valves through push rods and valve rockers. The valve rockers are supported on full floating steel shafts. The valve springs bear against hardened steel seats and are retained on the valve stems by means of split keys. A rotator cap is employed on sodium cooled exhaust valves.

NOTE

Hydraulic tappets, which automatically keep the valve clearance at zero, are used on all subject engines except the O-235-C and O-290-D series engines. These series employ solid tappets and the proper valve clearance is obtained with the aid of an adjusting screw located in the valve rocker.

2-7. HYDRAULIC TAPPETS. When the valve is closed, the face of the cam follower is on the base circle or back of the cam. The light plunger spring lifts the hydraulic plunger so that its outer end contacts the push rod, exerting a light pressure against it, thus eliminating any clearance in the valve linkage. As the

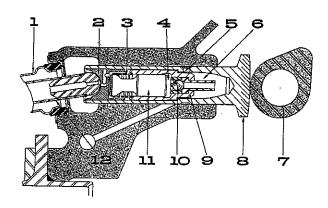


Figure 2-2. Hydraulic Tappet Assembly

plunger moves outward, the ball checkvalve moves off its seat. Oil from the supply chamber, which is directly connected to the engine lubrication system, flows in and fills the pressure chamber. As the camshaft rotates, the cam pushes the cam follower and the hy-

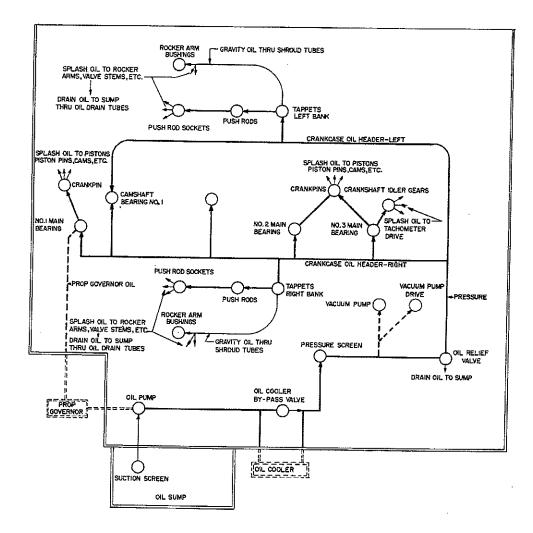


Figure 2-3. Lubrication Diagram - 4 Cylinder Engines