



FEL-PRO INSTALLATION TIPS

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.

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 the bolt head. Those **not entering** the coolant passages require oil on the bolt threads and the 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 require 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.

WATER PUMP AND OIL PUMP

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

FLYWHEEL BOLTS

REINSTALL FLYWHEEL to crankshaft. Note: On some engines that use a one-piece rear main bearing seal, a condition may exist where the bolt holes in the crankshaft rear flange have been drilled too deep by the manufacturer. This can result in oil seepage which may be misdiagnosed as coming from the oil pan or rear main bearing seal. To prevent seepage, coat bolt threads with thread locking sealer. Torque securely to OEM specifications.

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.

REAR MAIN BEARING SEAL

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

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).