



FEL-PRO INSTALLATION TIPS

GENERAL INSTRUCTIONS

CLEAN MATING SURFACES Use a degreaser.

CLEAN THREADS of bolts/studs; for nuts/threaded holes use a bottoming tap.

BOLT PREPARATION: Those **entering** coolant passages require a non-hardening sealer on threads and underside of bolt heads. Those **not entering** coolant passage require oil on threads and underside of bolt heads.

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

CHECK CASTINGS for flatness. Straighten, resurface or replace if needed. **CYLINDER HEAD AND BLOCK:** Refer to OEM manual to determine flatness tolerances and 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

IMPORTANT: There are 2 series of coolant configurations for the 250 engines. Only use head gasket 8695 PT on the engine blocks having 3 triangular shaped coolant holes located between cylinders 1 & 2, 3 & 4 and 5 & 6. Engine blocks **not having** the triangular shaped coolant holes can only use head gasket 8501 PT-1.

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 engine deck surface.

FIBER FACED GASKET(S) are to be installed dry. **METAL FACED GASKET(S)** require a thin even coat of sealer, to be applied to the metal side(s) of the gasket.

VALVE STEM SEALS

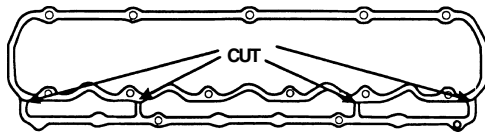
POSITIVE GUIDE SEAL:

Use the plastic installation sleeve(s), to prevent damage to lip of 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 sleeves. Remove and reuse plastic sleeve. **FOR RUBBER JACKET SEALS:** Push seal over valve guide until it bottoms. **FOR SOLID OR METAL JACKET SEALS:** Use of OEM service tool is recommended. If tool is unavailable, use a deep socket or rigid tube of appropriate diameter. Center tool over the shoulder of the seal and tap seal down over guide until it bottoms.

UMBRELLA TYPE SEAL:

Star valve stem seal over valve stem; push seal down on seal body until touches top of valve stem guide. Seal will find its proper position on stem once engine starts.

VALVE COVER GASKET



PRIOR TO INSTALLATION of cover check fit of gasket. If necessary, cut valve cover gasket, using a sharp blade in the places marked.

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.

EXHAUST MANIFOLD GASKET

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



FEL-PRO INSTALLATION TIPS

GENERAL INSTRUCTIONS

CLEAN MATING SURFACES Use a degreaser.

CLEAN THREADS of bolts/studs; for nuts/threaded holes use a bottoming tap.

BOLT PREPARATION: Those **entering** coolant passages require a non-hardening sealer on threads and underside of bolt heads. Those **not entering** coolant passage require oil on threads and underside of bolt heads.

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

CHECK CASTINGS for flatness. Straighten, resurface or replace if needed. **CYLINDER HEAD AND BLOCK:** Refer to OEM manual to determine flatness tolerances and 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

IMPORTANT: There are 2 series of coolant configurations for the 250 engines. Only use head gasket 8695 PT on the engine blocks having 3 triangular shaped coolant holes located between cylinders 1 & 2, 3 & 4 and 5 & 6. Engine blocks **not having** the triangular shaped coolant holes can only use head gasket 8501 PT-1.

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 engine deck surface.

FIBER FACED GASKET(S) are to be installed dry. **METAL FACED GASKET(S)** require a thin even coat of sealer, to be applied to the metal side(s) of the gasket.

VALVE STEM SEALS

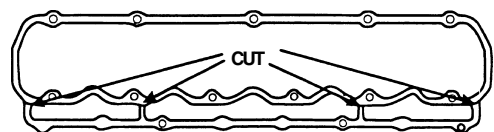
POSITIVE GUIDE SEAL:

Use the plastic installation sleeve(s), to prevent damage to lip of 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 sleeves. Remove and reuse plastic sleeve. **FOR RUBBER JACKET SEALS:** Push seal over valve guide until it bottoms. **FOR SOLID OR METAL JACKET SEALS:** Use of OEM service tool is recommended. If tool is unavailable, use a deep socket or rigid tube of appropriate diameter. Center tool over the shoulder of the seal and tap seal down over guide until it bottoms.

UMBRELLA TYPE SEAL:

Star valve stem seal over valve stem; push seal down on seal body until touches top of valve stem guide. Seal will find its proper position on stem once engine starts.

VALVE COVER GASKET



PRIOR TO INSTALLATION of cover check fit of gasket. If necessary, cut valve cover gasket, using a sharp blade in the places marked.

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.

EXHAUST MANIFOLD GASKET

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