



**Valve Guide Seals**

These valve guide seals are the racer's choice. They don't crack, dry out or deteriorate. These are specially designed with a double lip for better oil control. Available in sets of 8 or 16. Priced per seal.

**Honda**

- CB750 2V .....TOP 0750-001
- CB750/1100 4V .....TOP 1100-001

**Kawasaki**

- KZ900/1000 2V .....TOP 1000-001
- Ninja 900/1000 4 .....TOP 0900-001
- ZX10/ZX11 .....TOP ZX11-001

**Suzuki**

- 750/1000 2V .....TOP 0850-001
- 750/1150 4V .....TOP 1150-001
- GSXR750/1100 86-92 .....TOP 1050-001
- GSXR600 01-04/  
750 00-04/1000 00-02 .....TOP 7500-001
- GSXR1100W 93-98 .....TOP 1053-001
- GSX1300R .....TOP 1300-001

**Yamaha**

- FZR1000 .....TOP 1025-001
- FJ1100/1200 4V .....TOP 1200-001
- XV1600/1700 .....TOP XV16-001

**Adjustable Cam Sprockets**

Adjustable cam sprockets are the only way to accurately install a set of cam shafts. Sprockets are available for all four-cylinder motorcycles. Machine shop services are offered on all cam sprocket machining where new sprockets are not available. Some models require press-on adapter flanges.



**Honda**

- CBR600F2/F3 .....TOP CBF2-012
- CBR600F4 .....TOP CBF4-012
- NT650 Hawk .....TOP NT65-012
- CB750 2V .....TOP 0750-012
- CBR900RR .....TOP CBR9-012
- CBR929RR/CBR954 .....TOP CBR929-012
- VTR1000 .....TOP VT10-012
- CBR1100XX .....TOP CBRX-012

**Kawasaki**

- EX500 all years .....TOP EX50-012
- ZX6 D & E .....TOP ZX6E-012
- ZX6R\* .....TOP ZX6R-012
- ZX7 88-90 .....TOP ZX75-012
- ZX7 91-03\* .....TOP ZX76-012
- ZX9 94-97\* .....TOP ZX90-012
- ZX9 98-03\* .....TOP ZX98-012
- KZ900/1000 .....TOP 1000-012
- Ninja 900/1000 .....TOP 0900-012
- GPZ1 KZ Conv. ....TOP 1000-011
- 1000 MKII .....TOP 1000-M12
- ZX10/ZX11/ZRX11 .....TOP ZX11-012
- ZX12\* .....TOP ZX12-012
- ZX14 2006 .....TOP ZX14-012

**Suzuki**

- GSXR600 97-00\* .....TOP SRAD-012
- GSXR600 00-06\* .....TOP 7500-012
- SV650 99-02\* .....TOP SV65-012
- GSXR750 86-87 & 90-92 .....TOP 0775-012
- GSXR750 88-89 .....TOP 0776-012
- GSXR750 93-95 .....TOP 0777-012
- GSXR750T 96-99\* .....TOP SRAD-012
- GSXR750T 00-06\* .....TOP 7500-012
- GSXR1000 01-06\* .....TOP 7500-012
- GS750/1000/1150 4V .....TOP 1150-012
- GSXR1100 86-92 .....TOP 1050-012
- GSXR1100 93-98 .....TOP 1053-012
- GSF1200 Bandit .....TOP GS12-012
- GSX1300R 99-06\* .....TOP 1300-012

**Yamaha**

- FZR400/600 .....TOP FZR6-012
- YZF600 R6 99-04 .....TOP YZR6-012
- FZR750/1000 .....TOP 1025-012
- FJ1100/1200 .....TOP 1200-012
- YZF1000 R1 98-06 .....TOP YZR1-012
- YZFR6 2006 .....TOP YZR606-012

\*Adapter included.



**Top End Oiling Kit**

Prevent premature cam shaft and rocker arm failure due to low oil pressure. Mounts at the oil sending unit location and oil is routed directly to the cylinder head for full oil pressure. The kit gives you longer cam shaft and rocker arm life.

**Suzuki**

- GS1100/1150 .....TOP 1150-300
- GSXR1100 86-92 .....TOP 1050-300

**Yamaha**

- FJ1100/1200 .....TOP 1200-300



**Keepers**

These are standard OEM-style replacement keepers. Priced per piece.

