

8. Main Shaft Assembly (AWD Model)

A: DISASSEMBLY

1) Put vinyl tape around main shaft splines to protect oil seal from damage. Then pull out oil seal and needle bearing by hand.

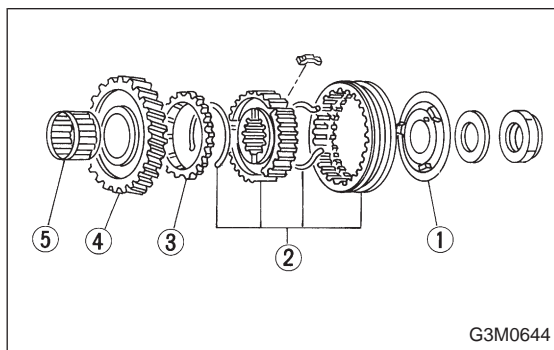
2) Remove lock nut with ST1 and ST2.

ST1 498937000 TRANSMISSION HOLDER

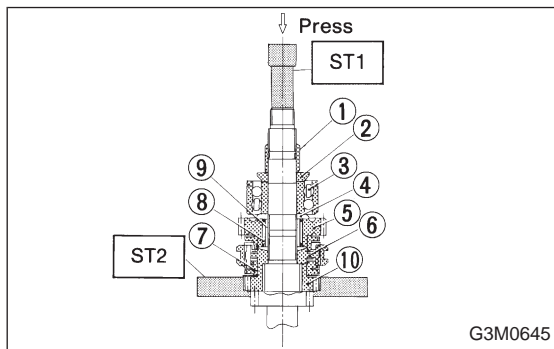
ST2 499987003 SOCKET WRENCH (35)

NOTE:

Remove caulking before taking off lock nut.



3) Remove insert stopper plate, sleeve and hub assembly No. 2, balk ring, 5th drive gear, and needle bearing (32 x 36 x 25.7).



4) Using ST1, ST2 and a press, remove:

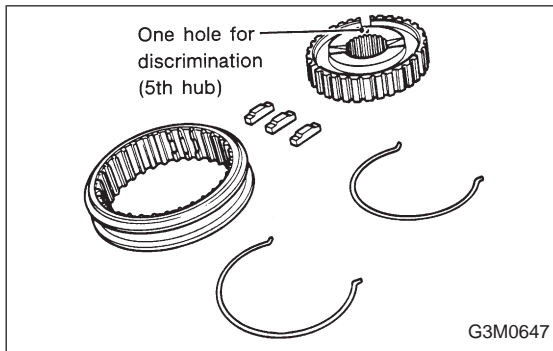
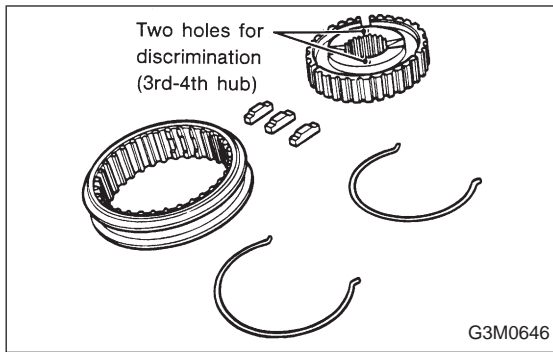
- ① 5th needle bearing inner race
- ② 5th gear thrust washer
- ③ Ball bearing (25.5 x 65 x 31)
- ④ 4th gear thrust washer
- ⑤ 4th drive gear
- ⑥ Sleeve and hub assembly
- ⑦ Balk ring
- ⑧ 4th needle bearing
- ⑨ 4th needle bearing inner race
- ⑩ 3rd drive gear

ST1 899864100 REMOVER

ST2 899714110 REMOVER

NOTE:

Replace sleeve and hub with new ones. Do not attempt to disassemble because they must engage at a specified point. If they should be disassemble, mark engagement point on splines beforehand.



B: ASSEMBLY

1) Assemble sleeve and hub assembly for 3rd-4th, 5th and high-low synchronizing.

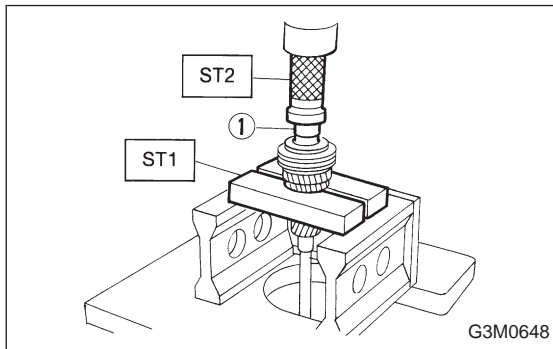
NOTE:

Position open ends of spring 120° apart.

