audi (5 Cyl.) 2.0L,2.2L,2.3L (78-Up); BMW (6 Cyl.) E Series (Belt Drive);

Ford Escort 1.6L (4 Cyl., 81-85); Ford Escort 1.9L (4 Cyl., 87-Up);

Nissan 3.0L VG30 E (6 Cyl., Right Back, 87-Up)

## We Have OHC (OE) Cutters Now Available For:

Chrysler 2.2L & 2.5L for +.020 Oversized Cam - Part #BTC1396

Ford 4.6L (V8) for +.020 Oversized Cam - Part #BTC10827

Mitsubishi/Eagle Talon 1.6L, 1.8L, & 2.0L - Part #BTC1113





# Cam Bearings

## Silver Seal Camshaft Bearing Sets

- **Twice the fatigue strength of standard bearings.**
- **All-round design eliminates bearing surface interruptions.**
- **Surface burnished to remove micro-fissures.**
- **Nearly 6 decades of U.S. manufacturing expertise.**



### A.M.C. - Jeep (Reference Only)

Liter/Cl	Cyl.	Year	Bearing Set #	Comments
2.46L/150	4	1983-98	SN7	Jeep, Eagle(88-89)
NEW		1999-01	SN10	Chrysler-Jeep Inline 4
2.5L/151	4	1980-83	SCH16	Pontiac "R" Engine
3.3L/199	6	1965-70	SN7	
3.8L/232	6	1964-79	SN7	
4.0L/242	6	1987-99	SN7	AMC-Jeep Engine
NEW		2001-Up	SN10	Chrysler-Jeep Inline 6
4.23L/258	6	1971-91	SN7	
4.7L/290	8	1966-69	SN9	
5.0L/304	8	1970-79	SN9	Jeep
5.6L/343	8	1967-69	SN9	
5.9L/360	8	1970-91	SN9	
6.4L/390	8	1968-70	SN9	Jeep
6.6L/401	8	1971-76	SN9	

### Chrysler - Dodge - Plymouth (Reference Only)

2.0L/1995cc	4	1974-82	SMIG2	Bal.Shaft Set (Mits.G52)
2.2L/135.1	4	1981-94	SPDG26	Bal.Shaft Set, A-F, J, K, 8
2.3L/2346cc	4	1983-86	SMIG2	Bal.Shaft Set, T-Diesel Mits.
2.46L/150	4	1983-98	SN7	Jeep, Eagle(88-89)
NEW		1999-01	SN10	Jeep Inline 4
2.6L/2555cc	4	1978-92	SMIG2	Bal.S. Set,Mits.G54B-F,W
2.8L/170	6	1960-71	SPD18	Slant 6 Engine
3.2L/198	6	1970-76	SPD18	Slant 6 Engine
3.3L/201	6	1990-99	SPD28	Eagle Concorde, Vision
		1979-87	SPD21	Slant 6 Eng.(late series)
3.7L/225	6	1960-78	SPD18	Slant 6 Eng.(early series)
3.8L/231	6	1991-99	SPD28	
3.9L/239	6	1986-99	SPD27	
4.0L/242	6	1987-99	SN7	AMC/Chrysler Eng.
NEW		2001-Up	SN10	Jeep Inline 6
4.5L/273	8	1962-69	SPD16	
			SPDP16	Hi-Performance Set
4.5L/277	8	1956-57	SPD16	
			SPDP16	Hi-Performance Set
4.9L/301	8	1957	SPD16	
			SPDP16	Hi-Performance Set
5.0L/303	8	1956-58	SPD16	Including Canadian Engine
			SPDP16	Hi-Performance Set
5.1L/313	8	1957-66	SPD16	Including Canadian Engine
			SPDP16	Hi-Performance Set
		1980-98	SPD25	
			SPDP25	Hi-Performance Set
5.2L/318	8	1957-79	SPD16	
			SPDP16	Hi-Performance Set
			SPD16	Canadian Engine
5.3L/326	8	1959	SPDP16	Hi-Performance Set
5.6L/340	8	1968-73	SPD16	
			SPDP16	Hi-Performance Set
5.7L/350	8	1958	SPD17	
			SPDP17	Hi-Performance Set
		1980-99	SPD25	
			SPDP25	Hi-Performance Set
5.9L/360	8	1971-79	SPD16	
			SPDP16	Hi-Performance Set
5.9L/361	8	1957-77	SPD17	
			SPDP17	Hi-Performance Set
6.3L/383	8	1959-72	SPD17	
			SPDP17	Hi-Performance Set

### Chrysler - Dodge - Plymouth (Reference Only)

Liter/Cl	Cyl.	Year	Bearing Set #	Comments
6.6L/400	8	1972-79	SPD17	
			SPDP17	Hi-Performance Set
6.7L/413	8	1959-77	SPD17	
			SPDP17	Hi-Performance Set
7.0L/426	8	1963-71	SPD17	
			SPDP17	Hi-Performance Set
7.2L/440	8	1966-79	SPD17	
			SPDP17	Hi-Performance Set
7.2L/446	8	1979-80	SIN17	IHC-Navistar Engine
7.8L/478	8	1969-74	SIN10A	IHC-Navistar Engine
9.0L/549	8	1969-77	SIN10A	IHC-Navistar Engine

### Ford - Lincoln - Mercury (Reference Only)

1.6L/98	4	1978-80	SFG29	Aux/Bal.Shaft Set (Fiesta)
2.0L/121.7	4	1971-74	SFG29	Aux.Shaft Set (Pinto/Capri)
			SF34	WB Engine
2.3L/140	4	1974-97	SF34B	Special Oil Control Set
			SF34S	.020 Oversize O.D. Set
			SFG34	Auxiliary Shaft Set
2.3L/143	4	1985-87	SMIG2	Bal.Shaft Set(Mits.T.Diesel)
2.4L/144	6	1960-65	SF32	D, S Engine
2.5L/153	4	1986-91	SF46	HSC Engine
2.8L/170	6	1974-79	SF31	"Z" Engine
		1961-72	SF32	"U" Series Engine
			SF47	"S" Engine
2.8L/171	6	1983-87	SF47B	Special Oil Control Set
2.9L/177	6	1986-92	SF47B	Special Oil Control Set
3.0L/183	6	1986-00	SF48	Ford Vulcan Engine
3.3L/200	6	1963-83	SF32	B, T, X Engine
			SF18	"L" Engine
3.6L/221	8	1962-68	SFP18	Hi-Performance Set
			SF52	C, R, 3, 4 Engine
3.8L/232	6	1988-00	SFG51	Auxiliary Shaft Set
		1982-87	SF45	
3.9L/240	6	1965-75	SF23A	A, B, E, J, 1 Engine
			SF23B	Special Oil Control Set
			SF50	OHV Series "X" Engine
4.0L/244	6	1990-99	SF50A	Set w/Special Wide #4 Brg.
		1997-99	SFG53	SOHC Series "E" Engine
4.1L/250	6	1969-80	SF32	C, L Engine
			SF18	"D" Engine
4.2L/255	8	1980-82	SFP18	Hi-Performance Set
4.2L/256	6	1997-99	SF52	Series 2 Engine
			SFG51	Auxiliary Balance Shaft Set
4.3L/260	8	1962-66	SF18	"F" Engine
			SFP18	Hi-Performance Set
4.7L/289	8	1963-68	SF18	
			SFP18	Hi-Performance Set
		1985-97	SF49	Series "Y" Engine
			SF49B	Special Oil Control Set
4.9L/300	6	1965-85	SF23A	Series "B", "C", "E" Engine
			SF23B	Special Oil Control Set
5.0L/302	8	1968-99	SF18	D,E,F,G,J,M,P,Y Engine
			SFP18	Hi-Performance Set
5.4L/330	8	1964-78	SF33	
			SFP33	Hi-Performance Set
5.4L/332	8	1958-59	SF33	B, G Engine
			SFP33	Hi-Performance Set

# Cam Bearings



Ford - Lincoln - Mercury (Reference Only)				
Liter/CI	Cyl.	Year	Bearing Set #	Comments
5.8L/351	8	1969-98	SF18	351W Windsor Engine
			SFP18	Hi-Performance Set
		1975-82	SF26	351M Engine Vin "G", "H"
			SFP26	Hi-Performance Set
5.8L/352	8	1970-74	SF26	351C,CJ Cleveland Engine
			SFP26	Hi-Performance Set
5.9L/359	8	1958-67	SF33	D, H, R Engine
			SFP33	Hi-Performance Set
5.9L/360	8	1973-78	SF33	
			SFP33	Hi-Performance Set
5.9L/361	8	1968-76	SF33	
			SFP33	Hi-Performance Set
6.1L/370	8	1958-79	SF33	
			SFP33	Hi-Performance Set
6.4L/389	8	1979-91	SF30	
			SFP30	Hi-Performance Set
6.4L/390	8	1973-78	SF33	
			SFP33	Hi-Performance Set
6.4L/391	8	1961-76	SF33	G - Z Engine
			SFP33	Hi-Performance Set
6.6L/400	8	1964-78	SF33	
			SFP33	Hi-Performance Set
6.6L/401	8	1971-82	SF26	S, Z Engine
			SFP26	Hi-Performance Set
6.6L/406	8	1958-76	SF16	
			SFP33	B, G Engine
6.7L/410	8	1962-63	SF33	M Engine
			SFP33	Hi-Performance Set
6.9L/420	8	1966-67	SFP33	Hi-Performance Set
			SIN17	IHC-Navistar Engine
7.0L/427	8	1982-87	SF33	
			SFP33	Hi-Performance Set
7.0L/428	8	1963-65	SF33	P, Q, R Engine
			SFP33	Hi-Performance Set
7.0L/429	8	1966-75	SF30	J - R Engine
			SFP30	Hi-Performance Set
7.3L/445	8	1968-97	SIN17	IHC-Navistar Engine
			SF30	A, C, G, J, L Engine
7.5L/460	8	1988-02	SFP30	Hi-Performance Set
			SF16	
7.8L/475	8	1968-98	SF16	
			SFP30	Hi-Performance Set
7.8L/477	8	1972-79	SF16	
			SFP30	Hi-Performance Set
8.8L/534	8	1958-81	SF16	
			SFP30	Hi-Performance Set

General Motors (Reference Only) (Buick, Cadillac, Chevrolet, GMC, Oldsmobile, Pontiac)				
Liter/CI	Cyl.	Year	Bearing Set #	Comments
1.5L/89.7	4	1985-89	SCHG14	Aux. Shaft Set (Isuzi Engine)
1.8L/110.8	4	1972-75	SCHG14	Aux. Shaft Set (Isuzi Engine)
1.8L/112	4	1981-82	SCH19	Chevy "G" Engine
1.9L/119	4	1982-86	SCHG14	Aux. Shaft Set (Isuzi Engine)
2.0L/121	4	1983-89	SCH19	Chevy Y, N, P, 1 Engine
2.0L/122	4	1975-77	SCH13	Cosworth Vega
2.2L/134	4	1990-00	SCH19	Chevy G, 4 Engine
2.3L/140	4	1971-77	SCH13	Chevy A, B Engine
			SCH16	Pontiac A, E Engine
2.5L/151	4	1985-93	SCH16	Pontiac "U" Engine
			SCH20	Pontiac R, 2 Engine
2.5L/153	4	1977-91	SCH16	Pontiac R, 2 Engine
			SCH16	Pontiac R, 2 Engine
2.5L/153	4	1962-70	SCH6	Chevy Eng. (U.S. & Canada)
			SCH18	Chevy LL2 Engine
2.8L/173	6	1980-93	SCH18A	Sp. Brg. Setw/wide#2&3 pos.
			SCH18A	Sp. Brg. Setw/wide#2&3 pos.
3.0L/181	6	1985-89	SB13	Buick "L" Eng. w/20 bolt pan
			SBP13	Hi-Performance Set
3.1L/189	6	1982-85	SB12	Buick "E" Eng. w/14 bolt pan
			SB12B	Special Oil Control Set
3.2L/194	6	1988-98	SCH18	Chevy D, M, T, W, V Engine
			SCH18A	Sp. Brg. Setw/wide#2&3 pos.
3.2L/195	4	1962-67	SCH7	Chevy Eng. (U.S. & Canada)
			SP4	Pontiac Engine
3.2L/195	4	1963	SPP4	Hi-Performance Set
			SPP4	Hi-Performance Set

General Motors (Reference Only)				
Liter/CI	Cyl.	Year	Bearing Set #	Comments
3.2L/196	6	1978-79	SB12	Buick Engine
			SB12B	Special Oil Control Set
3.2L/198	6	1962-64	SB6	Buick Engine
			SCH17	Chevy "M" Engine
3.3L/200	6	1978-79	SCHP17	Hi-Performance Set
			SB13	Buick "N" Engine
3.3L/204	6	1989-93	SBP13	Hi-Performance Set
			SCH18	Chevy E, S Engine
3.4L/207	6	1993-99	SCH18A	Sp. Brg. Setw/wide#2&3 pos.
			SCH7	Pontiac Engine
3.5L/215	6	1964-65	SB6	Buick Engine
			SCH7	Chevy K, 9 Engine
3.7L/225	6	1964-67	SCHP17	Hi-Performance Set
			SCH7	Chevy Engine
3.8L/229	6	1980-84	SCH11	Chevy Engine (Mexico)
			SCH11	Chevy Engine (Mexico)
3.8L/230	6	1962-70	SB14	Buick Series II "K" Engine
			SB13	Buick C, E, K, Lw/20 bolt pan
3.8L/231	6	1985-95	SBP13	Hi-Performance Set
			SB12	Buick A, C, G, 2, 3, 8, 9 Engine
3.8L/235	6	1975-87	SB12B	Special Oil Control Set
			SCH3	Chevy Engine
4.1L/250	6	1954-63	SCH11	Chevy Engine (incl. Mexico)
			SCH7	Chevy Engine
4.1L/252	8	1971-84	SC4	Cadillac 7, 8 Engine
			SC4A	Special Set w/wide #5 pos.
4.1L/252	6	1982-88	SB12	Buick "4" Eng. w/14 bolt pan
			SB12B	Special Oil Control Set
4.1L/252	6	1980-85	SO7	Olds F, 8 Gas & P Diesel
			SO6	Olds "F" Engine
4.3L/260	8	1977-85	SCH3	Chevy Eng. (U.S. & Canada)
			SCH3	Chevy Eng. (U.S. & Canada)
4.3L/261	6	1954-62	SCH21	Chevy "T" Engine
			SCH21	Chevy "T" Engine
4.3L/262	6	1992-98	SCH17	Chevy B, N, W, X, Z Engine
			SCHP17	Hi-Performance Set
4.3L/262	8	1985-03	SO8	Olds T, V Diesel Engine
			SO8	Olds T, V Diesel Engine
4.3L/262	8	1975-76	SCH8	Chevy "G" Engine
			SCHP8	Hi-Performance Set
4.3L/265	8	1994-96	SCH8	Chevy "W" Engine
			SCHP8	Hi-Performance Set
4.3L/265	8	1980-81	SP4	Pontiac "S" Engine
			SPP4	Hi-Performance Set
4.4L/267	8	1955-57	SCH4	Chevy Eng. (U.S. & Canada)
			SCH4	Chevy Eng. (U.S. & Canada)
4.4L/267	8	1979-82	SCH8	Chevy "J" Engine
			SCHP8	Hi-Performance Set
4.5L/273	8	1987-92	SC4	Cadillac 3, 5, 8 Engine
			SC4A	Special Set w/wide #5 pos.
4.6L/283	8	1964-67	SCH8	Chevy Eng. (U.S. & Canada)
			SCH8	Chevy Eng. (U.S. & Canada)
4.8L/292	6	1957-63	SCHP8	Hi-Performance Set
			SCH4	Chevy Eng. (U.S. & Canada)
4.9L/299	8	1971-89	SCH11	Chevy "T" Engine
			SCH7	Chevy Engine
4.9L/301	8	1963-70	SC4	Cadillac "B" Engine
			SC4A	Special Set w/wide #5 pos.
4.9L/302	8	1991-96	SP4	Pontiac "W" Engine
			SPP4	Hi-Performance Set
5.0L/302	8	1977-81	SCH8	Chevy Camaro, Z-28&Hi-Perf
			SCHP8	Hi-Performance Set
5.0L/302	8	1967-70	SCHP8	Hi-Performance Set
			SCH8	Chevy E-H, Q, M, S, U, X Eng.
5.0L/305	8	1976-00	SCHP8	Hi-Performance Set
			SCHP8	Hi-Performance Set
5.0L/307	8	1980-90	SO7	Oldsmobile "Y" Engine
			SO7	Oldsmobile "Y" Engine
5.0L/307	8	1968-73	SCH8	Chevy A, F Engine
			SCHP8	Hi-Performance Set
5.3L/325 NEW	8	1999-Up	SCH10	Chevy "T" Engine
			SCHP10	Hi-Performance Set
5.3L/326	8	1963-67	SP4	Pontiac Engine
			SPP4	Hi-Performance Set
5.3L/327	8	1964-69	SCH8	Chevy Engine
			SCH8	Chevy Engine
5.3L/327	8	1962-63	SCHP8	Hi-Performance Set
			SCH4	Chevy Engine