**Honda**

- CB750/9/11/CBX DOHC .....TOP 1100-KPR
- CBR600/900RR .....TOP CBR6-KPR

**Kawasaki**

- KZ900/1000 .....TOP 1000-KPR
- ZX10/11 88-97 .....TOP ZX11-KPR

**Suzuki**

- GS1100/1150 .....TOP 1150-KPR
- GSXR/Katana 1100 .....TOP 1050-KPR
- GSXR600/750/1000 .....TOP 7500-KPR
- GSXR1100W .....TOP 1053-KPR
- GSX1300R .....TOP 1300-KPR

**Yamaha**

- FJ1100/1200 .....TOP 1200-KPR



**Racing Valve Tappet**

The only answer to extreme valve acceleration and lift curves is to place the valve clearance adjusting shim under the bucket. These one-piece 8620 aircraft grade alloy steel buckets are the surest way to guarantee accurate valve control. For shim under applications.

- Hon CB750/1100 .....TOP 1100-007
- Hon CBX .....TOP 1075-007
- Kaw KZ900/1000 .....TOP 1000-007
- Suz GS1000 .....TOP 0850-007
- Yam VMax .....TOP VMAX-007
- Yam FJ1100/1200 .....TOP 1200-007



**Extended Rocker Arm Adjusters**

Suzuki GS and GSXR four valve rocker arm adjusters to be used with stock rocker arms when the cam base circle is altered. Also ease of adjustment is obtained by use of Allen-type wrench.

- GS1100/1150 &  
GSXR750/1100 86-90  
TOP 1150-010





### Racing Valve Springs & TI Retainer Sets

When high RPM and increased valve lift go together, severe valve train conditions exist. These sets are crucial to durable engines. Retainers are lightweight 6AL-4V titanium alloy, machined for the race-proven springs. Include spring seats/shims as needed.

<b>Honda</b>		
CBR1100XX.....	<b>TOP CBRX-ST4</b>	
Hawk NT650.....	<b>TOP NT65-ST4</b>	
TRX400.....	<b>TOP TRX4-ST4</b>	
CBR1000RR 04-05.....	<b>TOP CBR1RR-ST4</b>	
<b>Kawasaki</b>		
ZX6R 95-96.....	<b>TOP ZX6R-ST4</b>	
ZX9 95-96.....	<b>TOP ZX9R-ST4</b>	
ZX10/ZX11 88-97.....	<b>TOP ZX11-ST4</b>	
		Vulcan 1500..... <b>TOP VN15-ST4</b>
		ZX900/1000 Ninja..... <b>TOP 0900-ST4</b>
		ZX7 91-95..... <b>TOP ZX7R-ST4</b>
		ZX9R 98-99..... <b>TOP ZX98-ST4</b>
		EX500 87-99..... <b>TOP EX50-ST4</b>
		ZX14 2006..... <b>TOP ZX14-ST4</b>
<b>Suzuki</b>		
GSXR750W 94-97.....	<b>TOP 0777-ST4</b>	
GSXR750 96-99.....	<b>TOP SRAD-ST4</b>	
GSXR600 97-99.....	<b>TOP GSX6-ST4</b>	
SV650.....	<b>TOP SV65-ST4</b>	
DRZ400.....	<b>TOP DRZ4-ST4</b>	
<b>Yamaha</b>		
FZR400/600.....	<b>TOP FZR6-ST4</b>	
FZR1000 87-88.....	<b>TOP 1025-ST4</b>	
FZR1000 89-95.....	<b>TOP 1026-ST4</b>	
XTZ660 Raptor.....	<b>TOP XTZ6-ST4</b>	

### Bronze Valve Guides

These special guides are manufactured from a nickel aluminum bronze material designed especially for racing and sustaining high speeds. In most cases, guides are shortened for increased cam lift clearance.



<b>Honda</b>	
TRX400.....	<b>TOP TRX4-002</b>
CBR600F2/F3.....	<b>TOP CBR6-002</b>
CB750 2V.....	<b>TOP 0750-002</b>
CB750/900/1100 4V.....	<b>TOP 1100-002</b>
CBR900RR 93-99.....	<b>TOP CBR9-002</b>
<b>Kawasaki</b>	
ZX7 91-99.....	<b>TOP ZX7R-002</b>
Ninja 900/1000 4V.....	<b>TOP 0900-002</b>
KZ900/1000 2V.....	<b>TOP 1000-002</b>
ZX11.....	<b>TOP ZX11-002</b>
ZX12.....	<b>TOP ZX12-002</b>
<b>Suzuki</b>	
750/1000 2V.....	<b>TOP 0850-002</b>
GS750/1100 4V.....	<b>TOP 1150-002</b>
GSXR750/1100 86-98.....	<b>TOP 1050-002</b>
GSXR600/750 SRAD.....	<b>TOP SRAD-002</b>
GSXR1000 00-03.....	<b>TOP GX10-002</b>
GSXR1100 93-98.....	<b>TOP 1053-002</b>
GSX1300R 99-06.....	<b>TOP 1300-002</b>

### Oversize Valve Guides

ORIENT EXPRESS manufactures oversize valve guides for most applications. Call if you do not see your particular valve listed.

