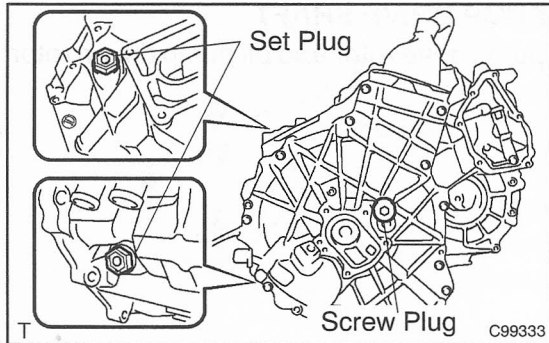
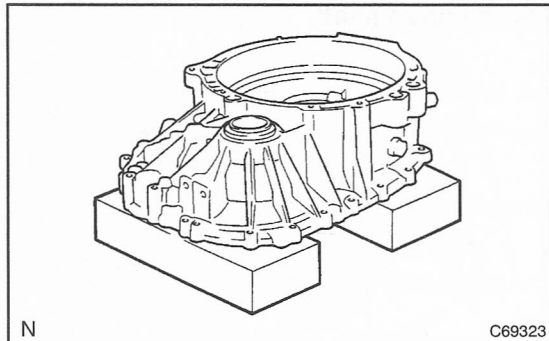


- (b) Using SST, remove the oil seal.
SST 09308-00010



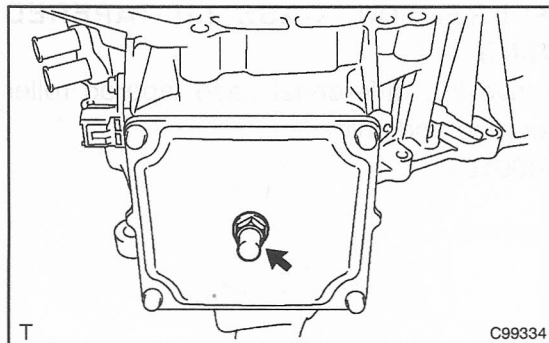
24. REMOVE TRANSAXLE HOUSING & CASE W/HEAD STRAIGHT SCREW PLUG

- (a) Remove the set plug and gasket.
(b) Using a hexagon wrench (10 mm), remove the screw plugs.



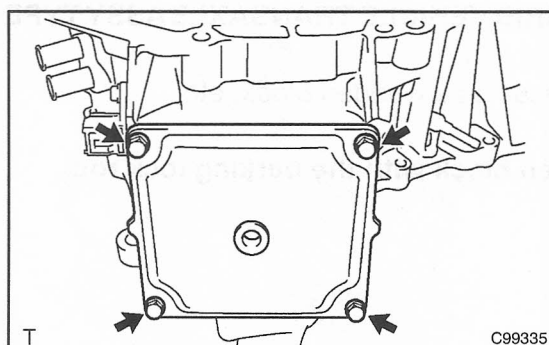
25. FIX HYBRID VEHICLE GENERATOR ASSY

- (a) Fix the generator assy on a wooden block, etc.

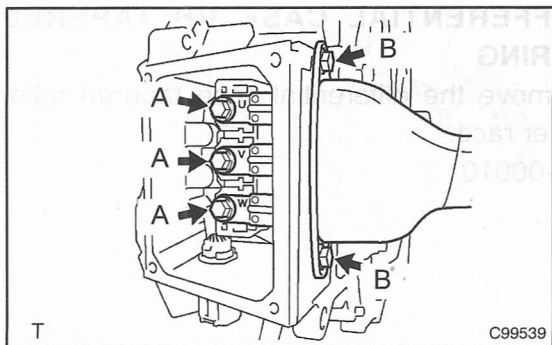


26. REMOVE POWER CABLE COVER

- (a) Remove the breather plug.

