

(13) Select a shim.

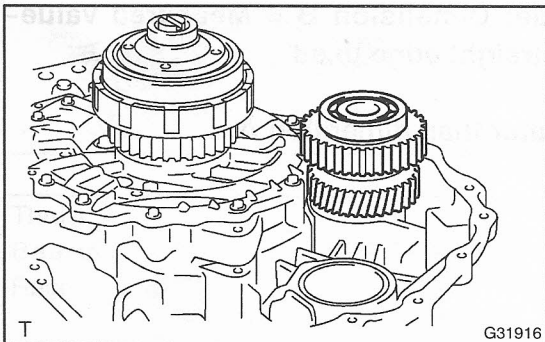
Standard value: Select shim = (Dimension B–Dimension A) – 0.1 mm (0.0039 in.) to 0.4 mm (0.0157 in.)

NOTICE:

Subtract 0.1 mm (0.0039 in.) to 0.4 mm (0.0157 in.) from the difference of Dimension B and Dimension A and select a shim on the basis of the resulting value. This is done because clearance 0.1 mm (0.0039 in.) to 0.4 mm (0.0157 in.) with the input shaft is required.

Shim Types

Parts Number	Thickness mm (in.)	Mark
90564-36021	1.00 (0.0394)	1
90564-36022	1.20 (0.0472)	2
90564-36023	1.40 (0.0551)	3
90564-36024	1.60 (0.0630)	4
90564-36025	1.80 (0.0709)	5
90564-36026	2.00 (0.0787)	6
90564-36027	2.20 (0.0866)	7
90564-36028	2.40 (0.0945)	8
90564-36029	2.60 (0.1024)	9
90564-36030	2.80 (0.1102)	10
90564-36031	3.00 (0.1181)	11
90564-36032	3.20 (0.1260)	12



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(b) Select a counter drive gear shim.

(1) Install the counter drive gear.

NOTICE:

- **Insert the counter drive gear vertically.**
- **Ensure that the counter drive gear is fully inserted.**

- (2) 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:

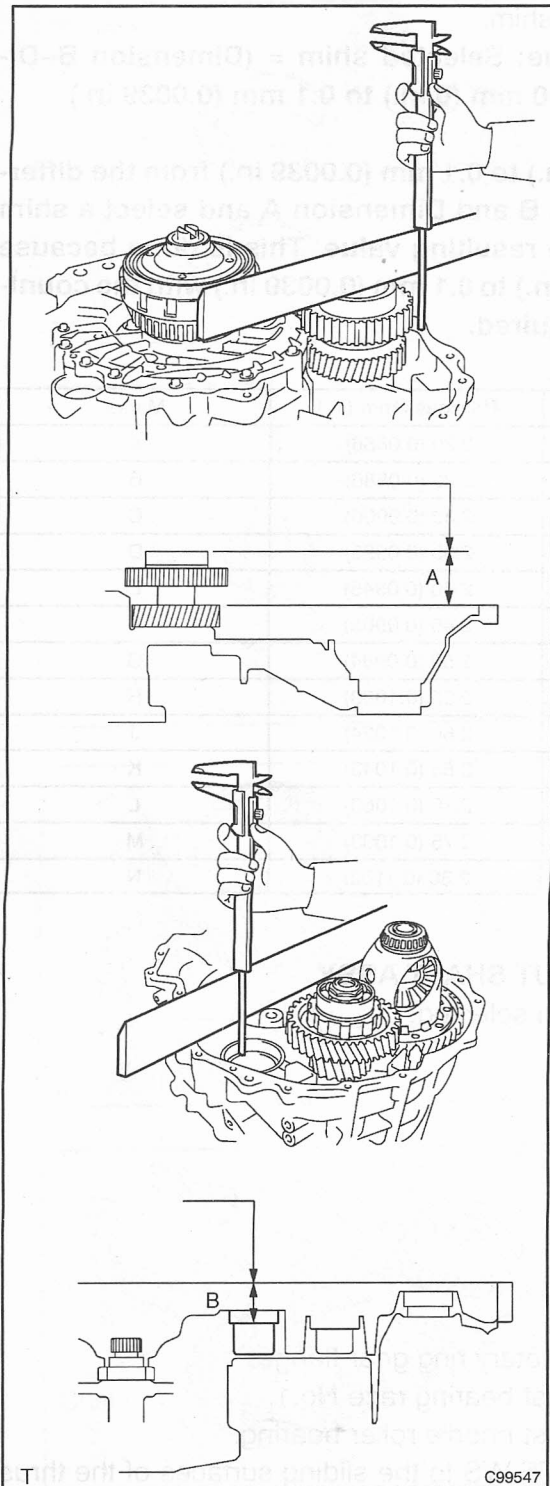
- Measure dimension A without the shim installed.
- Take the measurement 3 times each in 3 different locations and use the average of the measurements taken.
- Two people are required for this step because it is difficult to keep the straight edge level. One person should hold the straight edge, and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

- (3) 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.