# Cam Bearings

## General Motors (Reference Only) (Buick, Cadillac, Chevrolet, GMC, Oldsmobile, Pontiac)

Liter/CI	Cyl.	Year	Bearing Set #	Comments
5.4L/330	8	1964-67	SO6	Olds 1st & 2nd Series Eng.
			SCH10	Chevy LS-1 Mark III G & R
			SCHP10	Hi-Performance Set
5.7L/346 NEW	8	1997-Up	SCH23	Chevy LS-1 2nd Series
			SCHP23	Hi-Performance Set
		1999-Up	SCH8	Chevy G,H,K,L,M,P,R,T,V, X,Y,4,6,7,8 Eng.,incl.Hi-Perf Vortex & Alum.,Exc. DOHC
			SCHP8	Hi-Performance Set
5.7L/350	8	1967-99	SGMP8	Chevy Bowtie w/2.000 hsg bores.(Hi-Performance Set)
			SB9	Buick B, H, J, X Engine
		1968-81	SBP9	Hi-Performance Set
			SO7	Olds N, Z Diesel Engine
		1978-85	SO7	Olds & Cady B.R,8 Engine
		1976-81	SO7	Olds & Cady B.R,8 Engine
		1967-76	SO6	Oldsmobile Engine
			SP4	Pontiac A,B,E,K,M,N,P Eng
1968-77	SPP4	Hi-Performance Set		
6.0L/364 NEW	8	1999-Up	SCH10	Chevy "U" Engine
			SCHP10	Hi-Performance Set
6.0L/366	8	1966-98	SCH12	Chevy E,L Engine(Trk./Van)
			SCHP12	Hi-Performance Set
6.0L/368	8	1980-84	SC3	Cady Mod.displ. 6,9 Engine
6.2L/379	8	1982-93	SGM7	GM C, J Diesel Engine
6.4L/389	8	1963-66	SP4	Pontiac Engine
			SPP4	Hi-Performance Set
6.4L/390	8	1963	SC3	Cadillac Engine
6.5L/395	8	1992-02	SGM7	GM F,P,S,Y Diesel Engine
6.5L/396	8	1965-71	SCH12	Chevy 400 BB&Hi-Perf.Eng.
			SCHP12	Hi-Performance Set
		1970-80	SCH8	Chevy 400 SB&Hi-Perf.Eng.
			SCHP8	Hi-Performance Set
		1970-72	SCH12	Chevy 400 BB&Hi-Perf.Eng.
			SCHP12	Hi-Performance Set
		1967-69	SB9	Buick Engine
			SBP9	Hi-Performance Set
		1965-69	SO6	Olds "H" & Hi-Perf. Engine
		1967-79	SP4	Pontiac "R" Engine
6.6L/402	8	1970-72	SPP4	Hi-Performance Set
			SCH12	Chevy 400 BB&Hi-Perf.Eng.
6.7L/403	8	1977-79	SCHP12	Hi-Performance Set
6.9L/421	8	1963-66	SO7	Oldsmobile Engine
			SP4	Pontiac Engine
7.0L/425	8	1977-79	SPP4	Hi-Performance Set
			SC3	Cadillac S, T Engine
1965-67	8	1965-67	SO6	Oldsmobile Engine
			SCH12	Chevy BB & Hi-Perf.Engine
7.0L/427	8	1967-98	SCHP12	Hi-Performance Set
7.0L/428	8	1967-69	SP4	Pontiac Engine
			SPP4	Hi-Performance Set
7.0L/429	8	1964-67	SCH12	Chevy BB & Hi-Perf.Engine
			SCHP12	Hi-Performance Set
7.0L/430	8	1967-69	SC3	Cadillac S, T Engine
			SB9	Buick Engine
7.4L/454	8	1970-00	SBP9	Hi-Performance Set
			SCH12	Chevy BB J,L,N,S,V,W,Y
			SCHP12	Hi-Performance Set
7.5L/455	8	1970-76	SB9	Buick T, U, V Engine
			SBP9	Hi-Performance Set
		1968-76	SO6	Oldsmobile W, U, V Engine
			SP4	Pontiac "Y"(H.O.&S.D.) Eng.
1970-76	8	1970-76	SPP4	Hi-Performance Set
			SC3	Cadillac R,0,1,8,9 Engine
7.7L/472	8	1968-74	SCH12	Chevy Vortec 8100 L18 Eng.
			SCHP12	Hi-Performance Set
8.1L/496	8	2001-02	SCHP12	Hi-Performance Set
8.2L/500	8	1970-76	SC3	Cadillac O,S,0,1 Engine
			SCH12	Chevy Bowtie Alum.Hi-Perf.
8.2L/502	8	N/A	SCHP12	Hi-Performance Set

## IHC (Navistar) Truck (Reference Only)

Liter/CI	Cyl.	Year	Bearing Set #	Comments
2.5L/152	4	1961-68	SIN11	4-152,4-152T,B-152 Engine
3.2L/196	4	1967-80	SIN11	4-196 Engine
3.8L/232	6	1969-78	SN7	AMC 6-232 Engine
4.2L/258	6	1971-74	SN7	AMC 6-258 Engine
4.3L/266	8	1960-70	SIN11	V266 Engine
5.0L/304	8	1960-80	SIN11	V304 Engine
5.6L/345	8	1961-82	SIN11	V345, V345A Engine
6.4L/392	8	1966-82	SIN11	V392, UV392 Engine
6.6L/401	8	1960-74	SIN10A	V401, VS401,UV401 Engine
6.6L/404	8	1975-82	SIN17	MV404 Engine
6.9L/421	8	1982-87	SIN17	D421 Diesel Engine
7.3L/445	8	1988-02	SIN17	Diesel & Turbo Diesel Eng.
7.3L/446	6	1975-81	SIN17	MV446 Engine
		1966-73	SIN10A	DV462,DV462B Diesel Eng.
7.6L/461	8	1960-64	SIN10A	V461,VS461,UV461 Gas
		1965-77	SIN10A	V478, VS478 Engine
7.8L/478	8	1965-77	SIN10A	V478, VS478 Engine
8.8L/537	8	1977-81	SIN10A	V537, VS537 Engine
9.0L/549	8	1961-79	SIN10A	FTV549,FTVS549,V549, VS549,VT549,UV549 Eng.
		N/A	SIN10A	C605, V605 Engine

## ISUZU (Reference Only)

1.3L/80.8	4	1966-72	SCHG14	G130 Engine
1.5L/89.7	4	1969-70	SCHG14	G150 Engine
1.6L/96.6	4	1966-79	SCHG14	G161 Engine
1.8L/110.8	4	1969-88	SCHG14	Aux.Shaft Set(G180 series)
2.0L/119	4	1979-89	SCHG14	Aux.Shaft Set(G200 series)
2.2L/134	4	1996-00	SCHG19	Isuzu LN2,Chev.G,4 Engine
			SCH18	Chevy LL2 Engine
2.8L/173	6	1989-92	SCH18A	Sp.Brg.Setw/wide#2&3 pos.
			SCH18	Chevy LG6, CPC Engine
3.1L/189	6	1991-96	SCH18A	Sp.Brg.Setw/wide#2&3 pos.
			SCH17	Chevy LB4,LF6-Hi Output X
			SCHP17	Hi-Performance Set
4.3L/262	6	1996-99	SCH21	Chevy LB4, LF6 "T" Engine
		1996-98	SCH8	Chevy Vin "CPC" Engine
5.7L/350	8	1993-99	SCHP8	Hi-Performance Set

## Mazda (Reference Only)

2.3L/140	4	1994-97	SF34	Mazda/Ford A, 8A Engine
			SF34B	Special Oil Control Set
			SF34S	.020 Oversize O.D. Set
2.6L/2555cc	4	1987-90	SFG34	Auxiliary Shaft Set
			SMIG2	Bal.Shaft Set Mit.G54B Eng
3.0L/183	6	1994-00	SF48	Ford Vulcan U, 8U Engine
			SF50	Ford X, ZZL Engine
4.0L/244	6	1990-99	SF50A	Set w/Special Wide #4 Brg.

## Mitsubishi (Reference Only)

1.9L/1855cc	4	1973-78	SMIG2	Bal. Shaft Set (G51B,4G51)
			SMIG2	Bal. Shaft Set (G52B,4G52)
2.0L/1995cc	4	1973-88	SMIG21R	Bal. Shaft Setw/.173 OS OD
			SMIG2E	Balance Shaft Elimination
2.3L/2346cc	4	1980-88	SMIG2	Bal. Shaft Set (4D55,4D55T)
			SMIG21R	Bal. Shaft Setw/.173 OS OD
2.4L/2384cc	4	1975-81	SMIG2E	Balance Shaft Elimination
			SMIG2	Balance Shaft Set (4G53)
2.5L/2477cc	4	1985-88	SMIG21R	Bal. Shaft Setw/.173 OS OD
			SMIG2E	Balance Shaft Elimination
2.6L/2555cc	4	1978-92	SMIG2	Bal. Shaft Set (G54, 4G54)
			SMIG21R	Bal. Shaft Setw/.173 OS OD
			SMIG2E	Balance Shaft Elimination





# Performance Main Caps



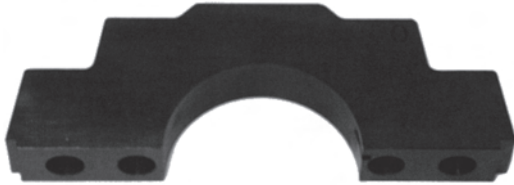
## Chevy High Performance Main Caps

These newer style caps are manufactured from alloy billet steel on C.N.C. machining centers. A great fit every time. This alloy steel provides superb strength with ease of honing. Material stock is left in bore (.030) to accommodate off center bores and seats. Line boring and honing is required. Bearing tang notches are machined on the caps. Register (step) on caps are machined to fit tight in stock bulkhead seats. On splayed caps, the outer bolt holes are angled towards the oil pan, fitting the cap to the strongest part of the block, thus improving reliability in high stress racing motors. Angled bolt holes also reduce main bearing bore distortion by increasing the cap's resistance to closing up under high stress conditions.



### Small Block Stock Replacement

(Set of 3 intermediate caps with bolts & drill bushing)



Four-bolt cap replaces O.E. cast or nodular iron. Fits small block Chevy four bolt block with 2.45 journal dia. bulkhead seat register 6.200.

Part #MSC100S

### Small Block Rebuilder

(Set of 3 intermediate caps with bolts & drill bushing)

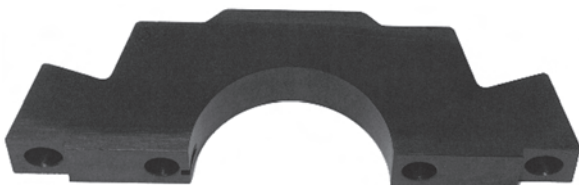


Four-bolt conversion cap with straight outer holes, convert two bolt block to a heavy duty four bolt block. Fits small block Chevy with 2.45 journal dia. bulkhead seat register 4.486. Great for truck application. Preferred by production engine rebuilders for it's ease of installation.

Part #MSC101S

### 400ci Track

(Set of 3 intermediate caps with bolts & drill bushing)



Splayed four bolt high performance cap converts two bolt Chevy 400ci to four bolt motor. Has 18° angle on outer bolt holes. Fits all 2.650 journal dia. bulkhead seat register 6.200.

Part #MSC103S

### Main Cap Drill Bushing

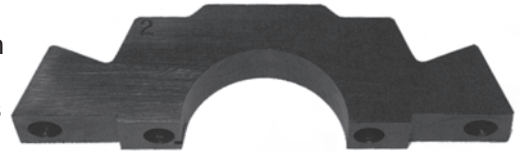
Part #MCB100



### Small Block Performance

(Set of 3 intermediate caps with bolts & drill bushing)

Splayed high performance cap converts two bolt to



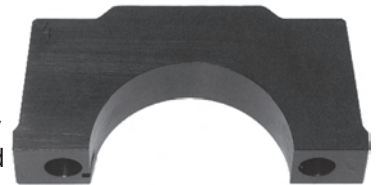
four bolt racing application. Has 22° angle on outer bolt holes. Fits small block Chevy with 2.45 journal dia. bulkhead seat register 4.486. Use with performance front cap, Part #MSC104 shown below.

Part #MSC102S

### Small Block Front Performance

(One front cap per box)

Two bolt performance cap replaces stock front cap on small block Chevy 2.45 journal dia. bulkhead seat register 4.486. Use with Part #MSC102S.



Part #MSC104

### GM Replacement - Aluminum Block

(Set of 3 intermediate caps with bolts & drill bushing)

This splayed performance four bolt cap is a direct replacement on all Chevy aluminum



performance blocks with journal dia. of 2.45. Replaces GM Part #14011072. Has 12° angle outer bolt hole, can also be retrofitted on all cast iron blocks. The block bulkhead seat must be machined to fit stock two or four bolt blocks. This cap is preferred by performance rebuilders for it's wide range of applications and can be fitted individually to each block.

Part #MSC105S

### Big Block Performance

(Set of 3 intermediate caps & drill bushing)

Splayed four bolt performance cap converts big block Chevy two bolt to four bolt, straight outer



hole. Fits 2.75 journal dia. bulkhead seat register 7.130.

Part #MSC107S



# Cylinder Head Spacer Shims

## .020" Cylinder Head Spacer Shims

Cylinder Head Spacer Shims help restore the valve train geometry, valve clearance, compression ratio, and cam timing to factory specs on engines where the cylinder head and/or block surfaces have been resurfaced below factory limits. Precision cut from 0.020" cold rolled steel, each shim is produced using a CNC laser. This eliminates the rolled edge present on shims that are manufactured using a punch press.

### Our shims are made from steel for several important reasons:

1. Steel has a higher heat tolerance than copper, the material used by other manufacturers. In hotter running late model engines, heat resistance is very important to insure the integrity of the shim. Steel is superior for this environment.
2. Steel cylinder head shims have a hardness factor similar to that of the block. This allows the gasket fire ring to properly "crush" as the head is torqued to spec.
3. Steel shims are less likely to be damaged in shipping and from mishandling or mishaps in the shop.

**Note: .030" & .040" Shims Can Be Special Ordered, Call For Details.**

Acura - Audi - Austin - BMW - Cadillac Applications Available Call 800-521-2936 or www.silver-seal.com

### Chrysler-Dodge-Plymouth

Engine	Cyl.	Year	Applications (Reference Only)	Head Thickness	Shim No.
1.6L	98	4	1989-90 Colt (DOHC, Turbo) K Engine (4G61)	New 5.200"	Min 5.1929" HSMT16
1.8L	107	4	1989-94 Laser, Colt (SOHC 8V)	New 3.434"	Min 3.476" HSMT18A
1.8L	112	4	1992-94 Colt, Colt Vista (SOHC 16V)	New 4.720-4.728"	Min 4.712" HSMT18B
2.0L	122	4	1989-94 Laser (DOHC 16V) (4G63)	New 5.1968-5.201"	Min 5.188" HSMT20B
2.0L	122	4	1990-91 Colt Vista (SOHC 8V) (G63B)	New 3.543-3.548"	Min 3.5230" HSMT20B
2.0L	122	4	1983-89 Pick Up, Colt Vista (SOHC 8V) (G63B)	New 3.543-3.548"	Min 3.5230" HSMT20B
2.0L (ECB)	4	1995-02	Neon, Stratus, Breeze (SOHC)	New 4.568"	Min 4.56" HSCH20
2.0L (ECC)	4	1995-99	Neon, Stratus (DOHC 16V) (420A)	New 5.4115-5.4193"	Min 5.4035" HSCH20A
2.2L	135	4	1981-93 Caravan, Voyager, Passenger Cars	New 4.133"	Min 4.113" HSCH22
2.4L (EDZ)	4	2002-04	Caravan, Passenger Cars (DOHC 16V)	New 5.4115-5.4193"	Min 5.4035" HSCH24A
2.4L (EDZ)	4	1995-01	Caravan, Passenger Cars (DOHC 16V)	New 5.428-5.430"	Min 5.4035" HSCH24
2.4L	144	4	1993-95 Colt Vista (SOHC 16V)	New 4.720-4.728"	Min 4.712" HSMT24A
2.4L	144	4	1992 Colt Vista (SOHC 8V)	New 3.543-3.548"	Min 3.5230" HSMT24
2.4L	144	4	1990-93 Ram, Power Ram 50 (SOHC 8V)	New 3.543-3.548"	Min 3.5230" HSMT24
2.5L (6G73)	V6	1998-00	Avenger, Sebring (SOHC)	New 4.720-4.730"	Min N/A HSCH25A (2)
2.5L (EEB)	V6	1995-97	All Pass Cars (-98), Stratus (-99)	New 4.725"	Min 4.717" HSCH25 (2)
2.5L	153	4	1986-95 Caravan, Voyager, Ram Van, Passenger Cars	New 4.1330"	Min 4.1130" HSCH22
2.6L	156	4	1980-89 D-50, Arrow, Ram, Passenger Cars	New 3.543"	Min 3.523" HSMT26
2.7L (EER)	V6	1998-02	Concorde, Intrepid, Sebring, Stratus (DOHC 24V)	New 4.491-4.494"	Min N/A HSCH27L/R
3.0L (6G72)	V6	1987-96	Caravan, Voyager, Dynasty, Daytona, Le Baron, Spirit, Acclaim, New Yorker, Ram 50, Raider	New 3.303-3.311"	Min 3.295" HSMT30 (2)
3.0L (6G72)	V6	1991-96	Stealth (DOHC)	New 5.200-5.210"	Min 5.1888" HSMT30A (2)
3.0L	182	V6	1988-92 (Eagle) Premier (SOHC) Volvo/Renault Engine	New 4.363"	Min 4.363" HSCH30L/R
3.3L	201	V6	1990-00 Caravan, Voyager	New 4.248-4.253"	Min 4.240" HSCH33L/R
3.5L	215	V6	1998-02 Passenger Cars (SOHC 24V) (Vin G)	New 4.7392-4.749"	Min 4.7312" HSCH35A (2)
3.5L	215	V6	1993-97 Passenger Cars (SOHC 24V) (Vin F)	New 4.7392-4.749"	Min 4.7312" HSCH35L/R
3.7L	226	V6	2002-03 Light Truck (SOHC 12V)	New 4.592"	Min N/A HSCH37 (2)
3.8L	230	V6	2001-03 Light Truck	N/A	HSCH38AL/R
3.8L	230	V6	1991-01 Fifth Avenue, Imperial, Light Truck	New 0.954"	HSCH38L/R
3.9L	238	V6	1992-98 Dodge V6 Truck (Magnum)	N/A	Measured from Outer Head Bolt HSCH39 (2)
3.9L	238	V6	1987-91 Dodge V6 Truck	N/A	HSCH39A (2)
4.7L	287	V8	2000-03 Grand Cherokee (SOHC 12V)	New 4.592"	Min N/A HSCH47 (2)
5.2L	318LA	V8	1991-98 Dodge V8 Truck (Magnum)	N/A	HSCH52A (2)
5.2L	318	V8	1967-91 Passenger Car & Light Truck	N/A	HSCH52 (2)
5.6L	340	V8	1968-73 Passenger Car & Light Truck	N/A	HSCH52 (2)
5.9L	360	V8	1993-98 Dodge V8 Truck (Magnum)	N/A	HSCH52A (2)
5.9L	360	V8	1971-92 Passenger Car & Light Truck	N/A	HSCH52 (2)
8.0L	488	V10	1994-04 Dodge V10 Truck (Iron Block)	N/A	HSCH80 (2)