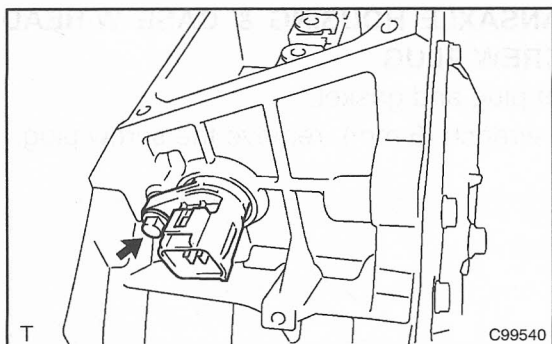


- (b) Remove the 4 bolts and power cable cover.



27. REMOVE GENERATOR CABLE

- Remove the 5 bolts and generator cable.



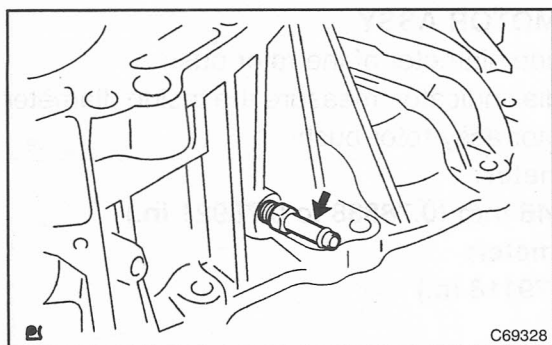
28. REMOVE GENERATOR MOTOR REVOLUTION SENSOR WIRING HARNESS CONNECTOR

- Remove the bolt and pull out the HV generator side generator revolution sensor wire harness connector.

NOTICE:

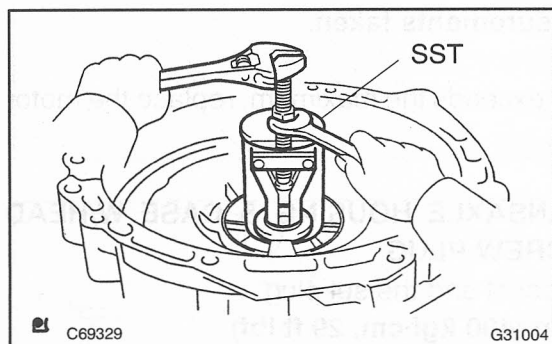
Do not pull on the sensor connector any more than necessary.

- Disconnect the connector and the HV generator side generator revolution sensor wire harness connector.



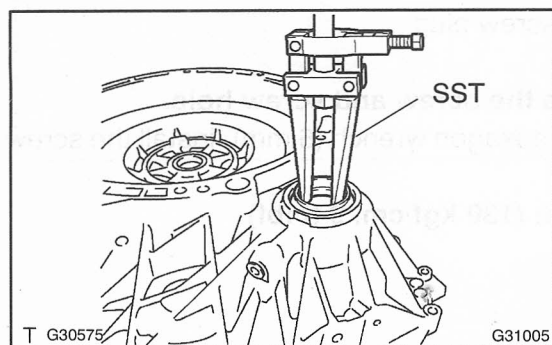
29. REMOVE TRANSAXLE HOUSING TUBE CONNECTOR

- Remove the transaxle housing tube connector.



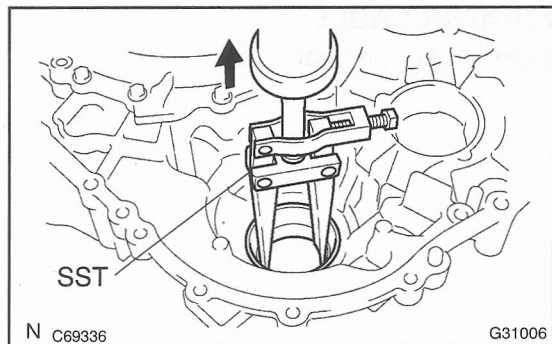
30. REMOVE HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- Using SST, remove the oil seal.
SST 09612-30012



