# Mainshaft Thrust Shim

## Adjustment

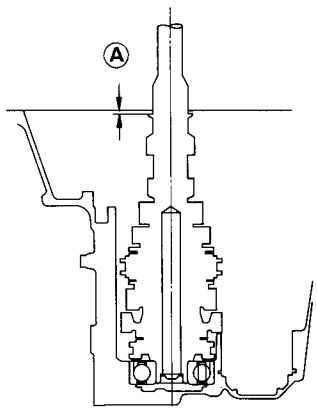
1. Remove the thrust shim and oil guide plate from the transmission housing.

2. Install the mainshaft in the transmission housing.

   NOTE: Do not install the clutch housing side ball bearing.

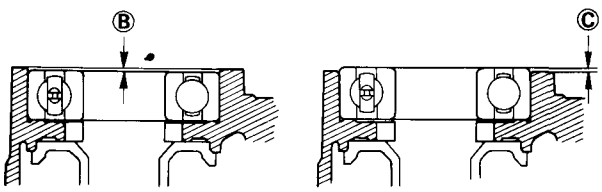
3. Measure distance Ⓐ between the end of the transmission housing and mainshaft.

   NOTE:
   - Use a straight edge and feeler gauge.
   - Measure at three locations and average the readings.




4. Set the mainshaft ball bearing in the clutch housing, and measure distance Ⓑ or Ⓒ between the surfaces of the clutch housing and the bearing inner race.

   NOTE:
   - Use a straight edge and feeler gauge.
   - Measure at three locations and average the readings.
   - Do not install the spring washer.




5. Select the proper thrust shim on the basis of the following calculations.

   NOTE: Do not use more than two thrust shims.

   (Basic Formula)

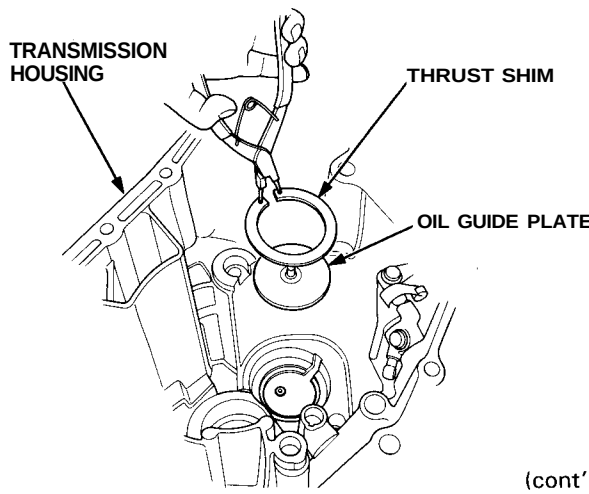
   **A + B — 0.99 mm = shim thickness (max.)**
   **A + B - 1.06 mm = shim thickness (min.)**
   **A - C - 0.99 mm = shim thickness (max.)**
   **A - C - 1.06 mm = shim thickness (min.)**

**82 mm THRUST SHIM**

| | Part Number | Thickness |
|---|---|---|
| A | 23931—PR8-000 | 0.50 mm (0.0197 in) |
| B | 23932—PR8-000 | 0.55 mm (0.0217 in) |
| C | 23933—PR8-000 | 0.60 mm (0.0236 in) |
| D | 23934—PR8-000 | 0.65 mm (0.0256 in) |
| E | 23935—PR8-000 | 0.70 mm (0.0276 in) |
| F | 23936—PR8-000 | 0.75 mm (0.0295 in) |
| G | 23937—PR8-000 | 0.80 mm (0.0315 in) |
| H | 23938—PR8-000 | 0.85 mm (0.0335 in) |
| I | 23939—PR8-000 | 0.90 mm (0.0354 in) |
| J | 23940—PR8-000 | 0.95 mm (0.0374 in) |
| K | 23941—PR8-000 | 1.00 mm (0.0394 in) |
| L | 23942—PR8-000 | 1.05 mm (0.0413 in) |
| M | 23943—PR8-000 | 1.10 mm (0.0433 in) |
| N | 23944—PR8-000 | 1.15 mm (0.0453 in) |

