

Install the intake manifold side rail gaskets with the restricted port toward the rear of engine.

INSTALL END SEALS:

WHERE DOWEL PINS EXIST position seals over dowel pins.

WHERE NO DOWEL PINS EXIST position seals by applying quick-drying adhesive sparingly in several places on each end of the block. Mount end seals. **Allow time for adhesive to set.** Test for slippage with light pressure. If end seals move, allow more time.

Secure ends of seals by making certain that protruding tabs from head gasket fit through holes in end seals. Press down to lock securely in place.

ATTACH AND ALIGN GASKET(S).

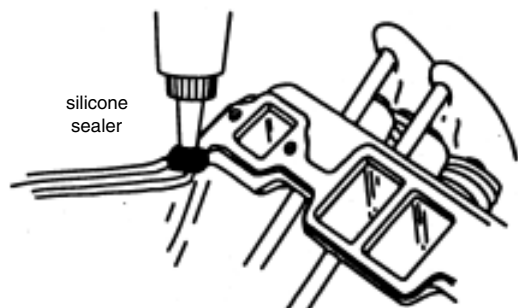
STEEL SHIM GASKET: Apply a thin coat of sealer around the intake ports on the underside of the gasket to prevent vacuum loss.

Now apply a 1/8" continuous bead of silicone sealer around each water port on the cylinder heads.

Attach and align gasket(s) to engine. Position gasket(s) by means of stamped protrusions into corresponding bolt holes in the heads.

Apply a thin coat of sealer around the intake ports on the top side of the gasket.

Now apply a 1/8" continuous bead of silicone sealer around each water port on the gasket.



PRIOR TO REINSTALLING INTAKE MANIFOLD apply a small dab of silicone sealer to the 4 corner intersections between the ends seals and gaskets.

REINSTALL INTAKE MANIFOLD TO ENGINE. Torque securely to OEM specifications.

EXHAUST MANIFOLD GASKET

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

MISCELLANEOUS FLUID SEALING GASKET(S)/SEAL(S)

ATTACH AND ALIGN GASKET(S)/SEAL(S): If supplementary sealer is desired, apply a thin coat of gasket sealer to both sides of gasket(s). However, molded rubber gasket(s) or those with colored sealing beads, install **DRY.**

FIT

FEL-PRO INSTALLATION TIPS

GENERAL INSTRUCTIONS

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

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

Determine Which Bolts extend into the coolant passages. Those **entering** the coolant passages require a pliable non-hardening sealer on the bolt threads and the underside of bolt head. Those **not entering** the coolant passages require oil on the bolt threads and underside of the bolt head.

Exhaust Assembly: Apply a high temperature anti-seize lubricant to the threadings.

CHECK ALL CASTINGS for flatness; straighten, resurface or replace if out of flat conditions exists.

FINAL ASSEMBLY always requires torquing of fasteners according to OEM specifications. For certain assemblies we have provided specific torquing specifications.

Some procedures may be repeated with additional specific information for your application.

HEAD GASKET

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

VALVE STEM SEALS

REMOVE SPRING ASSEMBLIES, KEEPERS and the 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.

POSITIVE GUIDE SEAL:

Use plastic installation sleeve(s), to prevent damage to lip of seal. Trim plastic sleeve so it extends 1/16" below keeper groove. Place sleeve on stem. Carefully start valve stem seal over sleeve. Remove and reuse plastic sleeve. **FOR RUBBER JACKET SEALS:** Push seal down over valve guide until it bottoms. **FOR SOLID/METAL JACKET SEALS:** Use of OEM service tool is recommended. If tool is unavailable, use deep socket or rigid tube of appropriate diameter. Center tool over shoulder of seal and tap seal down over guide until it bottoms.

REPLACE VALVE SPRING ASSEMBLIES. Compress springs just enough to install keepers. **IMPORTANT:** Excessive compression can result in spring retainer damaging valve stem seal. Release spring carefully.

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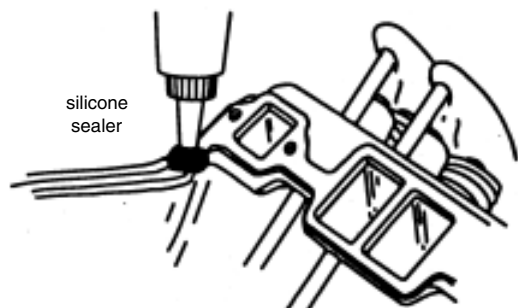
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