

# 8. CLUTCH/OIL PUMP/ KICK STARTER

SERVICE INFORMATION	8-1	CENTRIFUGAL CLUTCH	8-10
TROUBLESHOOTING	8-2	MANUAL CLUTCH	8-14
RIGHT CRANKCASE COVER REMOVAL	8-3	OIL PUMP/PRIMARY DRIVE GEAR	8-19
OIL FILTER SCREEN	8-9	KICK STARTER	8-23
NEUTRAL/REVERSE ROTOR/ REPLACEMENT	8-9	RIGHT CRANKCASE COVER INSTALLATION	8-27

## SERVICE INFORMATION

### GENERAL

- This section covers removal and installation of the centrifugal clutch, manual clutch, oil pump and kick starter.
- The clutches, oil pump and kick starter can be serviced with the engine installed in the frame.

### SPECIFICATIONS

ITEM		STANDARD	SERVICE LIMIT
Manual clutch	Spring free length	34.98 mm (1.377 in)	34.0 mm (1.34 in)
	Spring preload	18 kg (39.68 lb)	—
	Disc thickness	2.62–2.78 mm (0.103–0.109 in)	2.3 mm (0.091 in)
	Disc warpage	—	0.20 mm (0.008 in)
	Plate warpage	—	0.20 mm (0.008 in)
	Clutch outer guide O.D.	27.959–27.980 mm (1.1007–1.1016 in)	27.92 mm (1.099 in)
Centrifugal clutch	Drum I.D.	140 mm (5.5 in)	140.2 mm (5.52 in)
	Weight lining thickness	2.95–3.05 mm (0.116–0.120 in)	2.0 mm (0.08 in)
	Clutch spring free height	3.7 mm (0.15 in)	3.55 mm (0.140 in)
	Spindle O.D.	21.959–21.980 mm (0.8645–0.8654 in)	21.90 mm (0.862 in)
	Pinion gear I.D.	22.020–22.041 mm (0.8669–0.8678 in)	22.10 mm (0.870 in)
Kick starter	Idler gear I.D.	23.020–23.041 mm (0.9063–0.9071 in)	23.07 mm (0.908 in)
	Idler gear bushing O.D.	22.959–22.980 mm (0.9039–0.9047 in)	22.93 mm (0.903 in)
	Countershaft O.D.	19.980–19.993 mm (0.7866–0.7871 in)	19.95 mm (0.785 in)
	Idler gear bushing I.D.	20.000–20.021 mm (0.7874–0.7882 in)	20.05 mm (0.789 in)
Primary drive gear	Crankshaft O.D.	26.959–26.980 mm (1.0613–1.0622 in)	26.93 mm (1.060 in)
	Gear I.D.	27.000–27.021 mm (1.0630–1.0638 in)	27.05 mm (1.065 in)
Oil pump	Pump end clearance	0.02–0.08 mm (0.0008–0.0031 in)	0.10 mm (0.004 in)
	Rotor tip clearance	0.15 mm (0.006 in)	0.20 mm (0.008 in)
	Rotor-to-cover clearance	0.15–0.21 mm (0.006–0.008 in)	0.25 mm (0.010 in)

### TORQUE VALUES

Oil bolts	10–14 N·m (1.0–1.4 kg·m, 7–10 ft·lb)
Kick stopper plate	10–14 N·m (1.0–1.4 kg·m, 7–10 ft·lb)
Manual clutch lock nut	100–120 N·m (10–12 kg·m, 72–87 ft·lb) Apply thread locking agency
Centrifugal clutch lock nut	110–130 N·m (11.0–13.0 kg·m, 80–94 ft·lb) Apply thread locking agency
Neutral and reverse switch	11–15 N·m (1.1–1.5 kg·m, 8–11 ft·lb)
Clutch bolts	10–14 N·m (1.0–1.4 kg·m, 7–10 ft·lb)
Right crankcase cover bolts	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)