

**FOR RUBBER JACKET SEALS:** Push seal down over valve guide until it bottoms.

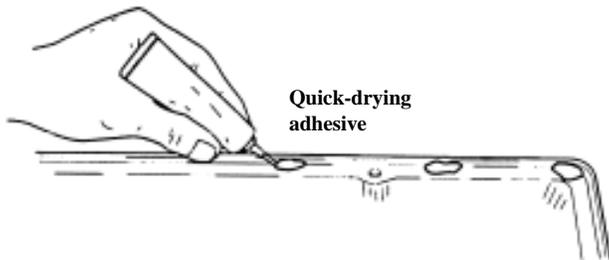
**FOR SOLID OR METAL JACKET SEALS:** The use of an OEM service tool is recommended. If tool is unavailable, use a deep socket or rigid tube of appropriate diameter. Center tool (or socket) over the shoulder of the seal and tap the seal down over the guide until it bottoms.

**UMBRELLA TYPE SEAL:** Start valve stem seal over valve stem and push seal down on seal body until it touches top of valve stem guide or "boss". The seal will find its proper position on the stem once the engine starts.

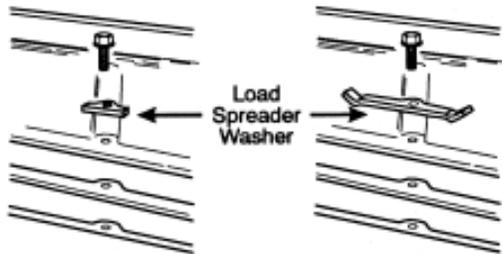
**"O" RING TYPE SEAL:** Place "O" Ring seal on valve stem and position it into the proper groove. If "O" RING IS USED IN CONJUNCTION WITH A POSITIVE OR UMBRELLA SEAL. Install the "O" Ring last.

**REPLACE VALVE SPRING ASSEMBLIES AND INSTALL "O" RINGS.**  
Compress springs just enough to install "O" Ring seal in second groove. **IMPORTANT:** If other types of seals are also being used, excessive compression can result in spring retainer damaging the seals. Install "O" Ring seal, then install keepers in first groove. Release spring carefully.

## VALVE COVER GASKET



**ATTACH AND ALIGN GASKET.** Apply quick-drying adhesive sparingly in several places on the mating surface of cover. If gasket has installation tabs, adhesive is **not** required. Mount gasket on cover. **Allow time for adhesive to set.** Test for slippage with light pressure. If gasket moves, allow more time.



**PRIOR TO REINSTALLING VALVE COVER,** place a load spreader washer under each bolt head.

## EXHAUST MANIFOLD GASKET

**ATTACH AND ALIGN GASKET(S).** If gasket has only one steel faced side, install steel side towards manifold.

**TEST RUN ENGINE.** Check all mating areas thoroughly to determine that all seals hold during operation.



## FEL-PRO INSTALLATION TIPS

Fel-Pro products are the result of exhaustive research and strict quality control. However, no sealing product is better than the quality of its installation.

## GENERAL INSTRUCTIONS

**CLEAN MATING SURFACES** of all foreign material. Use a degreaser.

**CLEAN THREADS** of all bolts/studs using a wire brush; all nuts/threaded holes use a bottoming tap.

**BOLT PREPARATION:** Those **entering** coolant passages require a pliable non-hardening sealer on threads and underside of bolt heads. Those **not entering** coolant passages require oil on threads and underside of bolt heads. **Exhaust Assembly:** Apply a high-temperature anti-seize lubricant to threadings.

**CHECK CASTINGS** for flatness. Straighten, resurface or replace if needed. **Cylinder Head and Block:** Refer to OEM manual to determine flatness tolerances resurfacing limitations.

**FINAL ASSEMBLY:** Torque all fasteners to OEM specifications unless noted. **CYLINDER HEAD** torquing is critical; we recommend that you confirm with OEM.

## HEAD GASKET

**Follow any directional markings shown on gaskets(s).** If no markings exist, install gasket(s). **Fiber Faced Gasket(s):** Install dry. **Metal Faced Gasket(s):** Requires a thin even coat of sealer applied to the metal side(s) of gasket.

**REINSTALL CYLINDER HEAD(S) TO ENGINE.** Torque securely to OEM specifications. Note: The head gasket included in this set **does not** require retorquing.

## VALVE STEM SEALS



For 1981 and later applications use Positive **Intake** and Umbrella **Exhaust** in addition to the "O" Ring. Prior to 1981 use "O" Ring **Intake & Exhaust** only.

**REMOVE SPRING ASSEMBLIES, KEEPERS** and old valve stem seals.

**REMOVE BURRS (IF ANY) FROM VALVE STEMS.** Use a fine stone or crocus cloth. Clean stems thoroughly to remove all abrasives or dust particles. Lubricate lightly.

**INSTALL NEW SEALS.**

**POSTIVE GUIDE SEAL:** Use the plastic installation sleeve(s), included in this set, to prevent damage to the lip of the seal. Trim the plastic installation sleeve so it extends 1/16" below the keeper groove. Place sleeve on valve stem.

Carefully start valve stem seal over sleeve.

Push seal down on seal body until it nests snugly over valve guide.

Remove plastic installation sleeve and reuse for installing remaining seals.

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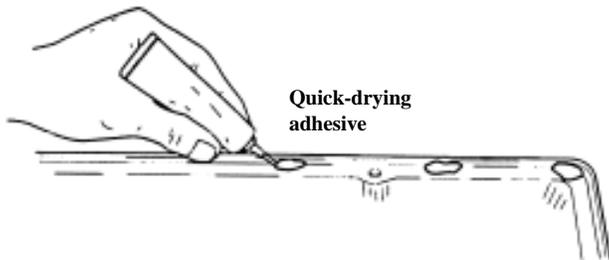
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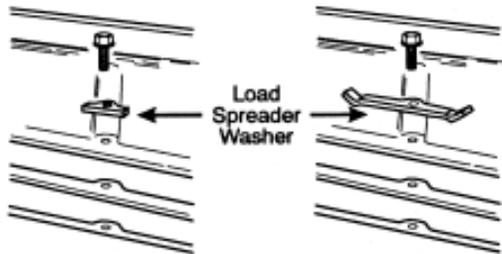
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