2) Install 3rd drive gear, balk ring, sleeve and hub assembly for 3rd-4th needle bearing (32 x 36 x 25.7) on transmission main shaft.

NOTE:

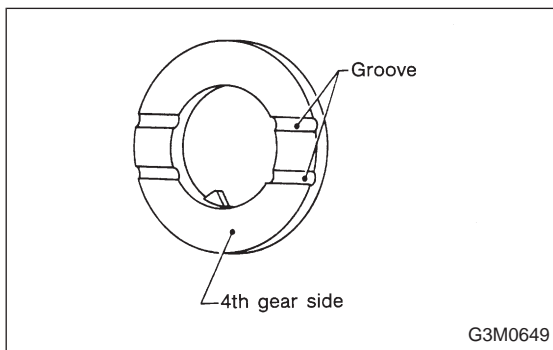
Align groove in balk ring with shifting insert.



3) Install 4th needle bearing race ① onto transmission main shaft using ST1, ST2 and a press.

ST1 899714110 REMOVER

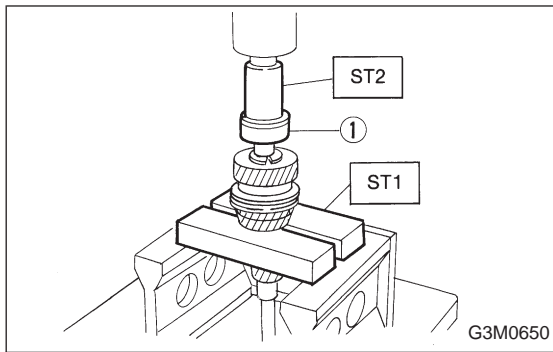
ST2 499877000 RACE 4-5 INSTALLER



4) Install balk ring, needle bearing (32 x 30 x 25.7), 4th drive gear and 4th gear thrust washer to transmission main shaft.

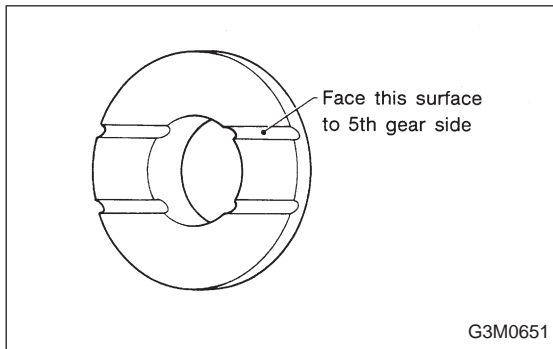
NOTE:

Face thrust washer in the correct direction.



5) Drive ball bearing ① onto the rear section of transmission main shaft using ST1, ST2 and a press.

ST1 899714110 REMOVER
ST2 499877000 INSTALLER



6) Using the same tools as in step 5) above, install the following parts onto the rear section of transmission main shaft.

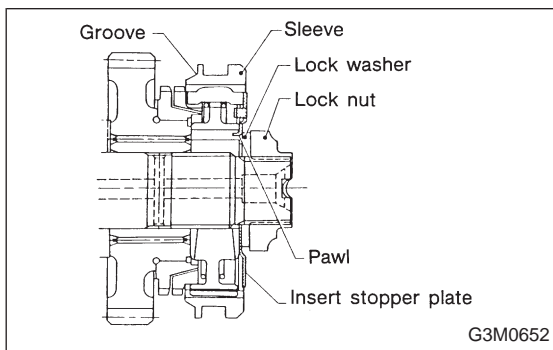
- 5th gear thrust washer

NOTE:

Face thrust washer in the correct direction.

ST1 899714110 REMOVER
ST2 499877000 RACE 4-5 INSTALLER

- 5th needle bearing race



7) Install the following parts to the rear section of transmission main shaft.

- Needle bearing (32 x 36 x 25.7)
- 5th drive gear
- Balk ring
- Sleeve and hub assembly
- Insert stopper plate
- Lock washer (22 x 38 x 2)
- Tighten lock nuts (22 x 13) to the specified torque using ST1 and ST2.

ST1 499987003 SOCKET WRENCH
ST2 498937000 TRANSMISSION HOLDER

NOTE:

- Align groove in balk ring with shifting insert.
- Be sure to fit pawl of insert stopper plate into 4 mm (0.16 in) dia. hole in the boss section of synchronizer hub.
- Secure lock nuts in two places after tightening.

Tightening torque:

118±6 N·m (12.0±0.6 kg·m, 86.8±4.3 ft·lb)