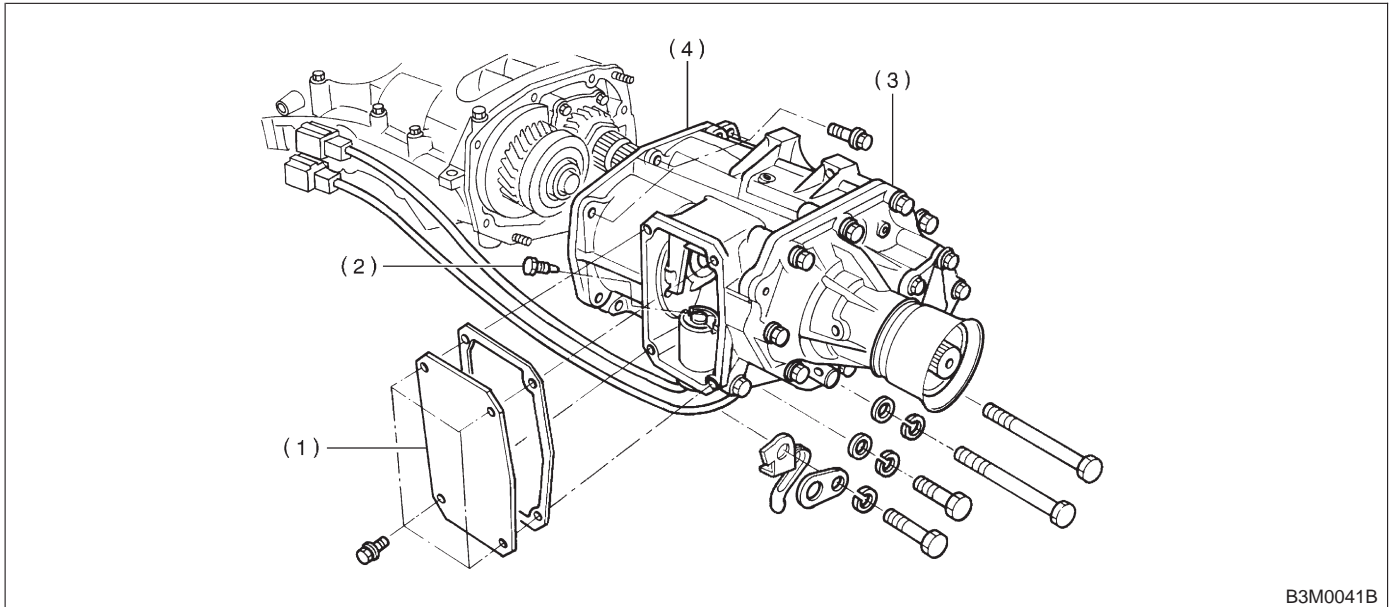


5. Transfer Case and Extension

A: REMOVAL



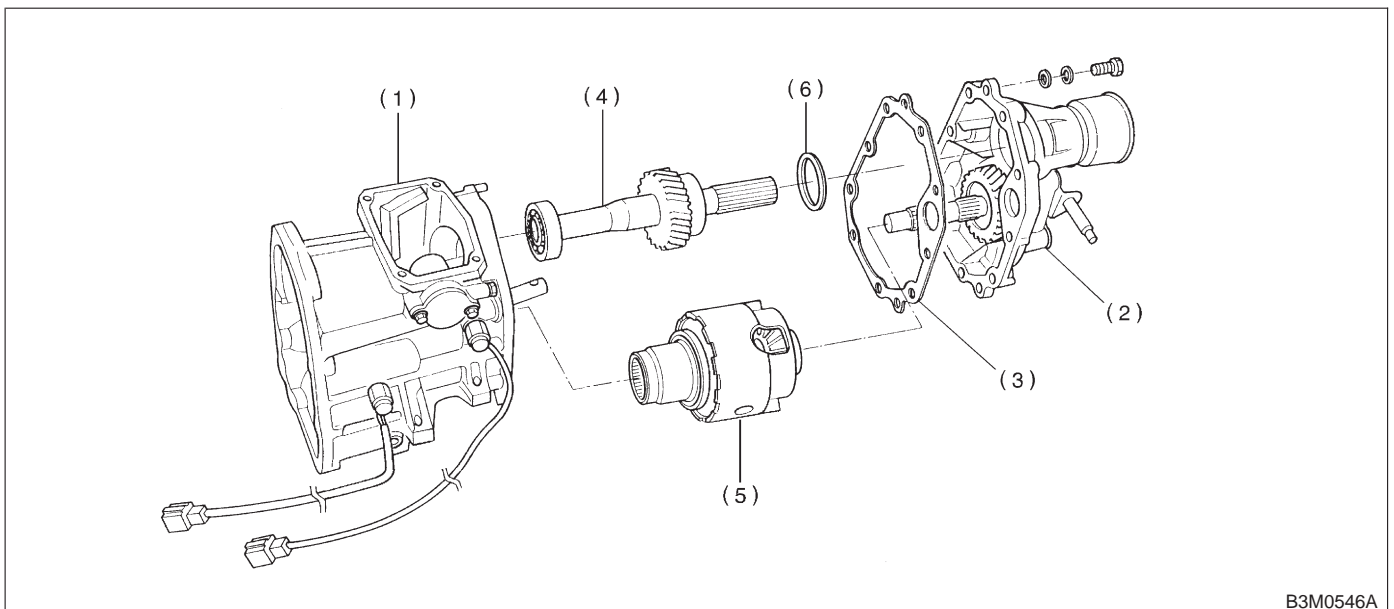
B3M0041B

- | | |
|------------------------|------------------------|
| (1) Transfer cover | (3) Extension ASSY |
| (2) Shifter fork screw | (4) Transfer case ASSY |

- 1) Remove transfer cover.
- 2) Remove shifter fork screw which secures selector arm to shifter arm.
- 3) Remove transfer case with extension assembly.

B: DISASSEMBLY

1. SEPARATION OF TRANSFER CASE AND EXTENSION ASSEMBLY



B3M0546A

- | | | |
|------------------------|--------------------------|-------------------------|
| (1) Transfer case ASSY | (3) Gasket | (5) Center differential |