<b>Kawasaki</b>	
KZ900/1000 2v + .002".....	<b>TOP 1000-0022</b>
KZ900/1000 2V + .004".....	<b>TOP 1000-0024</b>
KZ900/1000 2V + .025".....	<b>TOP 1000-0025</b>
<b>Suzuki</b>	
GS750/1100 4V + .002".....	<b>TOP 1150-0022</b>
GSXR750/1100 86-92 + .002".....	<b>TOP 1050-0022</b>
GSXR1000 00-03 + .002".....	<b>TOP 1050-0022</b>
GSXR1000 00-03 + .004".....	<b>TOP GX10-0024</b>
<b>Yamaha</b>	
FJ1100/1200.....	<b>TOP 1200-002</b>
VMax.....	<b>TOP VMAX-002</b>
FJ1100/1200 + .002".....	<b>TOP 1200-0022</b>



### Racing Spring Retainers

Racing valve spring retainer sets available in 7075 aluminum and/or titanium alloy. Titanium retainers in most cases use stock keepers.

<b>Honda</b>	
CBR600F2/F3 titanium.....	<b>TOP CBR6-0T4</b>
CB750/1100 DOHC titanium retainers.....	<b>TOP 1100-0T4</b>
CBX titanium retainers shim under.....	<b>TOP 1075-0T4</b>
CBR900RR titanium.....	<b>TOP CBR9-0T4</b>
CB750 SOHC titanium.....	<b>TOP 0750-0T4</b>
<b>Kawasaki</b>	
KZ900/Z1/GPZ alloy, radius kprs., shim under.....	<b>TOP 1000-0R4</b>
KZ900/1000/Z1/GPZ std. rplmt, titanium.....	<b>TOP 1000-0T4</b>
ZX10R 04-05 titanium.....	<b>TOP ZX10R-0T4</b>
ZX11 titanium.....	<b>TOP ZX11-0T4</b>
<b>Suzuki</b>	
GS1000 titanium shim under.....	<b>TOP 0850-0T4</b>
GS1100/1150 titanium retainers.....	<b>TOP 1150-0T4</b>
GSXR750/1100 titanium retainers 86-90.....	<b>TOP 1050-0T4</b>
GSXR600/750/1000 00-02.....	<b>TOP 7500-0T4</b>
GSXR1100 91-92 titanium.....	<b>TOP 1052-0T4</b>
GSXR1100 93-97 titanium.....	<b>TOP 1053-0T4</b>
GSX1300R 99-06 titanium.....	<b>TOP 1300-0T4</b>
SV650 titanium.....	<b>TOP SV65-0T4</b>
<b>Yamaha</b>	
VMax shim under.....	<b>TOP VMAX-0T4</b>
FJ1100/1200 titanium retainers, shim under.....	<b>TOP 1200-0T4</b>



### High Performance Valve Springs

Manufactured from aircraft-quality wire, accurately wound, shot peened and tempered, 100% magnafluxed springs for maximum valve control.

<b>Honda</b>		
CBR600F2/F3.....	<b>TOP CBR6-003</b>	
CB750 2V.....	<b>TOP 0750-003</b>	
CB750/900/1100 4V.....	<b>TOP 1100-003</b>	
CBX.....	<b>TOP 1075-003</b>	
CBR900RR.....	<b>TOP CBR9-003</b>	
CBX 6-Cyl.....	<b>TOP 1047-003</b>	
VFR750 90-97.....	<b>TOP VFR7-003</b>	
VTR1000.....	<b>TOP VTR1-003</b>	
CBR1100XX.....	<b>TOP CBXX-003</b>	
<b>Kawasaki</b>		
KZ650/750.....	<b>TOP 0650-003</b>	
KZ900/1000/1100 2V.....	<b>TOP 1000-003</b>	
Ninja 900/1000.....	<b>TOP 0900-003</b>	
ZX10/ZX11 88-97.....	<b>TOP ZX11-003</b>	
		ZX10R 04-06..... <b>TOP ZX10R-003</b>
		ZX12..... <b>TOP ZX12-003</b>
<b>Suzuki</b>		
GS750/850/1000 2V.....	<b>TOP 0850-003</b>	
GS750/1000/1100/1150 4V.....	<b>TOP 1150-003</b>	
GSXR750 86-90.....	<b>TOP 0775-003</b>	
GSXR750 96-98.....	<b>TOP SRAD-003</b>	
GSXR1000.....	<b>TOP GX10-003</b>	
GSXR1100 86-90.....	<b>TOP 1050-003</b>	
GSXR1100 91-92.....	<b>TOP 1052-003</b>	
RF900.....	<b>TOP RF90-003</b>	
GSXR1100 93-98.....	<b>TOP 1053-003</b>	
GSX1300R 99-06.....	<b>TOP 1300-003</b>	
GSX1300R 99-06 high lift.....	<b>TOP 1300-003HL</b>	
<b>Yamaha</b>		
FJ1100/1200.....	<b>TOP 1200-003</b>	
VMax.....	<b>TOP VMAX-003</b>	
XV16.....	<b>TOP XV16-003</b>	
XV17.....	<b>TOP XV17-003</b>	



