

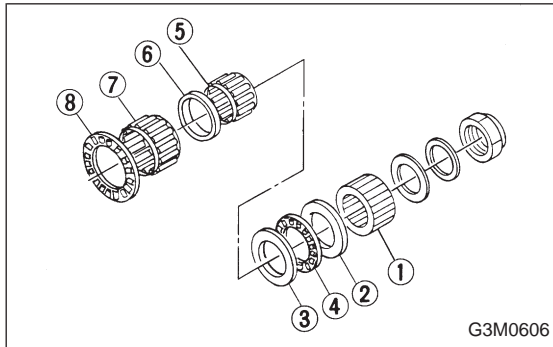
5. Drive Pinion Assembly (AWD Model)

A: DISASSEMBLY

1. DRIVE PINION SHAFT

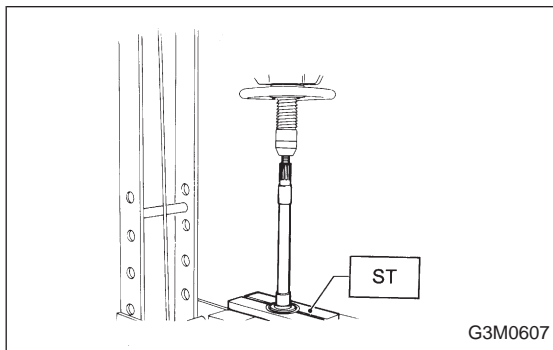
1) Straighten lock nut at staked portion. Remove the lock nut using ST1, ST2 and ST3.

ST1	899884100	HOLDER
ST2	498427100	STOPPER
ST3	899988608	SOCKET WRENCH



2) Withdraw drive pinion from driven shaft.

Remove differential bevel gear sleeve ①, adjusting washer No. 1 ② (25 x 37.5 x t), adjusting washer No. 2 ③ (25 x 37.5 x 4), thrust bearing ④ (25 x 37.5 x 3), needle bearing ⑤ (25 x 30 x 20), drive pinion collar ⑥, needle bearing ⑦ (30 x 37 x 23) and thrust bearing ⑧ (33 x 50 x 3).

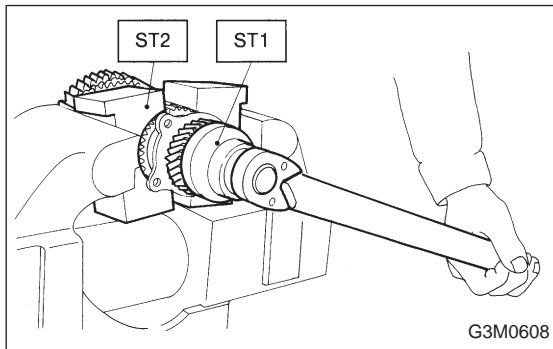


3) Remove roller bearing and washer (33 x 50 x 5) using ST and press.

ST	498077000	REMOVER
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CAUTION:

Do not reuse roller bearing.



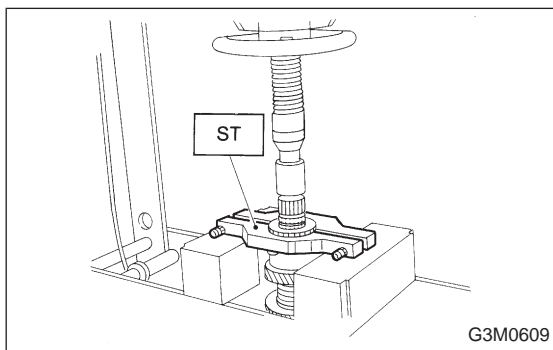
2. DRIVEN GEAR ASSEMBLY

CAUTION:

Attach a cloth to the end of driven shaft (on the frictional side of thrust needle bearing) during disassembly or reassembly to prevent damage.

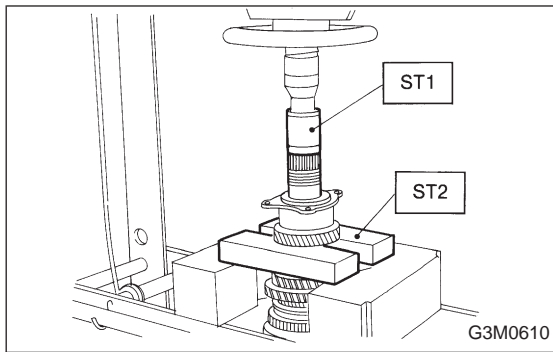
1) Straighten lock nut at staked portion. Remove the lock nut using ST1 and ST2.

