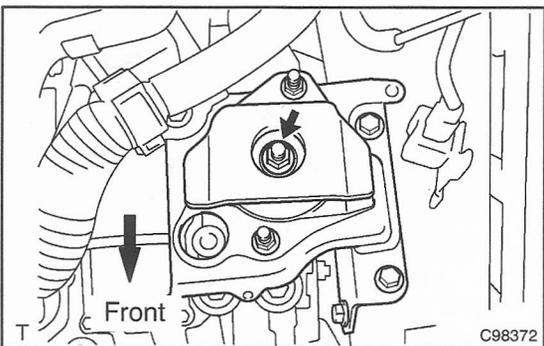


- (b) Install the housing side cover and starter cover with the 2 bolts.

**Torque: 32 N·m (326 kgf·cm, 23 ft·lbf)**



**29. CONNECT ENGINE MOUNTING BRACKET NO.3**

- (a) Connect the engine mounting bracket No.3 to the engine mounting insulator using a nut.

**Torque: 80 N·m (816 kgf·cm, 59 ft·lbf)**

**30. REMOVE ENGINE HANGER NO.1**

- (a) Remove the bolt and engine hanger.

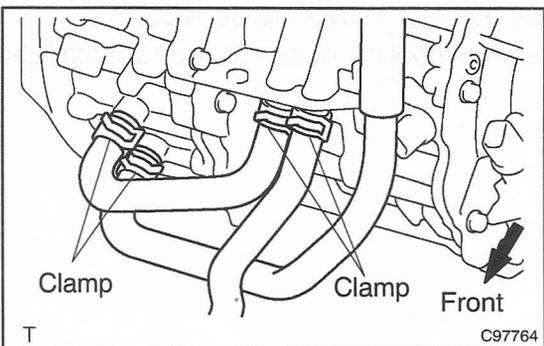
**31. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSY (SEE PAGE 14-32)**

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**32. CONNECT EXHAUST PIPE ASSY (SEE PAGE 15-2)**

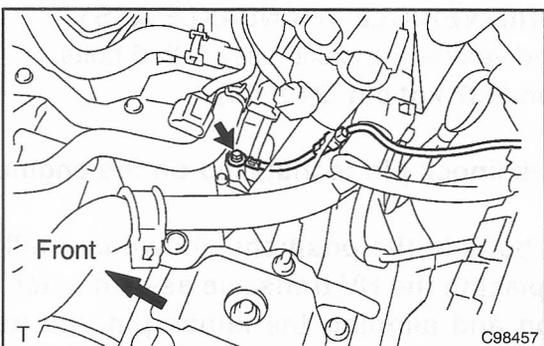
**33. INSTALL FRONT DRIVE SHAFT ASSY LH (SEE PAGE 30-7)**

**34. INSTALL FRONT DRIVE SHAFT ASSY RH (SEE PAGE 30-7)**



**35. CONNECT INVERTER COOLING HOSE NO.4**

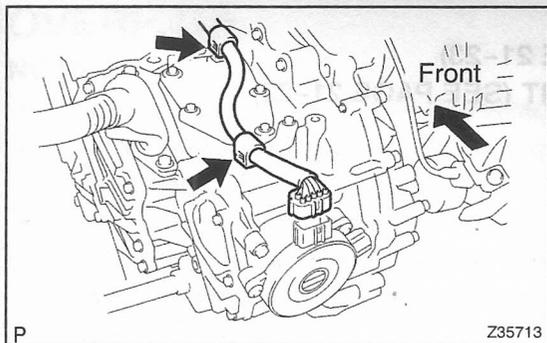
- (a) Connect the 3 hoses with the 4 clamps.



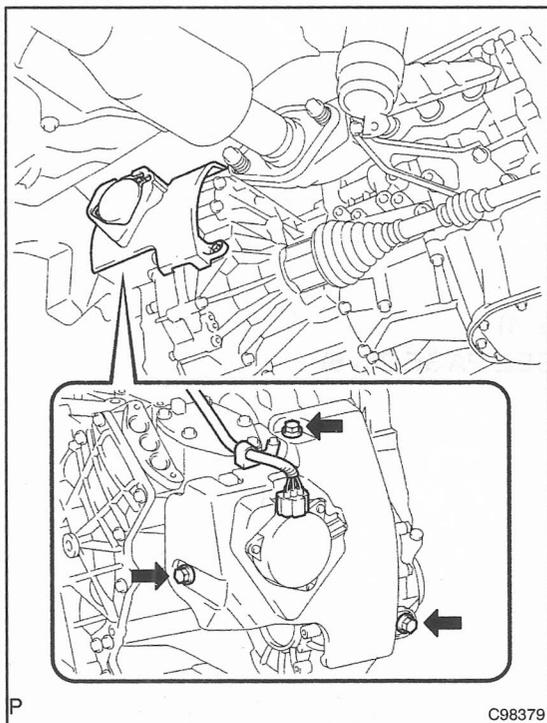
**36. CONNECT CONNECTOR**

- (a) Connect the earth wire using a bolt.

**Torque: 9.0 N·m (92 kgf·cm, 80 in·lbf)**



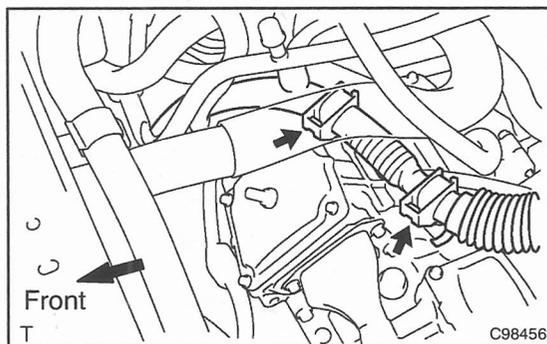
(b) Connect the 2 clamps.



