

Changing Engine Crankcase Oil

Change crankcase oil after the first 2 hours of operation and every 25 hours of operation thereafter.

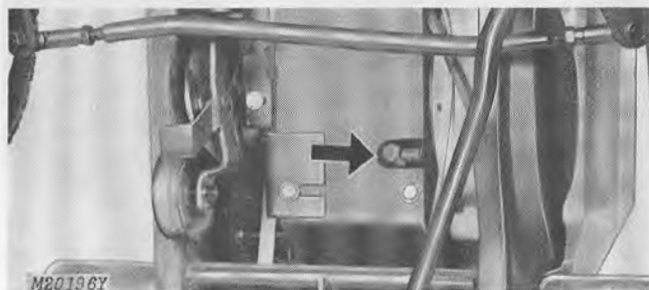


Fig. 4-Draining Crankcase Oil

NOTE: For convenience, a suitable length of 5/8-inch (15.88 mm) garden hose or plastic tubing may be installed on the drain valve to allow oil to drain.

Open oil drain valve Fig. 4 and allow oil to drain into a container.

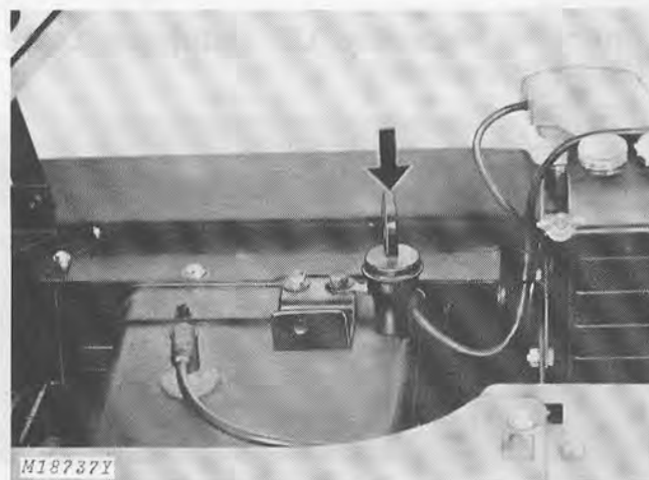
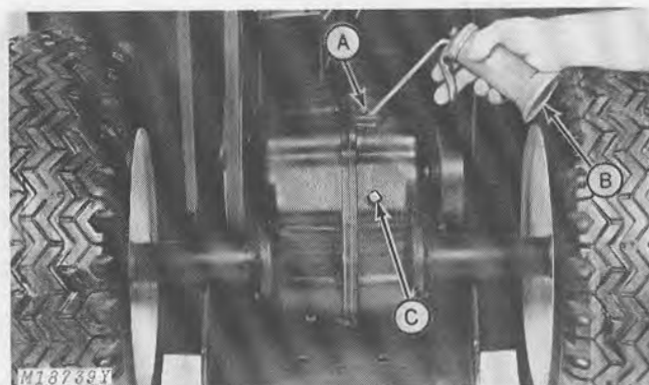


Fig. 5-Filling Crankcase

Close oil drain valve. Fill crankcase with oil of the proper viscosity to "F" mark on dipstick Fig. 5 (see page 10-15-1 for crankcase capacity).

