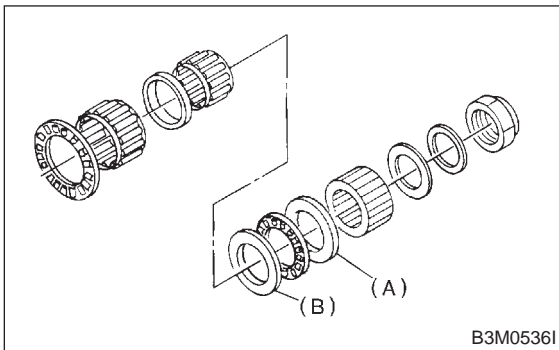


4. Main Shaft Assembly

5) If specified starting torque range cannot be obtained when a No. 1 adjusting washer is used, then select a suitable No. 2 adjusting washer from those listed in the following table. Repeat steps 1) through 4) to adjust starting torque.



- (A) Adjusting washer No. 1
- (B) Adjusting washer No. 2

Starting torque	Dimension H	Washer No. 2
Low	Small	Select thicker one.
High	Large	Select thinner one.

Adjusting washer No. 2	
Part No.	Thickness mm (in)
803025059	3.850 (0.1516)
803025054	4.000 (0.1575)
803025058	4.150 (0.1634)

6) Recheck that starting torque is within specified range, then clinch lock nut at four positions.

## 4. Main Shaft Assembly

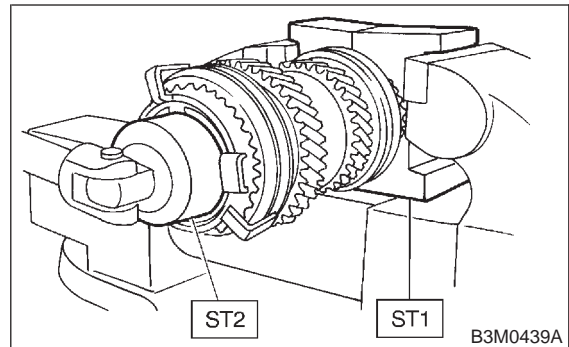
### A: DISASSEMBLY

- 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 from transmission main shaft assembly.

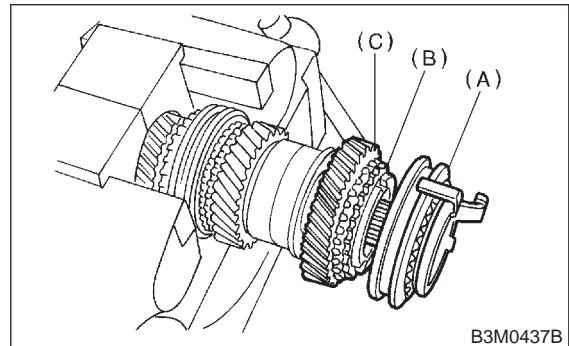
**NOTE:**

Remove caulking before taking off lock nut.

- ST1 498937000 TRANSMISSION HOLDER
- ST2 499987003 SOCKET WRENCH (35)

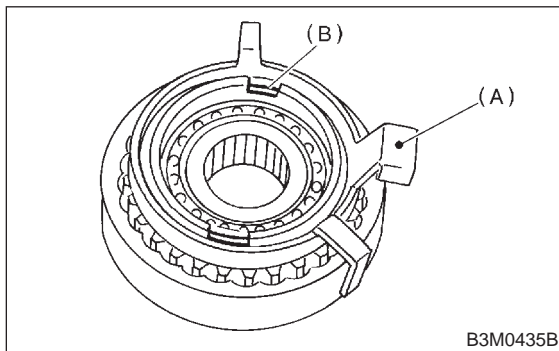


3) Remove 5th-Rev sleeve and hub assembly, baulk ring, 5th drive gear and needle bearing (32 × 36 × 25.7).



- (A) 5th-Rev sleeve and hub ASSY
- (B) Baulk ring
- (C) 5th drive gear

4) Remove snap ring and synchro cone stopper from 5th-Rev sleeve and hub assembly.



- (A) Synchro cone stopper
- (B) Snap ring

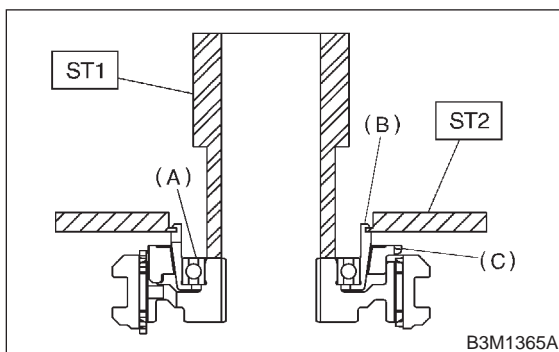
5) Using ST1, ST2 and a press, remove ball bearing, synchro cone and baulk ring (Rev).