- (4) Select a shim.

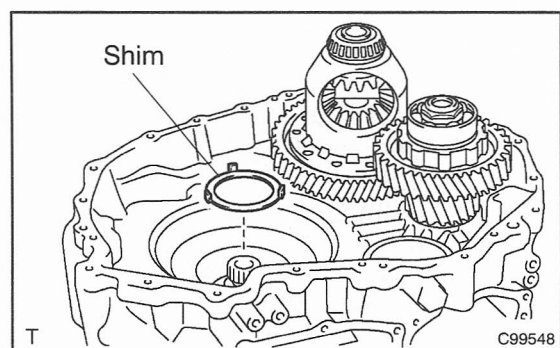
Standard value: Selected shim = (Dimension B-Dimension A) - 0 mm (0 in.) to 0.1 mm (0.0039 in.)

NOTICE:

Subtract 0 mm (0 in.) to 0.1 mm (0.0039 in.) from the difference of Dimension B and Dimension A and select a shim on the basis of the resulting value. This is done because clearance 0 mm (0 in.) to 0.1 mm (0.0039 in.) with the counter drive gear is required.

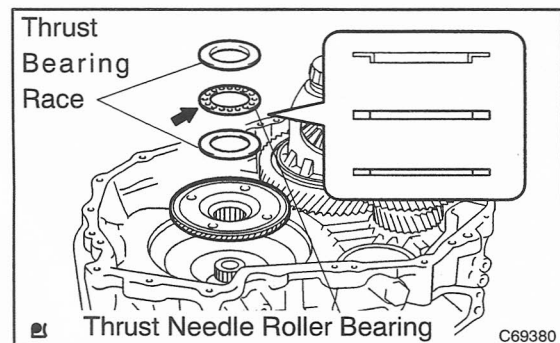
Shim Types

Parts Number	Thickness mm (in.)	Marks
90564-35132	2.20 (0.0866)	A
90564-35133	2.25 (0.0886)	B
90564-35134	2.30 (0.0906)	C
90564-35135	2.35 (0.0925)	D
90564-35136	2.40 (0.0945)	E
90564-35137	2.45 (0.0965)	F
90564-35138	2.50 (0.0984)	G
90564-35139	2.55 (0.1003)	H
90564-35140	2.60 (0.1024)	J
90564-35141	2.65 (0.1043)	K
90564-35142	2.70 (0.1063)	L
90564-35143	2.75 (0.1083)	M
90564-35144	2.80 (0.1102)	N

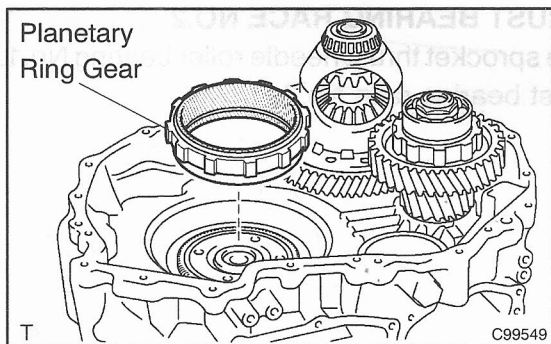


42. INSTALL INPUT SHAFT ASSY

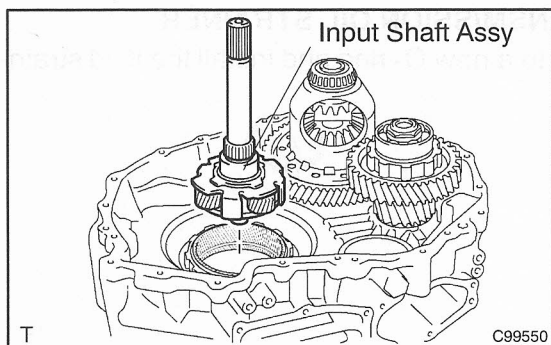
- (a) Install the shim selected.