ST1	499987300	SOCKET WRENCH (50)
ST2	899884100	HOLDER



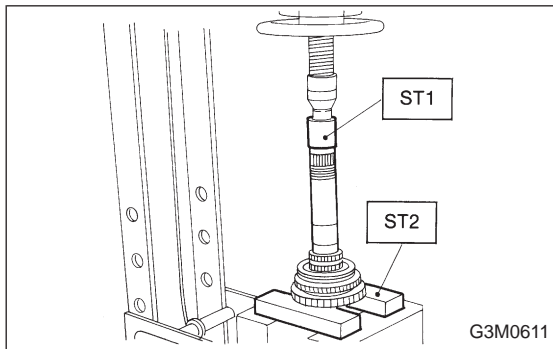
2) Remove 5th driven gear using ST.

ST	499857000	5TH DRIVEN GEAR REMOVER
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- 3) Remove woodruff key.
- 4) Remove roller bearing (42 x 74 x 40), 3rd and 4th driven gear using ST1 and ST2.

ST1 499757002 SNAP RING PRESS
 ST2 899714110 REMOVER

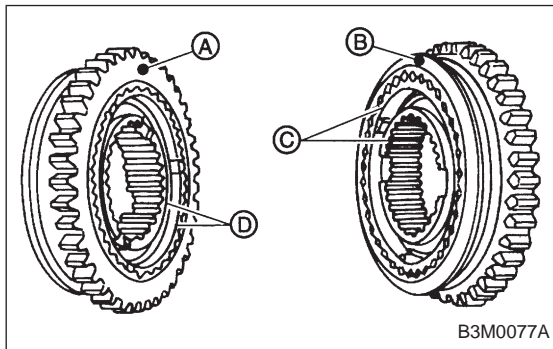


- 5) Remove the key.
- 6) Remove 2nd driven gear assembly.
- 7) Remove 1st driven gear, 2nd gear bushing, gear and hub using ST1 and ST2.

Replace gear and hub if necessary. Do not attempt to disassemble if at all possible because they must engage at a specified point. If they have to be disassembled, mark the engaging point beforehand.

ST1 499757002 SNAP RING PRESS
 ST2 899714110 REMOVER

- 8) Remove sub gears for 1st and 2nd driven gear.



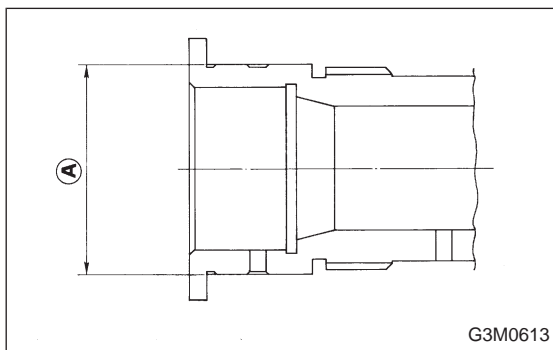
B: ASSEMBLY

1. GEAR AND HUB ASSEMBLY

NOTE:

Position open ends of springs 120° apart.

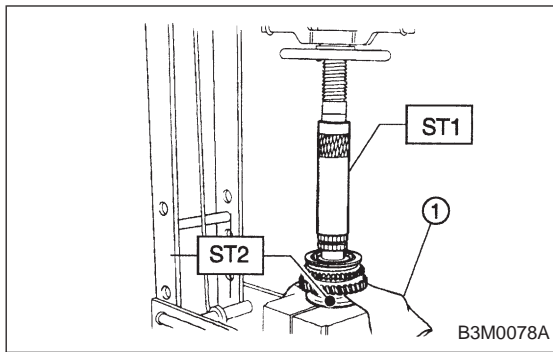
- Ⓐ : 1st gear side
- Ⓑ : 2nd gear side
- Ⓒ : Flush surface
- Ⓓ : Stepped surface



2. DRIVEN GEAR ASSEMBLY

Assemble a driven shaft and 1st driven gear that select for adjustment the proper radial clearance.

Driven shaft		1st driven gear
Part No.	Diameter A mm (in)	Part No.
32229AA130	49.959 — 49.966 (1.9669 — 1.9672)	32231AA270
32229AA120	49.967 — 49.975 (1.9672 — 1.9675)	3231AA260



1) Install 1st driven gear, 1st-2nd baulk ring and gear and hub assembly onto driven shaft.

NOTE:

Take care to install gear hub in proper direction.