| (2) Extension ASSY | (4) Transfer driven gear | (6) Thrust washer |

3-1 [W5B2]

SERVICE PROCEDURE

5. Transfer Case and Extension

- 1) Separate transfer case and extension assembly.
- 2) Remove transfer driven gear and center differential as a set.
- 3) Remove thrust washer.

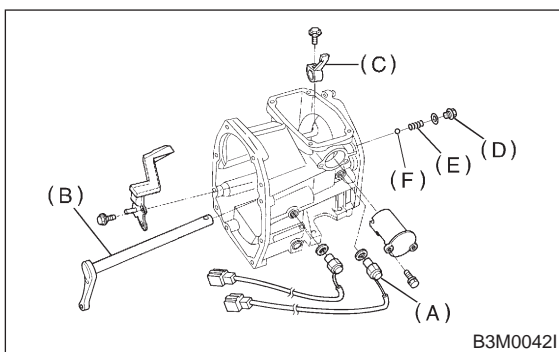
2. TRANSFER CASE

- 1) Remove neutral switch.

NOTE:

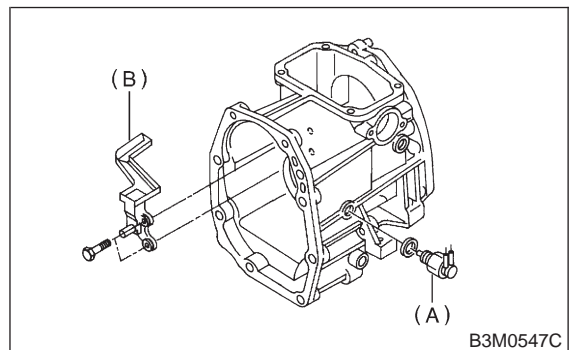
Before removing shifter arm, disconnect neutral switch.

- 2) Draw out shifter arm and remove selector arm.
- 3) Remove plug, spring and reverse check ball.



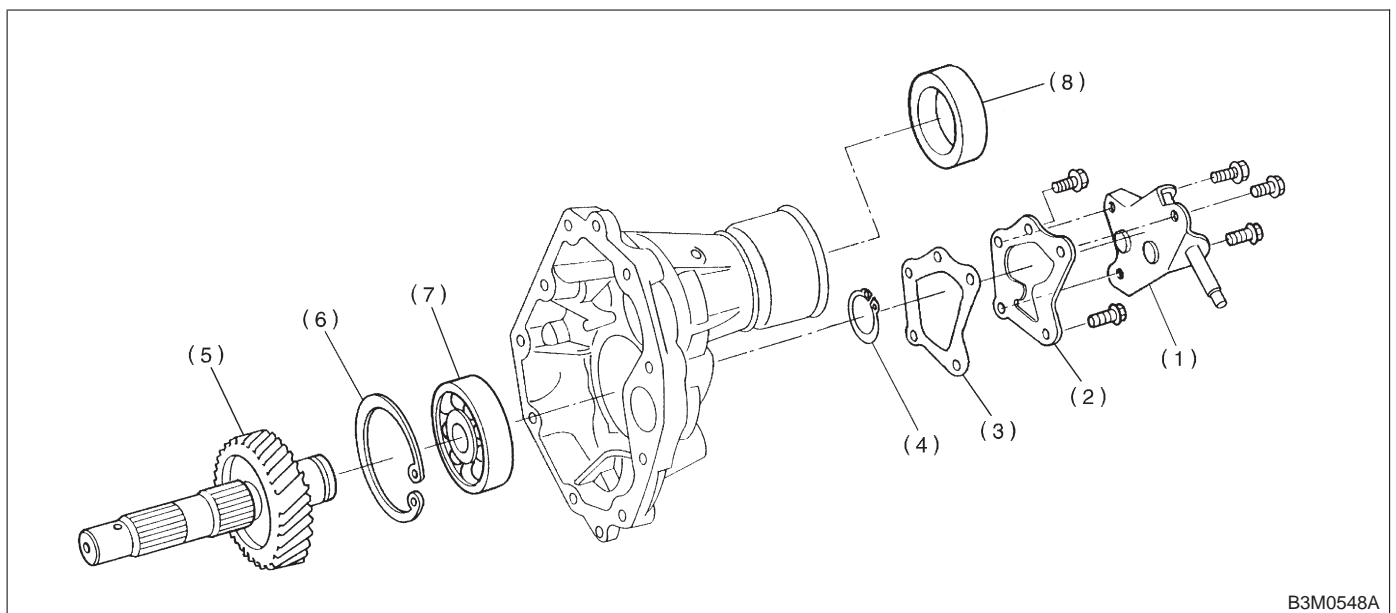
- (A) Neutral switch
- (B) Shifter arm
- (C) Selector arm
- (D) Plug
- (E) Reverse accent spring
- (F) Reverse check ball