Daewoo Applications Available Call 800-521-2936 or www.silver-seal.com

### Ford-Lincoln-Mercury

1.3L	81	4	1988-97 Festiva, Aspire (Mazda Engine)	New 4.228-4.236"	Min 4.220" HSFO13
1.6L (B6E)	4	1990-94	Capri (DOHC) (Turbo included)	New 5.268-5.2767"	Min 5.2677" HSMZ16A
1.6L (B6)	4	1986-89	Tracer (SOHC)	New 4.228-4.236"	Min 4.220" HSMZ16
1.6L	98	4	1981-85 Escort, EXP, LN7, Lynx	New 5.080"	Min 5.055" HSFO19
1.8L	112	4	1991-96 Escort, Tracer (DOHC)	New 5.2681-5.2759"	Min 5.2767" HSMZ18
1.9L	116	4	1985-96 Escort, EXP, Lynx	New 5.080"	Min 5.055" HSFO19

Engine Parts Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), I.E. HSCH38L or HSCH38R

# Cylinder Head Spacer Shims



## Ford-Lincoln-Mercury (Cont.)

Engine	Cyl.	Year	Applications (Reference Only)	Head Thickness		Shim No.
2.0L (ZETEC)	4	1995-04	Contour, Mystique, Cougar, Escort (DOHC)	New 5.230-5.236"	Min 5.225"	HSFO20
2.0L 122	4	2000-04	Escort, Focus, Tracer (SOHC)	New 5.075-5.085"	Min 5.065"	HSFO20A
2.0L 122	4	1997-99	Escort, Tracer (SOHC)	New 5.075-5.085"	Min 5.065"	HSFO19
2.0L (FS)	4	1993-97	Probe (DOHC 16V)	New 4.8996-4.9035"	Min 4.8936"	HSMZ20A
2.0L (MA)	4	1979-82	Courier (SOHC)	New 3.815"	Min 3.795"	HSMZ16MA
2.2L 134	4	1989-92	Probe, Probe Turbo (12V)	New 3.620-3.624"	Min 3.612"	HSMZ22A
2.3L 140	4	1974-97	Passenger Car (except Tempo & Topaz), Light Truck, Aerostar (OHC) (includes Turbo)	New 3.780-3.790"	Min N/A	HSFO23
2.8L 171	V6	1975-79	Bobcat, Capri, Mustang, Pinto	New 2.885-2.890"	Min 2.875"	HSFO28L/R
2.8L 171	V6	1983-86	Aerostar, Bronco II, Ranger	New 2.885-2.890"	Min 2.875"	HSFO28L/R
2.9L 177	V6	1986-92	Bronco II, Ranger	New 2.885-2.890"	Min 2.875"	HSFO29L/R
2.9L 177	V6	1988-89	Scorpio	New 2.885-2.890"	Min 2.875"	HSFO29L/R
3.0L (VG30)	V6	1993-98	Windstar, Villager	New 4.2047-4.2200"	Min 4.1967"	HSNS30 (2)
3.0L 181	V6	1996-05	Passenger Cars, Light Trucks (Duratec) (DOHC)	New 5.155-5.163"	Min N/A	HSFO30AL/R
3.0L 183	V6	1998-05	Ranger, Aerostar (OHV) (Except Windstar)	New 3.620-3.630"	Min N/A	HSFO30L/R
3.3L (VG33E)	V6	1999-02	Villager (SOHC 12V)	New 4.205-4.220"	Min N/A	HSNS33 (2)
3.4L 207	V6	1996-99	Taurus (Yamaha Engine)	N/A		HSFO34L/R
3.8L 232	V6	1997-04	Mustang, Windstar	N/A		HSFO38C (2)
3.8L 232	V6	1997-98	Mustang (RWD)	N/A		HSFO38BL/R
3.8L 232	V6	1982-96	Cougar, T-Bird, Mustang, Light Trucks (RWD)	New 3.055-3.070"	Min 3.045"	HSFO38A (2)
3.8L 232	V6	1988-96	Lincoln Continental, Sable, Taurus, Windstar (FWD)	New 3.055-3.070"	Min 3.045"	HSFO38A (2)
4.0L 244	V6	1997-04	Ranger, Explorer (Vin E)	New 4.864"	Min N/A	HSFO40BL/R
4.0L 244	V6	1995-01	Light Truck (Explorer) (VIN X Only)	New 2.890-2.895"	Min 2.880"	HSFO40L/R
4.1L 250	L6	1969-80	Passenger Car	N/A		HSFO200
4.2L 256	V6	1997-04	Light Truck (OHV)	N/A		HSFO42 (2)
4.3L 260	V8	1962-65	Passenger Car, Light Truck	N/A		HSFO58A (2)
4.6L 280	V8	1991-03	Passenger Car, Light Truck (SOHC & DOHC)	New 5.310-5.312"	Min 5.298"	HSFO46L/R
4.7L 289	V8	1966-68	Passenger Car, Light Truck	N/A		HSFO58A (2)
5.0L 302	V8	1968-96	Passenger Car, Light Truck (Except 1982-85 H.O. & 1969-71 Mustang Boss)	N/A		HSFO58A (2)
5.4L 330	V8	1997-03	Light Truck (SOHC) (16V Triton)	New 5.310-5.312"	Min 5.298"	HSFO46L/R
5.8L 351C	V8	1970-74	Passenger Car, Light Truck	N/A		HSFO58 (2)
5.8L 351M	V8	1975-82	Passenger Car, Light Truck	N/A		HSFO58 (2)
5.8L 351W	V8	1969-91	Passenger Car, Light Truck	N/A		HSFO58A (2)
6.1L 370	V8	1979-91	Truck	N/A		HSFO370 (2)
6.6L 400	V8	1971-82	Passenger Car, Light Truck	N/A		HSFO58 (2)
6.8L 415	V10	1997-04	Light Truck	New 5.310-5.312"	Min N/A	HSFO68L/R
6.9L (Navistar)	V8	1983-88	Light Truck (Diesel)	New 4.795-4.805"	Min 4.795"	HSFO69D (2)
7.3L (Navistar)	V8	1995-02	Light Truck (Turbo) (Diesel)	New 5.095-5.105"	Min 5.095"	HSFO73AD(2)
7.3L (Navistar)	V8	1988-94	Light Truck (Diesel) (Turbo included)	New 4.795-4.805"	Min 4.795"	HSFO73D (2)
7.5L 460	V8	1968-85	Passenger Car, Light Truck	N/A		HSFO460 (2)

## G.M. (Chevrolet-Buick-Oldsmobile-Pontiac)

1.6L 98	4	1988-93	Pontiac (Daewoo) Engine (OHC)	New 3.780"	Min 3.770"	HSGM16
1.6L (4AGE)	4	1988	Nova (DOHC) (VIN 5)	New 4.568"	Min 4.555"	HSTO16B
1.6L (4ALC)	4	1985-88	Nova (VIN 4)	New 3.395-3.400"	Min 3.385"	HSTO16
1.8L 112	4	1982-86	Pontiac (Brazilian) Engine (OHC)	New 3.780-3.790"	Min 3.765"	HSGM20
2.0L 121	4	1987-89	Chevrolet Engine (OHV)	New 5.315-5.320"	Min 5.305"	HSGM20A
2.0L 122	4	1987-94	Pontiac (Brazilian) Engine (OHC)(VIN H, K, M)	New 3.780-3.785"	Min 3.765"	HSGM20
2.2L 134	4	2002-03	Cobalt, Saturn Vue (ECOTEC)(DOHC)	New 5.080-5.085"	Min N/A	HSGM22A
2.2L 134	4	1994-01	S-10 Pick-Up & Passenger Car (OHV)	New 5.315-5.320"	Min 5.305"	HSGM22
2.2L 134	4	1990-97	Chevrolet Engine (OHV)	New 5.315-5.320"	Min 5.305"	HSGM20A
2.3L 138	4	1988-95	Quad 4 (SOHC: VIN 3), (DOHC: VIN A, D)	New 2.280"	Min 2.265"	HSGM23
2.4L 146	4	1996-99	Quad 4 (DOHC: Vin 4, T) w/EGR	New 2.275"	Min .010" max.	HSGM24
2.5L 151	4	1985-91	Buick, Oldsmobile, Pontiac (VIN U)	New 3.240-3.250"	Min 3.230"	HSGM25
2.5L 151	4	1979-92	Buick, Chevrolet, Oldsmobile, Pontiac(VIN R)	New 3.250"	Min N/A	HSGM25A
2.8L 173	V6	1980-95	Passenger Cars, Light Truck (VIN L,S,W,X,Z,1,7)	New 3.5805-3.5950"	Min 3.575"	HSGM28 (2)
3.1L 189	V6	1990-04	Passenger Cars, Light Truck (VIN M, T, W, J)	New 3.5805-3.5950"	Min 3.575"	HSGM28 (2)
3.4L 207	V6	1999-02	LA1 Eng./Passenger Cars (VIN E) (OHV 12V)	New 3.585-3.595"	Min 3.575"	HSGM34A (2)
3.4L 207	V6	1991-97	LQ1 Eng./Passenger Cars (VIN X) (DOHC 16V)	New 3.457-3.460"	Min 3.447"	HSGM34 (2)
3.8L 231	V6	1995-99	Buick Engine (Vin K)	New 0.054-0.066"	Min 0.044"	HSGM38B(2)
3.8L 231	V6	1991-94	Buick Engine (Vin L)	Meas. from machined pad to deck		
3.8L 231	V6	1991-94	Buick Engine (Vin L)	New 0.054-0.066"	Min 0.044"	HSGM38A (2)
3.8L 231	V6	1991-94	Buick Engine (Vin L)	Meas. from machined pad to deck		
4.3L 262	V6	1985-93	Chevrolet Engine	New 3.065"	Min N/A	HSGM43 (2)
4.4L 265	V8	1955-57	Chevrolet Engine	N/A		HSGM57 (2)
4.6L 283	V8	1957-67	Chevrolet Engine	N/A		HSGM57 (2)

Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), IE, HSC88L or HSC88R

Engine Parts





# Cylinder Head Spacer Shims

Engine	Cyl.	Year	Applications (Reference Only)	Head Thickness	Shim No.
4.8L	292	L6	1979-89 Chevrolet Engine	N/A	HSGM292 (2)
5.0L	302	V8	1968-69 Chevrolet Engine	N/A	HSGM57 (2)
5.0L	305	V8	1980-93 Chevrolet Engine	N/A	HSGM50 (2)
5.3L	327	V8	1962-69 Chevrolet Engine	N/A	HSGM57 (2)
5.7L	350	V8	1997-01 Chevrolet Engine-LS1	N/A	HSGM57B (2)
5.7L	350	V8	1992-97 Chevrolet Engine-LT1	N/A	HSGM57C (2)
5.7L	350	V8	1967-93 Chevrolet Engine (Except VIN B, H, J, P, R, X)	N/A	HSGM57 (2)
6.0L	366	V8	1966-91 Chevrolet Engine	N/A	HSGM74 (2)
6.5L	395	V8	1992-98 Light Truck (Diesel)	New 3.853-3.863" Min 3.853"	HSGM65D (2)
6.5L	396	V8	1965-70 Chevrolet Engine	N/A	HSGM74 (2)
6.6L	400	V8	1970-76 Chevrolet Engine	N/A	HSGM66 (2)
6.6L	401	V8	1959-66 Buick Engine	N/A	HSGM401B(2)
6.6L	402	V8	1970-72 Chevrolet Engine	N/A	HSGM74 (2)
7.0L	427	V8	1966-73 Chevrolet Engine	N/A	HSGM74 (2)
7.4L	454	V8	1970-95 Chevrolet Engine	N/A	HSGM74 (2)
6.4L-7.5L	389-455	V8	1961-79 Pontiac Engine (389, 400, 421, 428, 455)	N/A	HSGM400P(2)
6.6L-7.5L	400-455	V8	1967-76 Buick Engine	N/A	HSGM455B(2)
<b>Geo</b>					
1.0L	61	3	1989-99 Metro (Suzuki Engine) (VIN 2, 6)	New 3.750-3.755" Min N/A	HSSZ10
1.0L	61	3	1986-88 Metro (Suzuki Engine)	New 4.920-4.925" Min 4.910"	HSSZ10A
1.3L	79	4	1992-00 Metro (Suzuki Engine) (SOHC) (VIN 9)	New 3.750-3.755" Min 3.740"	HSSZ13
1.5L	(4XC1)	4	1989-92 Prizm (SOHC)	New 3.390" Min 3.370"	HSIS15
1.6L	97	4	1989-97 Tracker (Suzuki Engine)	New 3.750" Min 3.740"	HSSZ16
1.6L	(4AFE)	4	1993-97 Prizm (DOHC 16V)	N/A	HSTO16C
1.6L	98	4	1989-92 Prizm (Toyota Engine) (VIN 6)	New 4.568-4.570" Min 4.560"	HSTO16A
1.6L	98	4	1989-92 Prizm GSI (Toyota Engine) (VIN 5)	New 4.568" Min 4.555"	HSTO16B
1.6L	98	4	1990-93 Storm (Isuzu Engine)	New 3.390" Min 3.374"	HSIS16
1.6L	98	4	1990-91 Storm (Isuzu Engine)	New 5.114-5.120" Min 5.098"	HSIS16A
1.8L	(7AFE)	4	1993-97 Prizm (DOHC 16V)	New 4.567" Min 4.557"	HSTO18
1.8L	(4XF1)	4	1992-93 Storm GSI (DOHC 16V)	New 5.114" Min 5.098"	HSIS18
2.0L	122	4	1989-90 Lemans (OHC)	New 3.780-3.785" Min 3.765"	HSGM20
<b>Honda</b>					
1.3L	(EV, D)	4	1984-87 Civic, CRX, Civic Hatchback (EV1, EV2, D13A2, D15A1)	New 3.565-3.570" Min 3.550"	HSHO15
1.5L	(D15Z)	4	1992-95 Civic VX (VTEC) (SOHC 16V)	New 3.659-3.663" Min 3.651"	HSHO15C
1.5L	(D15)	4	1988-95 CRX DX/HF, Civic, Civic CX (D15B1, D15B2, D15B6, D15B7, D15B8)	New 3.738-3.742" Min 3.730"	HSHO15A
1.5L	(EW, D)	4	1984-87 CRX, CRX Si/DX/HF, Civic, Civic Si (EW1, EW2, EW3, EW4, D15A2, D15A3)	EW1 New 3.542" Min 3.535"	HSHO15
1.5L	(EW, D)	4	1984-87 CRX, CRX Si/DX/HF, Civic, Civic Si (EW1, EW2, EW3, EW4, D15A2, D15A3)	EW3,4 New 3.570" Min 3.550"	HSHO15
1.5L	(EW, D)	4	1984-87 CRX, CRX Si/DX/HF, Civic, Civic Si (EW1, EW2, EW3, EW4, D15A2, D15A3)	D15A2,3 New 3.540" Min 3.520"	HSHO15
1.5L	(EM)	4	1980-83 Civic (CVCC)	New 3.565-3.570" Min 3.550"	HSHO15B
1.6L	(B16A)	4	1994-00 Del Sol (VTEC) (DOHC 16V)	New 5.589-5.593" Min 5.581"	HSHO16
1.6L	(D16Y)	4	1996-00 Civic HX (VTEC) (SOHC 16V)	New 3.659-3.663" Min 3.651"	HSHO16A
1.6L	(D16A6)	4	1988-91 Civic Si, Civic EX, CRX Si	New 3.738-3.742" Min 3.730"	HSHO15A
1.8L	(ET2, A18)	4	1986-87 Prelude, Accord (SOHC 12V)	New 3.540" Min 3.530"	HSHO18A
1.8L	(ES, ET)	4	1983-85 Prelude, Accord (SOHC 12V)(ES1, ES2, ES3, ET1, ET2)	New 3.565-3.575" Min 3.550"	HSHO18
2.0L	(B20B, Z)	4	1997-01 CR-V (DOHC 16V)	New 5.195-5.199" Min 5.187"	HSHO20B
2.0L	(B20A)	4	1988-91 Prelude, Prelude SE/Si	B20A3 New 3.543" Min 3.5354"	HSHO20A
2.0L	(B20A)	4	1988-91 Prelude, Prelude SE/Si	B20A5 New 5.220" Min 5.192"	HSHO20A
2.0L	(A20, B)	4	1985-89 Accord, Prelude (A20A1, A20A2, A20A3, A20A4, BS, BT)	New 3.543" Min 3.535"	HSHO20
2.05L	(B21A1)	4	1990-91 Prelude Si	New 5.201" Min 5.193"	HSHO21
2.2L	(F22B)	4	1994-97 Accord DX, EX, LX, SE, Odyssey (VTEC) (SOHC 16V)	New 3.935-3.939" Min 3.932"	HSHO23A
2.2L	(F22A)	4	1990-96 Accord (DX, EX, LX, SE), Prelude (S)	New 3.9291-3.9389" Min 3.919"	HSHO22
2.2L	(H22A1)	4	1993-96 Prelude Si (VTEC) (DOHC 16V)	New 5.785-5.789" Min N/A	HSHO22A
2.3L	(F23A)	4	1998-01 Accord DX, EX, LX, SE, Odyssey (VTEC) (SOHC 16V)	New 3.935-3.939" Min 3.932"	HSHO23A
2.3L	(H23A1)	4	1992-96 Prelude Si (DOHC 16V)	New 5.195-5.199" Min 5.190"	HSHO23
2.4L	(K24A1)	4	2002-03 CR-V LX, CR-V EX (DOHC 16V)	N/A	HSHO24
2.6L	(4ZE1)	4	1994-96 Passport	New 3.6673-3.6712" Min 3.6513"	HSIS26
2.7L	(C27A)	V6	1995-97 Accord (SOHC 24V)	New 4.1260" Min 4.1181"	HSHO27 (2)
3.0L	(J30A)	V6	1998-02 Accord (SOHC 24V)	New 4.762-4.766" Min N/A	HSHO30 (2)
3.2L	(6VD1)	V6	1998-01 Passport (DOHC 24V)	New 5.413" Min N/A	HSIS32A (2)
3.2L	(6VD1)	V6	1994-97 Passport (SOHC 24V)	New 4.1260" Min 4.1181"	HSIS32 (2)
3.5L	(J35A1)	V6	1999-02 Odyssey (SOHC 24V)	N/A	HSHO35 (2)

Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), I.E. H5CH38L or H5CH38R

Engine Parts

# Cylinder Head Spacer Shims



<b>Hyundai</b>								
Engine	Cyl.	Year	Applications (Reference Only)			Head Thickness		Shim No.
1.5L (G4AE/E)	4	1993-02	Accent, Scoupe Turbo(SOHC 12V)			New 2.950-2.955"	Min N/A	HSHY15
1.5L (4G15)	4	1986-94	Excel, Scoupe (SOHC 8V)(4G15, G15B, G4DJ)			New 4.215-4.220"	Min 4.207"	HSMT15
1.6L (G4DR)	4	1992-95	Elantra (DOHC 16V)			New 5.197-5.200"	Min 5.188"	HSMT20B
1.8L (G4GM)	4	1995-99	Elantra, Tiburon (DOHC 16V)			New 5.197"	Min 5.1870"	HSY18
1.8L (G4CN)	4	1993-95	Elantra (DOHC 16V)			New 5.197"	Min 5.189"	HSMT20B
2.0L (G4GF)	4	1997-00	Elantra, Tiburon (DOHC)			New 5.197"	Min 5.1870"	HSY20
2.0L (G4CP)	4	1992-98	Sonata (DOHC 16V)			New 5.197"	Min 5.189"	HSMT20B
2.4L (G4CS)	4	1989-91	Sonata (SOHC 8V)			New 3.543"	Min 3.523"	HSMT24
2.7L (G6BA)	V6	2001-02	Santa Fe, Sonata (DOHC 24V)			New 3.543"	Min 3.523"	HSY27L/R
3.0L (6GAT)	V6	1989-98	Sonata (SOHC 12V)			New 3.303-3.311"	Min 3.295"	HSMT30 (2)
<b>Infiniti</b>								
2.0L (SR20DE)	4	1991-96	G20 (DOHC 16V) (Also 1999)			New 5.390-5.398"	Min 5.382"	HSNS20A
3.0L (VG30DE)	V6	1993-97	J30 (DOHC 24V)			N/A		HSNS30A (2)
3.0L (VG30E)	V6	1990-92	M30 (SOHC 12V)			New 4.205-4.220"	Min 4.198"	HSNS30 (2)
3.3L (VG33E)	V6	1997-00	QX4 (SOHC 12V)			New 4.205-4.220"	Min N/A"	HSNS33 (2)
<b>Isuzu</b>								
1.5L (4XC1)	4	1985-89	I-Mark (SOHC)			New 3.390"	Min 3.370"	HSIS15
1.6L (4XE1)	4	1991-93	Stylus (SOHC 12V)			New 5.114-5.120"	Min 5.098"	HSIS16
1.6L (4XE1W)	4	1989-92	I-Mark, Impulse, Stylus (DOHC16V)			New 5.114-5.120"	Min 5.098"	HSIS16A
1.8L (4XF1)	4	1991-93	Impulse, Stylus (DOHC 16V)			New 5.114"	Min 5.098"	HSIS18
1.8L (4FB1)	4	1981-85	Gemini (Diesel)			New 4.055"	Min 4.047"	HSIS18D
1.9L (G200Z)	4	1982-88	Impulse, Trooper, Pick Up (SOHC)			New 3.672-3.678"	Min 3.656"	HSIS19
2.2L (X22SE)	4	1998-02	Amigo, Rodeo (DOHC 16V)			New 5.276-5.280"	Min N/A	HSIS22
2.2L 134	4	1996-01	Hombre			New 5.315-5.320"	Min 5.305"	HSGM22
2.2L (F22B)	4	1996-97	Oasis (VTEC) (SOHC 16V)			New 3.935-3.939"	Min 3.932"	HSO23A
2.3L (F23A)	4	1998-99	Oasis (VTEC) (SOHC 16V)			New 3.935-3.939"	Min 3.932"	HSO23A
2.3L (4ZD1)	4	1986-95	Trooper II, Pick-Up, Impulse, Amigo			New 3.6673-3.6712"	Min 3.651"	HSIS23
2.6L (4ZE1)	4	1988-98	Trooper II, Rodeo, Pick-Up, Amigo			New 3.6673-3.6712"	Min 3.651"	HSIS26
2.8L (LL2)	V6	1989-92	Trooper II			N/A		HSGM28 (2)
3.1L (CPC)	V6	1991-94	Rodeo, Pick Up			N/A		HSGM28 (2)
3.2L (6VD1)	V6	1998-02	Trooper II, Amigo, Rodeo			New 5.413"	Min N/A	HSIS32A (2)
3.2L (6VD1)	V6	1992-97	Trooper II (SOHC & DOHC 24V)			New 4.1260"	Min 4.1181"	HSIS32 (2)
3.8L/3.9L (4BD1/2)	4	1985-99	Truck, Bus (Diesel) (Turbo also)			New 3.541-3.545"	Min 3.533"	HSIS38D
8.4L (6SA1)	L6	1984-92	Truck, Bus (Diesel) (Turbo also)			New 6.811-6.812"	Min 6.800"	HSIS84D
Jaguar Applications Available Call 800-521-2936 or www.silver-seal.com								
Jeep/Eagle (Pre-86 Applications Available Call 800-521-2936 or www.silver-seal.com)								
1.5L (4G15)	4	1991-94	Summit (SOHC 12V)			New 4.2086-4.2165"	Min 4.2006"	HSMT15
1.5L (G4, 4G)	4	1989-90	Summit (SOHC 8V)			New 4.2086-4.2165"	Min 4.2006"	HSMT15
1.6L (4G61)	4	1989-90	Summit (DOHC 16V)			New 4.228-4.236"	Min 4.220"	HSMT16
1.8L (4G37)	4	1993-94	Talon (SOHC 8V)			New 3.484"	Min 3.476"	HSMT18A
1.8L (4G93)	4	1992-96	Summit, Summit Wagon (SOHC 16V)			New 4.209-4.217"	Min 4.201"	HSMT18B
2.0L (4G63)	4	1990-98	Talon (DOHC) (Turbo included)			New 5.1968-5.201"	Min 5.188"	HSMT20B
2.0L (420A)	4	1995-98	Talon (DOHC 16V)			New 5.4115-5.4193"	Min 5.4035"	HSCH20A
2.4L (4G64)	4	1993-96	Summit Wagon (SOHC 16V)			New 4.720-4.728"	Min 4.712"	HSMT24A
2.4L (4G64)	4	1992	Summit Wagon (SOHC 8V)			New 3.543-3.544"	Min 3.523"	HSMT24
2.5L 151	4	1980-83	Pick-Up, Scrambler			New 3.250"	Min N/A	HSGM25A
2.8L 173	V6	1984-86	Cherokee, Comanche, Wagoneer			New 3.5805-3.595"	Min 3.575"	HSGM28 (2)
3.0L 182	V6	1988-92	Premier (Volvo/Renault Engine)(SOHC)			New 4.363"	Min 4.363"	HSCH30L/R
3.3L 201	V6	1993-97	Vision			New 4.248-4.253"	Min 4.240"	HSCH33L/R
3.5L 215	V6	1993-97	Vision			New 4.7392-4.749"	Min 4.7312"	HSCH35L/R
4.0L 242	6	1987-02	Cherokee			New 3.465"	Min N/A	HSJP40
Kia - Land Rover - Lexus Applications Available Call 800-521-2936 or www.silver-seal.com								
<b>Mazda</b>								
1.5L (E5)	4	1981-85	Wagon (SOHC 8V)			New 3.564-3.670"	Min 3.551"	HSMZ15
1.5L (Z5)	4	1995-98	Protege (DOHC 16V)			New 4.733-4.741"	Min 4.725"	HSMZ15A
1.6L (ZM)	4	1998-02	Protege (DOHC 16V)			New 4.733-4.741"	Min 4.725"	HSMZ16E
1.6L (B6)	4	1990-94	323 (SOHC 8V) (non Turbo)			New 4.2283-4.2362"	Min 4.2203"	HSMZ16B
1.6L (B6E)	4	1988-93	323 GT Turbo, Miata, MX5 (DOHC 16V)			New 5.268-5.2767"	Min 5.2677"	HSMZ16A
1.6L (B6)	4	1986-89	323, 323 Wagon, Tracer (SOHC 8V) (except Turbo)			New 4.228-4.236"	Min 4.220"	HSMZ16
1.6L (B6D)	4	1994-95	MX3 (DOHC 16V)			N/A		HSMZ16D
1.6L (B6B)	4	1992-93	MX3 (SOHC 16V)			N/A		HSMZ16C
1.6L (NA)	4	1970-77	616, 808, B1600 (SOHC)			N/A		HSMZ16MA
1.8L (BP)	4	1990-98	Protege, Miata MX5 (DOHC 16V)			New 5.268-5.276"	Min 5.2677"	HSMZ18
1.8L (BP)	4	1990-94	Protege (SOHC 16V)			New 4.228-4.236"	Min 4.220"	HSMZ18A
1.8L (VB)	4	1977-78	B1600 (SOHC 8V)			N/A		HSMZ16MA

Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), LE, HSCH88L or HSCH38R

Engine Parts



# Cylinder Head Spacer Shims

Engine	Cyl.	Year	Applications (Reference Only)	Head Thickness	Shim No.
2.0L (FS)	4	1993-02	626, MX6, Protege (DOHC 16V)	New 4.8996-4.9035" Min 4.8936"	HSMZ20A
2.0L (FE)	4	1983-87	626, B2000 (except Turbo)	New 3.620-3.624" Min 3.612"	HSMZ22A
2.0L (MA)	4	1979-84	626, B2000 (SOHC 8V)	N/A	HSMZ16MA
2.2L (F2)	4	1987-93	626, MX6, B2200 (SOHC 8V/12V) (Turbo included)	New 3.620-3.624" Min 3.612"	HSMZ22A
2.3L (KJ)	V6	1995-02	Millenia (DOHC 24V)	New 5.032-5.036" Min.006" max.remove	HSMZ23 (2)
2.5L (KL)	V6	1993-02	626, Millenia, MX6 (DOHC 24V)	New 5.252-5.260" Min 5.246"	HSMZ25 (2)
2.6L (G6)	4	1989-94	MPV, B2600I	New 3.5413-3.5452" Min 3.5233"	HSMZ26
2.6L (AM1)	4	1987-88	B2600	New 3.543" Min 3.523"	HSMT26
3.0L (JE)	V6	1988-98	MPV, 929 (SOHC & DOHC)	SOHC 4.931-4.935" Min 4.925" DOHC 5.707-5.711" Min 5.701"	HSMZ30 (2)
3.0L 181	V6	2001-05	Light Trucks (Duratec)	New 5.155-5.163" Min N/A	HSFO30AL/R

MG - Mercedes Benz Applications Available Call 800-521-2936 or www.silver-seal.com

## Mitsubishi

1.5L (4G15)	4	1991-95	Mirage (SOHC 12V)	New 4.2086-4.2165" Min 4.2006"	HSMT15
1.5L (4G, G)	4	1985-94	Mirage, Precis (SOHC 8V)	New 4.2086-4.2165" Min 4.2006"	HSMT15
1.5L (4G15)	4	1997-01	Mirage (SOHC 12V)	New 4.2086-4.2165" Min 4.2006"	HSMT15A
1.6L (4G61)	4	1989	Mirage Turbo (DOHC 6V)	New 5.200" Min 5.192"	HSMT16
1.6L (4G61)	4	1991-92	Mirage (DOHC 16V)	New 5.200" Min 5.192"	HSMT16
1.8L (4G37)	4	1989-94	Eclipse (SOHC 8V)	New 3.484" Min 3.476"	HSMT18A
1.8L (4G93)	4	1997-02	Mirage (SOHC 16V)	New 4.720-4.728" Min 4.712"	HSMT18C
1.8L (4G93)	4	1992-95	Expo, Mirage (SOHC 16V)	New 4.209-4.217" Min 4.201"	HSMT18B
2.0L (420A)	4	1995-99	Eclipse (DOHC 16V)	New 5.4115-5.4193" Min 5.4035"	HSCH20A
2.0L (4G63)	4	1989-99	Eclipse, Galant (DOHC 16V) (Turbo also)	New 5.193-5.201" Min 5.185"	HSMT20B
2.0L (4G63)	4	1993	Galant (SOHC 16V)	New 5.1968-5.201" Min 5.188"	HSMT24A
2.0L (G63B)	4	1983-92	Cordia, Tredia, Pick Up, Galant (SOHC 8V)	New 3.543-3.548" Min 3.523"	HSMT20B
2.3L (4D55)	4	1983-87	Mighty Max Turbo (SOHC)	New 3.700-3.705" Min 3.690"	HSMT23D
2.4L (4G64)	4	1999-02	Eclipse, Galant (SOHC 16V)	N/A	HSMT24C
2.4L (4G64)	4	1993-98	Eclipse, Galant, Expo (SOHC 16V)	New 4.720-4.728" Min 4.712"	HSMT24A
2.4L (G64FR)	4	1997-99	Montero Sport (SOHC 16V)	N/A	HSMT24B
2.4L (4G64)	4	1987-96	Pick Up, Van/Wagon (SOHC 8V)	New 4.720-4.728" Min 4.712"	HSMT24
2.4L (G64B)	4	1985-88	Galant (SOHC 8V)	New 3.543-3.544" Min 3.523"	HSMT24
2.6L (G54B)	4	1978-89	Challenger, Sapporo, Raider, Turbo Conquest	New 3.543" Min 3.523"	HSMT26
3.0L (6G72)	V6	1991-99	3000, Diamante (DOHC) (24V)	New 5.200-5.210" Min 5.1888"	HSMT30A (2)
3.0L (6G72)	V6	1999-02	Galant (SOHC) (24V)	New 5.200-5.210" Min 5.1888"	HSMT30A (2)
3.0L (6G72)	V6	2000-02	Eclipse (SOHC) (24V)	New 5.200-5.210" Min 5.1888"	HSMT30A (2)
3.0L (6G72)	V6	1988-94	Galant, Sigma, Montero, Pick Up, Diamante, Mighty Max (93-95) (SOHC)	New 3.303-3.311" Min 3.295"	HSMT30 (2)
3.5L (6G74)	V6	1997-02	Diamante, Montero (SOHC 24V)	N/A	HSMT35 (2)
3.5L (6G74)	V6	1994-96	Montero (DOHC 24V)	New 5.200" Min 5.1888"	HSMT35 (2)

## Nissan (Datsun)

1.2L (A12)	4	1980-82	210, Station Wagon (SOHC)	New 2.825-2.830" Min N/A	HSNS12
1.4L (A14)	4	1975-82	210, B210, 310, F10	New 2.919-2.925" Min 2.909"	HSNS12
1.5L (E15)	4	1982-83	310, Sentra (SOHC)	New 4.724" Min 4.712"	HSNS16
1.5L (A15)	4	1979-82	210, 310	New 2.919-2.925" Min 2.909"	HSNS12
1.6L (GA16DE)	4	1991-99	NX 1600, NX Coupe, Sentra, 200SX	New 4.638-4.646" Min 4.630"	HSNS16B
1.6L (GA16i)	4	1989-90	Pulsar NX, Sentra NX	New 4.748-4.756" Min 4.740"	HSNS16A
1.6L (E16)	4	1983-88	Pulsar, Sentra (SOHC)	New 4.720-4.724" Min 4.712"	HSNS16
1.8L (CA18ET)	4	1984-87	200 SX Turbo	New 4.598" Min 4.587"	HSNS20
2.0L (SR20DE)	4	1991-96	Sentra, 200 SX, NX 2000	New 5.390-5.398" Min 5.382"	HSNS20A
2.0L (CA20E)	4	1984-89	200 SX, Stanza, Stanza Sedan/Hatchback/Wagon	New 4.595-4.610" Min 4.587"	HSNS20
2.4L (KA24DE)	4	1994-02	240 SX, Frontier, XTerra (DOHC 16V)	New 4.972-4.980" Min 4.964"	HSNS24B1
2.4L (KA24DE)	4	1991-94	240 SX (DOHC 16V)	New 4.972-4.980" Min 4.964"	HSNS24B
2.4L (KA24DE)	4	1993-01	Altima (DOHC 16V)	New 4.972-4.980" Min 4.964"	HSNS24C
2.4L (KA24E)	4	1989-96	240 SX, Stanza, D21 Pick Up, Axxess MPV (SOHC 12V)	New 3.890-3.898" Min 3.882"	HSNS24A
2.4L (Z24)	4	1983-89	720 Pick-Up, Pathfinder, Cargovan, D21 Pick-Up	New 3.886-3.902" Min 3.878"	HSNS24
2.5L (QR25DE)	V6	2002-03	Altima, Sentra SE-R	N/A	HSNS25 (2)
3.0L (VQ30DE)	V6	1995-99	Maxima (DOHC 24V)	New 4.9724-4.9803" Min 4.9644"	HSNS30DL/R
3.0L (VE30DE)	V6	1992-94	Maxima (DOHC 24V)	New 5.429-5.437" Min 5.421"	HSNS30BL/R
3.0L (VG30DE)	V6	1990-96	300 ZX (DOHC 24V) (Turbo also)	New 5.429-5.437" Min 5.421"	HSNS30A (2)
3.0L (VG30T)	V6	1984-89	300 ZX Turbo (SOHC)	New 4.2047-4.2057" Min 4.1967"	HSNS30 (2)
3.0L (VG30E)	V6	1984-95	200 SX, 300 ZX (non Turbo), Maxima, Quest (93), Pathfinder, D21 Pick-Up (SOHC)	New 4.2047-4.2057" Min 4.1967"	HSNS30 (2)
3.3L (VG33E)	V6	1999-02	Frontier P/U, Quest, Xterra (SOHC 12V)	New 4.205-4.220" Min N/A"	HSNS33 (2)

Saab Applications Available Call 800-521-2936 or www.silver-seal.com

Engine Parts  
 Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), I.E. H5CH38L or H5CH38R