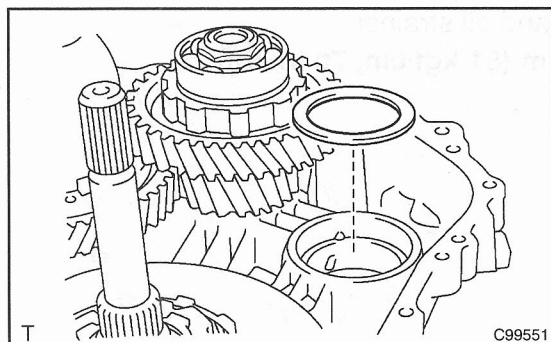
- (b) Install the planetary ring gear flange.
(c) Install the thrust bearing race No.1.
(d) Install the thrust needle roller bearing.
(1) Apply ATF WS to the sliding surfaces of the thrust needle roller flange and install.
(e) Install the thrust bearing race.



(f) Install the planetary ring gear.

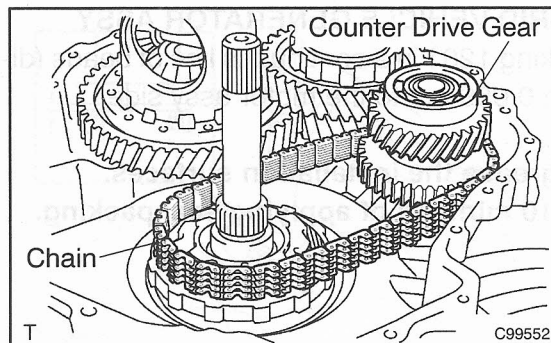


(g) Install the input shaft assy.



43. INSTALL SPROCKET DRIVEN & COUNTER DRIVE GEAR

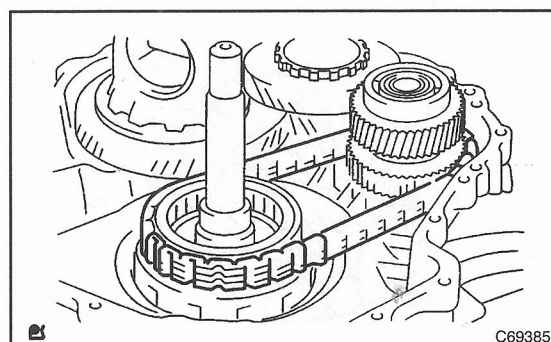
(a) Install the counter drive gear selected.



(b) Install the counter drive gear and chain.

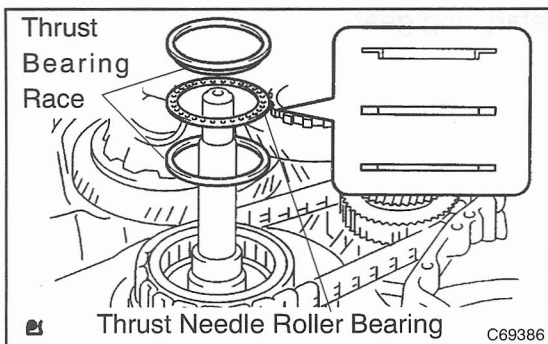
NOTICE:

- Insert the counter drive gear vertically.
- Ensure that the counter drive gear is fully inserted.

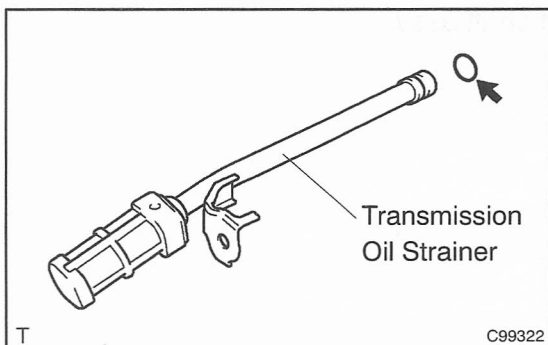


44. INSTALL TRANSMISSION DRIVE SPROCKET SUB-ASSY

- (a) Apply ATF WS auto fluid to the drive sprocket needle roller bearing and put the drive sprocket on the chain.
- (b) Align the recesses of the planetary ring gear and the drive sprocket and install the drive sprocket with chain.

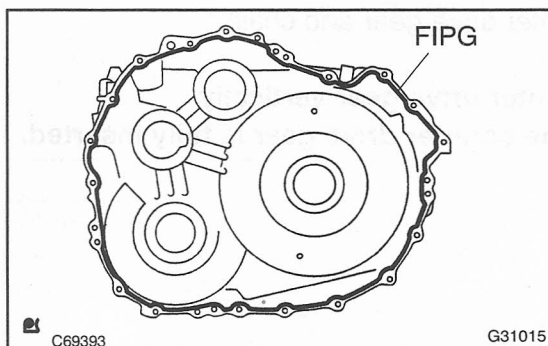
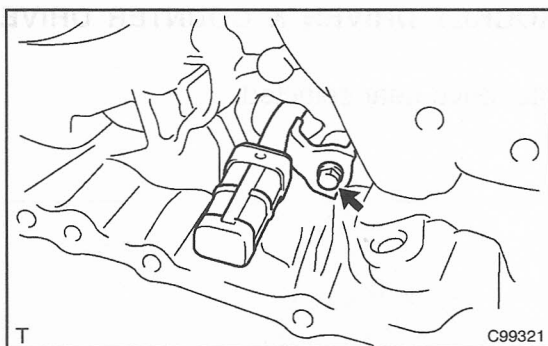
**45. INSTALL THRUST BEARING RACE NO.2**