- 4) Remove reverse check sleeve.
- 5) Remove back-up light switch and oil guide.



- (A) Back-up light switch
- (B) Oil guide

3. EXTENSION



- (1) Shift bracket
- (2) Extension cover
- (3) Gasket
- (4) Snap ring
- (5) Transfer driven gear
- (6) Snap ring
- (7) Ball bearing
- (8) Oil seal

- 1) Remove extension cover and shift bracket.
- 2) Remove snap ring.
- 3) Remove transfer drive gear.

CAUTION:

Do not remove ball bearing unless replacing.

- 4) Remove snap ring.
- 5) Remove ball bearing.

CAUTION:

Do not reuse ball bearing.

- 6) Remove oil seal.

CAUTION:

Do not reuse oil seal.

4. REVERSE CHECK SLEEVE

- 1) Using a standard screwdriver, remove snap ring.

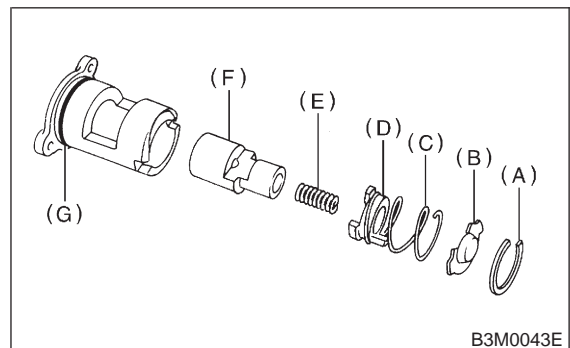
NOTE:

Replace snap ring with a new one if deformed or weakened.

- 2) Remove reverse check plate.
- 3) Remove reverse check spring with cam.
- 4) Remove reverse return spring.
- 5) Remove reverse accent shaft.
- 6) Remove O-ring.

NOTE:

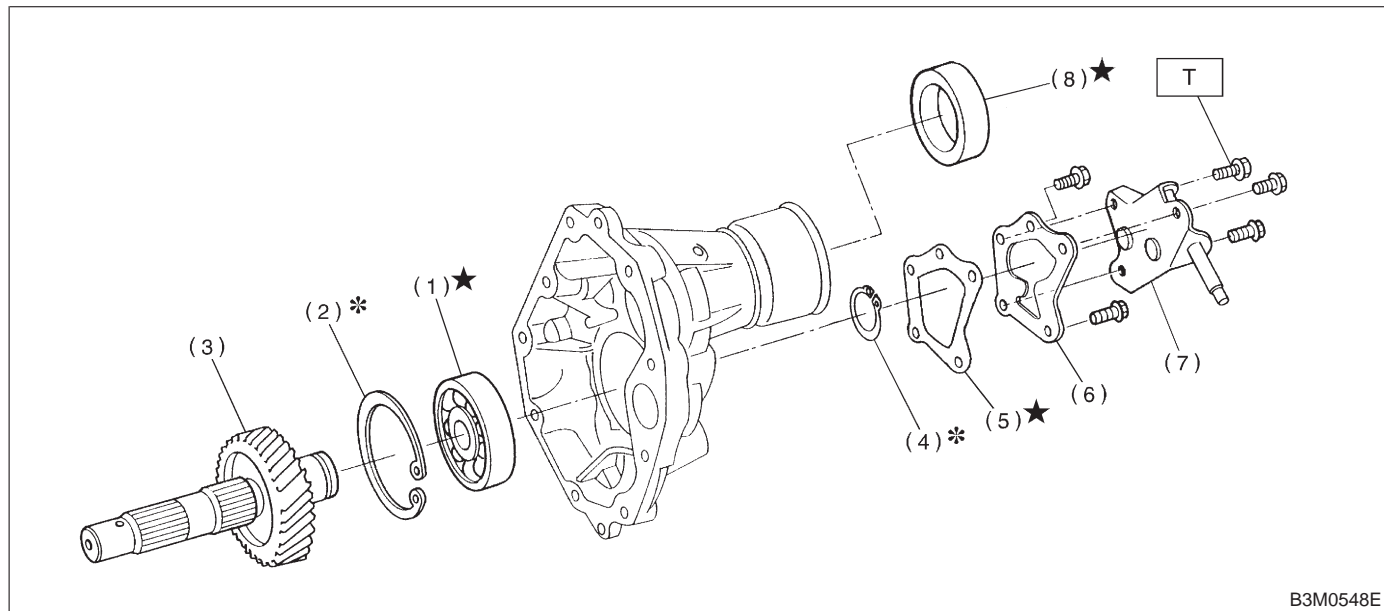
- Reverse check sleeve assembly uses an O-ring which should not be scratched.
- Be careful not to break adjustment shim placed between reverse check sleeve assembly and case.