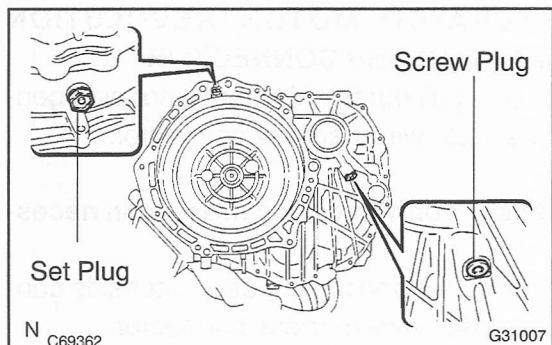
31. REMOVE HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- Using SST, remove the oil seal.
SST 09308-00010



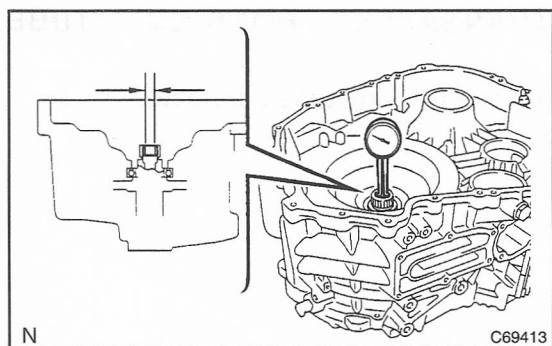
32. REMOVE DIFFERENTIAL CASE RH TAPERED ROLLER BEARING

- (a) Using SST, remove the differential case tapered roller bearing LH outer race.
SST 09308-00010



33. REMOVE TRANSAXLE HOUSING & CASE W/HEAD STRAIGHT SCREW PLUG

- (a) Remove the set plug and gasket.
- (b) Using a socket wrench (6 mm), remove the screw plug.



34. INSPECT HV MOTOR ASSY

- (a) Inspect the inside diameter of the rotor bush
 - (1) Using a dial indicator, measure the inside diameter of the motor assy rotor bush.

Standard diameter:

20.025 to 20.046 mm (0.78838 to 0.78921 in.)

Maximum diameter:

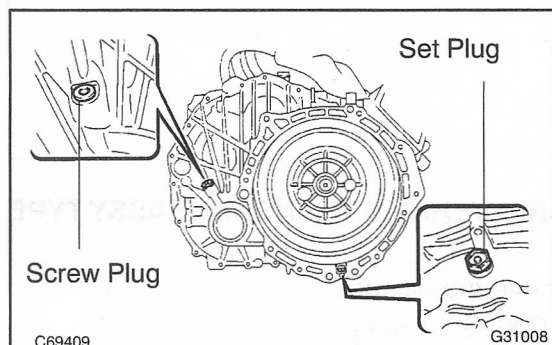
20.096 mm (0.79118 in.)

NOTICE:

Take the measurement in different locations and use the average of the measurements taken.

HINT:

If the inside diameter exceeds the maximum, replace the motor assy with a new one.



35. INSTALL TRANSAXLE HOUSING & CASE W/HEAD STRAIGHT SCREW PLUG

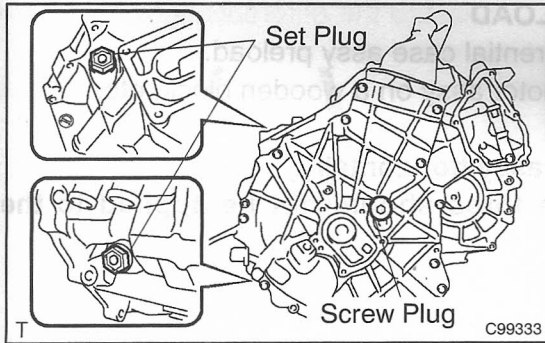
- (a) Install a new gasket and the set plug.
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
- (b) Apply liquid sealant 1344 to the first 2 to 3 threads from the end of the screw plug.