- (a) Install the drive sprocket thrust needle roller bearing No.1.
- (b) Install the thrust bearing race No.2.

**46. INSTALL TRANSMISSION OIL STRAINER**

- (a) Apply ATF WS to a new O-ring and install the fluid strainer.

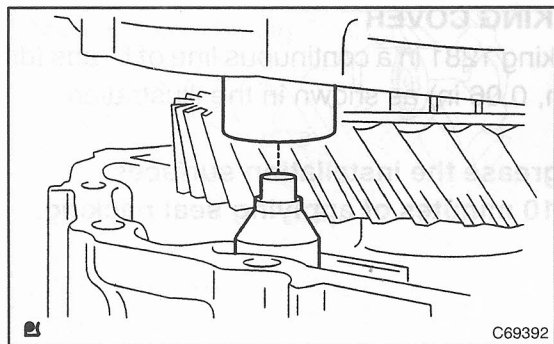
- (b) Install the bolt and oil strainer.
Torque: 7.9 N·m (81 kgf·cm, 70 in.·lbf)

**47. INSTALL HYBRID VEHICLE GENERATOR ASSY**

- (a) Apply seal packing 1281 in a continuous line of beads (diameter 1.5 mm 0.059 in.) to the motor assy side.

NOTICE:

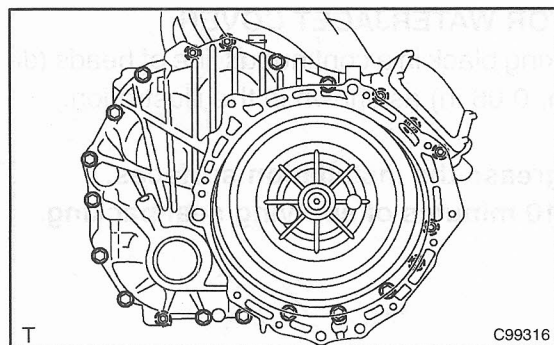
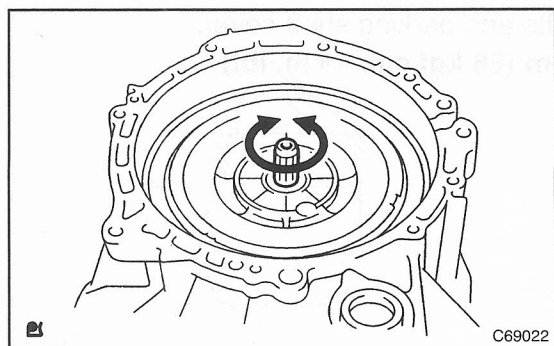
- **Clean and degrease the installation surfaces.**
- **Install within 10 minutes of applying seal packing.**



- (b) Install the parking lock rod to the generator assy so that it is inserted into the cam guide sleeve. Use an engine sling device and chain block.

NOTICE:

Rotate the input shaft in both directions so that the gears interlock if the generator assy cannot be easily installed.



- (c) Apply liquid sealant 1344 to the first 2 to 3 threads of the bolt (45 mm 1.772 in. long shaft) end.

NOTICE:

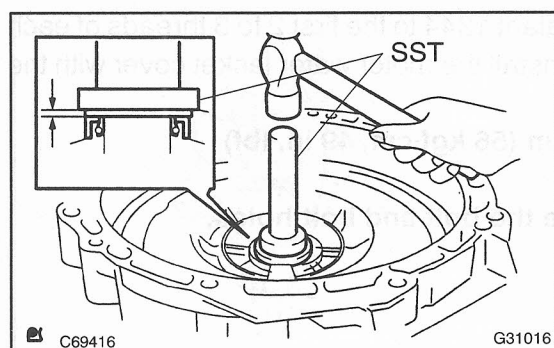
Clean and degrease the bolt and bolt holes.

- (d) Install the 21 bolts as shown in the illustration.