Changing Transaxle Lubricant



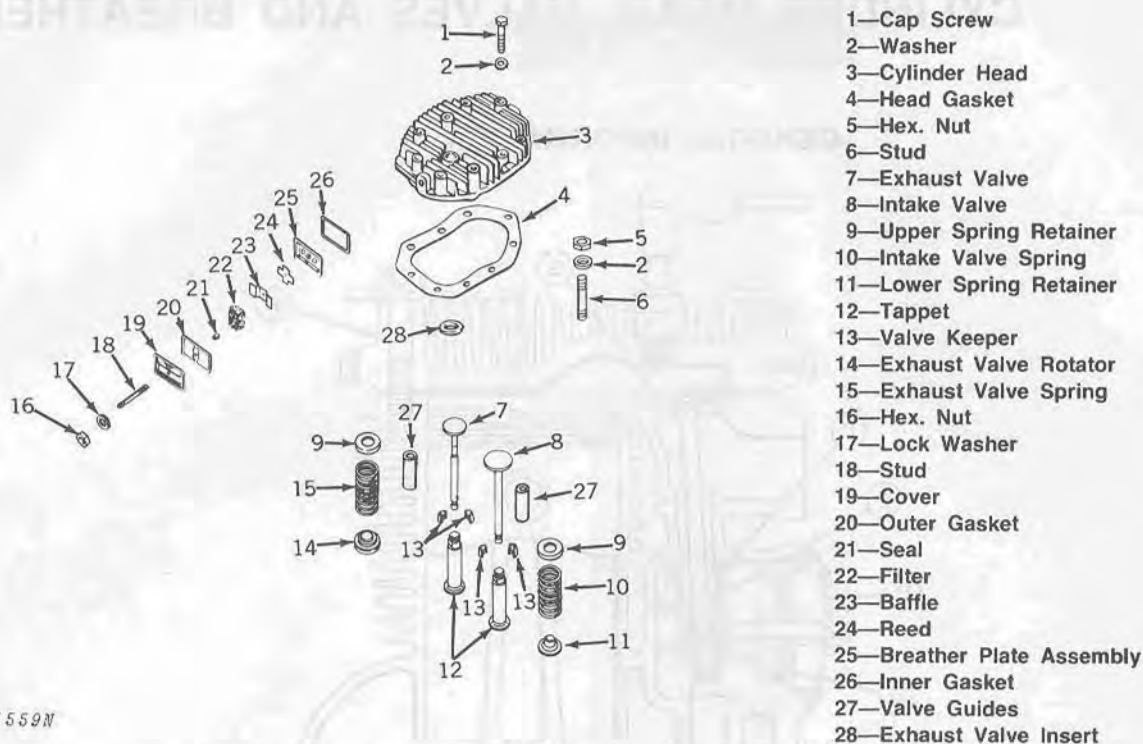
A—Oil Level Filler Hole
B—Pressure Oil Can
C—Drain Plug

Fig. 6-Changing Transaxle Lubricant

Change transaxle lubricant every 2 years or 500 hours of operation. Remove transaxle drain plug (C) and drain oil. Wipe plug clean and replace it in transaxle.

Remove plug from filler hole (A) and fill transaxle with 3-1/2 U.S. pints (1.65 l) of AM30200 Transmission Lubricant, SAE 90 Gear Lubricant or an equivalent SCL Multipurpose Gear Oil.

DISASSEMBLY



M11559N

Fig. 2-Exploded View of Cylinder Head, Valves, and Breather (210, 212 and 214 Tractors)