- (A) Snap ring
- (B) Reverse check plate
- (C) Reverse check spring
- (D) Reverse check cam
- (E) Reverse return spring
- (F) Reverse accent shaft
- (G) O-ring

C: ASSEMBLY

1. EXTENSION



B3M0548E

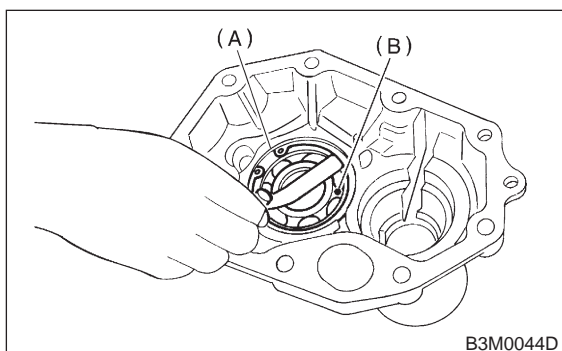
- (1) Ball bearing
- (2) Snap ring
- (3) Transfer driven shaft
- (4) Snap ring
- (5) Gasket
- (6) Extension cover
- (7) Shift bracket
- (8) Oil seal

Tightening torque: N-m (kg-m, ft-lb)
T: 25±2 (2.5±0.2, 18.1±1.4)

- 1) Attach ball bearing to extension and install snap ring.
- 2) Measure clearance between snap ring and outer race of ball bearing with a thickness gauge.

CAUTION:
Replace ball bearing with a new one.

Clearance:
0 — 0.15 mm (0 — 0.0059 in)



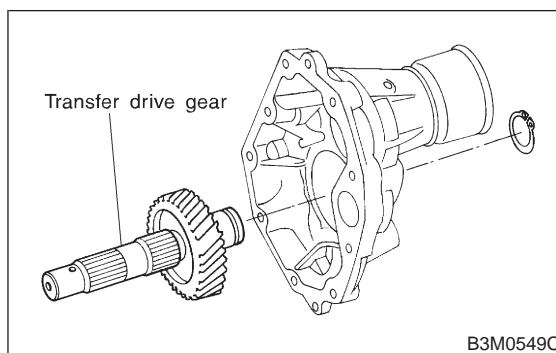
B3M0044D

- (A) Snap ring
- (B) Ball bearing

3) If the measurement is not within the specification, select suitable snap ring.

Snap ring (Inner-72)	
Part No.	Thickness mm (in)
805172071	1.78 (0.0701)
805172072	1.90 (0.0748)
805172073	2.02 (0.0795)

4) Press transfer drive gear into inner race of ball bearing.



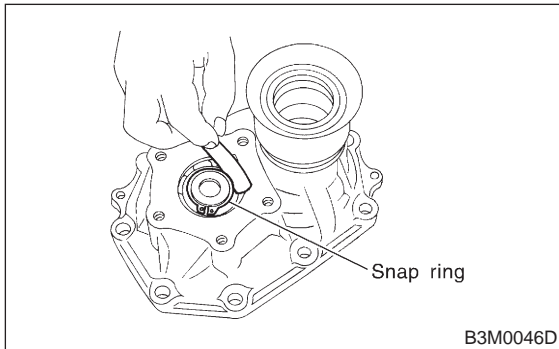
B3M0549C

5) Install snap ring on transfer drive shaft.

6) Measure clearance between snap ring and inner race of ball bearing with a thickness gauge.

