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## SERVICE INFORMATION

### GENERAL

- All bearing inserts are a select fit and are identified by color codes. Select replacement bearings from the code tables. After installing new bearings, recheck them with plastigauge to verify clearance. Apply molybdenum disulfide grease to the main journals and crankpins during assembly.
- The crankcase assembly must be separated (Section 10) to service the crankshaft and starter clutch.
- Refer to section 20 for starter system troubleshooting.

### SPECIFICATIONS

		STANDARD	SERVICE LIMIT
Crankshaft	Connecting rod big end side clearance	0.05–0.20 mm (0.002–0.008 in)	0.3 mm (0.01 in)
	Runout	—	0.03 mm (0.001 in)
	Crankpin oil clearance	0.024–0.057 mm (0.0009–0.0022 in)	0.07 mm (0.003 in)
	Main journal oil clearance	0.019–0.043 mm (0.0007–0.0017 in)	0.06 mm (0.002 in)
Cam chain	Length	336.55–337.00 mm (13.250–13.268 in)	339.0 mm (13.35 in)
Alternator chain	Length	149.01–149.21 mm (5.867–5.874 in)	150.5 mm (5.93 in)

### TORQUE VALUES

Connecting rod cap nut	30–34 N·m (3.0–3.4 kg·m, 22–25 ft·lb)
Main bearing bolt	21–25 N·m (2.1–2.5 kg·m, 15–18 ft·lb)
Pulse generator rotor bolt	30–40 N·m (3.0–4.0 kg·m, 22–29 ft·lb)
Alternator shaft nut	30–38 N·m (3.0–3.8 kg·m, 22–28 ft·lb)

### TOOLS

#### Special

Bearing remover, 17 mm	07936–3710300
Remover handle	07936–3710100
Remover weight	07936–3710200 or 07741–0010201

#### Common

Universal holder	07725–0030000	Attachment, 42 x 47 mm	07746–0010300
Attachment, 37 x 40 mm	07746–0010200	Pilot, 20 mm	07746–0040500
Pilot, 17 mm	07746–0040400	Driver	07746–0020100
Driver	07749–0010000	Attachment, 20 mm I.D.	07746–0020400

## TROUBLESHOOTING

### Excessive noise

- Worn main journal bearing
- Worn crank pin bearing