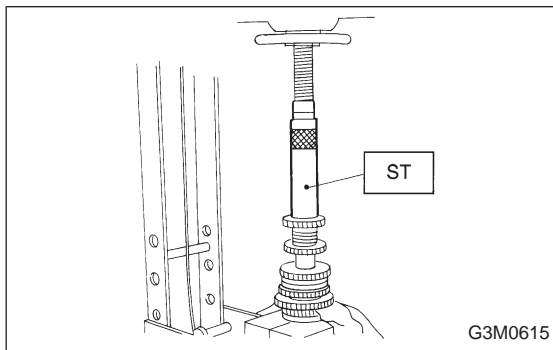
2) Install 2nd driven gear bushing onto driven shaft using ST1, ST2 and press.

ST1 499277200 INSTALLER

ST2 499587000 INSTALLER

CAUTION:

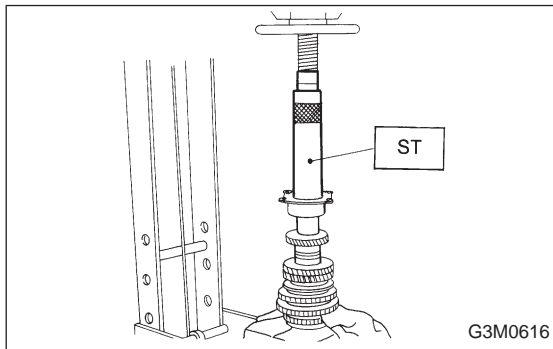
Attach a cloth ① to the end of driven shaft to prevent damage.



3) Install 2nd driven gear, 1st-2nd baulk ring and insert onto driven shaft. After installing key on driven shaft, install 3rd-4th driven gear using ST and press.

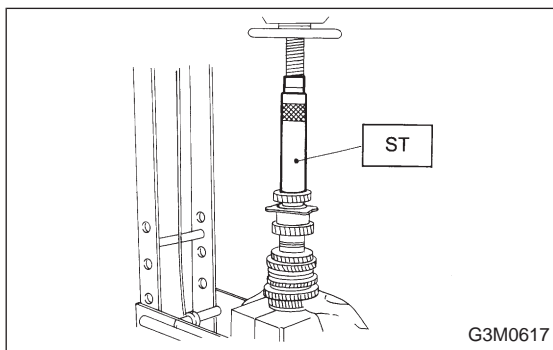
ST 499277200 INSTALLER

Align groove in baulk ring with insert.



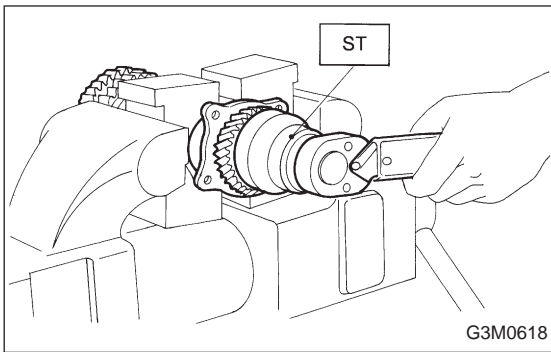
4) Install a set of roller bearings (42 x 74 x 40) onto the driven shaft using ST and press.

ST 499277200 INSTALLER



5) Position woodruff key in groove on the rear of driven shaft. Install 5th driven gear onto drive shaft using ST and press.

ST 499277200 INSTALLER

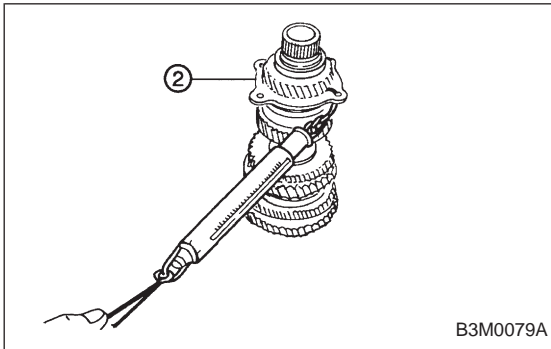


6) Install lock washer (42 x 53 x 2). Install lock nut (42 x 13) and tighten to the specified torque using ST.