Clearance:

0 — 0.15 mm (0 — 0.0059 in)



7) If the measurement is not within the specification, select suitable snap ring.

Snap Ring (Outer-30)	
Part No.	Thickness mm (in)
805030041	1.53 (0.0602)
805030042	1.65 (0.0650)
805030043	1.77 (0.0697)

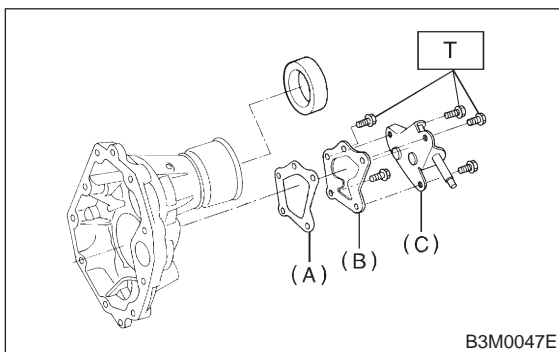
8) Install extension cover, gasket and shift bracket.

CAUTION:

Use new gasket.

Tightening torque:

T: 25±2 N·m (2.5±0.3 kg·m, 18.1±1.4 ft·lb)



- (A) Gasket
- (B) Extension cover
- (C) Shift bracket

9) Install oil seal with ST.

CAUTION:

Use new oil seal.

ST 498057300 INSTALLER

2. REVERSE CHECK SLEEVE

1) Install reverse accent shaft, check cam, return spring and check spring onto reverse check sleeve.

NOTE:

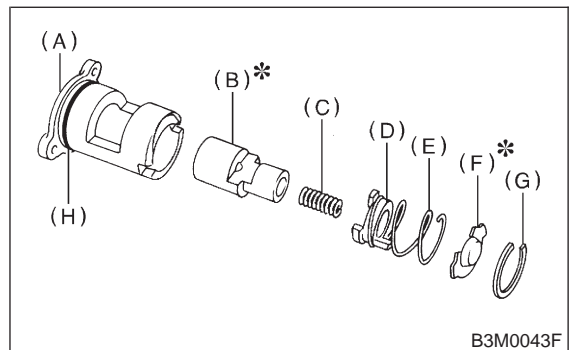
Be sure the bent section of reverse check spring is positioned in the groove in check cam.

2) Hook the bent section of reverse check spring over reverse check plate.

3) Rotate cam so that the protrusion of reverse check cam is at the opening in plate.

4) With cam held in that position, install plate onto reverse check sleeve and hold with snap ring.

5) Position O-ring in groove in sleeve.

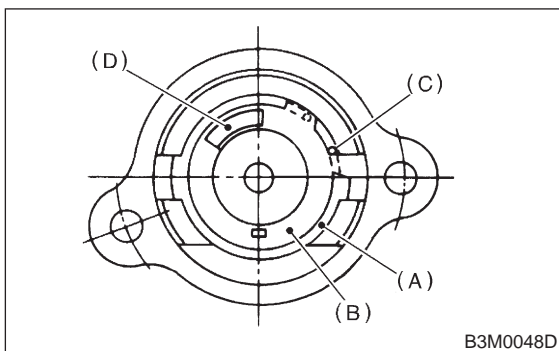


- (A) Reverse check sleeve
- (B) Reverse accent shaft
- (C) Return spring
- (D) Check cam
- (E) Check spring
- (F) Reverse check plate
- (G) Snap ring
- (H) O-ring

CAUTION:

- Make sure the cutout section of reverse accent shaft is aligned with the opening in reverse check sleeve.
- Spin cam by hand for smooth rotation.
- Move cam and shaft all the way toward plate and release.

If cam does not return properly, replace reverse check spring; if shaft does not, check for scratches on the inner surface of sleeve. If sleeve is in good order, replace spring.



- (A) Snap ring
- (B) Reverse check plate
- (C) Check spring
- (D) Check cam

- Select a suitable reverse accent shaft and reverse check plate. <Ref. to 3-1 [W5E0].>

3. TRANSFER CASE

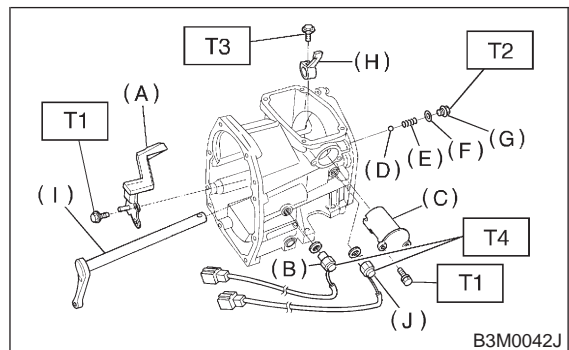
- 1) Assembly of transfer case is in the reverse order of disassembly.
- 2) Installation of shifter arm and selector arm
Install shifter arm into the partition from the front while inserting selector arm into the opening in reverse check sleeve. Pass shaft through hole in selector arm until its end comes out of the rear of transfer case.

