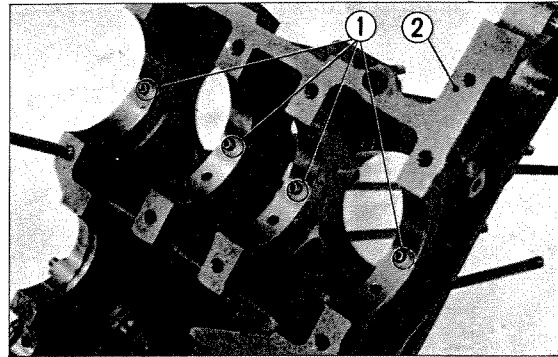


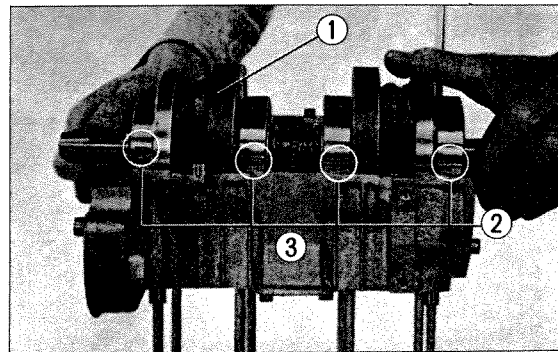
4. CRANKSHAFT

When assembling the crankshaft into the crankcase, give proper attention to the following points.

1. Install the dowel pins into the upper crankcase and positively align the dowel pin holes in the crankshaft bearings to the dowel pins. Work will be simplified by aligning the scribe line on the bearing outer to the parting surface of the crankcase. (Fig. 9-27 and 9-28)
2. Refer to page 41~43, section 3.7.



① Dowel pin ② Upper crankcase  
Fig. 9-27.



① Crankshaft ② Scribe line ③ Upper crankcase  
Fig. 9-28.

5. TRANSMISSION

5-speed, constant mesh transmission is mounted. Refer to section 3.9 page 50~52 for details of the respective gears.

A. Disassembly

Refer to section 4.3 B.

B. Inspection

1. Measuring backlash

Hold the mating gear so that it does not move and lightly rock the gear being measured. Measure the amount of backlash using a small dial gauge. (Fig. 9-29)

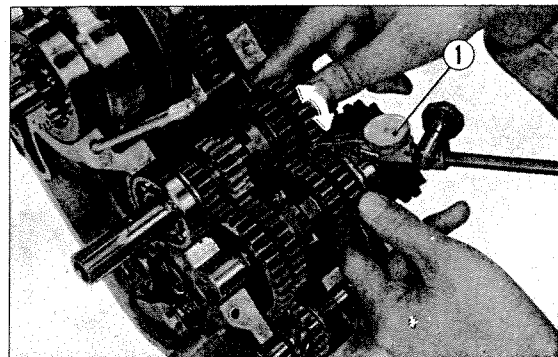
	Standard Value	Serviceable Limit
1st, 2nd, 3rd gears	0.0017~0.0052 (0.044~0.133)	Replace if over 0.008 (0.2)
4th and 5th gears	0.0016~0.005 (0.042~0.126)	Replace if over 0.008 (0.2)

2. Gears when used for a long period will develop wear to the teeth and dogs as well as resulting in side loading of the gear teeth. This becomes the cause of gear noise and in severe case, gear disengagement. Gear which are excessive worn should be replaced in sets.

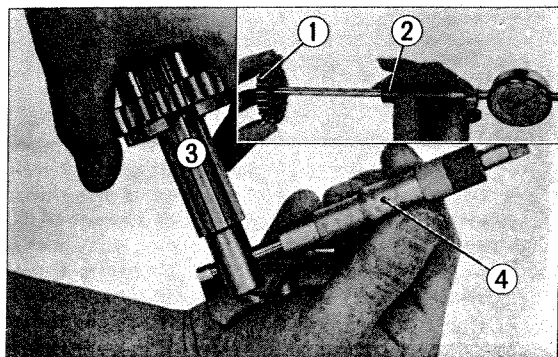
3. Measuring gear-shaft clearance

Measure the bore of the gear with a cylinder gauge or an internal micrometer, measure the shaft diameter with a micrometer and compute the clearance. (Fig. 9-30)

	Standard Value	Serviceable Limit
M 4	0.0008~0.0024 (0.02~0.062)	Replace if over 0.004 (0.1)
M 5, C 1	0.0006~0.0018 (0.016~0.045)	
C 2, C 3	0.0016~0.003 (0.04~0.082)	Replace if over 0.0047 (0.12)



① Small dial gauge  
Fig. 9-29. Checking gear backlash



① Gear ② Cylinder gauge ③ Shaft ④ Micrometer  
Fig. 9-30. Measuring diameter