# Cylinder Head Spacer Shims



<b>Saturn</b>							
Engine	Cyl.	Year	Applications (Reference Only)		Head Thickness		Shim No.
1.9L	(LLO)	4	1991-99	SC1, SL, SL1, SW1 (SOHC)	New 4.444-4.454"	Min 4.444"	HSST19
1.9L	(LKO)	4	1991-99	SC2, SL2, SW2 (DOHC)	New 4.445-4.453"	Min 4.444"	HSST19A
<b>Suzuki</b>							
1.3L	(G13BB)	4	1998-01	Swift GTI (SOHC 16V)	N/A		HSSZ13A
1.3L	(G13K)	4	1989-94	Swift GTI (DOHC)	New 5.197"	Min 5.175"	HSSZ13
1.3L	(G13A,BA)	4	1986-97	Samurai, Sidekick, Swift GLX (SOHC)	New 3.750-3.755"	Min 3.740"	HSSZ13
1.6L	(G16)	4	1989-96	Sidekick, Esteem (SOHC 8V & 16V)	New 3.750"	Min 3.740"	HSSZ16
1.8L	(G18)	4	1996-01	Esteem, Sport Sidekick (DOHC 16V)	New 4.805"	Min N/A	HSSZ18
2.0L	(J20A)	4	1999-02	Vitara (DOHC 16V)	New 4.805"	Min N/A	HSSZ18
2.5L	(H25A)	V6	1999-03	Grand Vitara (DOHC 24V)	New 4.802"	Min N/A	HSSZ25L/R
Subaru Applications Available Call 800-521-2936 or www.silver-seal.com							
<b>Toyota</b>							
1.5L	(3E)	4	1986-90	Tercel (SOHC 12V)	New 5.012-5.015	Min 5.000"	HSTO15
1.5L	(3EE)	4	1989-94	Tercel (SOHC 12V)	New 5.002-5.005"	Min 4.990"	HSTO15
1.5L	(5EFE)	4	1992-98	Paseo, Tercel (DOHC 16V)	New 4.220"	Min N/A	HSTO15A
1.6L	(4AFE)	4	1993-97	Corolla (DOHC 16V)	N/A		HSTO16C
1.6L	(4AFE)	4	1988-93	Corolla (>6/92), Celica ST	New 4.570"	Min 4.560"	HSTO16A
1.6L	(4AGE)	4	1988-91	Corolla GTS, Corolla Coupe GTS	New 4.568"	Min 4.555"	HSTO16B
1.6L	(4AF)	4	1988-89	Corolla	New 4.570"	Min 4.560"	HSTO16A
1.6L	(4ALC)	4	1984-88	Corolla Sedan, Corolla Liftback, Corolla FX	New 3.400-3.410"	Min 3.385"	HSTO16
1.6L	(4AC)	4	1983-87	Corolla, Corolla Coupe, SR5	New 3.400-3.410"	Min 3.385"	HSTO16
1.8L	(2ZZGE)	4	2000-02	Celica GTS (DOHC 16V)	N/A		HSTO18A
1.8L	(1ZZFE)	4	1998-02	Corolla, Celica, MR2 (DOHC 16V)	N/A		HSTO18B
1.8L	(7AFE)	4	1993-97	Celica, Corolla (DOHC 16V)	New 4.567"	Min 4.557"	HSTO18
2.0L	(1AZFE)	4	2001-02	RAV4 (DOHC 16V)	N/A		HSTO20C
2.0L	(3SFE)	4	1987-91	Camry, Celica GT, Celica ST	New 4.965"	Min 4.950"	HSTO20
2.0L	(3SGELC)	4	1986-89	Celica GTS	New 4.695-4.699"	Min N/A	HSTO20B
2.0L	(2SELC)	4	1983-86	Camry, Celica	New 3.975-3.980"	Min 3.965"	HSTO20A
2.2L	(5SFE)	4	1990-01	Camry, Celica, MR2	New 4.963-4.967"	Min 4.953"	HSTO22
2.2L	(20R)	4	1975-80	Celica, Corona, P/U	New 3.960"	Min N/A	HSTO22A
2.4L	(2AZFE)	4	2001-03	Camry, Highlander, Solara (DOHC 16V)	N/A		HSTO24C
2.4L	(2RZFE)	4	1995-02	Tacoma (DOHC 16V)	N/A		HSTO24B
2.4L	(2TZFE)	4	1990-97	Previa (DOHC 16V) (Also Supercharged)	N/A		HSTO24A
2.4L	(22R)	4	1981-95	Celica, Corona, Pick-Up, 4-Runner	New 3.95-3.96"	Min 3.940"	HSTO24
2.4L	(22RE)	4	1981-95	Celica, Corona, Pick-Up, 4-Runner	New 3.79-3.80"	Min 3.780"	HSTO24
2.5L	(2VZFE)	V6	1989-91	Camry (DOHC 24V)	New 4.805-4.810"	Min 4.795"	HSTO25L/R
2.7L	(3RZFE)	4	1994-01	Tacoma, 4Runner, T100 (DOHC 16V)	N/A		HSTO24B
2.8L	(5MGE)	6	1982-88	Cressida, Supra	New 3.765"	Min 3.750"	HSTO28
3.0L	(1MZFE)	V6	2000-02	Camry, Sienna, Solara (DOHC 24V)	N/A		HSTO30CL/R
3.0L	(1MZFE)	V6	1994-99	Avalon, Camry, Sienna, Solara (DOHC 24V)	N/A		HSTO30BL/R
3.0L	(3VZFE)	V6	1992-93	Camry (DOHC 24V)	New 4.800"	Min 4.795"	HSTO25L/R
3.0L	(7MGE)	6	1986-93	Cressida, Supra, Turbo Supra	New 4.570"	Min 4.560"	HSTO30
3.0L	(3VZE)	V6	1988-94	Pick-Up, 4-Runner, T-100 (SOHC 12V)	New 5.312-5.315"	Min 5.302"	HSTO30AL/R
3.4L	(5VZE)	V6	1995-03	Tacoma, 4-Runner, T-100 (DOHC 24V)	New 4.805-4.808"	Min N/A	HSTO34L/R
4.5L	(1FZFE)	L6	1993-97	Landcruiser (DOHC 24V)	New 5.312"	Min N/A	HSTO45
<b>Volkswagen</b>							
1.6L	(AAM)	4	1983-99	Golf, Jetta, Scirocco, Passat, Corrado (16V)	New 5.236"	Min 5.220"	HSVK18
1.8L	(AEB)	4	1996-02	Passat (DOHC 20V)	N/A	Min 5.480"	HSVK18A
1.8L	(AM/AN)	4	1994-99	Golf, Passat, New Beetle (DOHC 20V)	N/A		HSVK18B
1.8L	(JH)	4	1983-93	Rabbit, Jetta, Cabriolet, Scirocco, Golf, Quantum, Fox (SOHC & DOHC) (Water Cooled)	New 5.238"	Min 5.215"	HSVK18
2.0L	(AEG)	4	1998-04	Beetle, Golf	New 5.242"	Min 5.220"	HSVK20B
2.0L	(ABA)	4	1993-02	Golf, Passat (SOHC)	New 5.2310"	Min 5.2204"	HSVK20A
2.0L	1984cc	4	1990-93	Golf, Jetta, Passat (DOHC) (Water Cooled)	New 4.660"	Min 4.650"	HSVK20
2.1L	(KM/WE)	5	1984	Quantum	New 5.236"	Min 5.226"	HSVK22
2.2L	(KX/JT)	5	1985-88	Quantum	New 5.236"	Min 5.226"	HSVK22A
2.5L	(AAF)	5	1990-99	Eurovan/Transporter	New 5.230"	Min 5.220"	HSVK25
2.8L	(AAA)	6	1992-99	Corrado, Golf, Passat, Jetta (VR6)	New 5.492-5.515"	Min 5.492"	HSVK28
2.9L	(ABV)	6	1991-96	Corrado, Golf, Passat (VR6)	New 5.492-5.515"	Min 5.492"	HSVK28
Volvo Applications Available Call 800-521-2936 or www.silver-seal.com							

Legend: (2) denotes 2 required for installation (Order separately), L/R denotes left and right sides available (Order separately), LE, H5CH98L or H5CH98R)

Final Parts

**Can't Find The Application You're Looking For? Call 800-521-2936 For Unlisted Applications**



# Head Spacer Shim Interchange

## Cylinder Head Spacer Shims Interchange - Fel-Pro to Silver Seal

Fel-Pro Gasket#	S.S. Shim #	Fel-Pro Gasket#	S.S. Shim #	Fel-Pro Gasket#	S.S. Shim #	Fel-Pro Gasket#	S.S. Shim #
7733PT-2	HSGM57	9156PT	HSIS18	9508,9509PT	HSNS30DL&R	9846PT	HSMT18A
7916	HSFO200	9158PT	HSCH25A	9510/11PT	HSFO29L&R	9851PT	HSHO22
7922PT	HSGM401B	9170PT	HSGM22	9514,9517	HSCH27L&R	9861	HSTO22
8180PT-2	HSGM74	9174PT	HSIS32	9515PT	HSGM23	9861PT	HSTO20
8188PT	HSTO16A	9201/03	HSTO30BL&R	9531PT	HSHO27	9887PT	HSMT18B
8215PT	HSIS26	9210PT-1	HSNS24	9539PT	HSFO20A	9898PT	HSCH52A
8265PT	HSFO460	9213PT	HSMZ15A	9540/41PT	HSFO30AL&R	9902/03	HSFO30L&R
8347PT-1	HSFO58	9219PT-1	HSHO15	9553PT	HSGM16	9904/05PT	HSTO25L&R
8364PT	HSGM66	9227/29	HSTO34L&R	9555	HSFO13	9910PT	HSCH39
8471PT-1	HSFO23	9228PT	HSNS30	9560PT	HSFO38A	9915PT	HSHO16A
8494PT	HSGM455B	9233PT	HSHO18	9570PT	HSVK20	9917	HSGM38B
8502PT	HSMZ16MA	9234PT	HSFO38D	9571PT	HSNS30	9918PT	HSGM38B
8506PT	HSGM292	9236PT	HSNS20	9572PT	HSMZ22A	9919PT	HSHO23
8510PT	HSGM50	9239PT	HSFO73AD	9604PT	HSTO16C	9921PT	HSMZ25
8518PT	HSGM400P	9250	HSFO42	9623	HSSZ13A	9922	HSCH20A
8523PT-1	HSGM74	9250	HSFO38C	9623PT	HSSZ13	9922PT	HSCH20A
8548PT-2	HSFO58A	9253	HSFO42	9623PT-1	HSSZ13	9923PT	HSMZ25
8553PT	HSCH52	92530PT	HSFO38C	9627PT	HSMT16	9924PT	HSCH24
8559PT-1	HSFO370	9254PT	HSIS32A	9627PT	HSMT20B	9926/27PT	HSCH35L&R
8621PT	HSIS19	9256	HSIS32A	9637PT	HSMZ26	9930PT	HSMZ16C
8699PT-2	HSGM28	9262/9263PT	HSFO38BL&R	9644PT	HSGM38A	9932PT	HSMT24A
8770	HSMT26	9274PT	HSHO16	9645PT	HSNS16A	9942PT	HSNS24C
8770PT	HSMT26	9282B	HSVK22A	9646PT	HSNS24A	9946	HSCH24A
8807PT-1	HSTO24	9289PT	HSHO18	9649PT	HSMZ30	9955PT	HSTO18
8857PT	HSFO38A	9293/94PT	HSFO40BL&R	9650PT	HSMZ30	9957PT	HSGM28
8891PT-1	HSFO69D	9296PT	HSCH22	9651PT	HSSZ10	9958PT	HSHO23A
8969PT	HSTO28	9309PT-2	HSFO19	9656/57PT	HSTO25L&R	9963PT	HSTO15A
8993PT-1	HSFO23	9352PT	HSMT15	9661PT	HSTO16B	9966PT	HSGM57C
9005PT	HSFO20	9354PT-1	HSGM43	9673/76PT	HSCH33L&R	9968PT	HSST19A
9014PT	HSGM20	9376PT	HSNS16	9683PT-1	HSSZ16	9971PT	HSST19
9015B	HSIS38D	9388PT	HSMT24	9684PT	HSIS16	9996/97	HSCH38AL&AR
9034PT	HSCH80	9405PT-1	HSGM25A	9685PT	HSIS16A	21181	HSNS12
9036PT(-1)	HSCH20	9406PT	HSGM25	9685PT-1	HSIS16A	21187PT	HSTO22A
9036PT(-1)	HSCH20A	9410PT	HSTO16	9691PT	HSMZ16A	21199	HSNS12
9037PT	HSCH25	9418PT	HSTO20B	9696B	HSMZ16B	21211PT	HSVK22
9047PT	HSFO73D	9422PT	HSMZ22A	9701PT	HSGM65D	21214PT-1	HSHO15B
9067B	HSMZ15	9429PT	HSHO20	9703PT	HSNS30A	26154PT	HSTO18A
9071PT	HSGM34A	9435	HSSZ10A	9711PT	HSMZ20A	26155PT	HSHO23A
9076PT	HSJP40	9436PT	HSIS15	9717PT	HSMZ18	26157PT	HSCH47
9081/83PT	HSFO40L&R	9440PT	HSHO18A	9718PT	HSMZ18A	26158PT	HSTO18B
9084PT	HSMT23D	9461B1	HSMZ16	9724/75PT	HSFO40L&R	26161PT	HSVK20B
9086PT	HSMT20B	9461PT	HSMZ16	9758PT	HSMT15	26162/63	HSFO68L&R
9090PT	HSVK18	9465	HSTO24B	9790/92PT-1	HSFO46L&R	26164PT	HSVK20A
9111PT	HSCH39A	9468	HSTO22	9815PT/ 9728PT	HSTO30AL&R	26171PT	HSNS24B1
9112PT	HSMT30	9469PT	HSGM20A	9816PT	HSNS20A	26172PT	HSMT24C
9113PT	HSGM34	9471PT	HSGM28	9819PT	HSNS16B	26182PT	HSVK18A
9115PT	HSGM24	9473PT	HSTO30	9820PT	HSNS24B	26183PT	HSMT18C
9116PT	HSMT26	9480	HSTO20	9829/30PT	HSCH38L&R	26186	HSMT35
9123PT	HSHO15A	9483PT	HSTO15	9831PT	HSTO24A	26186	HSMT30A
9124PT-1	HSHO20A	9489/90	HSTO30CL&R	9836/37B	HSCH30L&R	26193	HSMT35
9124PT-2	HSHO21	9496PT	HSIS23	9842	HSMT30A	26195	HSKY15
9132/36PT	HSFO28L&R	9505	HSCH35A	9842PT	HSMT30A		
9148PT	HSTO20A	9507	HSCH35A				

Engine Parts

# Head Spacer Shim Interchange



## Cylinder Head Spacer Shims Interchange - Victor to Silver Seal

Victor Gasket#	S.S. Shim #	Victor Gasket#	S.S. Shim #	Victor Gasket#	S.S. Shim #	Victor Gasket#	S.S. Shim #
1191	HSGM401B	4906	HSMZ26	5856	HSMZ30	54045	HSCH80
3428	HSFO58A	4917	HSNS20A	5857	HSMZ30	54049/50	HSTO34L&R
3432	HSGM66	4920	HSTO22	5859/60	HSTO25L&R	54051	HSGM22
3492	HSGM455B	4956	HSGM34A	5863	HSNS24A	54059	HSGM28
3494	HSGM400P	4957	HSGM34	5865	HSNS30A	54060	HSMZ25
3502	HSFO58	5701	HSGM25A	5866	HSSZ16	54061	HSMZ25
3514	HSGM50	5703	HSMT20B	5868	HSMZ16A	54098	HSNS24C
3519	HSFO23	5704	HSSZ10A	5869G	HSFO73D	54112	HSCH35A
3536	HSCH52	5705	HSIS15	5870	HSGM23	54113	HSCH35A
3549	HSGM28	5707	HSTO24	5871	HSGM20A	54119	HSMT24A
3592	HSTO22A	5709	HSTO20B	5872	HSVK20	54119G	HSMT24A
3605	HSNS12	5711	HSVK22A	5874	HSSZ10	54142	HSMT35
3657	HSVK22	5713	HSJP40	5875	HSMT20B	54143	HSMT35
3675	HSMT15	5720	HSGM25	5875	HSNS16A	54144	HSMT30A
3683	HSMZ16MA	5721/22	HSFO29L&R	5877	HSMZ16B	54150	HSCH25
3684	HSGM25A	5731	HSFO15A	5878	HSMZ18	54172	HSMT18B
3688	HSCH22	5735	HSFO20	5879	HSMZ18A	54173	HSTO24B
3693	HSNS12	5736	HSMZ16	5880	HSFO13	54175	HSFO38C
3697	HSMT26	5739	HSFO19	5881	HSFO21	54175	HSFO42
3698	HSMZ15	5741	HSCH39A	5884	HSFO19	54176	HSFO38C
3706	HSGM16	5742	HSNS24B	5887/88	HSFO40L&R	54176	HSFO42
3714	HSFO15B	5743	HSIS23	5890	HSTO24A	54177/78	HSFO38BL&R
3716	HSIS19	5744	HSGM43	5891	HSNS30	54195/96	HSFO40BL&R
3721	HSGM20	5745	HSGM50	5894/95	HSCH38L&R	54197	HSFO20
3756	HSTO16	5746	HSGM57	5897	HSFO23	54204	HSFO73AD
3757	HSTO20A	5747	HSMT24	5907	HSMT15	54216	HSFO23A
3758	HSVK18	5757	HSNS16	5910	HSIS16	54217	HSFO30
3763	HSMZ22A	5758	HSNS30	5911	HSIS16A	54227	HSFO19
3767	HSNS24	5759	HSSZ13	5912	HSGM38B	54230/31	HSCH27L&R
3770	HSFO18	5764	HSCH22	5913	HSGM38B	54234	HSFO15C
3778/79	HSFO28L&R	5765	HSMT30	5917	HSIS18	54234	HSFO16A
3782	HSFO15	5768	HSGM38A	5922	HSGM57C	54237	HSCH47
3783	HSFO18	5769	HSTO30	5926/27	HSFO30L&R	54242/43	HSFO68L&R
3784	HSNS20	5773	HSFO27	5928	HSCH52A	54248	HSCH25A
3786	HSMT23D	5779	HSGM20	5929	HSGM24	54250	HSCH37
3789G	HSFO69D	5786	HSFO38D	5931/32	HSFO46L&R	54254	HSFO16
3793	HSGM28	5786	HSFO38A	5936	HSCH20	54324/25	HSCH38L&R
3829	HSGM292	5787	HSTO15	5938	HSFO23	54329	HSMT24C
3902	HSGM74	5788	HSTO20	5940	HSCH52A	54330	HSVK20A
3910	HSFO200	5797	HSTO16B	5941	HSCH39	54336/37	HSTO30CL&R
3978	HSFO460	5806/07	HSTO30AL&R	5942	HSMZ20A	54338/39	HSTO30BL&R
3979	HSFO370	5811	HSMT16	5978/79	HSCH35L&R	54343	HSVK28
3990	HSTO28	5812	HSMT18A	5985/86	HSCH33L&R	54350	HSFO20A
4021	HSGM65D	5816	HSFO38A	5992	HSST19	54354	HSTO18
4051	HSFO23A	5823	HSFO20A	5993	HSST19A	54362	HSFO22A
4878	HSGM74	5824	HSFO22	53437	HSTO15A	54363/64	HSFO30AL&R
4895	HSNS16B	5826	HSNS30	54038	HSIS32		
4898	HSFO18A	5850	HSIS26	54044	HSCH20A		
4899	HSTO16A	5851	HSMZ22A	54044	HSCH24		









# Valve Keepers/Dowel Pins

## Quality Valve Keepers

*Our Keepers Meet or Exceed OEM Specifications*

Stem Size	Applications	Part #	Keeper Style
11/32"	AMC, GM, Ford, Studebaker, Det. 71, Continental	VK555	<b>Single Groove - Single Bead</b> 
11/32"	AMC, GM, Ford, Studebaker, Det. 71, Continental	VK555HD*	
3/8"	AMC, GM, Ford, IHC, Cummins, J. Deere, A. Chalmers	VK613	
3/8"	AMC, GM, Ford, IHC, Cummins, J. Deere, A. Chalmers	VK613HD*	
5/16"	Chrysler, Ford, GM, Det. Diesel	VK614HD*	
7mm	GM Quad 4 138 L4 (2.3L)	VK138	<b>Single Groove - Top Bead</b> 
5/16"	GMC 4 Cyl. & 6 Cyl.	VK217	
11/32"	Cadillac 4.5L	VK273	
.315	Chrysler 2.6L (85-Up)	VK232	
8mm	AMC 4.0L	VK242	
3/8"	Chrysler, Cummins	VK746HD*	<b>Double Groove - 2 Bead</b> 
7mm	Ford 4.6L SOHC/DOHC (92-98)	VK281	<b>Multiple Groove - 3 or 4 Bead</b> 
.312	Chrysler 2.2L, (86-91) Exh.	VK237	
5/16"	Ford 1.6L, 1.9L, 3.0L	VK241	
.315	Ford 2.8L, 3.8L, Chrysler 1.7L	VK619	
11/32"	Ford	VK620	
3/8"	AMC, Chrysler	VK766HD*	

**SEE PRICE SHEET FOR PACKAGE QUANTITY/PRICE DISCOUNTS**

\*Heat Treated/Hardened

## Magnetic Valve Keeper Installers

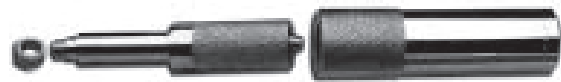
Use with compressor to install keepers. Attach keepers to magnet. Align with groove. Release compressor until spring retainer locks keepers in place.