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 disassembled, mark engagement point on splines beforehand.

- Do not reuse ball bearing.

ST1 499757002 SNAP RING PRESS  
ST2 498077400 SYNCHRO CONE REMOVER



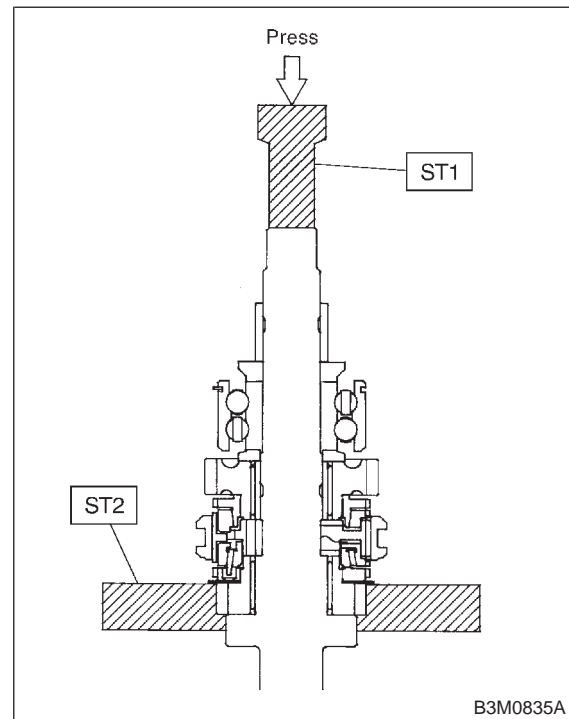
- (A) Ball bearing
- (B) Synchro cone
- (C) Baulk ring

6) Using ST1 and ST2, remove the rest of parts.

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 disassembled, marking engagement point on splines beforehand.

ST1 899864100 REMOVER  
ST2 899714110 REMOVER

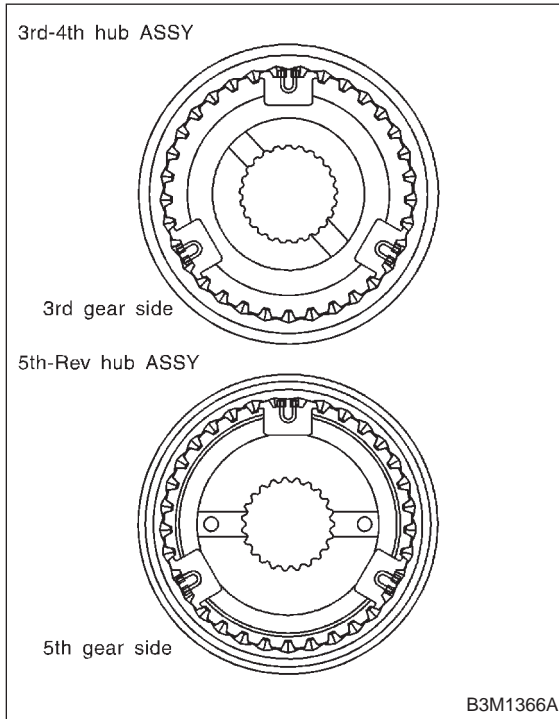


**B: ASSEMBLY**

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

**NOTE:**

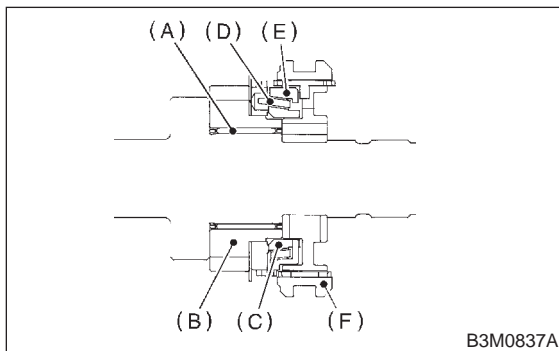
Position open ends of spring 120° apart.



2) Install 3rd drive gear, outer baulk ring, synchro cone, inner baulk ring, sleeve and hub assembly for 3rd needle bearing on transmission main shaft.

**NOTE:**

Align groove in baulk ring with shifting insert.



- (A) 3rd needle bearing (32 × 36 × 25.7)
- (B) 3rd drive gear
- (C) Inner baulk ring
- (D) Synchro cone
- (E) Outer baulk ring
- (F) Sleeve and hub ASSY

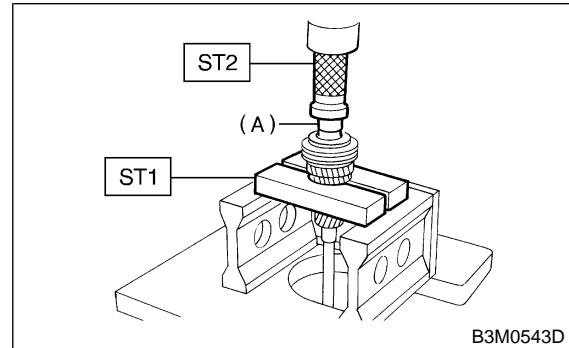
3) Install 4th needle bearing race onto transmission main shaft using ST1, ST2 and a press.