NOTE:

Apply a coat of gear oil to shifter arm. Also make sure oil seal is positioned properly.

Tightening torque:

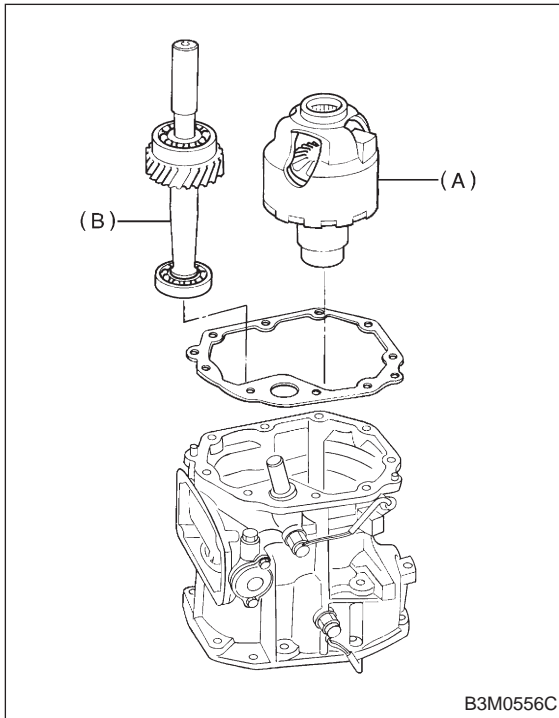
- T1: 6.4±0.5 N-m (0.65±0.05 kg-m, 4.7±0.4 ft-lb)**
- T2: 10±1 N-m (1.0±0.1 kg-m, 7.2±0.7 ft-lb)**
- T3: 19.6±1.5 N-m (2.00±0.15 kg-m, 14.5±1.1 ft-lb)**
- T4: 25±2 N-m (2.5±0.2 kg-m, 18.1±1.4 ft-lb)**



- (A) Oil guide
- (B) Back-up light switch
- (C) Reverse check sleeve
- (D) Ball
- (E) Reverse accent spring
- (F) Washer
- (G) Plug
- (H) Selector arm
- (I) Shifter arm
- (J) Neutral switch

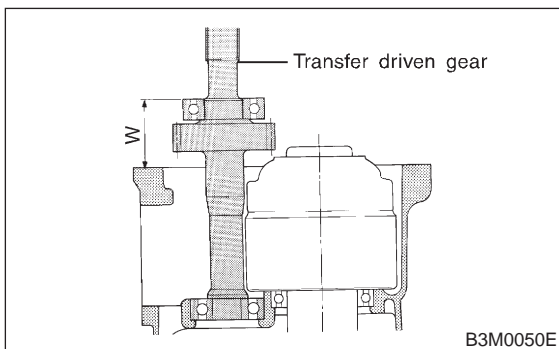
4. COMBINATION OF TRANSFER CASE AND EXTENSION ASSEMBLY

1) Install center differential and transfer driven gear into transfer case.

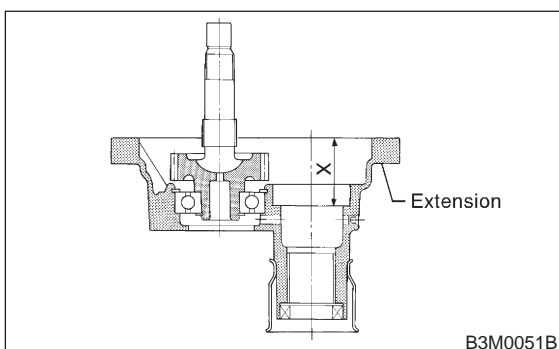


- (A) Center differential
- (B) Transfer driven gear

2) Measure height "W" between transfer case and ball bearing on the transfer driven gear.



3) Measure depth "X".



4) Calculate space "Y" using the following equation: $Y = X - W + 0.24 \text{ mm (0.0094 in)}$ [Thickness of gasket]

5) Select suitable washer in the following table:

Space "Y" mm (in)	Thrust washer (52 × 61 × t)	
	Part No.	Thickness mm (in)
0.55 — 0.79 (0.0217 — 0.0311)	803052021	0.50 (0.0197)
0.80 — 1.04 (0.0315 — 0.0409)	803052022	0.75 (0.0295)
1.05 — 1.30 (0.0413 — 0.0512)	803052023	1.00 (0.0394)

