

# 10. Crankshaft/Transmission

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## Service Information

- The crankcase must be separated to service the crankshaft and transmission.
- The following parts must be removed before disassembling the crankcase.
  - Oil pump (page 4-4)
  - Cylinder head/Cylinder/Piston (Section 8)
  - Clutch slave cylinder (page 9-2)
  - AC generator cover (page 14-9)
  - Starter motor (page 16-7)
  - Water pump (page 6-3)
  - Clutch (page 9-6)
  - Gearshift linkage (page 9-12)
  - Pulse generator/rotor (Section 15)
- Be careful not to damage the crankshaft main journal bearing while removing or installing the crankshaft.
- All bearing inserts are select fitted and are identified by color code. Select replacement bearings from the selection table (page 10-20).
- After installing new bearings, recheck them with plastigauge to verify clearance.
- Apply molybdenum disulfide oil to the main journals and crankpins during assembly.

## Troubleshooting

### Excessive Noise

- Worn connecting rod big-end bearing
- Bent connecting rod
- Worn crankshaft main bearing
- Worn transmission bearing

### Hard To Shift

- Improper clutch operation
- Incorrect transmission oil weight
- Incorrect clutch adjustment
- Bent shift fork
- Bent fork shaft
- Bent fork claw
- Damaged shift drum cam grooves
- Bent shift spindle

### Transmission Jumps Out Of Gear

- Worn gear dogs or slots
- Bent fork shaft
- Broken shift drum stopper
- Worn or bent shift forks
- Broken shift linkage return spring

### Engine Vibration

- Excessive crankshaft runout