Size	Part #
6mm & 6.6mm	4291
7mm	4292
8mm & 5/16"	4293
11/32"	4294
3/8"	4295

## Twin Magnetic Valve Keeper Tool

A great tool for removing or installing valve keepers. Works in half the time compared to a regular valve keeper tool. When installing keepers and retainers, put probe in handle, place on retainer, and strike with a mallet. Comes complete with Mercedes Benz adaptor.



**Part #4290**

## Dowel Pins

**(10 Per Pack)**

Make	Engine Size	Location	Dimensions	Part #
AMC	V6 232 and 258	Head to Block	1/2" x .625 long	DP258
GM	112 (1.8), 122 (2.0), & 173 OE #14024244	Head to Block	.598" x .482" long	DP173
Ford	2.3L & 3.8L OE #D4FZ6A008A	Head to Block	.685" x .755" long	DP232
Ford	Big Block V8 OE #B9AE6A008A	Head to Block	.743" x .431" long	DP460



Engine Parts

# Misc. Engine Parts



## Balance Shaft Eliminator Kits

### Increase Pressure and Oil Flow

All 3 kits enable the engine to be repaired without the use of balance shafts. This will increase power and decrease friction and heat.

### Chrysler/Mitsubishi 1.8L, 2.0L, 2.4L

G62B, G63B, 4G63B, G64B, G64B, 4G64B (Belt Drive Applications)

**Kit Includes:** Upper and Lower Bushings, Oil Plug Pin Bushing, and Oil Galley Block-Off Plug.

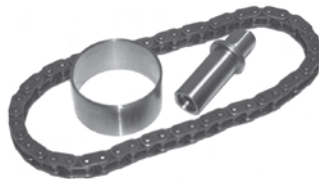


**Part #6642**

### Chrysler/Mitsubishi 2.6L Standard Kit

**Kit Includes:**

Balance Shaft Replacement Pin, Replacement Bushing, and Oil Pump Drive Chain.



**Part #6640**

### Chrysler/Mitsubishi 2.6L Master Kit

**Kit Includes:**

Balance Shaft Replacement Pin, Replacement Bushing, Oil Pump Drive Chain, Chain Guide, Crank Guide, Crank Gear, and Oil Pump Gear.



**Part #6641**

## Jet Valve Eliminator Kits

### Chrysler/Mitsubishi 2.6L



Replaces jet valves in cylinder heads for use in non jet valve applications. Fits many other applications where OEM Jet Valve #MD009440 is used.

Description	Part #
Early Model (Short)	6644
Late Model (Long)	6645

## Replacement Jet Valve For Chrysler/Mitsubishi 2.6L

Replacement Jet Valve fits the following 2.6L engines: G15B, G32B, G62B, G52, G63B, & G54B.

**Part #6647 (OE #MD009440)**



## Ford Fuel Pump Eccentric Kit

**Fits Ford SB & BB 255, 302, 351M, 351W, 400M, 429, & 460.**

Kit Includes: Inner & Outer Eccentric, Bolt & Washer. Replacement parts sold individually. Replaces the following OEM numbers: D5AZ-6287-B & DOAZ-6287-A.



**Part #6557**

### Replacement Parts

Description	Part #	Description	Part #
Inner Eccentric	6557A	Outer Eccentric	6557B
Eccentric Washer	6557C	Eccentric Bolt	6557D

## Ford Lash Caps

Fits Ford 302-351W, 1969-77. Sold Individually.



**Part #6510**

## Smog Plugs

### Ford



**Part #6556**

Fits Ford V8 255, 302, 351C, 351M, 351W, 400. (5/8"-11 OD x 7/16"-14 ID)

### Chevy



**Part #6556CS**

Fits Chevy 250, 292, & Pontiac 151. (3/4"-18)

## Press-In Rocker Arm Studs

Description	Part #
3/8"-24 x 2-1/2" (on size)	6437
3/8"-24 x 2-1/2" (.003 oversize)	6438
5/16"-24 x 2-3/4" (on size)	6440



## Main Cap Bolts

7/16"-14 x 2", Fits: Chevy 366, 396, 400-4 bolt 402, 427, 454.

**Part #6461**



## Connecting Rod Bolts

Description	Part #
9mm - Fits 2.8L (173) Chevy	6042
3/8" - Fits Most SB Chevy	6043



Engine Parts

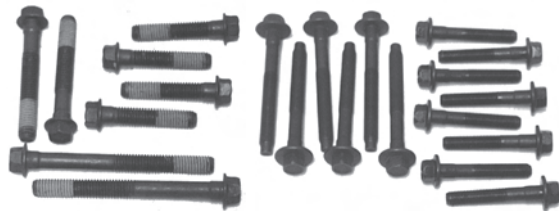


# Cylinder Head Bolt Kits

## Cylinder Head Bolt Kits

### Torque to Yield Applications

Silver Seal Cylinder Head Bolts are manufactured to meet or exceed OEM design specifications. For proper use, OEM installation instructions must be followed. Applications designated as "torque-to-yield" (TTY) require new head bolts and should be replaced.



### Chrysler

Eng.	Liter/CI	Year	Qty.	OEM #	Kit Part#
L4	2.2L/135 (10mm)	1981-85	10	6500754	<b>CB010</b>
L4	2.2L/135 & 2.5L/153	1985-up	10	6501433	<b>CB011</b>
L4	2.6L/156 (Mitsubishi)	1978-90	10	MD020730	<b>CB156</b>
V6	3.0L/181 (Mitsubishi)	1986-96	16	MD065959	<b>CB180</b>
V6	3.3L/201 & 3.8L/230	1990-97	16	6501433	<b>CB201</b>
			2	6101631	
V6	3.5L/215	1993-95	16	6502665	<b>CB215</b>

### Ford

L4	1.6L/98 & 1.9L/116	1981-94	10	E4FZ6065A	<b>CB016</b>
L4	2.3L/140 O.H.C.	1974-95	10	D4FZ6065A	<b>CB140</b>
V6	2.9L/177	1986-90	16	E6TZ6065A	<b>CB177</b>
	4.0L/244	1990-up			
V6	3.0L/183 (Exc. SHO)	1986-95	16	E8DZ6065A	<b>CB183</b>
			8	E9DZ6065B	<b>CB232</b>
			8	E2DZ6065D	
V6	3.8L/232	1982-88	8	E9DZ6065B	<b>CB038</b>
			8	E9SZ6065B	
V8	4.6L/281	1991-94	20	F5AZ6065A	<b>CB281</b>
L6	4.9L/300 Truck	1985-94	14	391414	<b>CB049</b>
			10	F3ZZ6065B	
V8	5.0L/302	1970-98	8	F3ZZ6065C	<b>CB302</b>
			2	F3ZZ6065D	
V8	5.8L/351W	1973-97	10	C9OZ6065A	<b>CB351</b>
			10	C9OZ6065B	
V8	7.5L/460 Truck	1988-97	12	E7TZB	<b>CB460</b>
			8	C85ZB	

### General Motors

L3	1.0L/61 Geo Metro/Sprint	1989-93	10	96069992	<b>CB061</b>
L4	1.6L/98 Geo Storm (Vin 5 & 6) & Nova (Vin 4 & 5)	1985-94	5	94844882	<b>CB160</b>
			5	94844883	
L4	1.6L/98 Pontiac Lemans	1988-93	10	96051591	<b>CB098</b>
			4	10031213	
L4	1.8L/112 Brazil O.H.C. Aluminum Head	1982-86	4	10031214	<b>CB018</b>
			2	10031210	
			2	10031213	
L4	2.0L/122 Brazil O.H.C. Aluminum Head	1987-93	7	10031214	<b>CB020</b>
			1	10031210	
L4	1.8L/112 & 2.0L/121 OHV Cast Iron Head	1982-86	2	476572	<b>CB121</b>
			8	476543	
			5	10101245	
L4	2.2L/134 OHV	1990-94	4	10101247	<b>CB134</b>
			1	10170485	
L4	2.3L/138 Quad 4 Vin "A", "D", "3"	1988-95	2	22531281	<b>CB138</b>
			8	22531282	
			1	12338010	
L4	2.5L/151 Vin "R"	1985-93	1	12338012	<b>CB151</b>
			8	12337818	

### General Motors (Cont.)

Eng.	Liter/CI	Year	Qty.	OEM #	Kit Part#
L4	2.5L/151 Vin "U"	1985-91	1	12338022	
			1	12337925	<b>CB025</b>
			8	12338006	
V6	2.8L/173 Aluminum Head w/FWD Vin "W" (front head)	1985-89	8	10227594	<b>CB189</b>
			6	10227593	
			2	10100093	
V6	2.8L/173 Aluminum Head w/FWD Vin W (rear head)	1985-89	8	10227594	<b>CB031</b>
			8	10227593	
V6	2.8L/173 Aluminum Head w/RWD Vin S,X,Z,1	1982-89	8	476543	<b>CB173</b>
			8	476572	
V6	3.0L/181	1985	4	25523852	<b>CB300</b>
			8	25523853	
			4	25523854	
V6	3.0L/181	1986-88	4	25529869	<b>CB181</b>
			8	25527831	
			4	25525953	
V6	3.1L/189 Vin "T" RWD	1988-93	8	10227594	<b>CB031</b>
	3.1L/189 Vin W (rear hd)	1991-93	8	10227593	
V6	3.1L/189 Vin "T" (front head) FWD	1991-93	8	10227594	<b>CB189</b>
			6	10227593	
			2	10100093	
V6	3.1L/189 RWD (Cast Hds)	1988-93	8	476572	<b>CB280</b>
	3.1L/189 Vin D (R.Hd) FWD		8	476543	
V6	3.3L/200, 3.8L/229, 4.3L/262	1978-88	10	14082317	<b>CB043</b>
			4	14082316	
			12	14082315	
			8	25533811	
V6	3.3L/204 Turbo w/Vin "1", "L"	1989-93	4	25525953	<b>CB204</b>
			4	25527831	
V6	3.8L/231 (except 1985-88) Vin "A", "B", "3", "7"	1986-94	4	25529869	<b>CB181</b>
			8	25527831	
			4	25525953	
V6	3.8L/231 Vin "A", "B", "3", "7"	1985-88	12	25527831	<b>CB231</b>
			4	25525953	
V6	3.8L/231 Vin "C"	1977-78	8	25533811	<b>CB380</b>
			8	25525953	
V8	262, 265, 267, 283, 302, 305, 305H, 307, 327, 350, 400 (Cast Iron)	1955-93	14	14082317	<b>CB350</b>
			4	14082316	
			16	14082315	
V8	6.2L/381 Diesel	1982-93	34	14077194	<b>CB381</b>
V8	396, 402, 427, & 454	1965-76	8	3877669	<b>CB454</b>
			24	10141204	

### Subaru

L4	2.5L/2500cc DOHC	1996-99	12	11095AA041	<b>CB250</b>
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### Toyota

V6	3.0L/2958cc (3VZE)	1988-95	16	9091002075	<b>CB295</b>
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# Misc. Engine Parts



## Fuel Pump Block-Off Plates (Gasket Included)

Make	Description	Part #
Universal	Chevy BB, Buick V8, Pontiac V8, Dodge V8, All Ford 302 & 351W, AMC V6 & V8	TW6592
Chevy	Small Block (No Center Hole)	TW6590
GM	All 4.3L V6	TW6594
Chevy	SB Fuel Pump Mounting Plate	TW6597



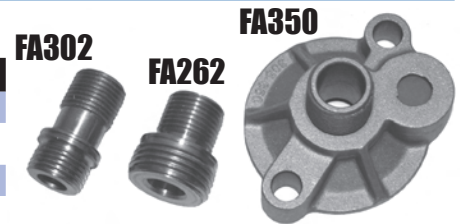
## Push Rod Guide Plates

Type	Application (Reference Only)	Diameter	Part #
Flat	GM 173 (2.8L)	5/16"	6516
Flat	SB Chevy 305-350	5/16"	6530
Step	SB Chevy 305-350	5/16"	6531
Step	SB Chevy 305-350	3/8"	6532
Step	BB Chevy 396, 427, 454	3/8"	6533
Step	BB Chevy 396, 427, 454	7/16"	6534
Flat	SB Ford 289, 302, 351W	5/16"	6545
Flat	SB Ford 289, 302, 351W	3/8"	6546
Adjustable	SB Chevy V8 & 90 V6	5/16"	7005



## Oil Filter Adaptors

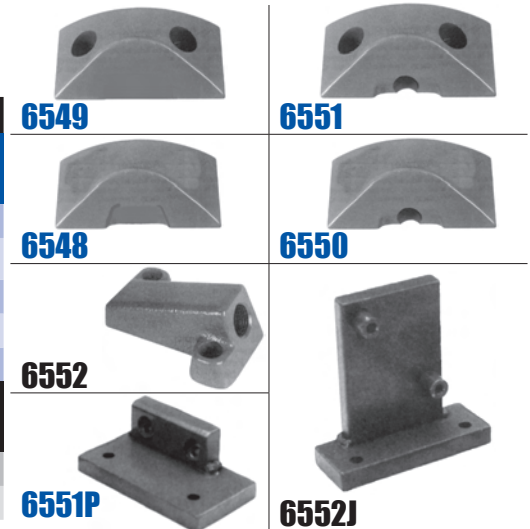
Make	Application (Reference Only)	OE #	Part #
Ford	302(5.0L), 351(5.7L) 1968-96	D7AZ6890A	FA302
GM	262(4.3L) 1986-98	14081300	FA262
GM	V6 & SB V8 w/Bypass Valve	3952301	FA350
GM	SB GM, Performance Version w/Welded Bypass Valve		FA350HP



## Oil Dipstick Conversions

Convert heavier early model blocks for late model rebuilds.

Description	Part #
<b>Chevy</b>	
<b>Convert Early Style Chevy 305/350 Pre-80 to 80-Up</b>	
Bolt-On w/Bolt Holes (Bolts Included)	6549
Bolt-On w/Dipstick & Bolt Holes (Bolts Included)	6551
Weld-On w/o Dipstick Hole	6548
Weld-On w/Dipstick Hole	6550
Drill Jig Fixture (Pan Rail)	6551P
<b>Ford</b>	
<b>Convert 240/300 Ford Dipstick From Pre-81 to 81-Up</b>	
Bolt-On w/Dipstick & Bolt Holes (Bolts Included)	6552
Drill Jig Fixture (Pan Rail)	6552J



## Chevrolet Conversion Plate

Convert early style Chevy heads to late model applications without changing exhaust manifolds. Requires one unit per head. Easy to install. Use Hi-Temp silicone and standard gaskets.

**Part #6553**



## Ford Escort Conversion Plate

Convert 1987-95 Escort EFI engines to carbureted applications. Kit includes 1 plate, 1 ea. Inner & Outer gaskets. (Replaces OE#E2AE-6881-BC)

**Part #6553A**



Engine Parts



# Diesel Tools

## Diesel Injector Tubes & O-Rings

<b>GMC</b>			
Description	OE #	Part #	
Injector Tube Std. Nose Model 53,71,92	8925981	719531	
Injector Tube +.015 Thick Nose Model 53,71,92		719571	
Buna "O" Ring Nitrile Model 53,71,92	1966415	719532	
Tube Seat Shims .010 Model 53,71,92		719534	
4 Valve Copper Water Director Model 71	511332	719150	
Injector Tube Model 60	2350158	719834	
Silicone "O" Ring Model 60	2350	719835	
<b>Caterpillar</b>			
Water Director Model D7, D8 (G, Short or Extra Short)	5H7071	719071	
<b>International</b>			
Brass Injector Tube Model DT466,414,436	675442-C1	719461	
Brass Injector Tube Model DT239,259 (.422 Tip Dia.)		719240	



## Detroit Diesel Injector Tube Tools

### 53, 71, & 92 Series Engines



Description	Part #	Description	Part #
Tube Removal Tool	716210	Tube Flaring Tool	716310
Tube Installation Tool w/Handle	716250	Tube End Facer	716410
Installation Tool Handle	716251	Split-Sleeve Seat Cutter Holder	716430
Pilot for Tube Installation Tool	716260	Tube Seat Cutter - Carbide	716450
Dowel Pin for Pilot & Tip Reamer	716265	Seat Cutter Depth Gauge w/Handle	716455
Tube Tip Reamer	716300	Parallels	716480

### Complete Kit - Part #716100

## Heat Tabs

### For Diesel Engines

When an engine reaches 225-230°F (107-110°C) the center will melt out, providing fast visual evidence of misuse!