NOTICE:

Clean and degrease the screw and screw hole.

- (c) Using a socket hexagon wrench (6 mm), install the screw plug.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)



36. INSTALL TRANSAXLE HOUSING & CASE W/HEAD STRAIGHT SCREW PLUG

- (a) Install a new gasket and the set plug.
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

HINT:

Tighten the set plug after adding transaxle oil.

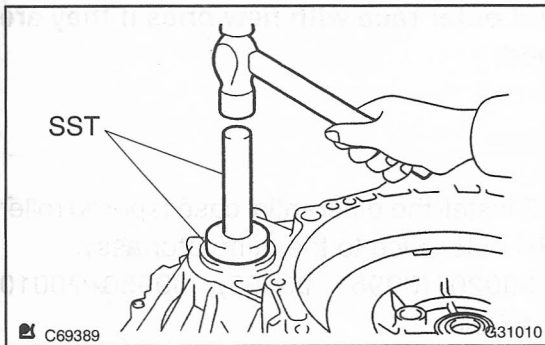
- (b) Apply liquid sealant 1324 to the first 2 to 3 threads from the end of the screw plug.

NOTICE:

Clean and degrease the screw and screw hole.

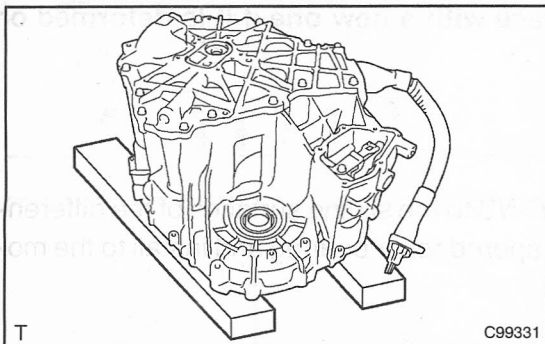
- (c) Using a socket hexagon wrench (10 mm), install the screw plug.

Torque: 55 N·m (561 kgf·cm, 41 ft·lbf)



37. INSTALL HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- (a) Using SST, install a new oil seal.
Oil seal depth: 2.7 ± 0.5 mm (0.106 ± 0.020 in.)
- (b) Coat the lip of the oil seal with MP grease No.2.
 SST 09350-32014 (09351-32130, 09351-32150),
 09950-70010 (09951-07100)

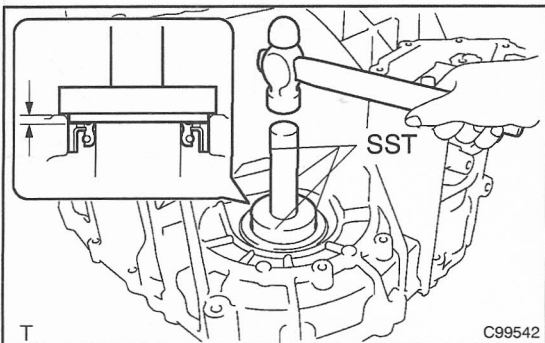


38. INSTALL HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

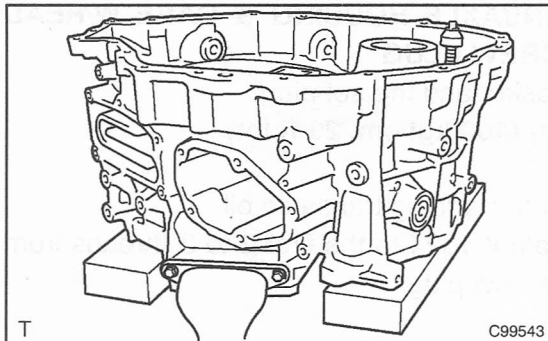
- (a) Fix the motor assy on a wooden block, etc.

NOTICE:

Do not use a wooden block with the parking lock rod.



