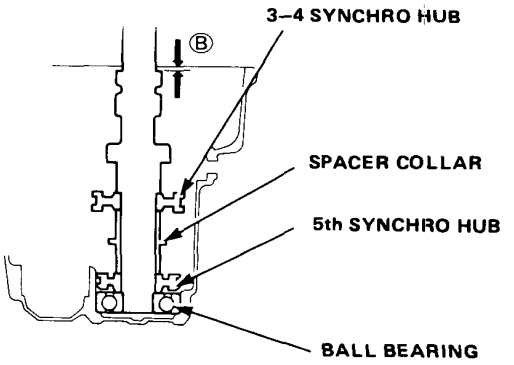
Mainshaft Thrust Shim

Adjustment

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

2. Install the 3–4 synchro hub, spacer collar, 5th synchro hub, and transmission-side ball bearing on the mainshaft; install the assembly in the transmission housing.



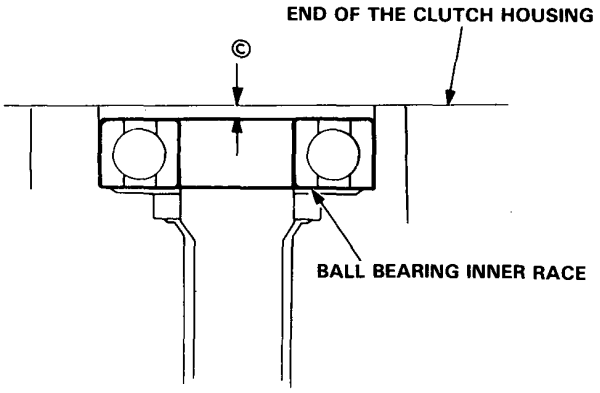
3. Measure the distance B between the end of the transmission housing and mainshaft.

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

4. Remove the spring washer from the mainshaft.

5. Measure the distance C between the surfaces of the clutch housing and bearing inner race.

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



6. Select the proper shim (or shim pair) from the formula and chart in the next column.

   NOTE: Do not use more than two shims.

Shim Selection Formula:

From the measurements you made in steps 3 and 5:

1. Subtract distance C (step 5) from distance B (step 3).

2. From this number, subtract 0.97 (which is midpoint the flex range of the clutch housing spring washer).

3. Take this number and compare it to the available shim sizes in the chart. Select one shim or at most two shims that come closest to this number.

   For example:

B: 2.57	2.79
+ C: 0.22	− 0.97
= 2.79	= 1.82

   - Since no single shim is that thick, select a combination of two shims.
   - Since the shims come in steps of 0.05 mm, select the closest combination (1.80 mm).
   - Try the 0.85 and the 0.95 mm shims.

P/N	THICKNESS
23931–PG1–771	0.50 mm (0.020 in.)
23932–PG1–771	0.55 mm (0.022 in.)
23933–PG1–771	0.60 mm (0.024 in.)
23934–PG1–771	0.65 mm (0.026 in.)
23935–PG1–771	0.70 mm (0.028 in.)
23936–PG1–771	0.75 mm (0.030 in.)
23937–PG1–771	0.80 mm (0.031 in.)
23938–PG1–771	0.85 mm (0.033 in.)
23939–PG1–771	0.90 mm (0.035 in.)
23940–PG1–771	0.95 mm (0.037 in.)
23941–PG1–771	1.00 mm (0.039 in.)
23942–PG1–771	1.05 mm (0.041 in.)
23943–PG1–771	1.10 mm (0.043 in.)
23944–PG1–771	1.15 mm (0.045 in.)

(cont'd)

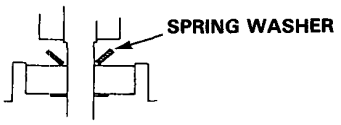
Mainshaft Thrust Shim

Adjustment (cont'd)

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

—1. Install the shims selected in the transmission housing.

—2. Install the spring washer in the mainshaft.



NOTE:
- Clean the spring and shim throughly before installation.
- Install the spring and shim properly.

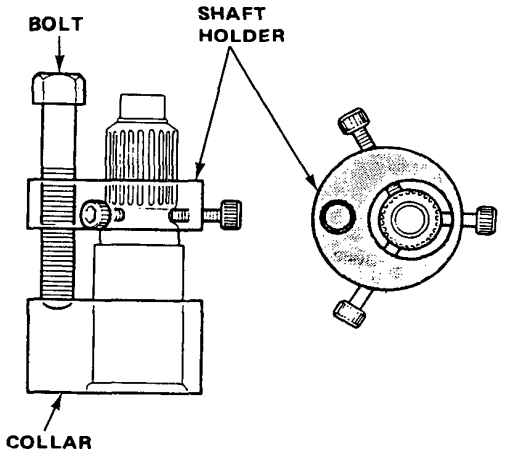
—3. Install the mainshaft in the clutch housing.

—4. Place the transmission housing over the mainshaft and onto the clutch housing.

—5. Tighten the clutch and transmission housings with several 10 mm bolts.

—6. Tap the mainshaft with a plastic hammer.

—7. Attach the collar and shaft holder of the special tool (Mainshaft Thrust Clearance Inspection Tool) to the mainshaft and tighten the three bolts.



CAUTION: Screw the three bolts into the groove below the splines. Never screw into the splined area.

—8. Attach the special tool (magnet stand base) to the clutch housing and set the dial gauge on the top of the mainshaft.

—9. Turn the bolt clockwise and measure the clearance.

CAUTION:
- **Do not turn the bolt more than 60 degrees after the needle of the gauge stops moving. Be careful not to over tighten.**
- **Measurement should be made at room temperature.**

—10. Clearance is correct if the reading is between 0.14—0.21 mm (0.0055—0.0083 in.).
If not, re-check necessary shim thickness.