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SERVICE INFORMATION

GENERAL INSTRUCTIONS

To repair the crankshaft, connecting rod, primary shaft and the transmission including the shift fork and drum, it is necessary to separate the crankcase halves.

The following parts must be removed before disassembling the crankcase.

To service	Remove
Crankshaft and connecting rod	Cylinder head, cylinder, pistons primary shaft assembly A.C.G. rotor and oil pump
Primary shaft	Oil pump
Transmission	Clutch and gearshift linkage

TORQUE VALUES

8 mm bolt (Crankshaft)	2.1–2.5 kg·m (15–18 ft·lb)
8 mm bolt (Crankcase)	2.1–2.5 kg·m (15–18 ft·lb)
6 mm bolt	1.0–1.4 kg·m (7–10 ft·lb)
10 mm bolt	4.5–5.0 kg·m (33–36 ft·lb)
Oil filter bolt boss	3.5–4.5 kg·m (25–33 ft·lb)



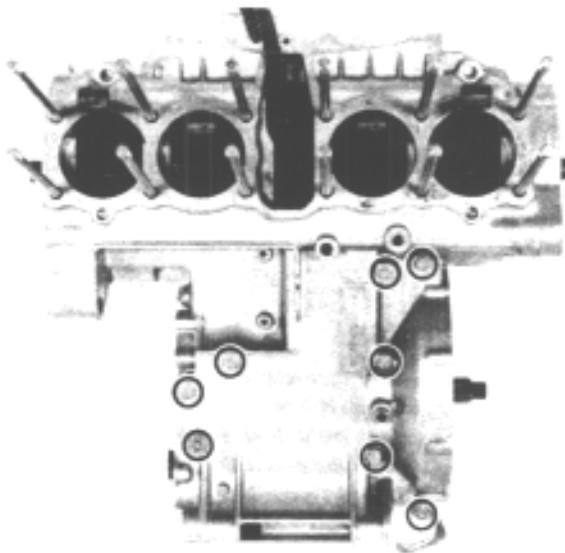
CRANKCASE DISASSEMBLY

Remove the cylinder head, cylinder, pistons and oil filter (Section 6 and 7).

Remove the clutch, clutch related parts, oil pump, A. C. generator, gear shift linkage and starting motor (Section 8, 9, 16 and 18).

NOTE:

The crankcase can be separated without removing the clutch, clutch related parts, gearshift mechanism and starting motor. However, we recommend removal of these parts, because the transmission gears may be dropped when separating the crankcases.



Remove the upper crankcase bolts.

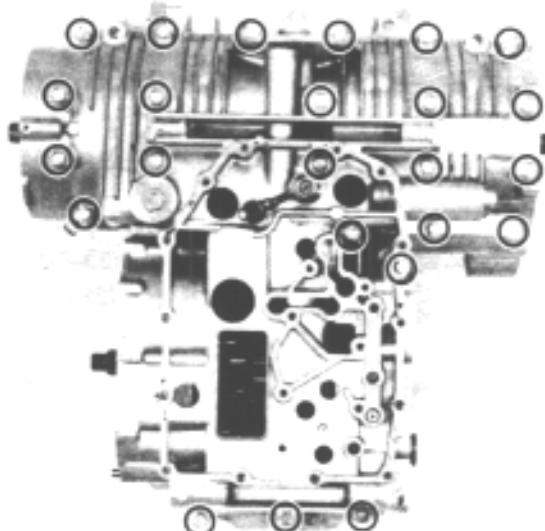
Turn the engine upside down.

Remove the oil pan and oil strainer assembly.

Remove the lower crankcase bolts.

NOTE

Remove the bolts in two or more steps and in a criss-cross pattern to prevent warpage.