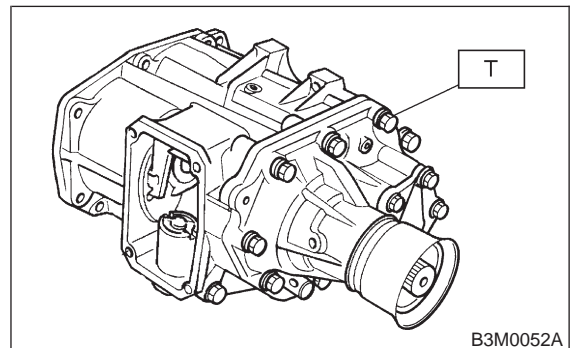
Standard clearance between thrust washer and ball bearing:

0.05 — 0.30 mm (0.0020 — 0.0118 in)

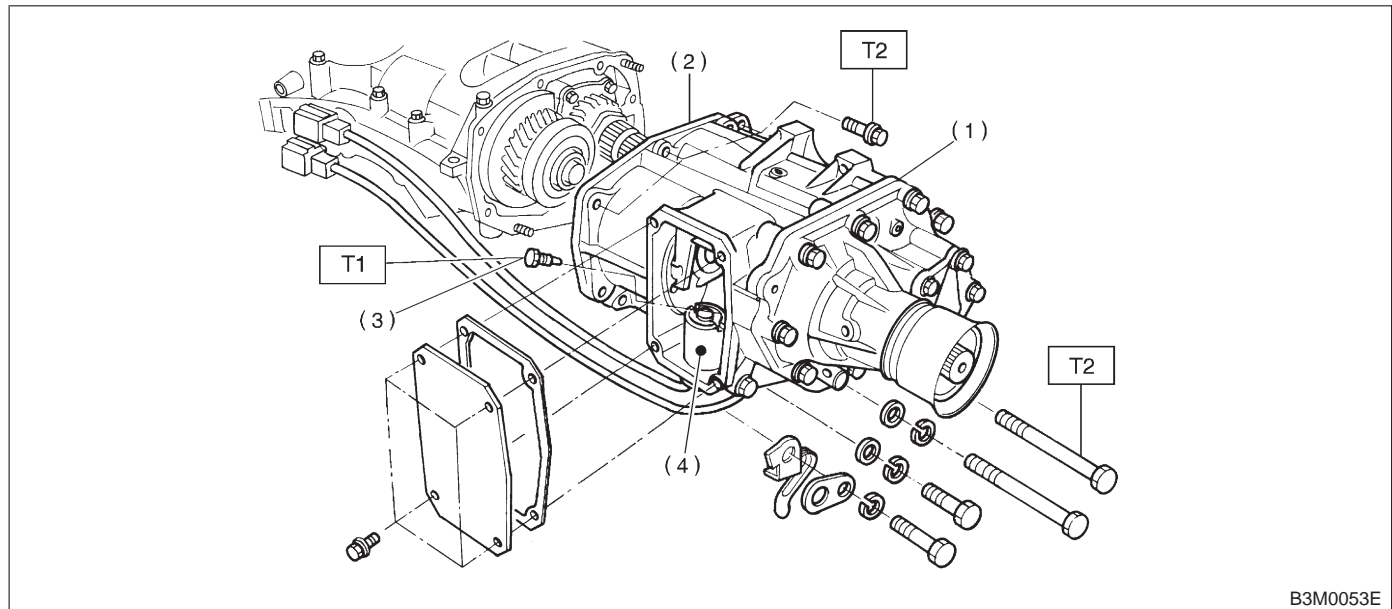
- 6) Fit thrust washers on transfer drive shaft.
- 7) Install extension assembly into transfer case.

Tightening torque:

T: 37±3 N·m (3.8±0.3 kg·m, 27.5±2.2 ft·lb)



D: INSTALLATION



- (1) Extension case
- (2) Transfer case
- (3) Shifter fork screw
- (4) Reverse check sleeve

Tightening torque: N·m (kg·m, ft·lb)
T1: 19.6±1.5 (2.00±0.15, 14.5±1.1)
T2: 24.5±2.0 (2.50±0.20, 18.1±1.4)

- 1) Install transfer case with extension assembly.
- 2) Secure selector arm to shifter arm with shifter fork screw. Shifter arm should be caught by pawl of rod. Selector arm must be engaged with reverse check sleeve assembly.

- When shim is removed, the neutral position will move closer to reverse; when shim is added, the neutral position will move closer to 1st gear.
- If shims alone cannot adjust the clearance, replace reverse accent shaft and re-adjust.

E: ADJUSTMENT

1. NEUTRAL POSITION ADJUSTMENT

- 1) Shift gear into 3rd gear position.
- 2) Shifter arm turns lightly toward the 1st/2nd gear side but heavily toward the reverse gear side because of the function of the return spring, until arm contacts the stopper.
- 3) Make adjustment so that the heavy stroke (reverse side) is a little more than the light stroke (1st/2nd side).
- 4) To adjust, remove bolts holding reverse check sleeve assembly to the case, move sleeve assembly outward, and place adjustment shim (0 to 1 ea.) between sleeve assembly and case to adjust the clearance.