Disassembling Engine

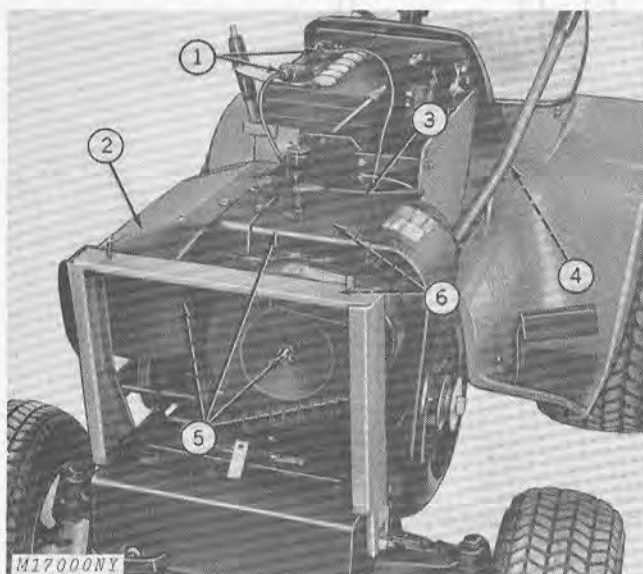


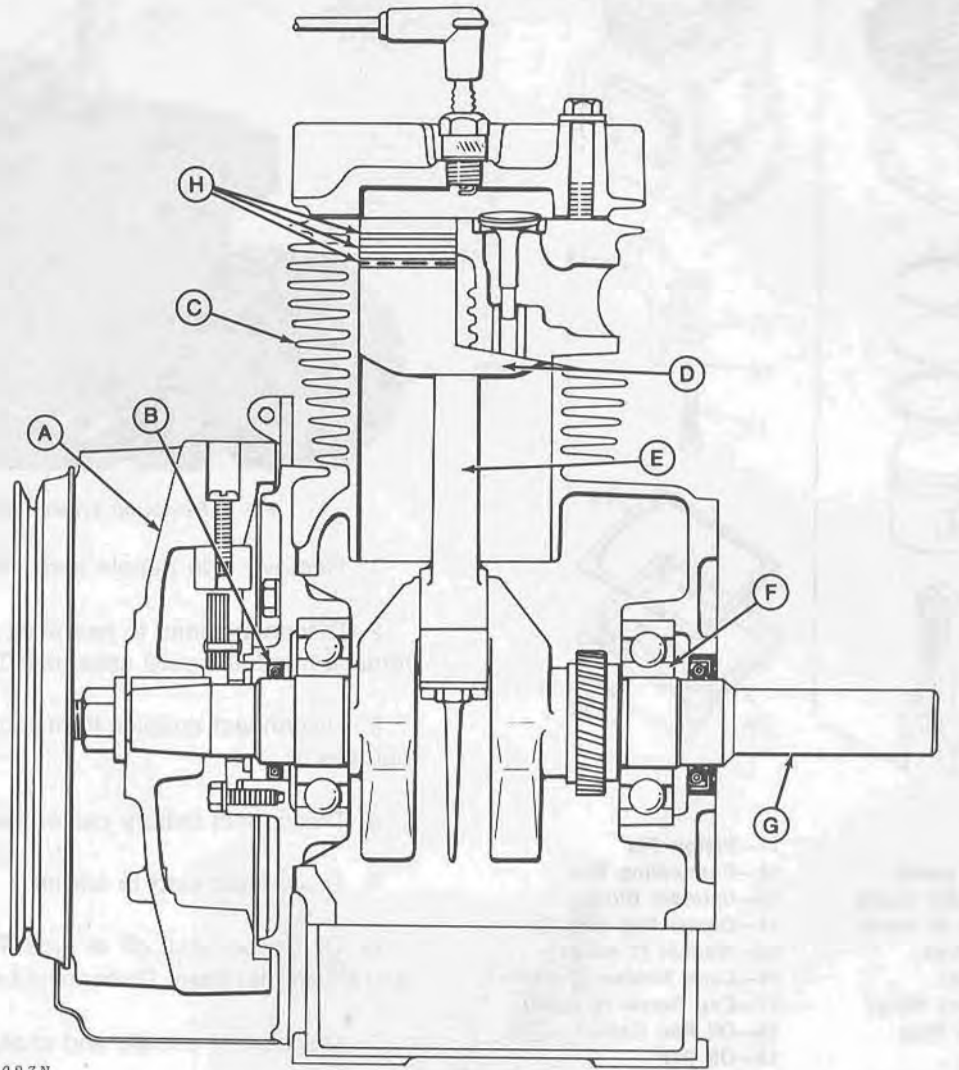
Fig. 3-Disassembling Engine

It is not necessary to remove the engine to service the cylinder head, valves or breather. Remove the hood, grille and side panels to provide access to the engine. Clean engine exterior prior to disassembly.

1. Disconnect battery cables, negative cable first. Remove battery and battery box.
2. Remove shroud covering muffler.
3. Disconnect wiring from coil to wiring harness.
4. Shut off fuel.
5. Remove engine shrouding, coil, carburetor, governor linkage and muffler.
6. Remove cylinder head, breather assembly and valves.