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

HINT:

- 13 bolts on the generator assy side
- 8 bolts on the motor assy side



48. INSTALL HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- (a) Coat the lip of the oil seal with MP grease No.2.

NOTICE:

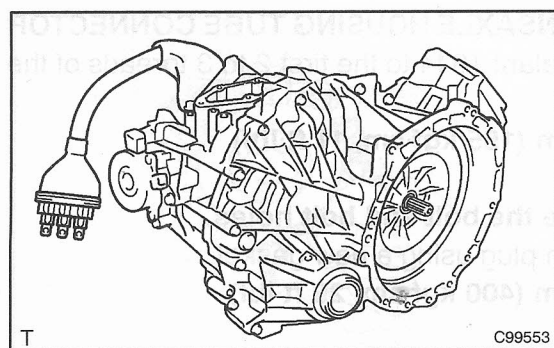
Ensure that no foreign objects adhere to the oil seal lip.

- (b) Using SST, install a new oil seal.

Oil seal depth: 1 to 1.5 mm (0.039 to 0.059 in.)

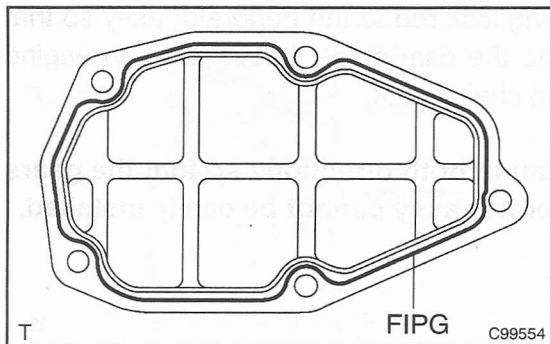
NOTICE:

Ensure that the oil seal is fitted straight.



49. FIX HYBRID VEHICLE TRANSAXLE ASSY

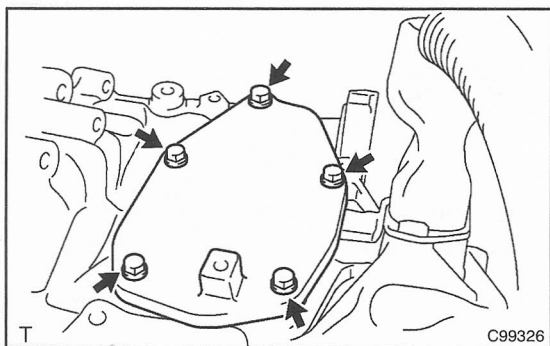
- (a) Set the hybrid transaxle as shown in the illustration.

**50. INSTALL PARKING COVER**

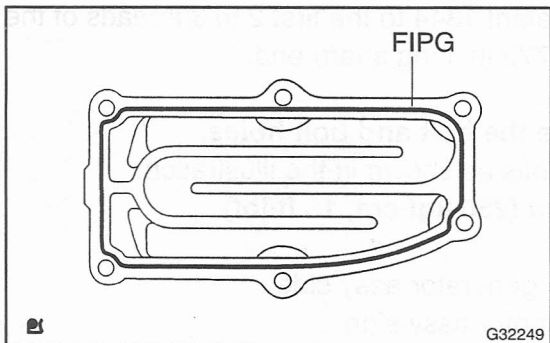
- (a) Apply seal packing 1281 in a continuous line of beads (diameter 1.5 mm, 0.06 in) as shown in the illustration.

NOTICE:

- Clean and degrease the installation surfaces.
- Install within 10 minutes of applying seal packing.



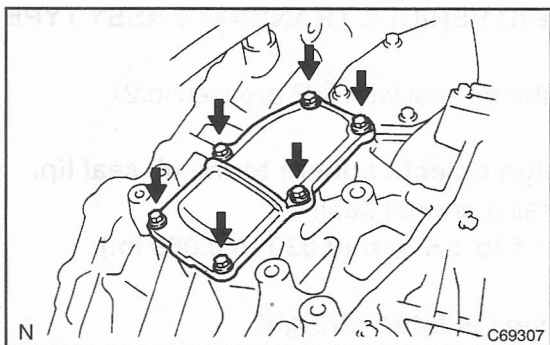
- (b) Install the 5 bolts and parking shaft cover.
Torque: 5.5 N·m (56 kgf·cm, 49 in·lbf)

**51. INSTALL MOTOR WATERJACKET COVER**

- (a) Apply seal packing black in a continuous line of beads (diameter 1.5 mm, 0.06 in) as shown in the illustration.

NOTICE:

- Clean and degrease the installation surfaces.
- Install within 10 minutes of applying seal packing.

