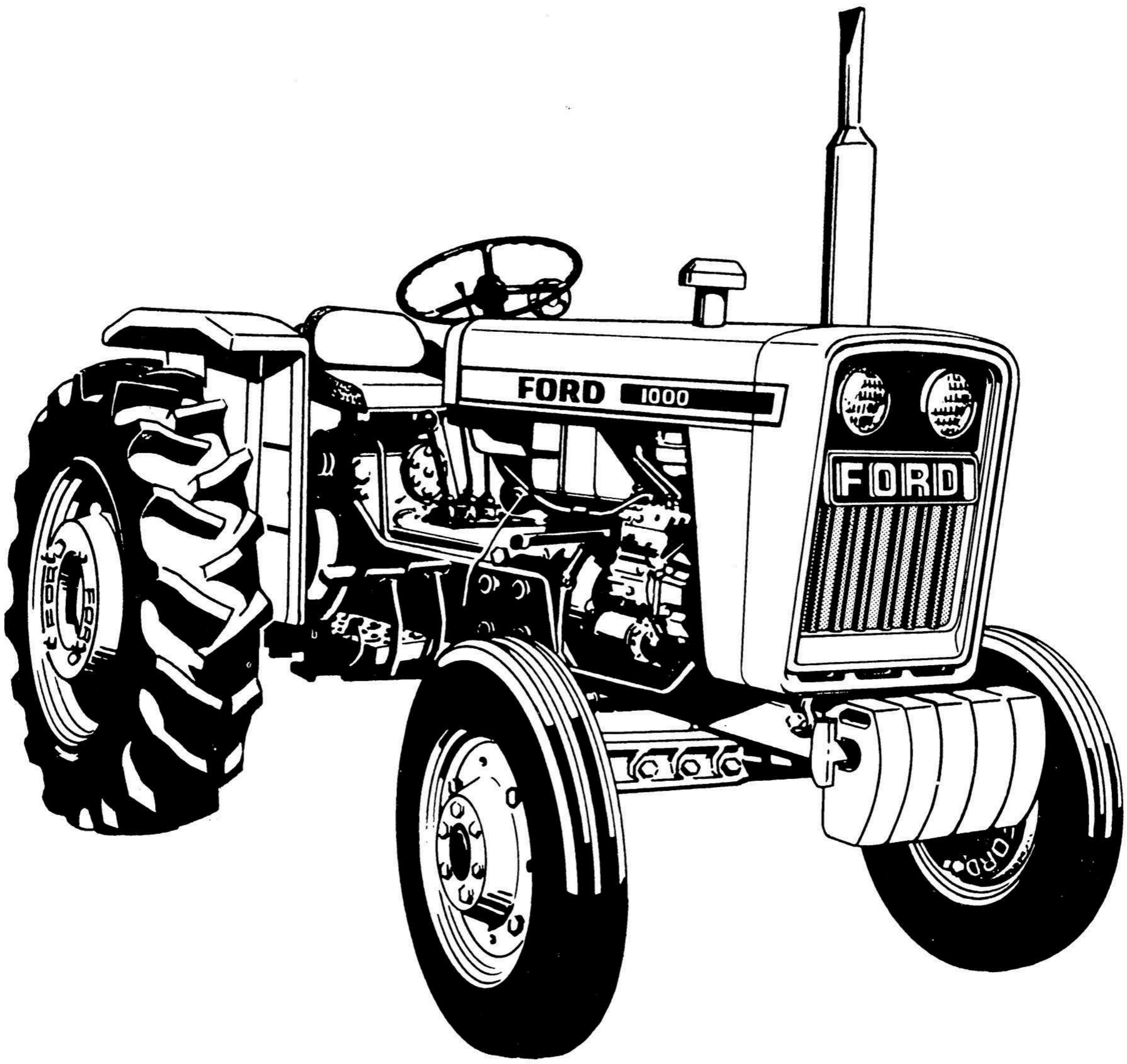
FORD

Service Manual

Tractors
1000,1600



40100020

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Part 1

ENGINE

Chapter 1

ENGINE AND LUBRICATION SYSTEM

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1. DESCRIPTION AND OPERATION

The Ford 1000 engine is a two cylinder four cycle diesel engine. This part of the manual deals with the removal, disassembly, inspection and repair, and assembly of the engine and the lubrication system, plus the cooling system.

CYLINDER HEAD AND ROCKER ARMS

The cylinder head assembly incorporates the valves, valve springs, and rocker arm assembly. The cylinder head is retained to the block by six studs. This provides a four bolt circle for each cylinder.

There is one complete rocker arm and support assembly for each cylinder. The rocker arms are retained to the rocker shaft by snap rings. The rocker arm support is located on a stud in the cylinder head and is aligned by means of a roll pin in the head which protrudes into a counter bore in the base of the rocker arm support.

The cylinder head incorporates a pre-combustion chamber. The injectors are located in the cylinder head and spray fuel into the pre-combustion chamber.

CYLINDER BLOCK ASSEMBLY

The crankshaft is supported by two main bearings. The main bearings are full circle bearings and are press fit bearings. The front bearing is located in a bore in the front of the block and the rear bearing is located in the flywheel cover. For proper alignment, the cover is dowelled to the block assembly.

There are also two thrust bearings controlling end movement of the crankshaft, one is on the flywheel cover and the other on the inside face of the front of the block. The thrust bearings are held in position by a roll pin.

The camshaft is mounted on the right side of the block assembly as viewed from the front of the engine. The camshaft is supported by ball bearings at each end. The rear of the camshaft is sealed with an O-ring which fits in a counterbore in the block and is held in position by the flywheel cover.

LUBRICATION SYSTEM

The oil pump assembly consists of a body, gear set, cover and drive gear. The oil pick up tube attaches to the rear of the body and extends into the sump. The body is located in a bore in the front of the block assembly below and to the left of the crankshaft location as viewed from the front. The gear set is positioned in the body and retained in position by the cover. The front cover is bolted to the oil pump body and to the block assembly. The oil pump drive gear is driven by the crankshaft gear.

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