

### Inspecting

To inspect the main shaft it is necessary to remove the double-row ball bearing from the intermediate plate and the outer roller bearing race from the transmission housing. The check can also be made with other available bearings of the same type.

The double-row ball bearing should be pressed on the shaft lightly to insure easy removal after examination with tool VW 401.

1. Inspect main shaft for wear and damage.
  - a) Inspect pilot bearing surface for wear.
  - b) Inspect splines for clutch disc for wear (loose fit in clutch disc).
  - c) Inspect oil seal surface for wear.
  - d) Check gears for wear and damage. Excessive wear or damage require replacement of the main shaft. Badly worn 2nd, 3rd, or 4th gears must be replaced in matched pairs.
2. Check main shaft for alignment (place shaft with installed bearing on V-blocks and check shaft on gears using a dial indicator). Permissible run-out: Maximum 0.03 mm (.0012 in.). Excessive run-out up to 0.2 mm (.0079 in.) may be corrected using tools VW 400, VW 405, and VW 406.

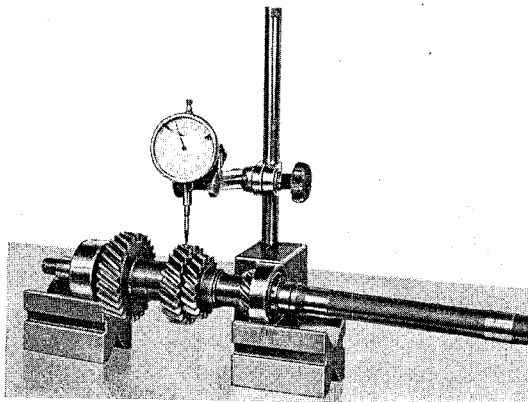


Fig. 70

### Note

Check run-out of main shaft in fully assembled condition on pilot bearing surface. Maximum permissible run-out: 0.1 mm (.004 in.).

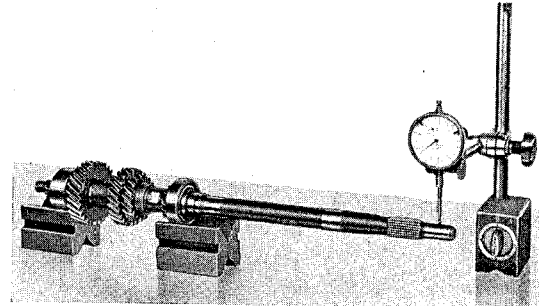


Fig. 71

3. Check double-row bearing and roller bearing for wear. Replace if necessary.

### Disassembly

1. Remove lock ring for inner bearing race.
2. Remove inner bearing race using press VW 400 and VW 412.

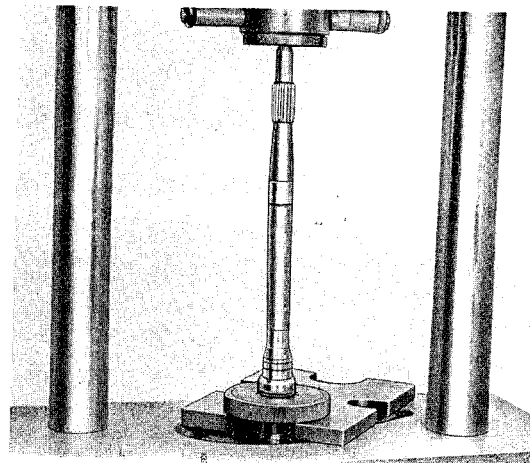


Fig. 72