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1. Remove the piston cooling nozzle.

2. The exhaust manifold:
   1. Bend the tabs on the lockplate away from the capscrews for the exhaust manifold.
   2. Remove the capscrews, lockwashers and lockplates that hold the exhaust manifold to the cylinder block, Fig. 0-18.

3. Remove the exhaust manifold.

To Install the Engine on the Engine Stand:

1. Replace the rear water header cover with the adapter plate for the engine stand.
2. Install the adapter plate for the engine stand to the engine stand.
3. Put the engine in the correct position on the engine stand. Install the lockwashers and capscrews to hold the engine to the stand.
4. After the engine is tightly installed to the engine stand, Fig. 0-19, remove the following items:

The Aftercooler:

1. Loosen the clamps and remove the water crossover tube from the front of the aftercooler, Fig. 0-20.
2. Loosen the clamps and remove the water crossover tube from the rear of the aftercooler, Fig. 0-21.
27. Install the air filter into the adapter and tighten to 20 to 25 in.-lvs. [2.2 to 3.0 N·m] torque.

28. Install the actuator to the cam follower housing.
   a. Rotate the cam follower shaft clockwise as far as possible. Use the 3376027 Cam Follower Shaft Positioning Tool to rotate the shaft.
   b. Lubricate the O-ring on the actuator shaft guide with clean engine lubricating oil.
   c. Install the actuator shaft through the shaft guide bore in the housing until the O-ring is in position in the bore.
   d. Use four capscrews and lockwashers to fasten the actuator to the cam follower housing. Tighten the capscrews to 15 to 19 ft.-lvs. [20 to 26 N·m] torque. The solenoid must be in the position shown in Fig. 4-42.

29. Install the air filter into the adapter and tighten to 20 to 25 in.-lvs. [2.2 to 3.0 N·m] torque.

30. Install the actuator to the cam follower housing.
   a. Rotate the cam follower shaft clockwise as far as possible. Use the 3376027 Cam Follower Shaft Positioning Tool to rotate the shaft.
   b. Lubricate the O-ring on the actuator shaft guide with clean engine lubricating oil.
   c. Install the actuator shaft through the shaft guide bore in the housing until the O-ring is in position in the bore.
   d. Use four capscrews and lockwashers to fasten the actuator to the cam follower housing. Tighten the capscrews to 15 to 19 ft.-lvs. [20 to 26 N·m] torque. The solenoid must be in the position shown in Fig. 4-42.
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