Reassembly

1. Coat the valve stems with engine oil and insert the intake and exhaust valves into their original positions.

2. Install the valve springs and valve spring seats. Compress the valve springs and install the valve seat retainer keys. Release the springs and remove the valve compressor.

3. Adjust the valve tappets. Refer to page 1-15.

4. Install the valve tappet cover using a new gasket.

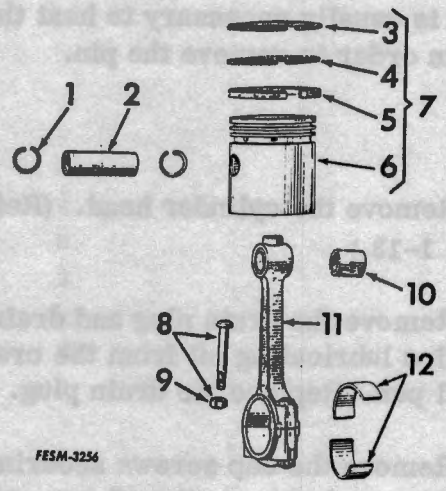
5. Install the intake and exhaust manifold assembly using a new gasket. Tighten the nuts evenly in steps to 20 ft. lbs. torque.

6. Install the cylinder head. Refer to page 1-14.

7. Refill the radiator with coolant.

CONNECTING RODS, PISTONS AND PISTON RINGS

General



1. Retainer
2. Pin
3. Compression ring
4. Compression ring
5. Oil control ring
6. Piston
7. Piston with rings
8. Bolt assembly
9. Nut
10. Bushing
11. Rod assembly
12. Bearing Assembly

Connecting Rods

The connecting rods serve as the links between the pistons and the crankshaft. The surfaces of the rods must be kept free of scoring and dents because of the high stresses under which they function. The rod has a bushing at each end, the one at the upper end is a bushing for the piston pin which anchors it to the piston. The bearing at the crankshaft or lower end is inserted in two halves which fit around the crankshaft and are secured by a bearing cap. The bearing cap is furnished only with its connecting rod.

The lower bearings used in these engines are the replaceable insert type and insure correct running clearances when they are properly installed. This is possible without boring, reaming, scraping or using shims. The three important fundamentals on bearings and bearing fitting are "bearing crush," "bearing spread," and "bearing clearance." An explanation of these will be covered later.