



SERVICE INFORMATION	20-1
TROUBLESHOOTING	20-1
STARTER MOTOR	20-2
STARTER RELAY SWITCH	20-5

SERVICE INFORMATION

GENERAL

The starter motor can be removed with the engine in the frame.

SPECIFICATIONS

		STANDARD	SERVICE LIMIT
Starter motor	Brush spring tension	800 ± 120 g (28.2 ± 4.2 oz)	680 g (24.0 oz)
	Brush length	12.0 – 13.0 mm (0.47 – 0.51 in)	6.5 mm (0.26 in)

TROUBLESHOOTING

Starter motor will not turn

1. Battery discharged
2. Faulty ignition switch
3. Faulty starter switch
4. Faulty neutral switch
5. Faulty starter relay switch
6. Loosen or disconnected wire or cable
7. Neutral diode open

Starter motor turns engine slowly

1. Low specific gravity
2. Excessive resistance in circuit
3. Binding in starter motor

Starter motor turns, but engine does not turn

1. Faulty starter clutch
2. Faulty starter motor gears
3. Faulty starter motor or idle gear

Starter motor and engine turns, but engine does not start

1. Faulty ignition system
2. Engine problems