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 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.

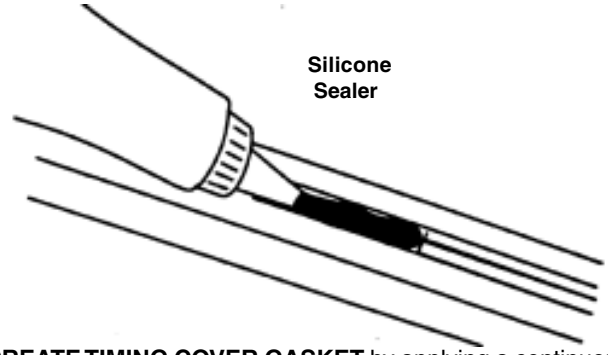
Exhaust Assembly: Apply a high temperature anti-seize lubricant to the threadings.

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

FINAL ASSEMBLY always requires torquing of fastners 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.

TIMING COVER



CREATE TIMING COVER GASKET by applying a continuous 1/ 8" bead of silicone sealer to the mating surface of the timing cover. **IMMEDIATELY PROCEED** to the next step, as RTV normally sets up in 10-15 minutes.

REINSTALL COVER TO ENGINE. Torque securely to OEM specifications.

WATER PUMP GASKETS

TO ASSIST IN ALIGNMENT AND SEALING DURING ASSEMBLY, apply a thin coat of gasket sealer to both sides of gasket(s).

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 and shaft.

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

-Continued-

REAR MAIN BEARING SEAL

CLEAN MATING SURFACES (cap, block, and grooves of cap and block). You may wish to use a degreaser.

REMOVE NICKS AND SCRATCHES (IF ANY) FROM THE CRANKSHAFT SEALING SURFACE using a crocus cloth.

INSTALL NEW SEAL(S):

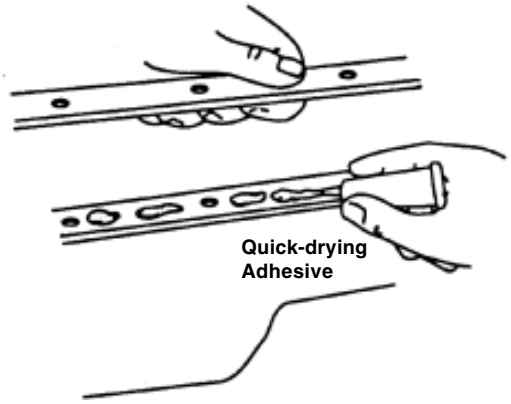
INSTALL SEAL into the recessed cavity of the seal retainer. The seal is properly installed when its largest raised sealing lip is toward the **front** of the engine. (Seals with a metal garter spring require the spring to face towards the **front** of the engine).

LUBRICATE SURFACE of seal lip and crankshaft by applying a thin coat of motor oil or grease. If engine will not be started within several days, grease is recommended.

IMPORTANT: Never install any seal without break-in lubricant protection.

REINSTALL SEAL RETAINER TO CYLINDER BLOCK. Torque to OEM specifications.

OIL PAN GASKET



ATTACH AND ALIGN GASKET(S). Apply quick-drying adhesive sparingly in several places on the engine casting or oil pan (depending upon engine model). Mount gasket (or gaskets and seals, if multipiece) on surface where adhesive was applied. **Allow time for adhesive to set.** Test for slippage with light pressure. If gasket moves, allow more time.

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

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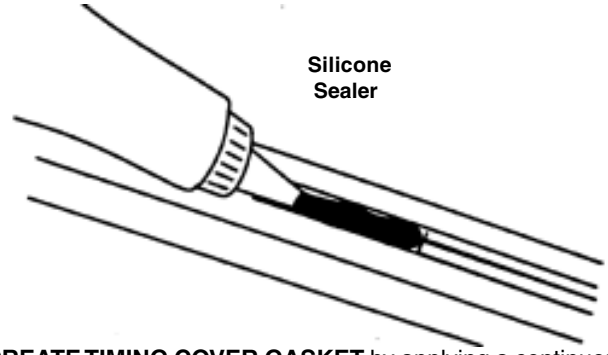

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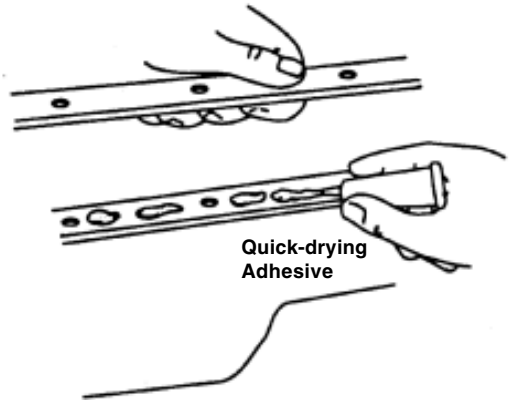

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