Quantity	Part #
1 Bag (100 Tabs)	HT1L
5 Bags (500 Tabs)	HT5L
10 Bags (1000 Tabs)	HT10L
Heat Tab Adhesive (3 oz.)	HTA

Note: See page 4 for complete info.

## Air Powered Diesel Valve Guide Drivers

Drive guides in from the shoulder to prevent guide damage. Installing drivers are recessed to insure correct installed height.



<b>Complete Kit</b> (Includes parts marked with *)		<b>4625</b>	
Application	Installer	Remover	
Caterpillar 3406-3408	4637	4634	
Cummins	4629*	4628*	
Cummins L10	4639	•	
Detroit GMC 53	4633*	4632*	
Detroit GMC 71/92	4631*	4630*	
International DT466	4635	4634	
Mack	4627*	4626*	
Mack (4 Valve Late)	4638	•	

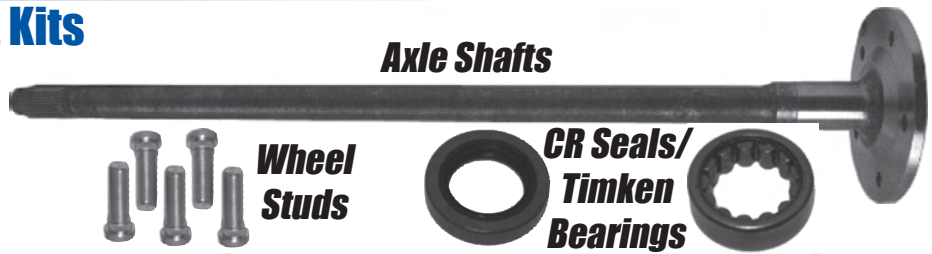
# Axle Shaft Kits



## Silver Seal® Axle Shaft Kits

Direct replacement kits that save you time with added value. We offer lower prices and a great selection of the most popular axles on the market. All axle kits & components are manufactured to last longer than the originals and meet or exceed O.E.

specifications. Each kit comes complete with Timken Bearings, CR Seals, & new wheel studs, or if needed, each axle shaft, wheel stud, or bearing/seal kit can be ordered separately for your convenience.



### Dodge

Year	Application (Reference Only)	Drive	Spline	Side	Cover Bolts	Ring Gear	Length	Wheel Studs	OEM#	Axle Kit Part #	Bare Axle Part#	Bearing/ Seal Kit #	Stud #
72-86	Various Truck & Passenger Car	4x2	27	L&R	10	8.25	31-5/8"	5	4137838	<b>201000</b>	204000	222200	333000
74-83	Truck, Ramcharger, Etc. 1/2 ton	4x4/4x2	31	L&R	12	9.25	31-11/16"	5	3723824	<b>201001</b>	204001	222200	333000
80-84	Truck, Ramcharger, Etc. 1/2 ton	4x4/4x2	31	L&R	12	9.25	31-5/8"	5	4037726	<b>201002</b>	204002	222200	333000
85-93	Truck, Ramcharger, Etc. 1/2 ton	4x4/4x2	31	L&R	12	9.25	31-5/8"	5	4137429	<b>201003</b>	204003	222200	333000
85-96	Van, B150-250 & B1500-2500	4x4/4x2	27	L&R	10	8.25	32-9/16"	5	4137670	<b>201004</b>	204004	222200	333000
87-90	Dakota (w/round cover)	4x4/4x2	27	L&R	10	8.25	30-3/4"	5	4348510	<b>201005</b>	204005	222200	333000
87-90	Dakota (w/octagon cover)	4x2	25	L&R	10	7.25	30-1/4"	5	4348511	<b>201006</b>	204006	222200	333000
91-96	Dakota (w/round cover)	4x4/4x2	27	L&R	10	8.25	30-3/4"	6	4506115	<b>201007</b>	204007	222200	333000
91-96	Dakota (w/octagon cover)	4x2	25	L&R	10	7.25	30-1/4"	5	4506147	<b>201008</b>	204008	222200	333000
92-01	Van, 3/4 - 1 ton	4x2	31	L&R	12	9.25	32-9/16"	5	52067708	<b>201009</b>	204009	222200	333000
94-00	Truck 1/2 ton	4x4/4x2	31	L&R	12	9.25	34-1/8"	5	52067614	<b>201010</b>	204010	222200	333001

### Ford

66-73	Bronco, 2700 lb w/small bearing	4x4	28	R	n/a	9	29-5/8"	5	D3TZ4234G	<b>201030</b>	204030	222202	333002
66-73	Bronco, 2700 lb w/small bearing	4x4	28	L	n/a	9	27-1/4"	5	D3TZ4234F	<b>201031</b>	204031	222202	333002
67-75	Bronco, 3300 lb w/large bearing	4x4	28	R	n/a	9	29-5/16"	5	D3TZ4234H	<b>201033</b>	204033	222209	333002
67-75	Bronco, 3300 lb w/large bearing	4x4	28	L	n/a	9	26-15/16"	5	D3TZ4234J	<b>201032</b>	204032	222209	333002
74-75	Bronco, 2900 lb. (large bearing)	4x4	31 Conv.	R	n/a	9	29-3/4"	5	D4TZ4234E	N/A	204035		
74-75	Bronco, 2900 lb. (large bearing)	4x4	31 Conv.	L	n/a	9	27-1/4"	5	D4TZ4234F	N/A	204034		
74-86	Bronco, Truck, Van 1/2 ton	4x4/4x2	31	L&R	n/a	9	31-51/64"	5	D6TZ4234A D9TZ4234A	<b>201036</b>	204036	222203	333002 333003
76-77	Bronco (large bearing)	4x4	31 Conv.	R	n/a	9	29-11/16"	5	D6TZ4234F	N/A	204038		
76-77	Bronco (large bearing)	4x4	31 Conv.	L	n/a	9	27-1/4"	5	D6TZ4234G	N/A	204037		
80-86	F100/F150, Full Size Bronco	4x4/4x2	31	L&R	n/a	9	31-13/16"	5	D6TZ4234A	<b>201039</b>	204039	222203	333003
83-86	F100/F150, Full Size Bronco	4x4/4x2	31	R	10	8.8	31-1/16"	5	E3TZ4234D	<b>201040</b>	204040	222200	333003
83-86	F100/F150, Full Size Bronco	4x4/4x2	31	L	10	8.8	33-7/32"	5	E3TZ4234E	<b>201041</b>	204041	222200	333003
83-91	Bronco II	4x4	28	R	10	7.5	27-11/16"	5	E4TZ4234A	<b>201042</b>	204042	222201	333003
83-92	Bronco II, Ranger, Aerostar	4x4/4x2	28	L	10	7.5	29-5/32"	5	E3TZ4234C	<b>201043</b>	204043	222201	333003
83-93	Ranger	4x4/4x2	28	R	10	7.5	26-1/4"	5	E3TZ4234B	<b>201044</b>	204044	222201	333003
86-97	Aerostar	4x4/4x2	28	L	10	7.5	32-3/16"	5	E69Z4234A	<b>201045</b>	204045	222201	333003
87-96	F150, Bronco (full size)	4x4/4x2	31	R	10	8.8	31-1/6"	5	E7TZ4234A	<b>201046</b>	204046	222200	333003
87-96	F150, Bronco (full size)	4x4/4x2	31	L	10	8.8	33-3/16"	5	E7TZ4234B	<b>201047</b>	204047	222200	333003
87-98	E150 Van	4x2	31	L	10	8.8	35-5/8"	5	E7UZ4234E	<b>201064</b>	204064	222200	333003
91-94	Explorer & Navajo	4x4/4x2	31	R	10	8.8	27-3/4"	5	F1TZ4234A	<b>201048</b>	204048	222200	333003
91-94	Explorer & Navajo	4x4/4x2	31	L	10	8.8	30-5/8"	5	F1TZ4234B	<b>201049</b>	204049	222200	333003
91-97	Ford, Linc., Merc., Pass., w/o ABS	4x2	28	L&R	10	8.8	31-3/4"	5	F2AZ4234C	<b>201050</b>	204050	222201	333004
91-97	Ford, Linc., Merc., Pass., w/ ABS	4x2	28	L&R	10	8.8	31-3/4"	5	F2AZ4234B	<b>201051</b>	204051	222201	333004
94-97	Mustang exc. Cobra w/ ABS	4x2	28	L&R	10	8.8	29-15/16"	5	F4ZZ4234B	<b>201052</b>	204052	222201	333004
94-97	Mustang exc. Cobra w/o ABS	4x2	28	L&R	10	8.8	29-15/16"	5	F4ZZ4234A	<b>201053</b>	204053	222201	333004
93-97	Ranger	4x4/4x2	28	R	10	7.5	27-1/4"	5	F37Z4234A	<b>201054</b>	204054	222201	333003
93-97	Ranger	4x4/4x2	28	L	10	7.5	30-1/8"	5	F37Z4234B	<b>201055</b>	204055	222201	333003
93-97	Ranger	4x4/4x2	28	R	10	8.8	27-1/4"	5	F37Z4234A	<b>201065</b>	204065	222200	333003
93-97	Ranger	4x4/4x2	28	L	10	8.8	30-1/8"	5	F37Z4234B	<b>201066</b>	204066	222200	333003





# Axle Shaft Kits

## Ford (Cont.)

Year	Application (Reference Only)	Drive	Spline	Side	Cover Bolts	Ring Gear	Length	Wheel Studs	OEM#	Axle Kit Part #	Bare Axle Part#	Bearing/ Seal Kit #	Stud #
95-00	Explorer, Mountaineer	4x4/4x2	31	R	10	8.8	27-5/8"	5	F5TZ4234A	<b>201056</b>	204056	222200	333003
95-00	Explorer, Mountaineer	4x4/4x2	31	L	10	8.8	30-1/2"	5	F5TZ4234B	<b>201057</b>	204057	222200	333003
97-99	F150, Expedition	4x4/4x2	31	R	10	8.8	31-3/4"	5	F75Z4234NA	<b>201058</b>	204058	222200	333005
97-99	F150, Expedition	4x4/4x2	31	L	10	8.8	33-3/8"	5	F75Z4234NB	<b>201059</b>	204059	222200	333005
97-99	Expedition, Navigator, F150	4x4/4x2	34	R	10	9.75	31-3/4"	5	F75Z4234MA	<b>201060</b>	204060	222204	333005
97-99	Expedition, Navigator, F150	4x4/4x2	34	L	10	9.75	33-3/8"	5	F75Z4234MB	<b>201061</b>	204061	222204	333005
97-99	Expedition, Navigator, F150	4x4/4x2	34	R	10	9.75	31-3/4"	5	F75Z4234LA	<b>201062</b>	204062	222204	333005
97-99	Expedition, Navigator, F150	4x4/4x2	34	L	10	9.75	33-3/8"	5	F75Z4234LB	<b>201063</b>	204063	222204	333005

## GM

65-69	Truck 1/2 ton	4x4/4x2	30	L&R	12	8.875	30-11/16"	6	3893605	<b>201090</b>	204090	222200	333006
65-72	Camaro, Chevelle, Nova	4x2	30	L&R	12	8.875	29-9/16"	5	3969349	<b>201091</b>	204091	222201	333006
65-75	Camaro, Chevelle, Nova	4x2	28	L&R	10	8.2	29-5/8"	5	1255803	<b>201092</b>	204092	222201	333006
68-72	Camaro, Chevelle, El Camino	4x2	30	L&R	12	8.875	30-1/16"	5	3969285	<b>201093</b>	204093	222201	333006
70-81	Camaro, Chevelle, Firebird w/drum	4x2	28	L&R	10	8.2	30-1/8"	5	1255802	<b>201094</b>	204094	222201	333006
70-81	Blazer, Suburban, Truck 1/2 ton	4x4	30	L&R	12	8.875	31-11/32"	6	14071750	<b>201095</b>	204095	222200	333006
71-81	Blazer, Suburban, Truck 1/2 ton	4x2	30	L&R	12	8.875	31-15/32"	5	14071751	<b>201096</b>	204096	222200	333007
73-88	Buick, Chevy, Olds, Pontiac Pass. Cars	4x2	28	L&R	10	8.5	30-7/16"	5	1255801	<b>201097</b>	204097	222201	333006
73-93	Truck 3/4-1 ton Full-floating	4x4/4x2	30	R	14	10.5	37-9/16"	8	3977384	<b>201098</b>	204098	222205	333008
73-00	Truck 3/4-1 ton Full-floating	4x4/4x2	30	L	14	10.5	31-11/16"	8	3977383	<b>201099</b>	204099	222205	333008
75-88	Van 1/2-light 3/4 ton	4x2	28	L&R	10	8.5	33-15/32"	5	14042690	<b>201100</b>	204100	222200	333007
77-90	Buick, Chevy, Olds, Pontiac Pass. Cars	4x2	26	L&R	10	7.5	30-1/2"	5	22506477	<b>201101</b>	204101	222201	333006
78-81	Various Mid-size cars	4x2	26	L&R	10	7.5	28-1/2"	5	551818	<b>201102</b>	204102	222201	333006
78-89	Blazer, Suburban, Truck 1/2 ton	4x2	28	L&R	10	8.5	31-3/8"	5	14035542	<b>201103</b>	204103	222200	333007
81-96	Truck, Van 3/4-1 ton sgl. Wheel	4x4/4x2	33	L&R	14	9.5	32-1/2"	8	14035395	<b>201104</b>	204104	222206	333008
82-87	Camaro, Firebird w/rear disc brake	4x2	26	L&R	10	7.5	30-15/32"	5	22515440	<b>201105</b>	204105	222201	333009
82-88	Blazer, Suburban, Truck 1/2 ton	4x4	28	L&R	10	8.5	31-15/32"	6	14039547	<b>201106</b>	204106	222200	333006
82-89	Camaro, Firebird w/rear drum brake	4x2	26	L&R	10	7.5	30-5/16"	5	22515441	<b>201107</b>	204107	222201	333009
83-89	S-series Blazer, Jimmy, Sonoma	4x4	26	L&R	10	7.5	29-1/8"	5	14035368	<b>201108</b>	204108	222201	333009
83-96	Truck, Van 1 ton sgl. Wheel	4x2	33	L	14	9.5	35-7/8"	8	14035355	<b>201109</b>	204109	222206	333007
85-89	Astro, Safari mini van	4x2	26	R	10	7.5	30-15/32"	5	14074822	<b>201111</b>	204111	222207	333007
85-89	Astro, Safari mini van	4x2	26	L	10	7.5	34-3/4"	5	14074821	<b>201110</b>	204110	222207	333007
88-90	Impala, Caprice, Passenger Cars	4x2	30	L&R	10	8.5	30-1/2"	5	26014036	<b>201112</b>	204112	222201	333006 333007
88-91	Blazer, Suburban, Truck 1/2 ton	4x4	30	L&R	10	8.5	31-5/16"	6	26010414	<b>201113</b>	204113	222200	333006
88-91	Suburban, Truck 1/2-ton	4x2	30	L&R	10	8.5	31-3/8"	5	26010415	<b>201114</b>	204114	222200	333010
88-95	Van 1/2 ton	4x2	30	L&R	10	8.5	33-15/32"	5	26013313	<b>201115</b>	204115	222200	333007
88-97	S-series Blazer, Jimmy, Sonoma	4x2	28	L&R	10	7.5	26-5/8"	5	26009534	<b>201116</b>	204116	222201	333009
88-97	S-series Blazer, Jimmy, Sonoma	4x4	28	L&R	10	7-5/8	29"	5	26013882	<b>201117</b>	204117	222201	333009
88	Truck Series 1500 exc. Ext. cab	4x4	28	L&R	10	8.5	33-1/8"	6	15521892	<b>201118</b>	204118	222208	333010
88-99	Truck Series 1500-light 2500	4x4	33	L&R	14	9.5	33-1/8"	6	15521928	<b>201119</b>	204119	222206	333010
88-99	Truck Series 2500-light 3500	4x4/4x2	33	L&R	14	9.5	31-13/16"	8	15522070	<b>201120</b>	204120	222206	333010
88-00	Truck, Tahoe, Suburban	4x2	30	L&R	10	8.5	31-13/16"	5	26010417	<b>201121</b>	204121	222208	333010
88-00	Truck, Tahoe, Suburban	4x4/4x2	30	L&R	10	8.5	33"	6	26010416	<b>201122</b>	204122	222208	333010
90-92	Camaro, Firebird w/disc rear brake	4x2	28	L&R	10	7.625	30-5/16"	5	26031252 26034018	<b>201123</b>	204123	222201	333009
90-92	Camaro, Firebird w/drum rear brake	4x2	28	L&R	10	7.625	30-5/16"	5	26031251	<b>201124</b>	240124	222201	333009
91-92	Impala, Caprice, Passenger Cars	4x2	26	L&R	10	7.5 7.625	30-1/8"	5	26019539	<b>201125</b>	204125	222201	333009
90-01	Astro, Safari mini van	4x4/4x2	28	R	10	7.5	30-15/32"	5	26015282 26011055	<b>201126</b>	204126	222207	333007
90-01	Astro, Safari mini van	4x4/4x2	28	L	10	7.5	34-13/16"	5	26011054	<b>201127</b>	204127	222207	333007
91-93	S-series Blazer, Jimmy, Bravada	4x4	28	L&R	10	7.625	29-1/32"	5	26015260	<b>201128</b>	204128	222201	333009
91-96	Passenger Cars Full-size RWD	4x2	30	L&R	10	8.5	30-3/8"	5	26018080	<b>201129</b>	204129	222201	333009