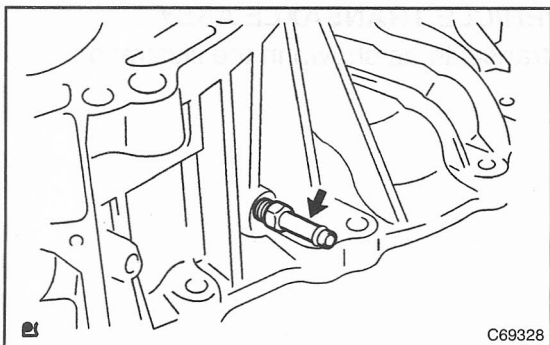


- (b) Apply liquid sealant 1344 to the first 2 to 3 threads of each of the 6 bolts. Install the motor water jacket cover with the 6 bolts.

Torque: 5.5 N·m (56 kgf·cm, 49 in·lbf)

NOTICE:

Clean and degrease the bolt and bolt holes.

**52. INSTALL TRANSAXLE HOUSING TUBE CONNECTOR**

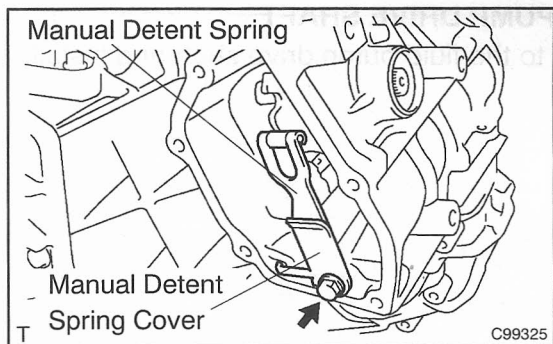
- (a) Apply liquid sealant 1344 to the first 2 to 3 threads of the bolt and install.

Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)

NOTICE:

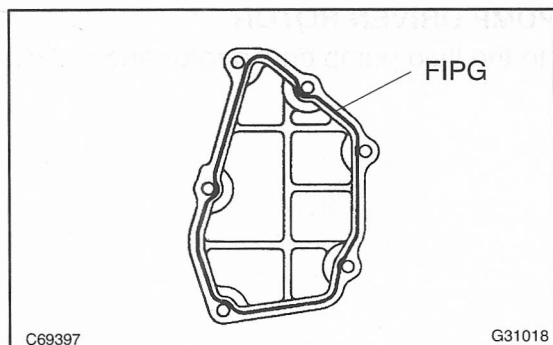
Clean and degrease the bolt and bolt holes.

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

**53. INSTALL MANUAL DETENT SPRING SUB-ASSY**

- (a) Install the manual detent spring and manual detent spring cover using the blot.

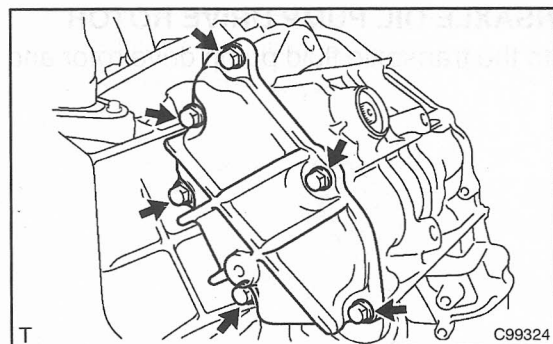
Torque: 9.8 N·m (100 kgf·cm, 86 in·lbf)

**54. INSTALL PARKING COVER**

- (a) Apply seal packing 1281 in a continuous line of beads (diameter 1.5 mm, 0.06 in) as shown in the illustration.

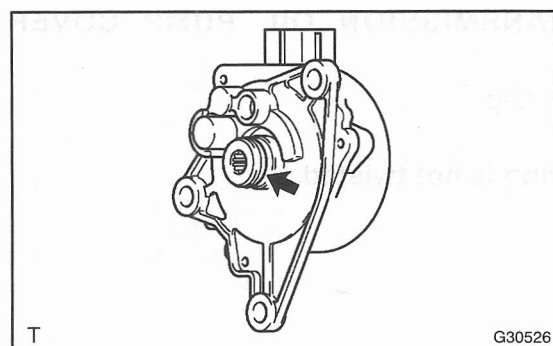
NOTICE:

- Clean and degrease the installation surfaces.
- Install within 10 minutes of applying seal packing.