ST 499987300 SOCKET WRENCH (50)

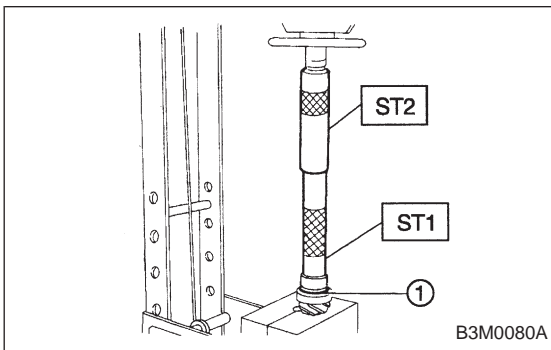
Tightening torque:

245±10 N·m (25±1 kg·m, 181±7 ft·lb)



NOTE:

- Stake lock nut at two points.
- Using spring balancer, check that starting torque of roller bearing ② is 0.1 to 1.5 N·m (1 to 15 kg·cm, 0.9 to 13.0 in·lb).

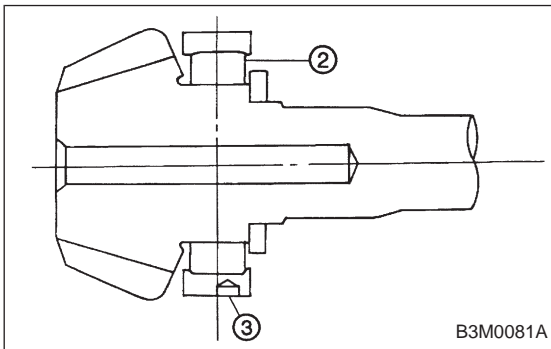


3. DRIVE PINION SHAFT

1) Install roller bearing onto drive pinion. Install washer ① (33 x 50 x 5) using ST1, ST2 and press.

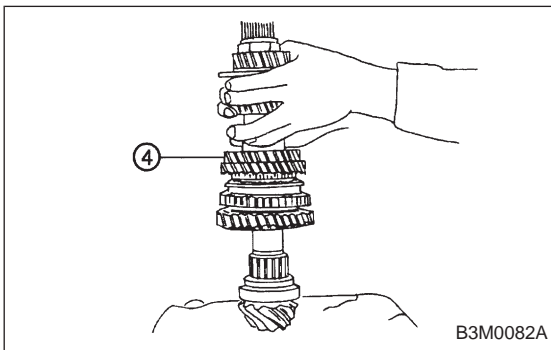
ST1 499277100 BUSH 1-2 INSTALLER

ST2 499277200 INSTALLER

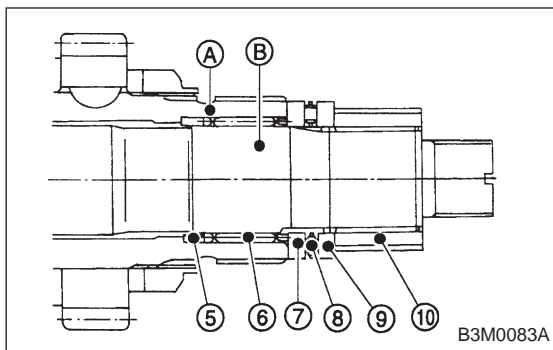


NOTE:

When installing roller bearing ②, note its directions (front and rear) because knock pin hole ③ in outer race is offset.



2) Install thrust bearing (33 x 50 x 3) and needle bearing (30 x 37 x 23). Install driven shaft assembly ④.



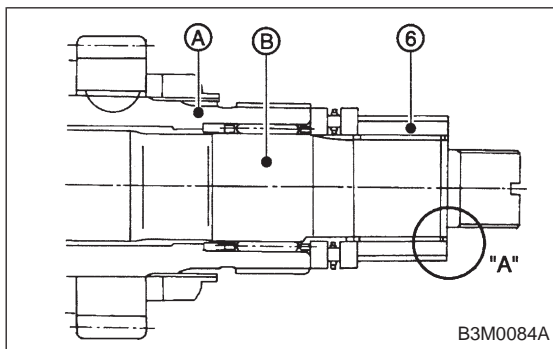
3) Install drive pinion collar ⑤, needle bearing ⑥ (25 x 30 x 20), adjusting washer No. 2 ⑦ (25 x 36 x 4), thrust bearing ⑧ (25 x 37.5 x 3), adjusting washer No. 1 ⑨ (25 x 36 x t) and differential bevel gear sleeve ⑩ in that order.

NOTE:

Be careful because spacer must be installed in proper direction.