- (b) Using SST, install the oil seal.
Oil seal depth: 2.7 ± 0.5 mm (0.106 ± 0.020 in.)
- (c) Coat the lip of the oil seal with MP grease No.2.
 SST 09350-32014 (09351-32130, 09351-32150),
 09950-70010 (09951-07100)



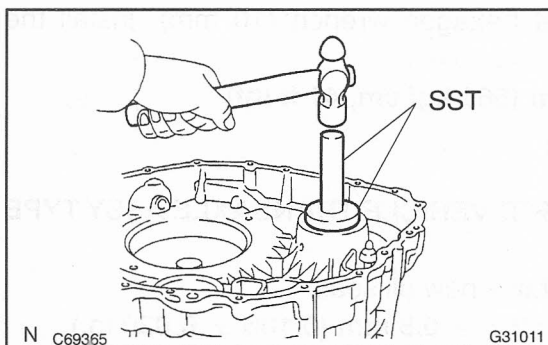
39. ADJUST PRELOAD

(a) Adjust the differential case assy preload.

(1) Fix the motor assy on a wooden block, etc.

NOTICE:

- **Fix the motor assy horizontally.**
- **Unreasonable force should not be applied to the cable.**

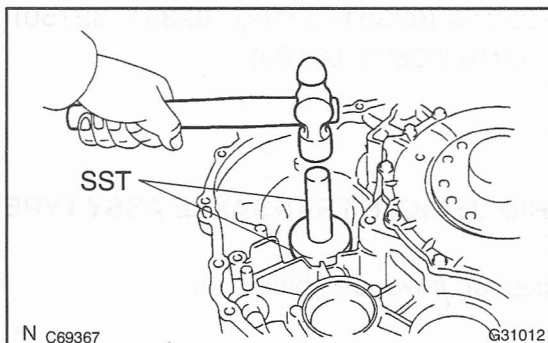


(2) Using SST, install the differential case tapered roller bearing LH outer race and shim to the motor assy.

SST 09950-60020 (09951-00680), 09950-70010 (09951-07100)

NOTICE:

Replace the shim and outer race with new ones if they are deformed or damaged.

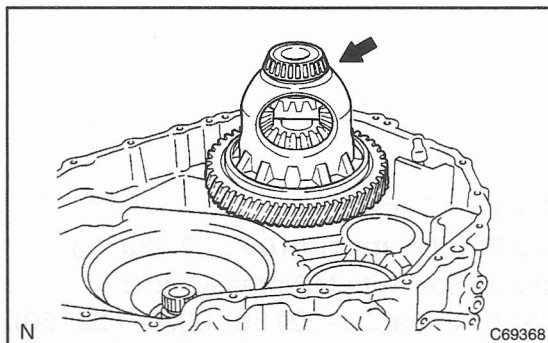


(3) Using SST, install the differential case tapered roller bearing RH outer race to the generator assy.

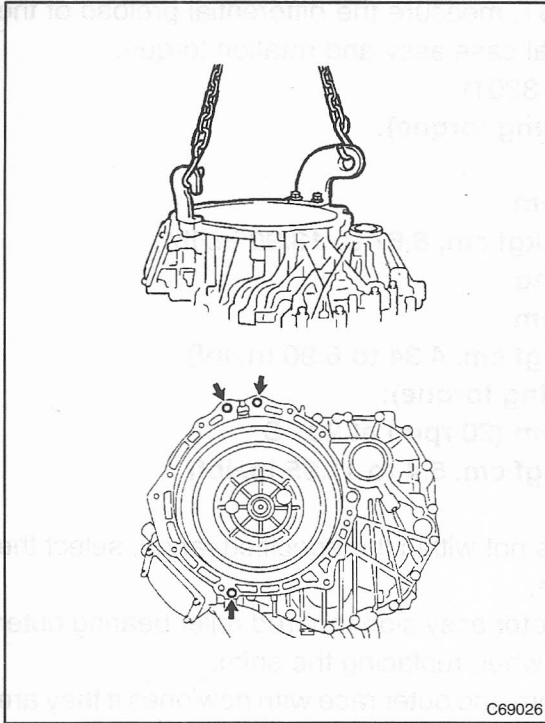
SST 09950-60020 (09951-00680), 09950-70010 (09951-07100)

NOTICE:

Replace the outer race with a new one if it is deformed or damaged.



