

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.

POSITIVE GUIDE SEAL: Use the plastic installation sleeve(s), included in this set, to prevent damage to the lip of the seal. Trim the plastic sleeve so it extends 1/16" below the keeper groove. Place the sleeve on the stem. Carefully start valve stem seal over sleeve. Remove plastic installation sleeve and reuse for installing remaining seals.

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

FOR SOLID OR METAL JACKET SEALS: The use of a 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.

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.

VALVE COVER GASKET

ATTACH AND ALIGN GASKET (S).

INTAKE MANIFOLD GASKET

TO ASSIST IN ALIGNMENT AND SEALING DURING ASSEMBLY, apply a thin coat of gasket sealer, such as BlueGasket Sealer or Spray Gasket Sealer to both sides of gasket(s).

EXHAUST MANIFOLD GASKETS

ATTACH AND ALIGN GASKET TO CYLINDER HEAD. If gasket is steel faced on one side and fiber on the other, install steel faced side toward the manifold.

EXHAUST PIPE FLANGE AND

E.G.R. VALVE BOLTS.

ATTACH AND ALIGN GASKET.

ROTATING SHAFT SEALS

PRIOR TO INSTALLING THE ROTATING SHAFT AND/OR SEAL

apply a thin coat of lubricant, such as grease, on the sealing lip shaft.

IMPORTANT: Do not install any seal without break-in lubricant protection.



FEL-PRO INSTALLATION TIPS

GENERAL INSTRUCTIONS

CLEAN MATING SURFACE of all foreign material. Use a Cleaner/Degreaser.

CLEAN THREADS of all 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 earlier such as Pliable Gasket Sealer on the bolts threads and the underside of the bolt head. Those **not entering** the coolant passages require oil on the threads and the underside of the bolt head.

Exhaust Assembly: Apply a high temperature lubricant such as Anti-Seize Lubricant to the threadings.

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

Attach and align gasket(s) following any directional markings shown on the gasket. If no markings exist, simply install the gasket by matching the gasket to the engine deck surface.

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

Fel-Pro is providing you with a multi-layer steel design (MLS) head gasket. This gasket is manufactured with multiple embossed spring steel layers with a rubber coating. This gasket will meet all your sealing needs.

CLEAN MATING SURFACE of all foreign material using a Pro Lock® Cleaner/Primer.

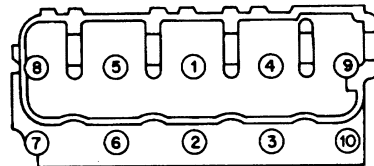
CHECK HEAD AND BLOCK for flatness. Refer to OEM manual to determine flatness tolerances and resurfacing limitations.

CLEAR ALL THREADED HOLES in the block by using a bottoming tap. Tap below the maximum bolt penetration to prevent bottoming.

CLEAN ALL BOLT THREADS by using a wire brush. Lubricate the underside of **every** bolt head with oil. Determine which bolts extend into coolant passages. Those **entering** the coolant passages require pliable non-hardening sealer, such as Pliable Gasket Sealer on the threads. Those bolts **not entering** the coolant passages require oil on the threads.

ATTACH AND ALIGN GASKET(S).

IMPORTANT: Surface finish requirements for MLS cylinder head gasket are very strict (less than 30 Ra). If this cannot be attained, we recommend applying Spray Gasket Sealer to both sides of the gaskets. Allow time for sealer to set.



IMPORTANT: Consult the latest OEM torque specifications, as changes may have taken place since this printing.

TORQUE SPECIFICATIONS: Following sequence shown in the illustration, torque all cylinder head bolts to 56-60 ft. lbs.(76-82 Nm.).

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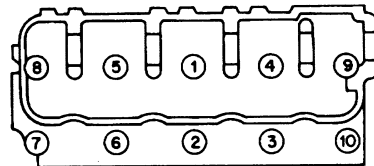
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