**CAUTION:**

Do not apply pressure in excess of 10 kN (1 ton, 1.1 US ton, 1.0 Imp ton).

ST1 899714110 REMOVER

ST2 499877000 RACE 4-5 INSTALLER

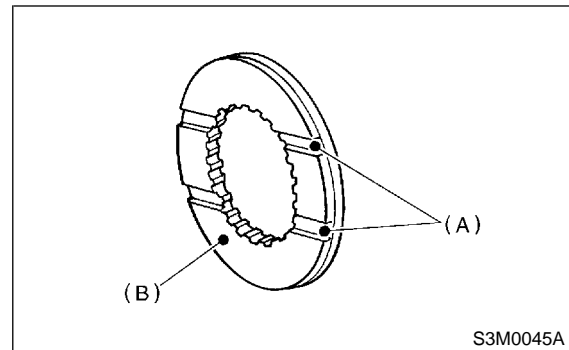


(A) 4th needle bearing race

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

**NOTE:**

Align baulk ring and gear & hub assembly with key groove.



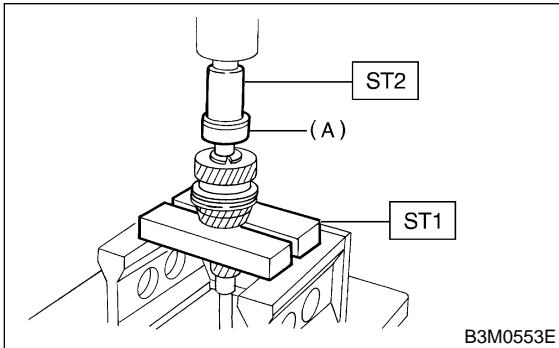
- (A) Groove
- (B) 4th gear side

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

**CAUTION:**

**Do not apply pressure in excess of 10 kN (1 ton, 1.1 US ton, 1.0 Imp ton).**

ST1 899714110 REMOVER  
ST2 499877000 RACE 4-5 INSTALLER



(A) Ball bearing

6) Using ST1 and ST2, install the 5th gear thrust washer and 5th needle bearing race onto the rear section of transmission main shaft.

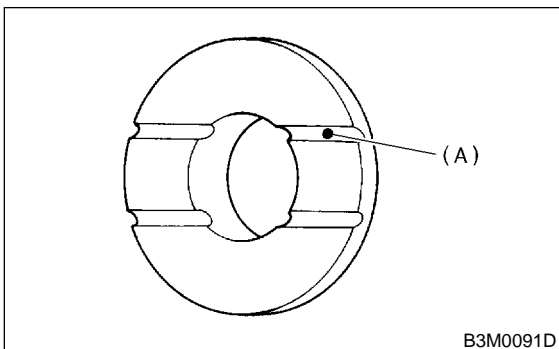
**CAUTION:**

**Do not apply pressure in excess of 10 kN (1 ton, 1.1 US ton, 1.0 Imp ton).**

**NOTE:**

Face thrust washer in the correct direction.

ST1 899714110 REMOVER  
ST2 499877000 RACE 4-5 INSTALLER



(A) Face this surface to 5th gear side.

7) Install bearing onto synchro cone.

**NOTE:**

Align baulk ring and gear & hub assembly with key groove.

8) Install baulk ring and synchro cone onto 5th-Rev sleeve and hub assembly using ST and a press.

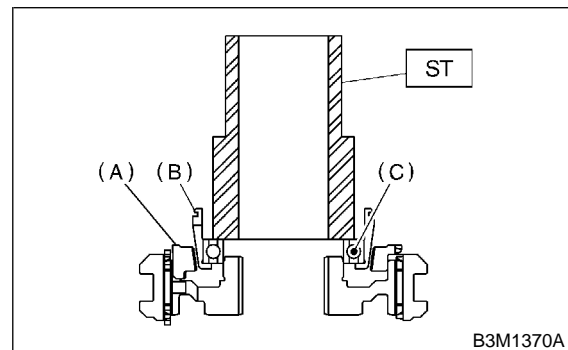
**CAUTION:**

**Do not apply pressure in excess of 10 kN (1 ton, 1.1 US ton, 1.0 Imp ton).**

**NOTE:**

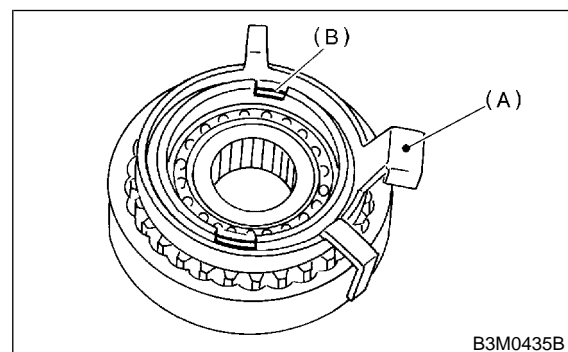
- Use new ball bearing.
- After press fitting, make sure synchro cone rotates freely.