NOTE: Clean all the parts thoroughly before installation

6. Install the oil guide plate and thrust shim into the transmission housing.

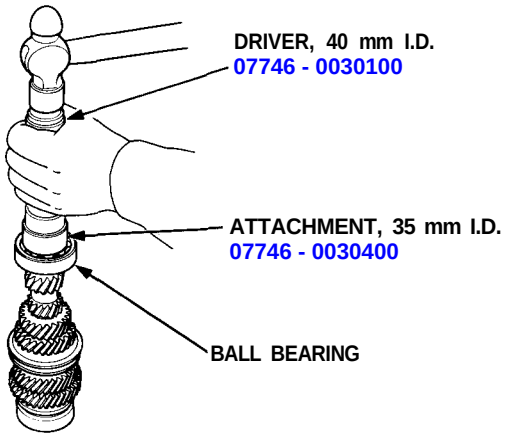



(cont'd)

# Mainshaft Thrust Shim

## Adjustment (cont'd)

7. Install the ball bearing onto the mainshaft using the special tools, then install the 75 mm spring washer and mainshaft assembly into the clutch housing.



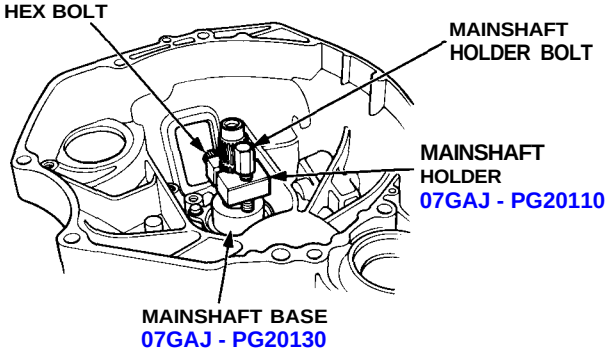

8. Install the transmission housing.

**Torque: 45 N-m (4.5 kg-m, 33 lb-ft)**

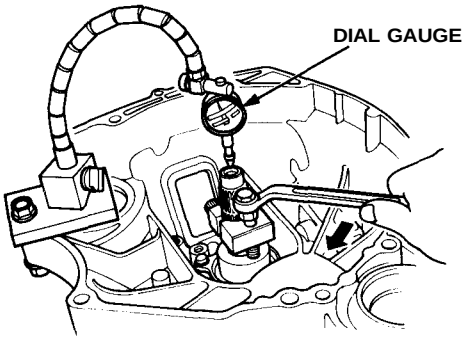
9. Check the thrust clearance in the manner described below.

NOTE: Carry out the measurement at normal room temperature.

a. Slide the mainshaft base over the mainshaft,
b. Attach the mainshaft holder to the mainshaft as follows:
   - Back-out the mainshaft holder bolt and loosen the two hex bolts.
   - Fit the holder over the mainshaft so its lip is towards the transmission.
   - Align the mainshaft holder's lip around the groove at the inside of the mainshaft splines, then tighten the hex bolts.




c. Seat the mainshaft fully by tapping its end with a plastic hammer.
d. Thread the mainshaft holder bolt in until it just contacts the wide surface of the mainshaft base.
e. Zero a dial gauge on the end of the mainshaft.




f. Turn the mainshaft holder bolt clockwise; stop turning when the dial gauge has reached its maximum movement. The reading on dial gauge is the amount of mainshaft end play.

**CAUTION: Turning the shaft holder bolt more than 60 degrees after the needle of the dial gauge stops moving may damage the transmission.**

g. If the reading is within the standard, the clearance is correct.
If the reading is not within the standard, recheck the shim thickness.

**Standard: 0.14-0.21 mm (0.006-0.008 in)**