

# 10. CRANKSHAFT/TRANSMISSION

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## SERVICE INFORMATION

- Remove the engine and separate the crankcase to inspect the crankshaft, connecting rod and transmission.
- Service Points

Service Item	Removed Components
Connecting rod	<ul style="list-style-type: none"> <li>• Cylinder head (page 8-4)</li> <li>• Cylinder/Piston (page 8-8)</li> <li>• Crankcase separation (page 10-2)</li> </ul>
Crankshaft	<ul style="list-style-type: none"> <li>• Starter clutch (page 16-8)</li> <li>• Flywheel (page 14-7)</li> <li>• Crankcase separation (page 10-2)</li> <li>• Connecting rod bearing cap (page 10-4)</li> </ul>
Transmission	<ul style="list-style-type: none"> <li>• Crankcase separation (page 10-2)</li> <li>• Gearshift linkage (page 9-6)</li> </ul>

- Prior to assembling the crankcase halves, apply a sealant to their mating surface. Wipe off excess sealant thoroughly.
- Mark and store the bearing inserts to be sure of their correct locations for reassembly. If the inserts are improperly installed they will block the oil holes, causing insufficient lubrication and eventual engine seizure.
- If it is no longer clear which bolt belongs in which hole, insert all bolts in the holes and check the exposed lengths; each should be exposed the same amount.

## TROUBLESHOOTING

### Excessive noise

- Worn connecting rod bearings
- Bent connecting rod
- Worn crankshaft main bearing

### Hard to shift

- Improper clutch operation
- Incorrect engine oil viscosity
- Incorrect clutch adjustment
- Bent shift forks
- Bent shift fork shaft
- Bent shift fork claw
- Damaged shift drum cam grooves
- Bent shift spindle

### Transmission jumps out of gear

- Worn gear engagement dogs or slots
- Bent shift fork shaft
- Damaged shift drum stopper arm
- Damaged or bent shift fork
- Broken shift linkage return spring
- Damaged shift drum cam grooves