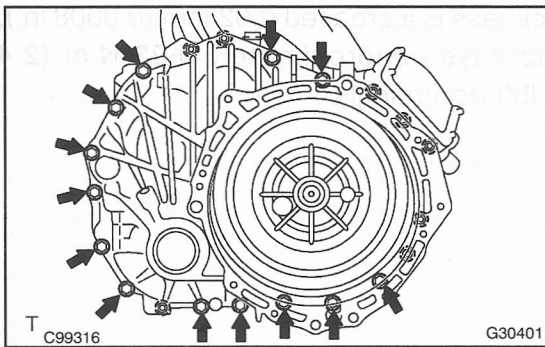
(4) Apply ATF WS to the sliding surfaces of the differential case tapered roller bearing and install to the motor assy.



- (5) Using an engine sling device and chain block, install the motor assy to the generator assy.

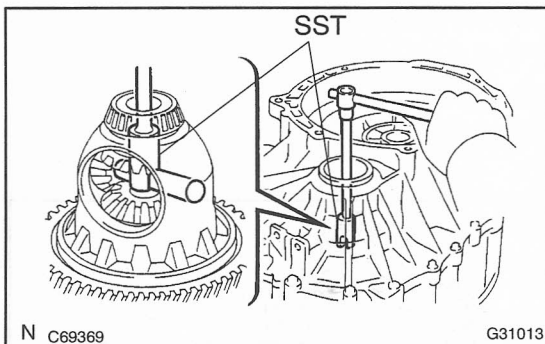
HINT:

- Engine hanger 12281-67070, S1228-11781
- Bolt 91642-81045, 91642-81265
- Nut 90178-10001, 90179-12147



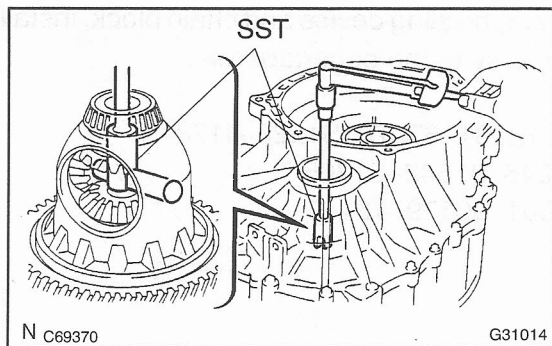
- (6) Tighten the 13 bolts in the positions shown in the illustration.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)



- (7) Using SST, rotate the differential case assy in both directions to stabilize the bearings.

SST 09564-32011



- (8) Using SST, measure the differential preload of the differential case assy and rotation torque.

SST 09564-32011

Preload (Starting torque):

New bearing

0.98 to 1.57 N·m

(9.99 to 16.01 kgf·cm, 8.67 to 13.90 in.·lbf)

Reused bearing

0.49 to 0.78 N·m

(5.00 to 7.95 kgf·cm, 4.34 to 6.90 in.·lbf)

Preload (Turning torque):

0.61 to 1.35 N·m (20 rpm) at 20 °C

(6.2 to 13.77 kgf·cm, 5.4 to 11.95 in.·lbf)

HINT:

- If the preload is not within the specified range, select the shim to replace.
- Remove the motor assy side tapered roller bearing outer race and shim when replacing the shim.
- Replace the shim and outer race with new ones if they are deformed or damaged.
- As the shim thickness is increased 0.02 mm (0.0008 in.), the preload increases approximately 0.23 N·m (2.4 kgf·cm 2.04 in. lbf) accordingly.