ST 499757002 SNAP RING PRESS



- (A) Baulk ring
- (B) Synchro cone
- (C) Ball bearing

9) Install synchro cone stopper and snap ring to 5th-Rev sleeve and hub assembly.



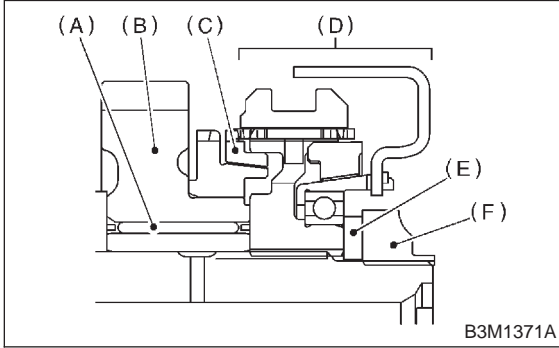
- (A) Synchro cone stopper
- (B) Snap ring

10) Install the rest parts to the rear section of transmission main shaft.

**NOTE:**

Align groove in baulk ring with shifting insert.

- ST1 499987003 SOCKET WRENCH
- ST2 498937000 TRANSMISSION HOLDER



- (A) Needle bearing (32 × 36 × 25.7)
- (B) 5th drive gear
- (C) Baulk ring
- (D) 5th-Rev sleeve and hub ASSY
- (E) Lock washer (22 × 38 × 2)
- (F) Lock nuts (22 × 13)

11) Tighten lock nuts to the specified torque using ST1 and ST2.

**NOTE:**

Secure lock nuts in two places after tightening.

- ST1 499987000 SOCKET WRENCH
- ST2 498937000 TRANSMISSION HOLDER

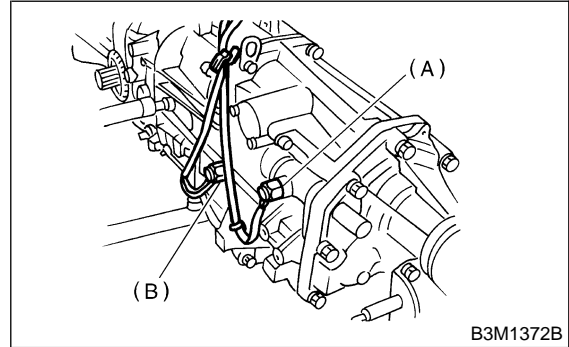
**Tightening torque:**

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

**5. Transfer Case and Extension**

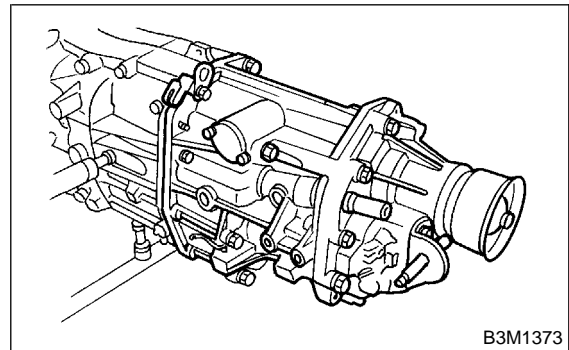
**A: REMOVAL**

1) Remove back-up light switch and neutral switch.



- (A) Neutral switch
- (B) Back-up light switch

2) Remove transfer case with extension assembly.

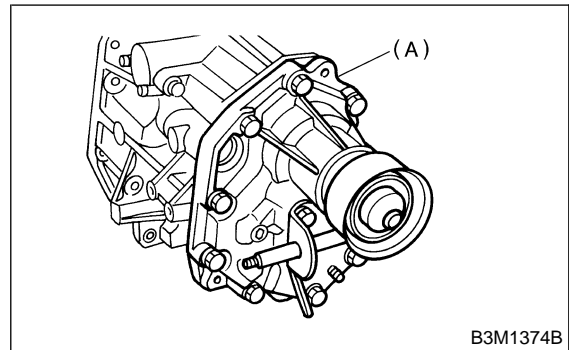


3) Remove shifter arm.

**B: DISASSEMBLY**

**1. SEPARATION OF TRANSFER CASE AND EXTENSION ASSEMBLY**

1) Separate transfer case and extension assembly.



- (A) Extension case ASSY