### Cam Chain Tensioners

Anodized billet aluminum body with fine pitched, o-ringed pusher/adjuster.  
 GSXR600 01-03, GSXR750 00-03,  
 GSXR1000 01-02.....**TOP 7500-S14**  
 GSX1000 03-07.....**TOP GX103-S14**  
 GSX1300R 99-06.....**TOP 1300-S14**



### APE Manual Billet Cam Chain Tensioners

Prevent cam chains from jumping timing—replace the standard spring loaded tensioner. These tensioners allow for locked, proper tension.

**Honda**  
 CRF450F.....**TOP 1300-014**  
 CBR600F2.....**TOP CBR6-014**  
 F3/F4/F4i/900RR/1100xx.....**TOP CBR9-014**  
 CBR929/CBR954.....**TOP H929-014**

**Kawasaki**  
 KLX400/KFX400.....**TOP 1300-014**  
 Z1 KZ1000.....**TOP 1000-014**  
 Ninja 900/1000.....**TOP 0900-014**  
 GPZ1100/1000J.....**TOP 100J-014**  
 ZX9R 98-05.....**TOP ZX9R-014**  
 ZX10/ZX11/ZRX1100.....**TOP ZX11-014**  
 ZX10R 04-05.....**TOP ZX10R-014**  
 EX500 all years.....**TOP ZX11-014**  
 ZX6/ZX7 91>/ZX9 <97/ZX12.....**TOP ZX7R-014**  
 ZX14R 2006.....**TOP ZX14-014**

**Suzuki**  
 DRZ400/LTZ400.....**TOP 1300-014**  
 SV650 >2005\*.....**TOP SV65-014**  
 SV650 2006\*.....**TOP SV656-014**  
 GS1100/1150.....**TOP 1150-014**  
 GSXR750 86-92/1100 87-92,  
 Katana All, Bandit.....**TOP 1050-014**  
 GSXR750W 93-95,1100W 93-99,  
 GSXR600 93-96.....**TOP 1053-014**  
 GSXR600 97-00/750 99-99.....**TOP SRAD-014**  
 GSXR600 01-03/750 00-03/  
 1000 01-02.....**TOP 7500-014**  
 GSXR600 04-06/750 04-06/  
 1000 03-06.....**TOP GX103-014**  
 GSX1300R 99-06.....**TOP 1300-014**

**Yamaha**  
 FZR400/600/750/1000,  
 YZF600/750/1000,  
 FJ1100/1200/  
 YZFR1/YZFR6.....**TOP 1200-014**  
 R6 2006.....**TOP R606-014**  
 R1 04-06.....**TOP YZR104-014**

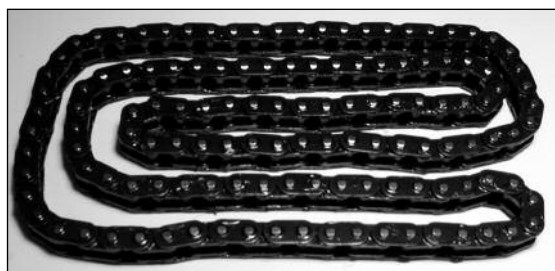
\*Requires 2. Priced as EACH.



### Tsubaki Heavy Duty Cam Chains

When it comes to cam chains there is only one real choice, Tsubaki. Special construction and heat treating guarantee the finest cam chain available. This is the same cam chain used in all ORIENT EXPRESS record-setting race engines.