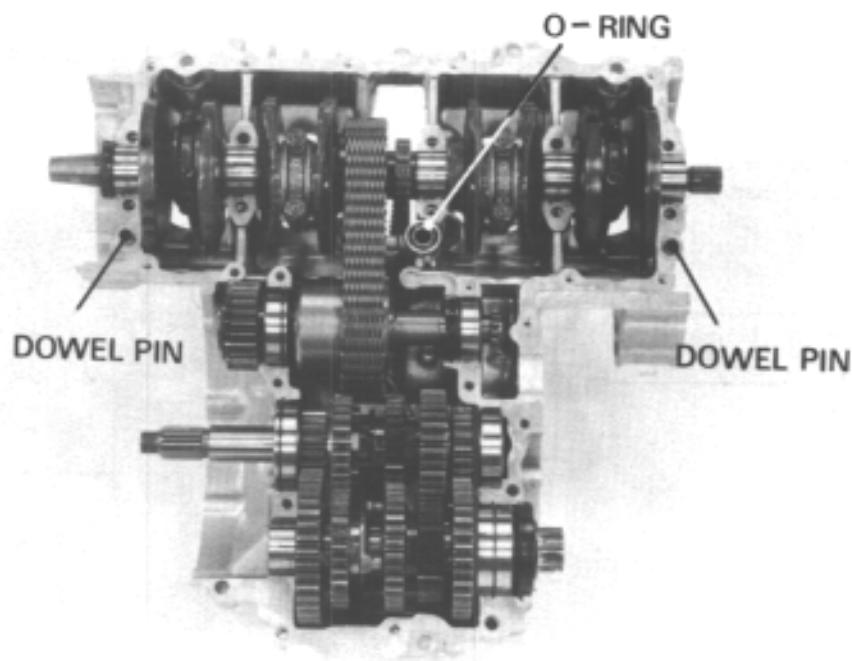
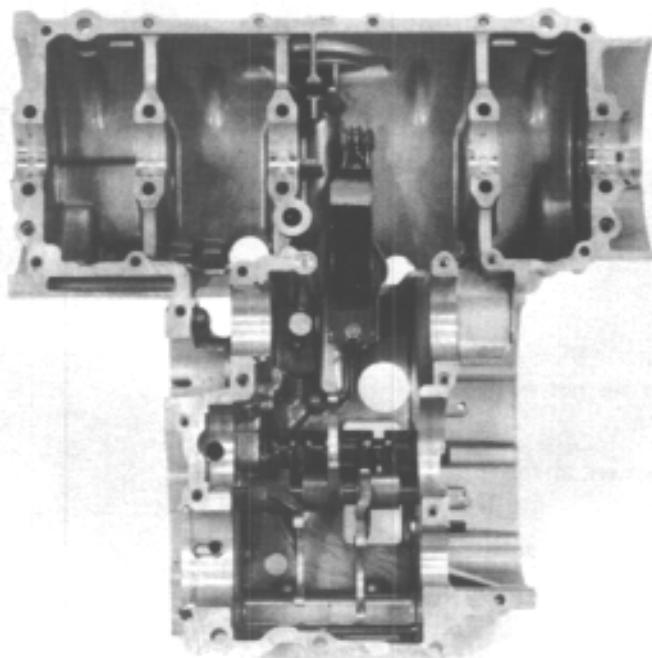




Separate the crankcase.