Shim Types

Parts Number	Thickness mm (in.)	Mark
90564-45040	1.80 (0.0709)	1
90564-45041	1.83 (0.0720)	2
90564-45042	1.86 (0.0732)	3
90564-45043	1.89 (0.0744)	4
90564-45071	1.92 (0.0756)	50
90564-45072	1.94 (0.0764)	51
90564-45073	1.96 (0.0772)	52
90564-45074	1.98 (0.0780)	53
90564-45075	2.00 (0.0787)	54
90564-45076	2.02 (0.0795)	55
90564-45077	2.04 (0.0803)	56
90564-45078	2.06 (0.0811)	57
90564-45079	2.08 (0.0819)	58
90564-45080	2.10 (0.0827)	59
90564-45081	2.12 (0.0835)	60
90564-45082	2.14 (0.0843)	61
90564-45083	2.16 (0.0850)	62
90564-45084	2.18 (0.0858)	63
90564-45085	2.20 (0.0866)	64
90564-45086	2.22 (0.0874)	65
90564-45087	2.24 (0.0882)	66
90564-45088	2.26 (0.0890)	67
90564-45089	2.28 (0.0898)	68
90564-45090	2.30 (0.0906)	69
90564-45091	2.32 (0.0913)	70
90564-45060	2.34 (0.0921)	19
90564-45061	2.37 (0.0933)	20
90564-45011	2.40 (0.0945)	No indication
90564-45062	2.43 (0.0957)	22
90564-45063	2.46 (0.0969)	23

- (9) Using an engine sling device and chain block, remove the 13 bolts and generator assy.

40. INSTALL DIFFERENTIAL DRIVE PINION

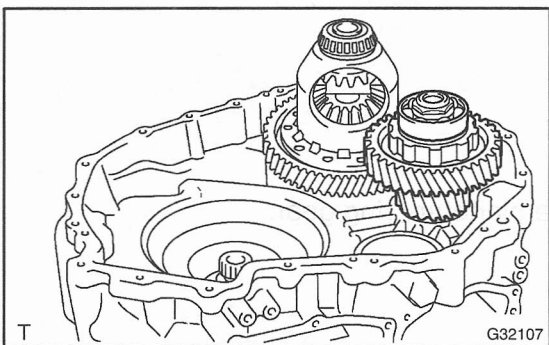
- (a) Install the differential drive pinion.

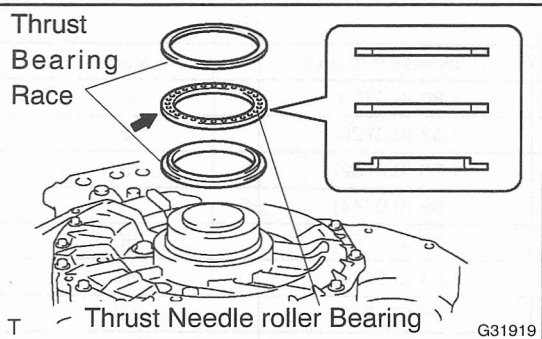
NOTICE:

- Insert the differential drive pinion vertically.
- Ensure that the differential drive pinion is fully inserted.

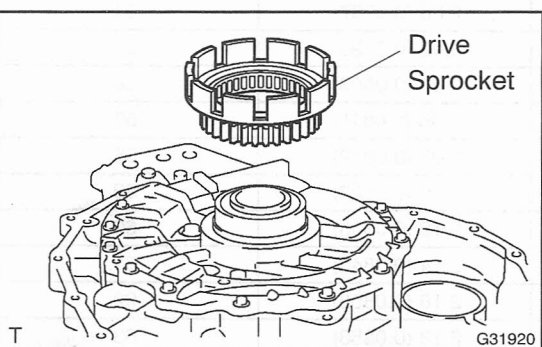
41. SELECT THE SHIM

- (a) Select the input shaft shim.