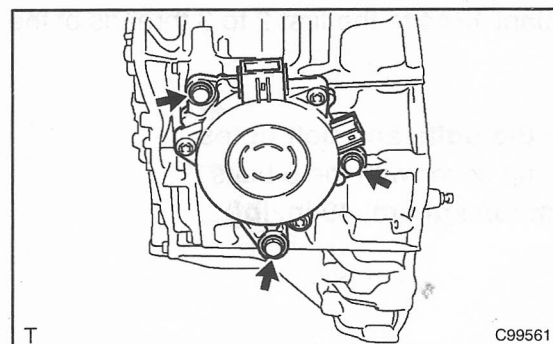


- (b) Install the parking cover with the 6 bolts.

Torque: 5.5 N·m (56 kgf·cm, 49 in·lbf)

**55. SHIFT CONTROL ACTUATOR ASSY**

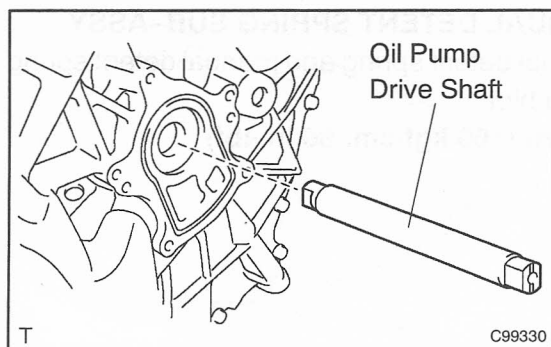
- (a) Apply a small amount of genuine ATF WS to the O-ring.



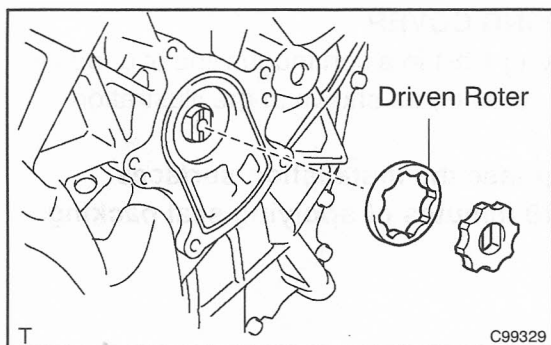
- (b) Install the shift control actuator with the 3 bolts.

Torque: 16 N·m (160 kgf·cm, 12 ft·lbf)

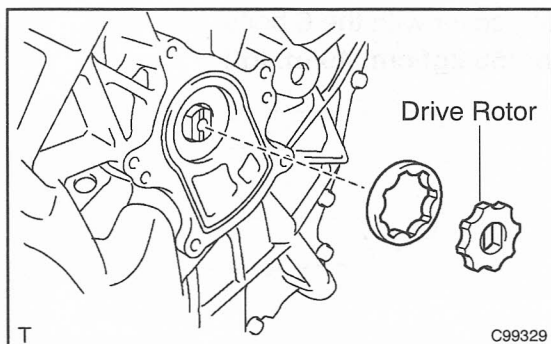
- (c) Install the transmission case cover with the 3 bolts.

**56. INSTALL OIL PUMP DRIVE SHAFT**

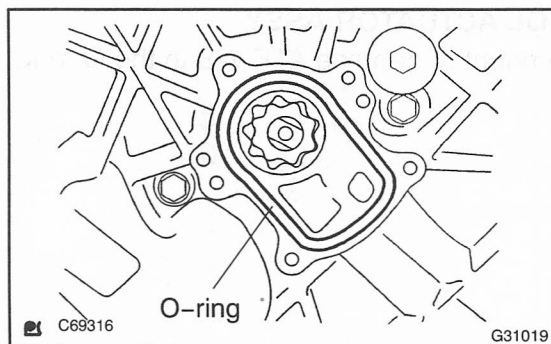
- (a) Apply ATF WS to the fluid pump drive shaft and install.

**57. INSTALL OIL PUMP DRIVEN ROTOR**

- (a) Apply ATF WS to the fluid pump driven rotor and install.

**58. INSTALL TRANSAXLE OIL PUMP DRIVE ROTOR**

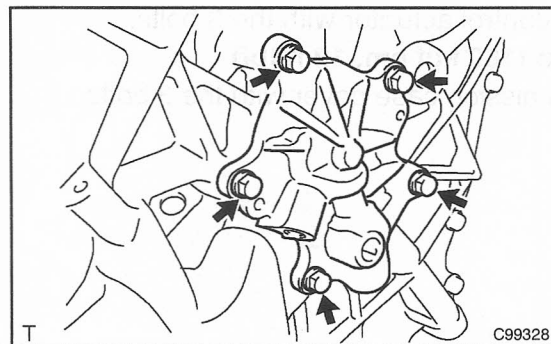
- (a) Apply ATF WS to the transaxle fluid pump drive rotor and install.