# Axle Shaft Kits



## GM (Cont.)

Year	Application (Reference Only)	Drive	Spline	Side	Cover Bolts	Ring Gear	Length	Wheel Studs	OEM#	Axle Kit Part #	Bare Axle Part#	Bearing/ Seal Kit #	Stud #
91-96	Van 1-ton dual whls.	4x2	30	R	14	10.5	42-7/8"	8	26011708	<b>201130</b>	204130	222205	333011
92-00	Truck sgl whl, 1-ton	4x4/4x2	30	L	14	10.5	32-3/4"	8	26020039	<b>201131</b>	204131	222205	333012
93-97	Camaro, Firebird w/rear disc brake	4x2	28	L&R	10	7.625	32-1/32"	5	26027588	<b>201132</b>	204132	222201	333009
93-97	Camaro, Firebird w/rear drum brake	4x2	28	L&R	10	7.625	32-1/32"	5	26063146 26027589	<b>201133</b>	204133	222201	333009
94-96	Impala, Caprice w/rear disc brake	4x2	30	L&R	10	8.5	30-15/32"	5	26038684	<b>201134</b>	204134	222201	333009
96-01	Truck sgl whl, Van dual whl. 1-ton	4x4/4x2	30	V-L/ T-R	14	10.5	37"	8	26020040	<b>201135</b>	204135	222205	333012
96-01	Van 3/4-1 ton sgl wheel	4x2	30	R	14	10.5	39-3/16"	8	26042925	<b>201136</b>	204136	222205	333012
98-01	Camaro, Firebird w/traction controler	4x2	28	L&R	10	7.5	32"	5	26059972	<b>201137</b>	204137	222201	333009
99-01	Truck Series 2500 w/disc rear brake	4x4/4x2	30	L	14	10.5	33-5/16"	8	26045426	<b>201138</b>	204138	222205	On Axle
99-01	Truck Series 1500 w/disc rear brake	4x4/4x2	30	L&R	10	8.5	33-9/16"	6	12471369	<b>201139</b>	204139	222208	On Axle

## Isuzu

90-97	P'up, Passport, Rodeo, 4cyl. C-clip	4x4	28	L&R	10	7.5	28-1/16"	6	8260146130	<b>201300</b>	204300	222201	333009
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## Jeep

88-89	Cherokee, Wagoneer w/ ABS	4x4	27	R	10	D35	28-5/16"	5	83504962 72912-1X	<b>201160</b>	204160	222210	333013
88-89	Cherokee, Wagoneer w/ ABS	4x4	27	L	10	D35	30-9/16"	5	83504963 72912-2X	<b>201161</b>	204161	222210	333013
88-89	Cherokee, Wagoneer w/o ABS	4x4	27	R	10	D35	28-15/16"	5	83502882 72912-1X	<b>201162</b>	204162	222210	333013
88-89	Cherokee, Wagoneer w/o ABS	4x4	27	L	10	D35	30-9/16"	5	83502883 72912-2X	<b>201163</b>	204163	222210	333013
90-92	Cherokee, Wrangler w/Spicer 35	4x4	27	R	10	D35	29-1/16"	5	5252948 73624-1X	<b>201164</b>	204164	222201	333013
90-92	Cherokee, Wrangler w/Spicer 35	4x4	27	L	10	D35	30-9/16"	5	5252949 73624-2X	<b>201165</b>	204165	222201	333013
91-96	Cherokee (Chrysler Differential)	4x4/4x2	27	L&R	10	8.25	29-13/16"	5	53008134	<b>201166</b>	204166	222200	333014
93-98	Cherokee, Wrangler w/o ABS-drums	4x4	27	R	10	D35	29-1/16"	5	4713192 74356-1X	<b>201167</b>	204167	222201	333013
93-98	Cherokee, Wrangler w/o ABS-drums	4x4	27	L	10	D35	30-9/16"	5	4713193 74356-2X	<b>201168</b>	204168	222201	333013
93-98	Cherokee, Wrangler w/ ABS	4x4	27	R	10	D35	29-1/16"	5	74356-1X	<b>201169</b>	204169	222201	333013
93-98	Cherokee, Wrangler w/ ABS	4x4	27	L	10	D35	30-9/16"	5	74356-2X	<b>201170</b>	204170	222201	333013
94-98	Grand Cherokee w/ ABS, rear disc	4x4	27	R	10	D35	29-1/8"	5	4762194 74789-1X	<b>201171</b>	204171	222201	333013 333014
94-98	Grand Cherokee w/ ABS, rear disc	4x4	27	L	10	D35	30-9/16"	5	4762195 74789-2X	<b>201172</b>	204172	222201	333013 333014
96-98	Grand Cherokee w/ ABS, rear disc	4x4	30	R	10	D44	29-1/4"	5	4856332 74871-1X	<b>201173</b>	204173	222201	333014
96-98	Grand Cherokee w/ ABS, rear disc	4x4	30	L	10	D44	30-1/4"	5	4856333 71871-2X	<b>201174</b>	204174	222201	333014
97-00	Wrangler	4x4	30	R	10	D44	29-11/16"	5	75786-1X	<b>201175</b>	204175	On Axle	333013
97-00	Wrangler	4x4	30	L	10	D44	"29-1/4""	5	75786-2X	<b>201176</b>	204176	On Axle	333013
99-01	Grand Cherokee	4x4	27	R	10	D35	29-11/16"	5	76467-3X	<b>201177</b>	204177	On Axle	On Axle
99-01	Grand Cherokee	4x4	27	L	10	D35	31-7/8"	5	76467-4X	<b>201178</b>	204178	On Axle	On Axle
99-01	Grand Cherokee	4x4	30	R	10	D44	30-7/16"	5	76454-3X	<b>201179</b>	204179	On Axle	On Axle
99-01	Grand Cherokee	4x4	30	L	10	D44	31-7/16"	5	76454-4X	<b>201180</b>	204180	On Axle	On Axle
99-02	Grand Cherokee w/Veri-lock	4x4	30	R	10	D44	29-3/8"	5	76454-1X	<b>201181</b>	204181	On Axle	On Axle
99-02	Grand Cherokee w/Veri-lock	4X4	30	L	10	D44	32-3/8"	5	76454-2X	<b>201182</b>	204182	On Axle	On Axle

## Mazda

91-94	Navajo	4x4/4x2	31	R	10	8.8	27-3/4"	5	ZZL0-26-111	<b>201048</b>	204048	222200	333003
91-94	Navajo	4x4/4x2	31	L	10	8.8	30-5/8"	5	ZZL0-26-115	<b>201049</b>	204049	222200	333003
94-96	Mazda B 2300, 3000, 4000	4x4/4x2	28	R	10	7.5/8.8	27-1/4"	5	ZZM1-26-111	<b>201054</b>	204054	222201	333003
94-96	Mazda B 2300, 3000, 4000	4x4/4x2	28	L	10	7.5/8.8	30-1/8"	5	ZZM1-26-211	<b>201055</b>	204055	222201	333003



# Differential R&P Kits

## Differential R&P Master Install - Bearing/Seal Kits

**OE Quality At Economical Prices**

Silver Seal Differential R&P Master Install Kits are asked for nationwide by technicians who specialize in the installation of time tested and proven parts. Silver Seal Master Install Kits include everything needed for a quality R&P installation. When a quality differential R&P installation kit is needed, ask for the best in Silver Seal Kits.

**Master Install Kit contents:** Timken® Pinion & carrier bearings, pinion seal & gasket or RTV gasket maker, pinion depth shim kit, crush sleeve, pinion nut & washer, ring gear bolts, pinion pre-load kit, threadlocker, marker compound, and other items (if applicable).

**Bearing & Seal Kit contents:** Timken® Pinion & carrier bearings, pinion seals & gasket or RTV gasket maker.



<b>Dana</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck Dana/Ford 28 IFS 1983-up	<b>205040</b>	204800
Dana 30 rear pinion tail 86610-47 taper set only.	<b>205041</b>	204801
Truck Dana/Ford 30 IFS	<b>205042</b>	204802
Truck Dana/Ford 35 IFS 1990-up	<b>205043</b>	204803
Corvette Dana 36 ICA 1984-1995 with auto trans	<b>205044</b>	204804
Corvette Dana 44 ICA 1980-1982 only	<b>205045</b>	204805
Corvette Dana 44 ICA 1984-up	<b>205046</b>	204806
Dana 44 with 19 spline pinion	<b>205047</b>	204807
Dana 60	<b>205048</b>	204808
Dana 70 with 382S & 387A taper cup & cone carrier	<b>205049</b>	204809
Dana 70 HD w/453X & 469 taper cup & cone carrier	<b>205050</b>	204810

<b>Dodge</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck (Dakota) 7.25	<b>205023</b>	204300
Truck 8.25	<b>205026</b>	204301
Truck & Car 8.75 case ID 2881489	<b>205020</b>	204303
Truck & Car 8.75 case ID 2070742	<b>205029</b>	204304
Truck & Car 8.75 case ID 2070741	<b>205033</b>	204305
Truck 9.25	<b>205031</b>	204302

<b>Ford</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck (Ranger) 7.5	<b>205024</b>	204400
Truck IFS 8.8 96-up Rev. Rotation	<b>205027</b>	204401
Truck/car 8.8 rear	<b>205028</b>	204402
9" w/2.891 Carrier, Note: 2.891 O.D. of diff. bearing cup Timken #102910-49 large bore carrier bearings (3.25)	<b>205016</b>	204403
9" w/2.891 Carrier, Note: 2.891 O.D. of diff. bearing cup Timken# 501310-49 small bore carrier bearings (3.06)	<b>205017</b>	204404

<b>Ford (Cont.)</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck 10.25	<b>205018</b>	204405
Truck 10.5 98-up	<b>205032</b>	204406

<b>GM</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck IFS 7.25 front w/bolt on axles up to 1996	<b>205022</b>	204500
Truck IFS 7.25 w/plug in axle 1997-up	<b>205037</b>	204501
Truck 7.5 rear 10 blt w/Timken# 89210-49 inner pinion brg.	<b>205019</b>	204502
Truck 7.5 rear 10 blt w/Timken# 89410-49 inner pinion brg.	<b>205038</b>	204503
Truck IFS 8.25 front	<b>205036</b>	204504
Truck 8.5 10 blt w/Eaton posi	<b>205002</b>	204507
Truck 8.5 10 blt w/intra loc shim kit	<b>205003</b>	204508
Car 8-7/8 12 blt	<b>205006</b>	204509
Truck 8-7/8 12 blt	<b>205005</b>	204510
Truck IFS 9.25 front	<b>205030</b>	204511
Truck 9.5 14 blt	<b>205021</b>	204512
Truck 10.5 14 blt 88-down & 91-up non ribbed (4:56)	<b>205007</b>	204513
Truck 10.5 14 blt 88-down & 91-up non ribbed (3:42-4:10)	<b>205004</b>	204515
Truck 10.5 14 blt 2nd design 88-90 only (4:56)	<b>205008*</b>	204514
Truck 10.5 14 blt 2nd design 88-90 only (3:42-4:10)	<b>205029*</b>	204516

\* Note: with ribbed housing under center section

<b>Jeep</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
AMC 20	<b>205000</b>	204600
Dana 30 front or rear solid suspension	<b>205009</b>	204601
Dana/Jeep 35 rear	<b>205010</b>	204602
Dana 44, Also works well with 26 spline pinion	<b>205011</b>	204603

<b>Toyota</b>		
Application	Master Install Kit Part#	Bearing/Seal Kit Part #
Truck 7.5 & 8	<b>205025</b>	207000



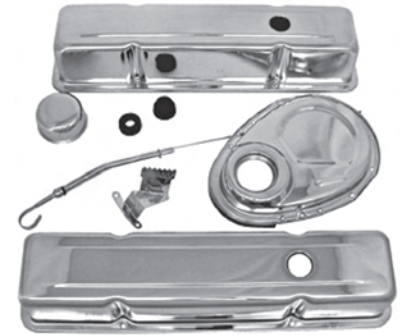
## Chrome SB Chevy Engine Dress-Up Kit

**Fits 1958-86 SB Chevy 283-350 V-8**

**Kit Contents:**

- 1 Pair Chrome Steel Valve Covers (Baffled)
- 1 Chrome Steel Timing Chain Cover
- 1 Chrome Steel Timing Tab
- 1 Chrome Steel Engine Dipstick w/Tube
- 1 Chrome Steel Push-In Breather Cap
- 1 Rubber Push-In Breather Grommet
- 1 Rubber PCV Grommet

Height	Part #
Short Valve Covers	TW8010
Tall Valve Covers	TW8020



## Chrome SB Chevy Engine Dress-Up Kit

**Fits 1988-92/93-95 SB Chevy 5.0L-5.7L V8**

**Kit Contents**

- 1 Pair Chrome Steel Valve Cover "Caps" ("Caps" Fit Over Existing OEM Valve Covers)
- 1 Chrome Steel Air Cleaner Top
- 1 Chrome Brake Cylinder Cap
- 1 Chrome Power Steering Cap
- 1 Chrome Screw-In Oil Cap
- 8 Chrome Steel Valve Cover Bolts

Height	Part #
Single Wing Nut Air Cleaner (88-92)	TW8030
Dual Wing Nut Air Cleaner (93-95)	TW8040



## Stamped Steel SB Chevy Dress-Up Kits

**Kits Contain Short Baffled Valve Covers, Timing Cover, and Oil Pan**

Year	Style	Includes (Part #s)	Kit Part #
1965-79	Chrome Driver Side Dip	6500CP, 6544CP, 6541CP	6500KCP
	Unplated Driver Side Dip	6500, 6544, 6541	6500K
1980-85	Chrome Right Side Dip	6501CP, 6544CP, 6541CP	6501KCP
	Unplated Right Side Dip	6501, 6544, 6541	6501K
1986-Up	Chrome Right Side Dip	6503CP, 6504CP, 6506CP	6503KCP
	Unplated Right Side Dip	6503, 6504, 6506	6503K



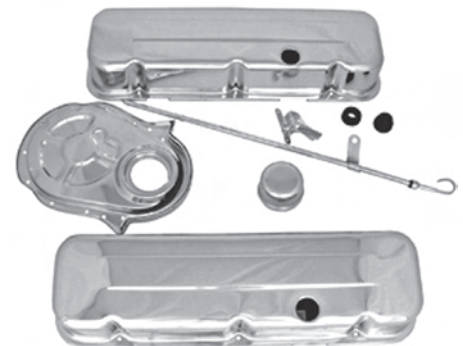
## Chrome BB Chevy Engine Dress-Up Kit

**Fits 1965-95 BB Chevy 396-502 V-8**

**Kit Contents:**

- 1 Pair Tall Chrome Steel Valve Covers (Baffled)
- 1 Chrome Steel Timing Chain Cover
- 1 Chrome Steel Timing Tab
- 1 Chrome Steel Engine Dipstick w/Tube
- 1 Chrome Steel Push-In Breather Cap
- 1 Rubber Push-In Breather Grommet
- 1 Rubber PCV Grommet

**Part #TW8050**



## Chrome SB Ford Engine Dress-Up Kit

**Fits 1962-85 SB Ford 260, 289, 302, 351W, 5.0L**

**Kit Contents:**

- 1 Pair Chrome Steel Valve Covers (Baffled)
- 12 Chrome Steel Valve Cover Mini Wing Nuts
- 2 Chrome Steel Push-In Breather Tabs
- 2 Rubber Push-In Grommet

**Part #TW8060**





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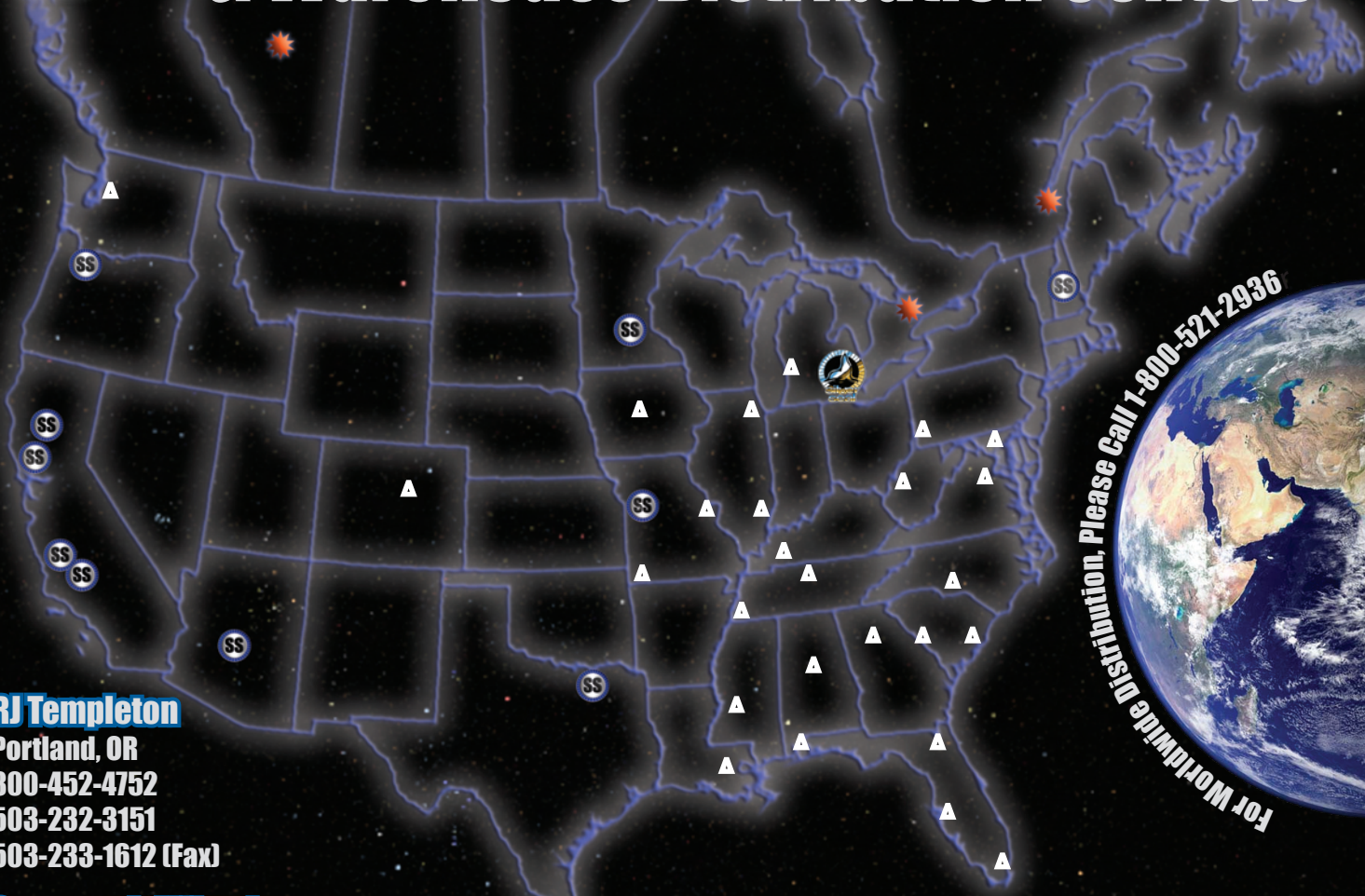
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