Group 15 MINOR ENGINE RECONDITION

GENERAL INFORMATION



M17023N

A—Flywheel
B—Oil Seal

C—Block
D—Piston

E—Connecting Rod
F—Main Bearing

G—Crankshaft
H—Piston Rings

Fig. 1-Cutaway View of Kohler Engine

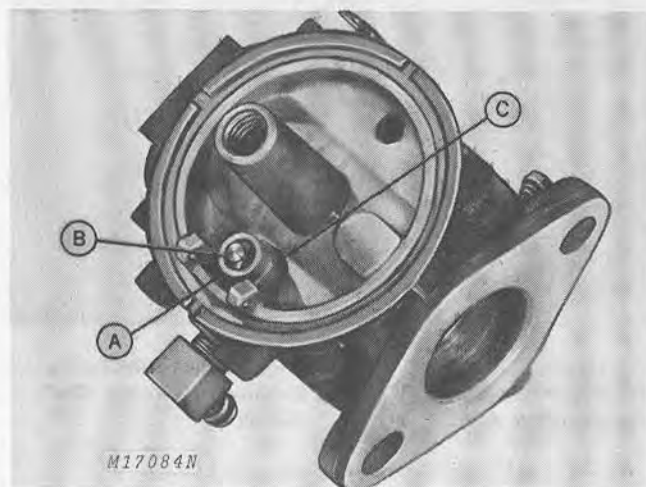
Minor engine reconditioning includes piston ring (H), piston (D), piston pin and connecting rod (E) maintenance, Fig. 1. It should also include lapping or grinding valves, cleaning the breather, and valve and governor linkage adjustment.

If inspection reveals that cylinder boring to an oversize is necessary, see Group 20, "Major Engine Recondition."

ASSEMBLY

Install the carburetor repair kit whenever the carburetor is disassembled for service. The kit consists of items marked with an asterisk in Fig. 2.

Installing Float Valve



A—Valve Seat B—Valve C—Fiber Gasket

Fig. 3-Installing Float Valve Seat and Valve

The valve seat (A), valve (B) and fiber gasket (C, Fig. 3), are packaged together for service. Never replace one part without replacing the other parts.

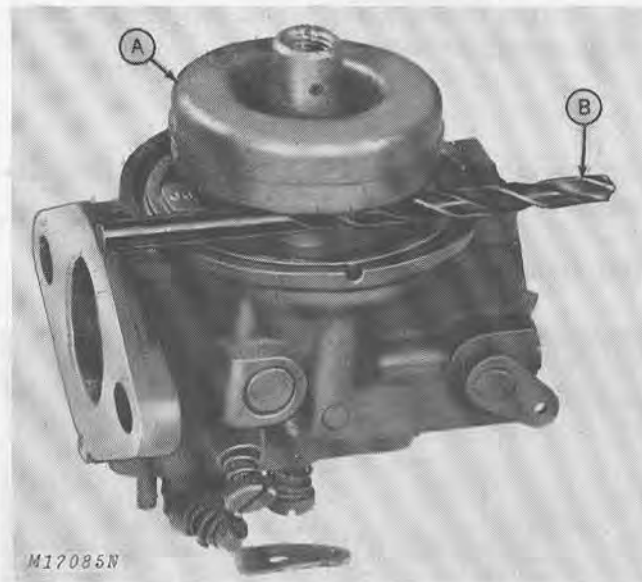
Screw valve seat assembly (A), with gaskets, into carburetor housing. Tighten securely. Insert valve (B) with tapered end against valve seat.

Installing Float and Fuel Bowl

Assemble float (L, Fig. 2) to carburetor housing with float pin (P, Fig. 2). Invert carburetor, Fig. 4. With float (A, Fig. 4) resting lightly on float valve, the distance between float and machined surface of carburetor body should be $11/64$ -inch $\pm$ $1/32$ -inch (4.366 ± 0.79 mm) (B). To increase or decrease the distance, bend lip on float. Dimension should be made on free end of float (opposite valve seat), Fig. 4.

Install bowl ring gasket (J, Fig. 2) in groove of carburetor body.

Position bowl gasket (K, Fig. 2), fuel bowl (M, Fig. 2), bowl screw gasket (N, Fig. 2), and bowl screw (O, Fig. 2). Tighten screw firmly, being certain bowl is centered on gasket.



A—Float
B— $11/64$ Inch (4.366 mm) Drill Bit

Fig. 4-Adjusting Float

Install idle mixture needle (G, Fig. 2) through spring (H, Fig. 2) and high-speed mixture needle (A, Fig. 2) into carburetor body.

Carefully turn mixture needles clockwise until lightly seated. Back out high-speed mixture needle 2 turns and idle mixture needle 2-1/2 turns. These are preliminary adjustments only.

NOTE: Do not tighten mixture needles too firmly against seats or damage will result.