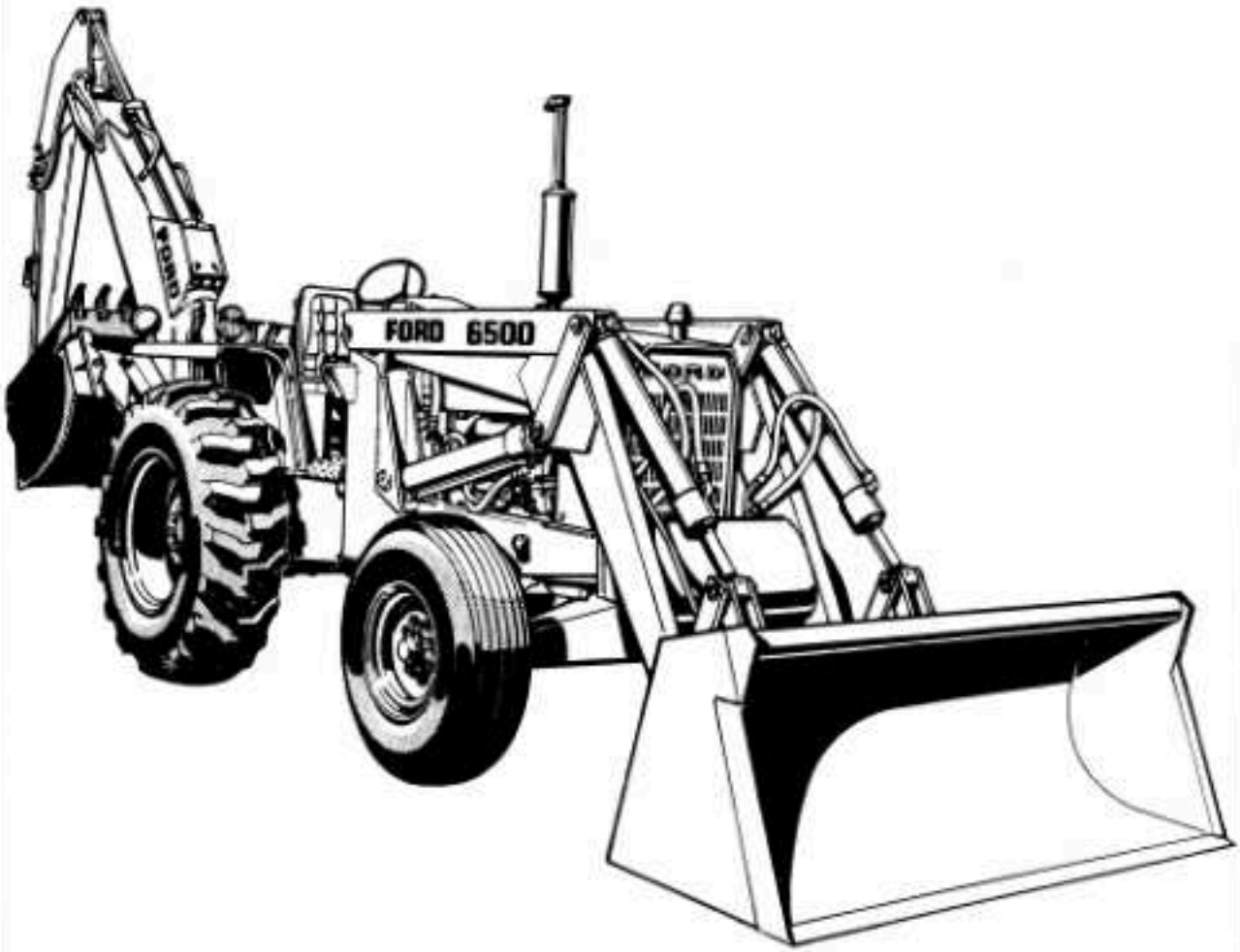
FORD

Service Manual

Tractor - Loader - Backhoe
6500, 7500



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1. DESCRIPTION AND OPERATION

This part of the manual covers the diesel engines for the Ford 6500 and 7500 Tractors. The Ford 7500 diesel engine is similar to the Ford 6500 diesel engine but develops more power through use of a turbocharger along with different pistons, valves, connecting rods, and air cleaner.

This part of the manual deals with disassembly, inspection and repair, and the assembly of engines; the lubrication system and the cooling system.

Cylinder Head Assembly - Including Valve Train Components

The cylinder head assembly incorporates the valves, valve springs, and rotators. The valve rocker arm shaft assembly is bolted to the head. The intake and exhaust manifolds are bolted to the head. The intake manifold is on the right side from the rear of the engine, and the exhaust manifold is on the left side. The water outlet connection and thermostat are attached to the front of the cylinder head. Valve guides are an integral part of the cylinder head, and valves with oversize stems are available for service. Special replaceable cast alloy valve seats are pressed into each valve port of the cylinder head. The exhaust valves are fitted with positive valve rotators. The Ford 6500 intake valves have umbrella-type seals while the Ford 7500 intake valves do not have seals.

Exhaust valves on both tractors have a square section O-ring seal.

Valve lash is maintained by self-locking adjusting screws. The camshaft is supported by five replaceable bearings. The camshaft is driven by the camshaft drive gear which is in mesh with the camshaft gear. Camshaft thrust is controlled by a plate secured to the block and located between the camshaft gear and the front journal of the camshaft.

The cylinder heads use six evenly spaced head bolts per cylinder. The fuel injectors are mounted outside the rocker cover.

The engine cylinder heads are designed with the face of the cylinder head flat. The combustion chambers are in the heads of the pistons.

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