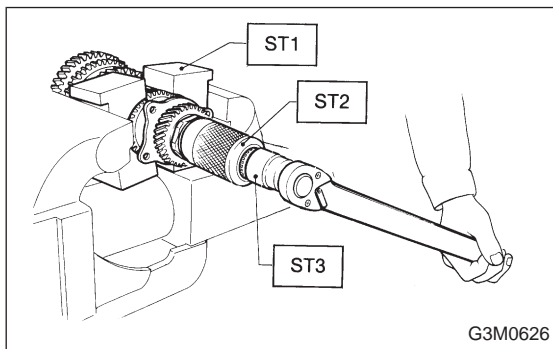
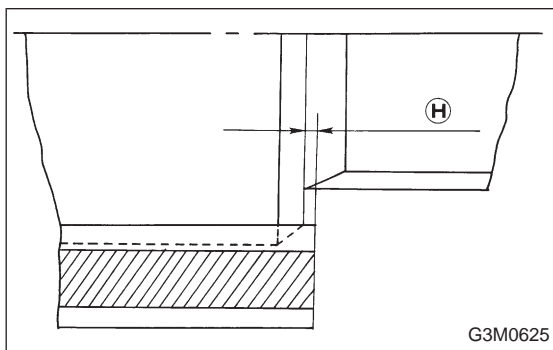
Ⓐ: Driven shaft

Ⓑ: Driven pinion shaft



4. ADJUSTMENT OF THRUST BEARING PRELOAD

1) After completing the preceding steps 1) through 3), select adjusting washer No. 2 so that dimension ⑧ is zero through visual check. Position washer (18.3 x 30 x 4) and lock washer (18 x 30 x 2) and install lock nut (18 x 13.5).



2) Using ST1, ST2 and ST3, tighten lock nut to the specified torque.

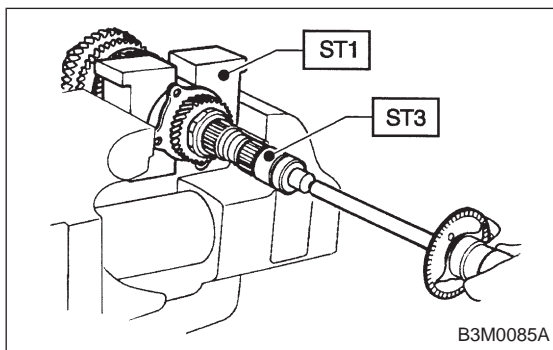
ST1 899884100 HOLDER

ST2 498427100 STOPPER

ST3 899988608 SOCKET WRENCH (27)

Tightening torque:

118±8 N·m (12±0.8 kg·m, 86.8±5.8 ft·lb)



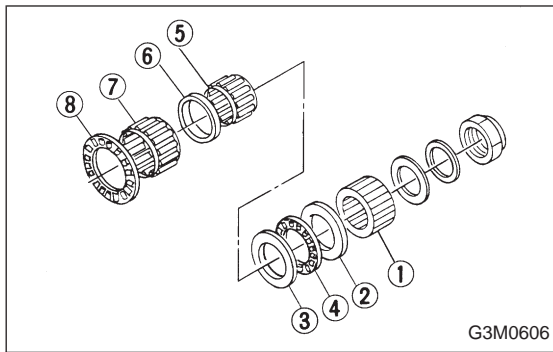
3) After removing ST2, measure starting torque using torque driver.

ST1 899884100 HOLDER

ST3 899988608 SOCKET WRENCH (27)

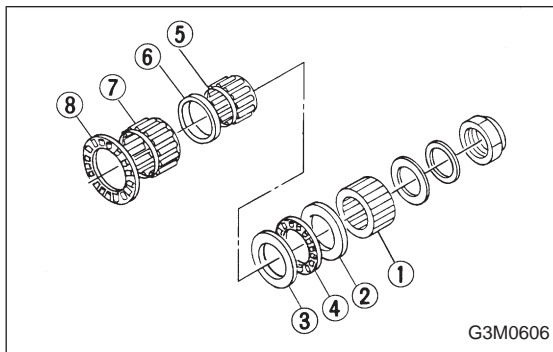
Starting torque:

54±25 N·m (5.5±2.5 kg·m, 40±18 ft·lb)



4) If starting torque is not within specified limit, select new adjusting washer No. 1 ② and recheck starting torque.

Adjusting washer No. 1	
Part No.	Thickness mm (in)
803025051	3.925 (0.1545)
803025052	3.950 (0.1555)
803025053	3.975 (0.1565)
803025054	4.000 (0.1575)
803025055	4.025 (0.1585)
803025056	4.050 (0.1594)
803025057	4.075 (0.1604)



5) If specified starting torque range cannot be obtained when a No. 1 ② adjusting washer is used, then select a suitable No. 2 ③ adjusting washer from those listed in the following table. Repeat steps 1) through 4) to adjust starting torque.

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.