**Kawasaki**  
 KZ900/1000.....**TOP 1000-022**  
 MK II.....**TOP 1000-024**  
**Suzuki**  
 750/850/1000 2V.....**TOP 0850-020**  
 GS750/1150 4V.....**TOP 1150-020**  
 GSXR1100 86-92.....**TOP 1050-022**  
 GSXR1100 93-98.....**TOP 1053-022**



### H/D Heat Treated Cylinder Head Nuts

These special nuts eliminate strip-out.

Kaw KZ900/1000/GPZ1100.....**TOP 1000-027**  
 Suz SV650.....**TOP SV65-027**  
 Suz GS1100 (8 pieces).....**TOP 1150-027**  
 Suz GSXR750/1100 86-92.....**TOP 1050-027**  
 Suz GSXR1100 93-98.....**TOP 1053-027**  
 Suz GSXR1000 01-05.....**TOP GX10-027**  
 Suz GSX1300R 99-06.....**TOP 1300-027**  
 Yam VMax.....**TOP VMAX-027**



### Heavy Duty Cylinder Studs

Precision manufactured EN24T chrome moly steel, ground and rolled studs eliminate blown head gaskets and oil leaks.

**Honda**  
 CB750/900/1100 4V.....**TOP 1100-025**  
**Kawasaki**  
 KZ900/1000/GPZ1100.....**TOP 1000-025**  
 ZX11 (set includes H/D nuts).....**TOP ZX11-025**  
 ZX12 (set includes H/D nuts).....**TOP ZX12-025**  
 ZX14 (set includes H/D nuts).....**TOP ZX14-025**  
**Suzuki**  
 SV650.....**TOP SV65-025**  
 GSXR1000 01-05.....**TOP GX10-025**  
 GSXR1100 86-92.....**TOP 1050-025**  
 GSXR1100W.....**TOP 1053-025**  
 GS1100.....**TOP 1150-025**  
 GS1150.....**TOP 1150-G25**  
 GSX1300R Pro Mod.....**TOP 1300-025-PRO**  
 GSX1300R 1/2-20 Cyl Bolt Set.....**TOP 1300-025HD**  
 GSX1300R 13mm with nuts.....**TOP 1300-025-13**

**Yamaha**  
 FJ1100/1200.....**TOP 1200-025**  
 R1 99-03.....**TOP YZR1-025**  
 VMax.....**TOP VMAX-025**





### Big Blocks

When the need strikes and stock just won't do—there's always a quick, easy way to go BIGGER. Orient Express keeps a variety of finished core blocks for quick, easy exchange. Ours are bored, nickel silicone, carbide electroplated, and diamond-honed to perfection by Millenium. SOLD WITH PISTON PURCHASE ONLY. Block core required or core charge applies.\*

ZX12.....	.86mm.....	1287cc
GSX1300R.....	.83mm.....	1363cc
GSX1300R.....	.84mm.....	1937cc
GSX1300R.....	.85mm.....	1430cc
XV1600.....	100mm.....	1775cc
XV1700 Road Star.....	100mm.....	1775cc
XV1700 Warrior.....	100mm.....	1775cc

\* Select **Piston Kit** from pages 51-59 and **Gaskets** from pages 68-71.

### Oversize Sleeves

ORIENT EXPRESS uses precision American made big bore sleeves, not imported copies. These high nickel alloy sleeves may cost more but are the only choice when bore finish and ring seal are the major factor in your decision.

- 75-80mm Bore, Outside Diameter 3.275" .....**TOP 0100-275**
- 77-80mm Bore, Outside Diameter 3.290" .....**TOP 0100-290**
- 80-84mm Bore, Outside Diameter 3.460" .....**TOP 0100-460**
- 78-86mm Bore, Outside Diameter 3.550" .....**TOP 0100-550**
- 87-89mm Bore, Outside Diameter 3.650" .....**TOP 0100-650**



### APE Cam Chain Conversion

For extreme applications. Replaces standard hyvo chain with heavy duty roller chain and sprockets. Great for strokers.

**TOP 1300-012CONV**



### Heavy Duty Case Studs

Heat treated 8740 chrome moly steel case studs are necessary to keep the cases from moving under power in a high output engine. The high strength studs also help prevent crankshaft damage. Made from the same special chrome moly as our cylinder studs, all threads are rolled after heat treating to provide the strongest thread available. All sets come complete with special flanged nuts.

#### Kawasaki

- KZ900/1000/GPZ1100.....**TOP 1000-026**
- ZX14 2006.....**TOP ZX14-026**

#### Suzuki

- GS1100.....**TOP 1150-026**
- GS1150.....**TOP 1150-G26**
- GSXR750 86-92.....**TOP 0775-026**
- GSXR1100 86-92.....**TOP 1050-026**
- GSX1300R .....**TOP 1300-026**