CAUTION:

Be careful not to break O-ring when placing shim(s).

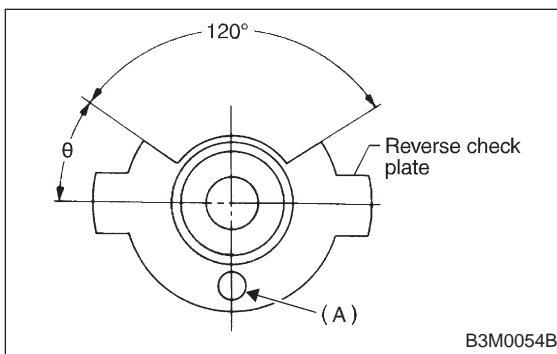
Reverse accent shaft		
Part No.	Mark	Remarks
32188AA040	1	Neutral position is closer to 1st gear.
32188AA011	No mark or 2	Standard
32188AA050	3	Neutral position is closer to reverse gear.

2. REVERSE CHECK PLATE ADJUSTMENT

- 1) Shift shifter arm to "5th" and then to reverse to see if reverse check mechanism operates properly.
- 2) Also check to see if arm returns to neutral when released from the reverse position. If arm does not return properly, replace reverse check plate.

Adjustment shim	
Part No.	Thickness mm (in)
32190AA000	0.15 (0.0059)
32190AA010	0.30 (0.0118)

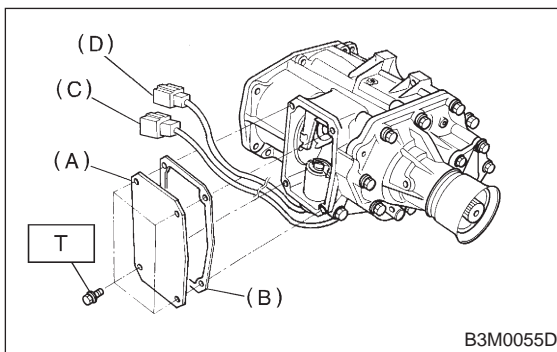
Reverse check plate			
Part No.	(A): No.	Angle θ	Remarks
32189AA000	0	28°	Arm stops closer to 5th gear.
32189AA010	1	31°	Arm stops closer to 5th gear.
32189AA020	2	34°	Arm stops in the center.
32189AA030	3	37°	Arm stops closer to reverse gear.
32189AA040	4	40°	Arm stops closer to reverse gear.



3) Install transfer cover and gasket, and then connect each connector.

CAUTION:
Use new gasket.

Tightening torque:
T: $15.7 \pm 1.5 \text{ N}\cdot\text{m}$ ($1.6 \pm 0.15 \text{ kg}\cdot\text{m}$, $11.6 \pm 1.1 \text{ ft}\cdot\text{lb}$)



- (A) Transfer cover
- (B) Gasket
- (C) Neutral position switch connector
- (D) Back-up light switch connector

6. Front Differential

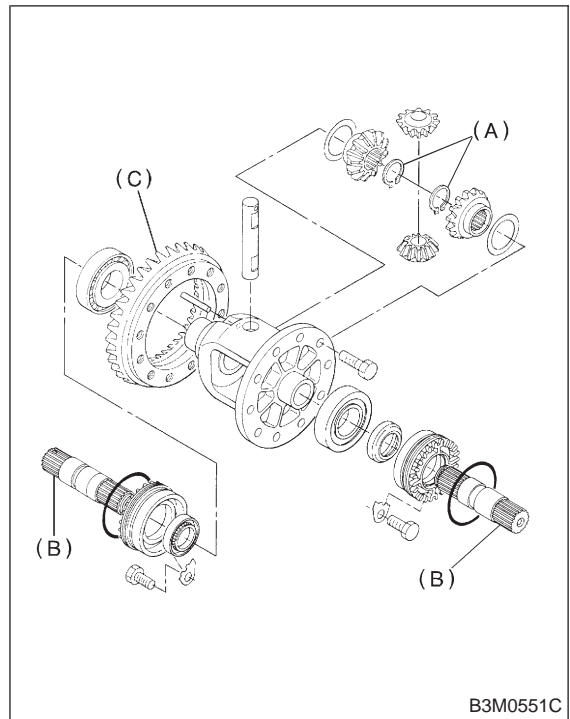
A: DISASSEMBLY

1) Remove right and left snap rings from differential, and then remove two axle drive shafts.

NOTE:

During reassembly, reinstall each axle drive shaft in the same place from which it was removed.

2) Loosen twelve bolts and remove hypoid drive gear.



- (A) Snap ring
- (B) Axle drive shaft
- (C) Hypoid drive gear

3) Drive out straight pin from differential assembly toward hypoid driven gear.

ST 899904100 REMOVER