CAUTION

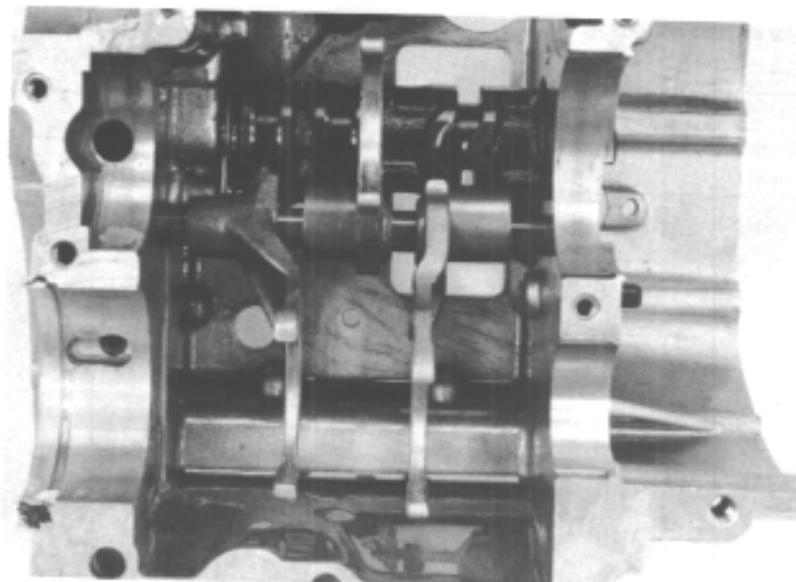
Do not pry between the upper and lower cases.





CRANKCASE ASSEMBLY

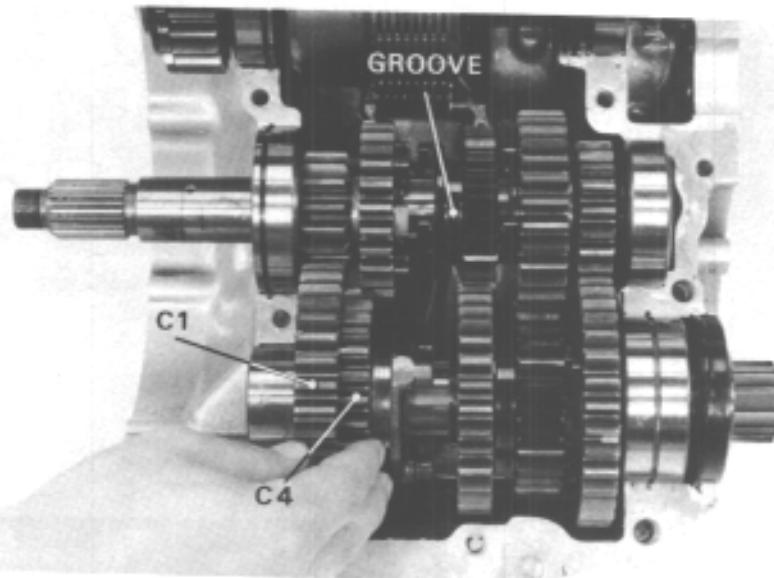
If the gearshift linkage, shift fork and shift drum are installed in the lower crankcase, shift the gearshift linkage into 1st gear for easier assembly.



Slide the C4 gear into the C1 gear.
Make sure that the other gears are not engaged.

Apply molybdenum disulfide grease to the groove of the M3 gear.

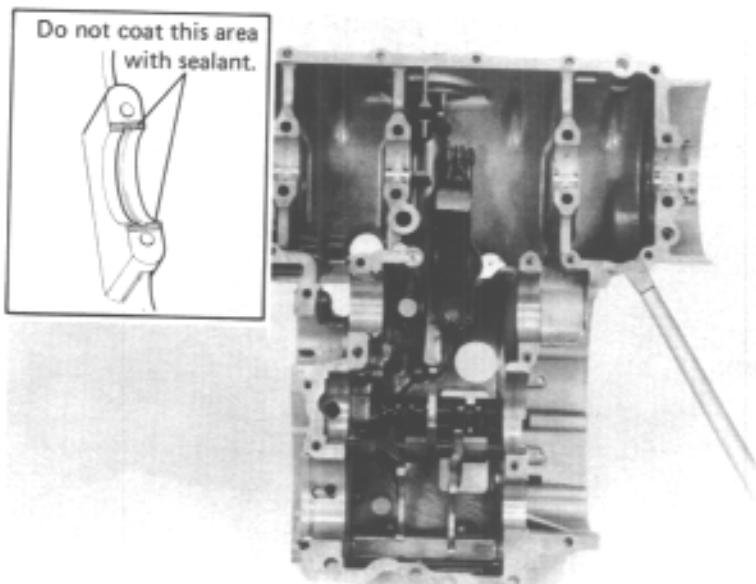
Apply molybdenum disulfide grease to the crankshaft main bearings.