**59. INSTALL TRANSMISSION OIL PUMP COVER SUB-ASSY**

- (a) Install a new O-ring.

NOTICE:

Ensure that the O-ring is not twisted.



- (b) Apply liquid sealant 1344 to the first 2 to 3 threads of the bolt end.

NOTICE:

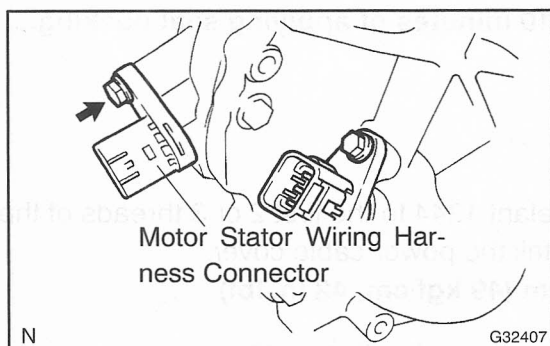
Clean and degrease the bolts and bolt holes.

- (c) Install the oil pump cover with the 5 bolts.

Torque: 5.5 N·m (56 kgf·cm, 49 in·lbf)

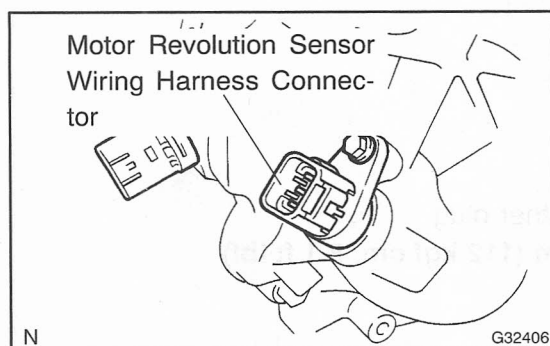


- (d) Install a new O-ring and install the fluid pump cover plug.
Torque: 7.4 N·m (75 kgf·cm, 65 in·lbf)



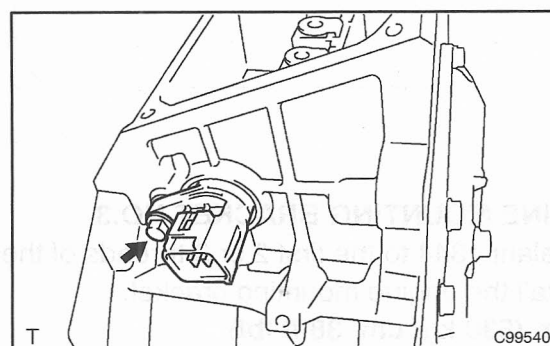
60. INSTALL MOTOR STATOR WIRING HARNESS CONNECTOR

- (a) Apply ATF WS to the O-ring and install the motor stator wiring harness connectors (black) with the bolt.
Torque: 5.8 N·m (59 kgf·cm, 51 in·lbf)



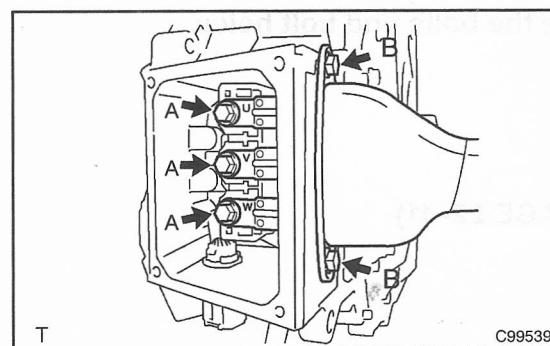
61. INSTALL MOTOR REVOLUTION SENSOR WIRING HARNESS CONNECTOR

- (a) Apply ATF WS to the O-ring and install the HV motor side motor revolution sensor wiring harness connectors (gray) with the bolt.
Torque: 5.8 N·m (59 kgf·cm, 51 in·lbf)



62. INSTALL GENERATOR MOTOR REVOLUTION SENSOR WIRING HARNESS CONNECTOR

- (a) Apply ATF WS to the O-ring and install the HV generator side generator motor revolution sensor wiring harness connector with the bolt.
Torque: 5.8 N·m (59 kgf·cm, 51 in·lbf)



63. INSTALL GENERATOR CABLE

- (a) Align the generator cables as shown in the illustration and connect.

NOTICE:

- Connect by aligning the letters U, V and W.
 - Apply a small amount of ATF WS to the O-ring.
- (b) Apply liquid sealant to the first 2 or 3 threads of bolts B and install the generator cable with the bolts.
Torque: 5.8 N·m (59 kgf·cm, 51 in·lbf) (bolt B)