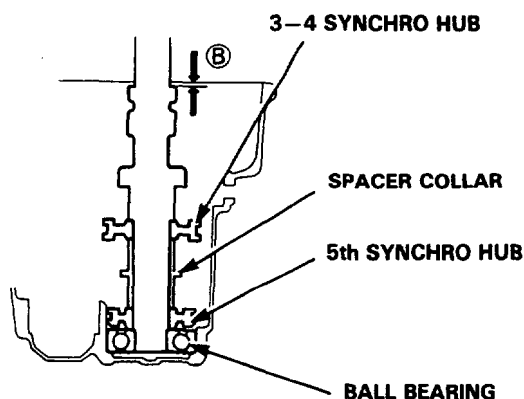




# Mainshaft Thrust Shim

## Adjustment

1. Remove the thrust shim and oil guide plate from the transmission housing.
2. Install the 3-4 synchro hub, spacer collar, 5th synchro hub, and ball bearing on the mainshaft; install the above assembly in the transmission housing.



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

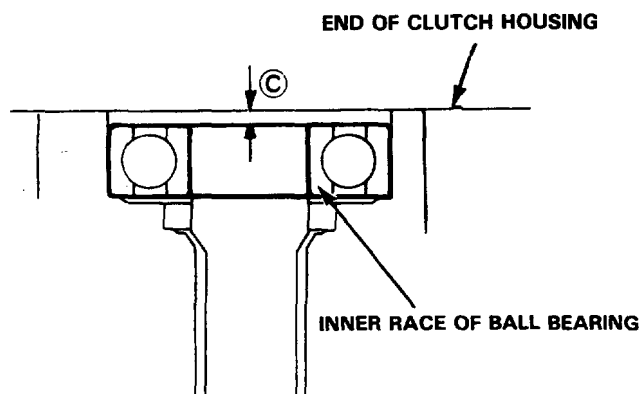
### NOTE:

- Use a straight edge and vernier caliper.
- Measure at three locations and average the readings.

4. Measure the distance (C) between the surfaces of the clutch housing and bearing inner race.

### NOTE:

- Use a depth gauge.
- Measure at three locations and average the readings.



5. Select the proper shim from the formula and chart in the next column.

NOTE: Do not use more than one shim.

## Shim Selection Formula:

From the measurements you made in steps 3 and 4:

1. Add the distance (C) (step 4) to the distance (B) (step 3).
2. From this number, subtract 0.93 (which is midpoint the flex range of the clutch housing bearing spring washer).
3. Take this number and compare it to the available shim sizes in the chart.

For example:

$$\begin{array}{r}
 \text{B: } 2.39 \\
 + \text{ C: } 0.22 \\
 \hline
 = 2.61
 \end{array}
 \begin{array}{r}
 2.61 \\
 - 0.93 \\
 \hline
 1.68
 \end{array}$$

- Try the 1.68 mm shim.

	P/N	THICKNESS
A	23941-PK5-000	1.20 mm (0.0472 in)
B	23942-PK5-000	1.23 mm (0.0484 in)
C	23943-PK5-000	1.26 mm (0.0496 in)
D	23944-PK5-000	1.29 mm (0.0508 in)
E	23945-PK5-000	1.32 mm (0.0520 in)
F	23946-PK5-000	1.35 mm (0.0531 in)
G	23947-PK5-000	1.38 mm (0.0543 in)
H	23948-PK5-000	1.41 mm (0.0555 in)
I	23949-PK5-000	1.44 mm (0.0567 in)
J	23950-PK5-000	1.47 mm (0.0579 in)
K	23951-PK5-000	1.50 mm (0.0591 in)
L	23952-PK5-000	1.53 mm (0.0602 in)
M	23953-PK5-000	1.56 mm (0.0614 in)
N	23954-PK5-000	1.59 mm (0.0626 in)
O	23955-PK5-000	1.62 mm (0.0638 in)
P	23956-PK5-000	1.65 mm (0.0650 in)
Q	23957-PK5-000	1.68 mm (0.0661 in)
R	23958-PK5-000	1.71 mm (0.0673 in)
S	23959-PK5-000	1.74 mm (0.0685 in)
T	23960-PK5-000	1.77 mm (0.0697 in)
U	23961-PK5-000	1.80 mm (0.0709 in)
V	23962-PK5-000	1.83 mm (0.0720 in)
W	23963-PK5-000	1.86 mm (0.0732 in)
X	23964-PK5-000	1.89 mm (0.0744 in)

(cont'd)

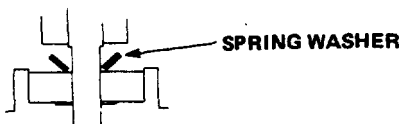
# Mainshaft Thrust Shim

## Adjustment (cont'd)

	P/N	THICKNESS
Y	23965-PK5-000	1.92 mm (0.0756 in)
Z	23966-PK5-000	1.95 mm (0.0768 in)
AA	23967-PK5-000	1.98 mm (0.0780 in)
AB	23968-PK5-000	2.01 mm (0.0791 in)
AC	23969-PK5-000	2.04 mm (0.0803 in)
AD	23970-PK5-000	2.07 mm (0.0815 in)
AE	23971-PK5-000	2.10 mm (0.0827 in)
AF	23972-PK5-000	2.13 mm (0.0839 in)
AG	23973-PK5-000	2.16 mm (0.0850 in)
AH	23974-PK5-000	2.19 mm (0.0862 in)
AI	23975-PK5-000	2.22 mm (0.0874 in)
AJ	23976-PK5-000	2.25 mm (0.0886 in)
AK	23977-PK5-000	2.28 mm (0.0898 in)
AL	23978-PK5-000	2.31 mm (0.0909 in)
AM	23979-PK5-000	2.34 mm (0.0921 in)
AN	23980-PK5-000	2.37 mm (0.0933 in)

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

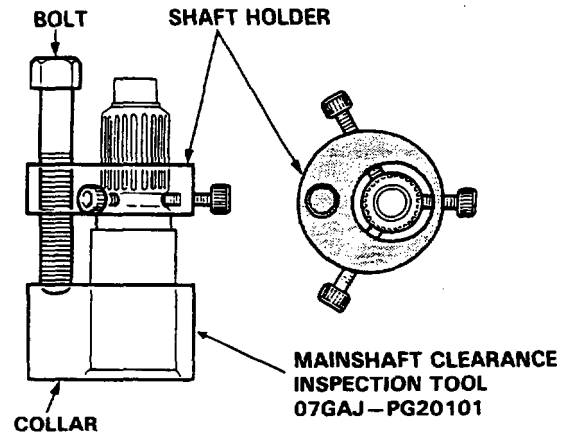
- 1. Install the shim selected in the transmission housing.
- 2. Install the spring washer in the mainshaft.



### NOTE.

- Clean the spring and shim thoroughly 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 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 overtighten.
  - Measurement should be made at room temperature.
- 10. Clearance is correct if the reading is between 0.10-0.16 mm (0.0039-0.0063 in.). If not, re-check necessary shim thickness.