Clean the crankcase mating surfaces.
Apply liquid sealant to the mating surface of the lower crankcase.

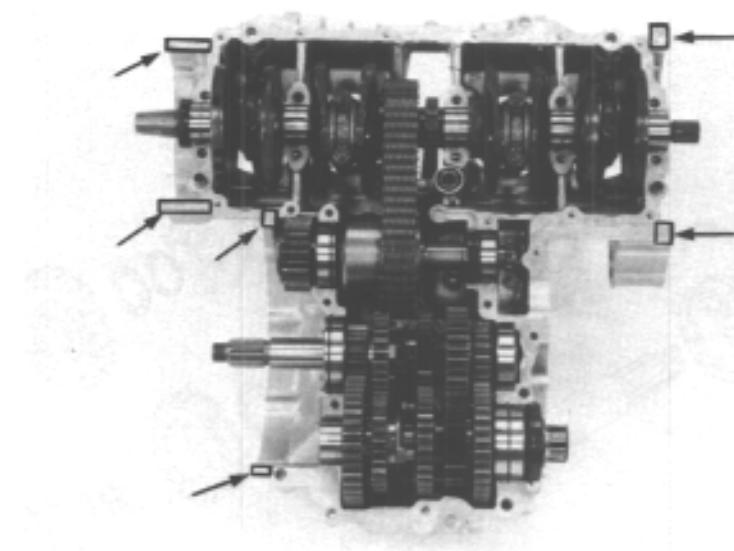
CAUTION

Do not apply sealant to the area near the main bearings.





For the upper crankcase, apply sealant only where shown.

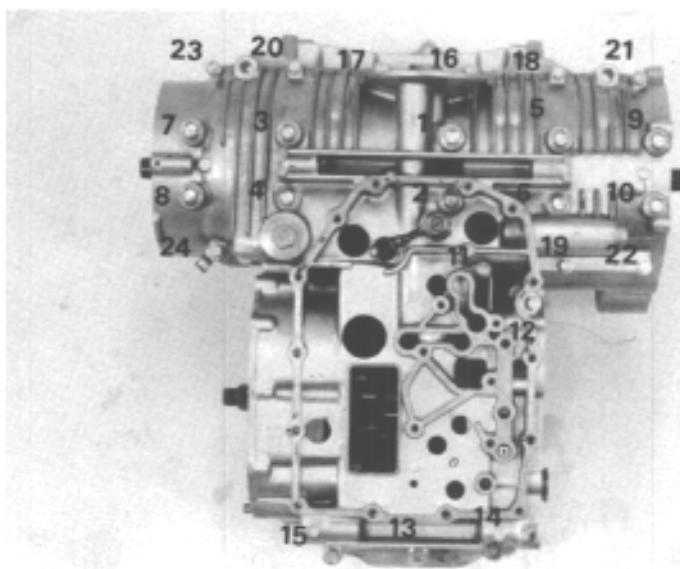


Assemble the crankcase halves, aligning the shift fork claws with the gears.

Tighten the bolts to the specified torque values in the sequence shown.

TORQUE VALUES:

8 mm bolt (Crankshaft)	2.1–2.5 kg-m (15–18 ft-lb)
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10 mm bolt	4.5–5.0 kg-m (33–36 ft-lb)

**NOTE**

- Make sure that the plain washers are under the bolt head of the ten crankshaft bearing bolts.
- Apply molybdenum disulfide grease to the threads and head of the ten crankshaft holding bolts.

Tighten the upper crankcase bolts to the specified torque, proceeding front to rear.

NOTE

- If the oil galley cap is removed, apply molybdenum disulfide grease to the thread when installing.