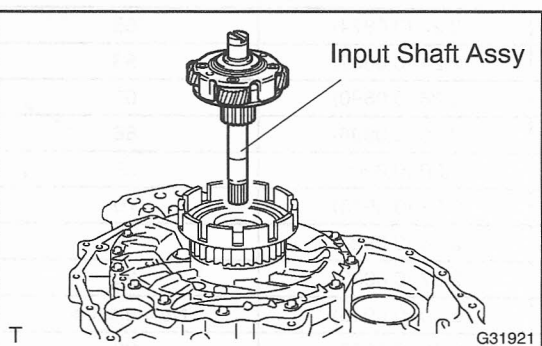




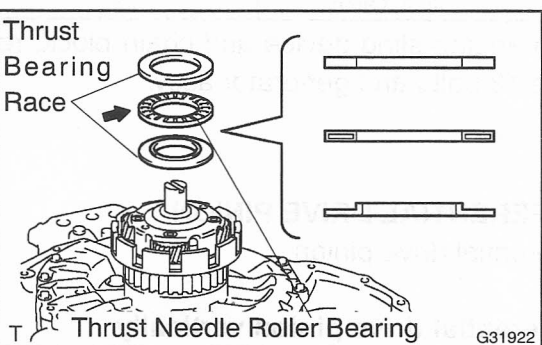
- (1) Install the thrust bearing race No.1.
- (2) Apply ATF WS to the sliding surfaces of the thrust needle roller flange and install.
- (3) Install the thrust bearing race.



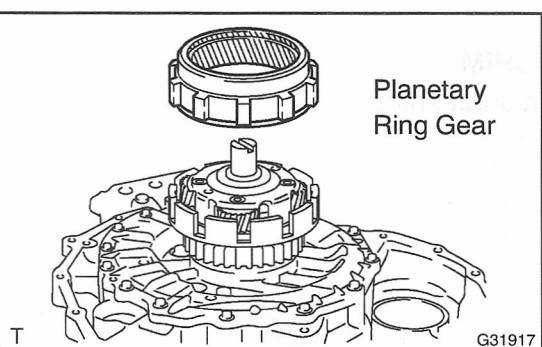
- (4) Install the drive sprocket.



- (5) Install the input shaft assy.

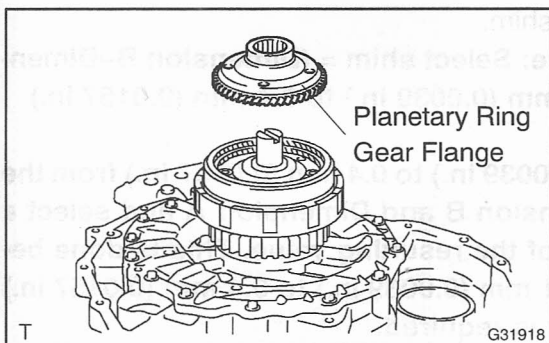


- (6) Install the thrust bearing race No.1.
- (7) Apply ATF WS to the sliding surfaces of the thrust needle roller flange and install.
- (8) Install the thrust bearing race.



- (9) Install the planetary ring gear.

(10) Install the planetary ring gear flange.



(11) Using a straight edge and vernier calipers, measure dimension A as shown in the illustration.

Standard value: Dimension A = Measured value - width of straight edge used

NOTICE:

- Measure dimension A without the shim installed.
- Take the measurement 3 times each in 3 different locations and use the average of the measurements taken.
- Two people are required for this step because it is difficult to keep the straight edge level. One person should hold the straight edge, and the other person measure dimension A.

(12) Using a straight edge and vernier calipers, measure dimension B as shown in the illustration.

Standard value: Dimension B = Measured value - thickness of straight edge used

NOTICE:

Dimension B is greater than dimension A.

