Trochoid oil pump

The trochoid oil pump is driven by the crankshaft through the pump idle gear and drive gear.

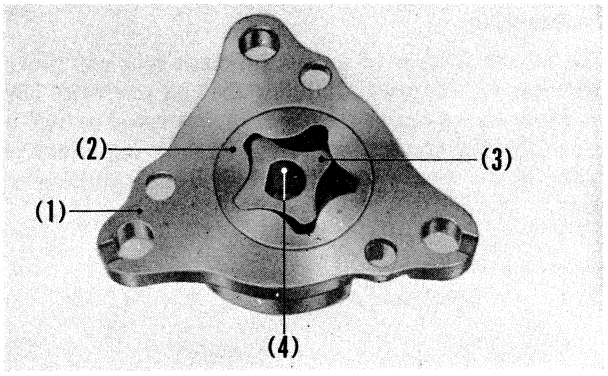

Fig. 2–8 (1) Oil pump body
(2) Outer rotor
(3) Inner rotor
(4) Drive gear

Centrifugal oil filter

As the oil from the pump enters the filter rotor through the guide metal and is picked up by the spinning vanes of the filter cap, foreign materials such as metallic dust and carbon particles are separated from the oil by centrifugal force and are attached to the inner wall of the rotor. The oil cleaned in this manner is fed to the engine parts through the outlet port in the center section of the filter cap.

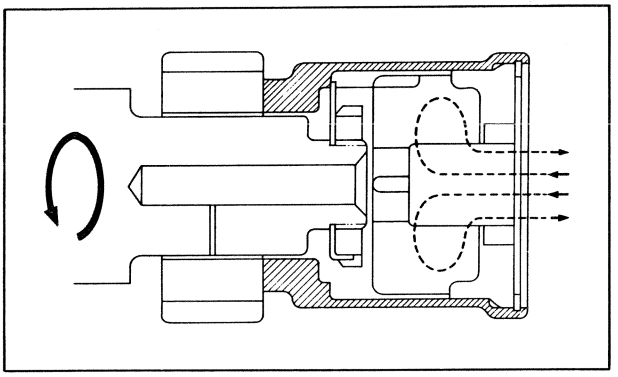

Fig. 2–9 Oil flow in oil filter

4. POWER TRANSMITTING SYSTEM

Clutch

The clutch is provided to transmit engine power to the transmission mainshaft or disconnect it from the shaft through friction between the clutch friction discs (3) and clutch plates (4).

When the clutch is engaged, the friction discs and plates are "sandwiched" between the clutch pressure plate (7) and clutch center (5) by means of the clutch spring (6), thereby causing the clutch outer (2) and clutch center to be pressed together. Under this condition, engine power is transmitted from the crankshaft to the main shaft through the primary drive gear, clutch outer, friction discs, plates and clutch center.

As the clutch lever is squeezed, the clutch lifter cam (11) connected to the clutch cable is rotated and then is pushed out by means of the # 10 steel ball (12) located between the lifter cam and clutch adjusting cam. Then the force is transmitted to the steel ball (10), lifter rod, lifter joint piece and pressure plate to cause the clutch springs to be compressed. Now the friction discs are separated from the plates, resulting in disengagement.

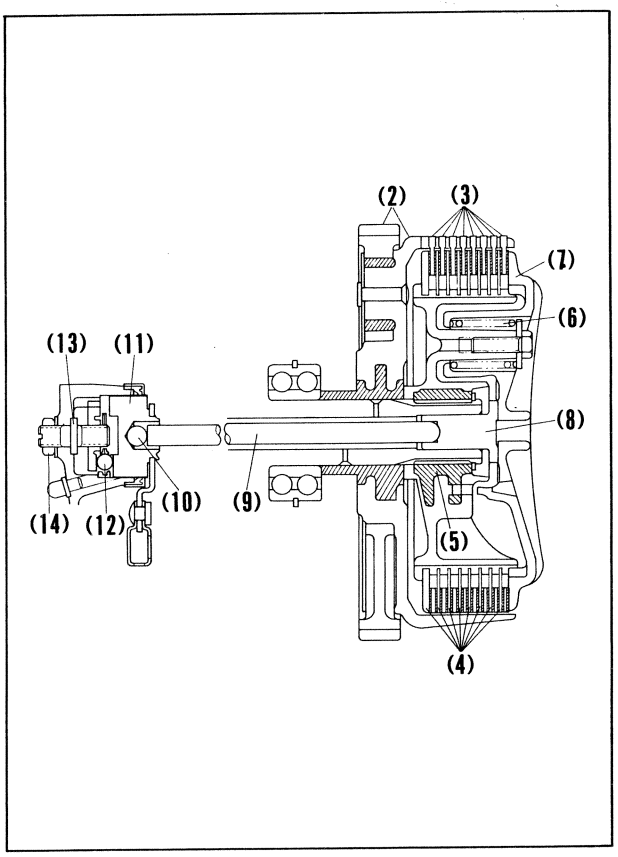

Fig. 2–10