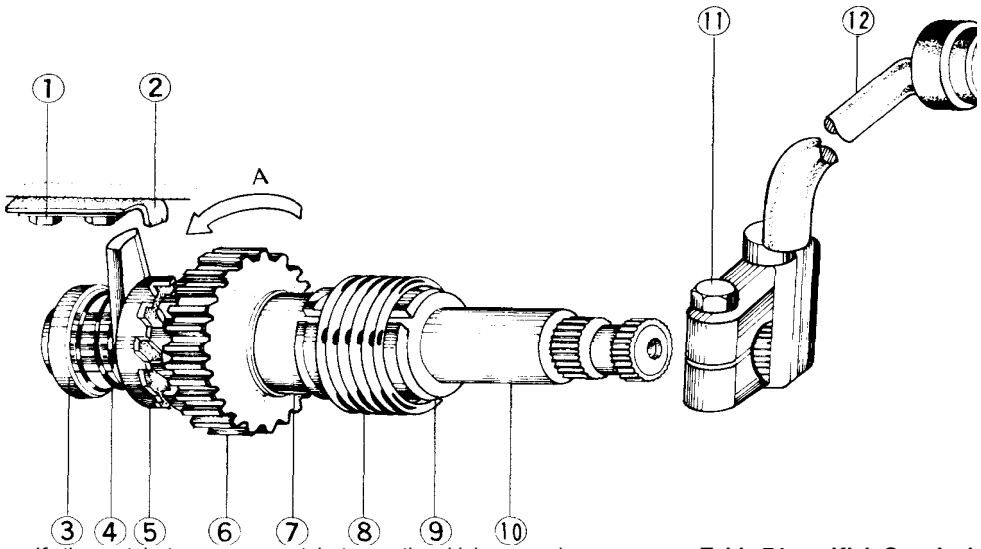
Kickstarter

1. Stopper Bolts
2. Stopper
3. Spring Seat
4. Spring
5. Ratchet Gear
6. Kick Gear
7. Kick Shaft Collar
8. Kick Spring
9. Spring Guide
10. Kick Shaft
11. Bolt
12. Kick Pedal



If the ratchet gear or ratchet on the kick gear is worn or damaged, the kick gear will slip, and it will not be possible to kickstart the engine.

Table 74 Kick Gear Inside Diameter

Standard	Service Limit
21.979~22.000 mm	22.05 mm

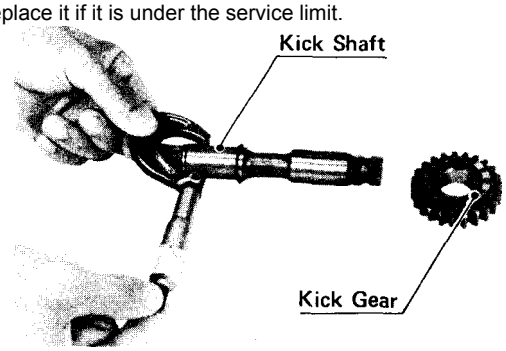
Kick gear, shaft wear

Measure the inside diameter of the kick gear, and replace the gear if the diameter is over the service limit. Visually inspect the ratchet portion of the kick gear. If there is any kind of damage, replace the kick gear.

Measure the kick shaft diameter at the kick gear, and replace it if it is under the service limit.

Table 75 Kick Shaft Diameter at Kick Gear

Standard	Service Limit
21.939-21.960 mm	21.92mm



ENGINE LUBRICATION

The engine lubrication system includes the oil screen, engine oil pump, oil filter, oil pressure relief valve, and oil passages. An oil pressure indicator switch is provided to warn in case of insufficient oil pressure. An oil breather keeps crankcase pressure variations to a minimum and reduces emmissions by recirculating blowby gas. The discussion here concerns how these parts work together, how the oil reaches the various parts of the engine, and how to check the oil pressure. Details on the engine oil pump, oil filter, and oil breather are given in the sections (Pgs. 145~149) following engine lubrication.

Since the engine lubrication system is the wet sump type, there is always a supply of oil in the crankcase at the bottom of the engine. The oil is drawn through the wire screen into the oil pump as the pump rotors turn. The pump is driven by a gear attached on the left end of the rear balancer shaft. The screen removes any metal particles and other foreign matter which could damage the oil pump. From the pump the oil passes through the oil filter element for filtration. If the element is badly clogged, slowing the flow of oil through it, oil bypasses the element through a bypass valve in the upper crankcase half. After passing through the filter, the oil flows through the crankcase main oil passage to where it branches into two lubrication routes.

One of these routes is to the crankshaft main bearings, then to the connecting rod journals and to the starter motor crankshaft sprocket. The cylinder walls, pistons, and piston pins are lubricated by splash from the spinning crankshaft. The oil then drops and collects at the bottom of the crankcase to be used again.

The other route for filtered oil is through the oil passage at each side of the cylinder block, up to the top of the cylinder head. After lubricating the camshaft journals, the oil flows to the top of the cylinder head.