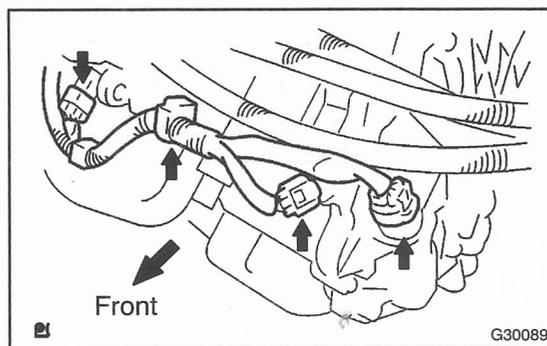
(c) Install the transmission case cover to the hybrid vehicle transaxle using the 3 bolts.

**Torque: 7.0 N·m (71 kgf·cm, 62 in·lbf)**

(d) Connect the connector.



(e) Connect the clamps in the 2 locations shown in the illustration.



(f) Connect the clamp and the 3 connectors shown in the illustration.

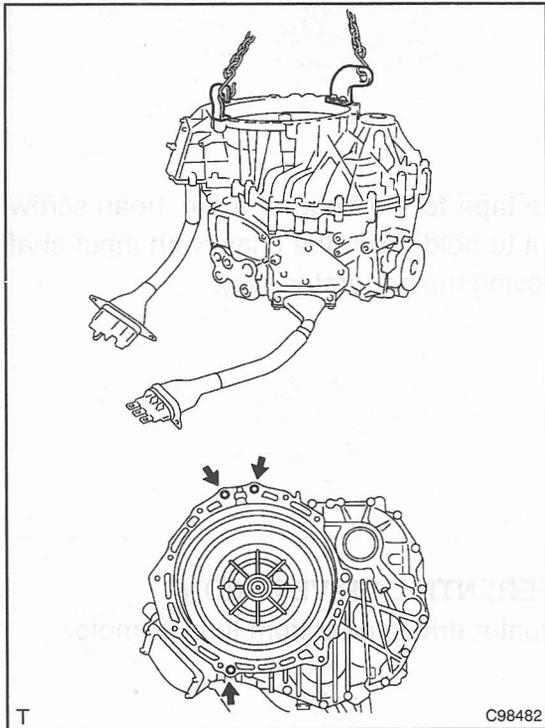
37. **INSTALL AIR CLEANER ASSY (SEE PAGE 14-32)**
38. **INSTALL W/CONVERTER INVERTER ASSY (SEE PAGE 21-23)**
39. **INSTALL COWL TOP PANEL SUB-ASSY OUTER FRONT (SEE PAGE 21-23)**
40. **INSTALL FR WIPER ARM LH (SEE PAGE 66-14)**
41. **INSTALL FR WIPER ARM RH (SEE PAGE 66-14)**
42. **INSTALL HOOD SUB-ASSY (SEE PAGE 75-4)**
43. **INSPECT HOOD SUB-ASSY (SEE PAGE 75-2)**
44. **ADJUST HOOD SUB-ASSY (SEE PAGE 75-2)**
45. **INSTALL ENGINE UNDER COVER RH**
46. **INSTALL ENGINE UNDER COVER LH**
47. **INSTALL FRONT WHEELS**
48. **INSTALL SERVICE PLUG GRIP (SEE PAGE 01-5)**
49. **CONNECT BATTERY NEGATIVE TERMINAL**
50. **ADD TRANSAXLE OIL**  
Fluid type: AUTO FLUID WS  
Capacity: 3.8 liters (4.0 US qts, 3.3 Imp. qts)
51. **INSPECT TRANSAXLE OIL (SEE PAGE 22-1)**
52. **ADD COOLANT (SEE PAGE 22-4)**
53. **CHECK FOR ENGINE COOLANT LEAKS (SEE PAGE 16-4)**
54. **INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (SEE PAGE 26-6)**
55. **DELETE TORQUE ZERO POINT (SEE PAGE 05-1210)**
56. **PERFORM INITIALIZATION (SEE PAGE 01-28)**

# OVERHAUL

## NOTICE:

- When working on the high voltage systems, always wear insulated gloves.
- After removing the service plug grip, do not operate the power switch as it may damage the hybrid vehicle control ECU.
- Keep the removed service plug in your pocket to prevent other technicians from reconnecting it while you are servicing the vehicle.
- After removing the service plug grip, do not touch the high voltage connectors and terminals for 5 minutes.

### 1. REMOVE HYBRID VEHICLE TRANSAXLE ASSY (SEE PAGE 22-11)



### 2. REMOVE HYBRID VEHICLE GENERATOR ASSY

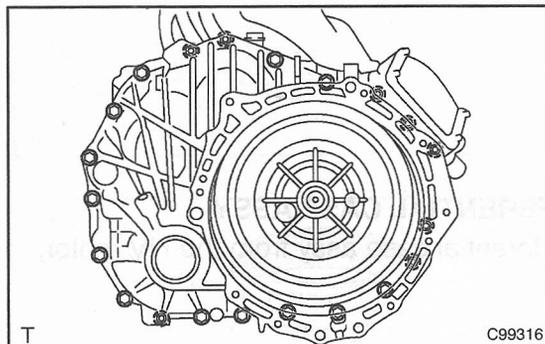
- (a) Install the engine hanger in the position shown in the illustration.

#### HINT:

- Engine hanger 12281-67070, S1228-11781
  - Bolt 91642-81045, 91642-81265
  - Nut 90178-10001, 90179-12147
- (b) Using an engine sling device and chain block, set the transaxle assy with the generator side facing upward.

#### NOTICE:

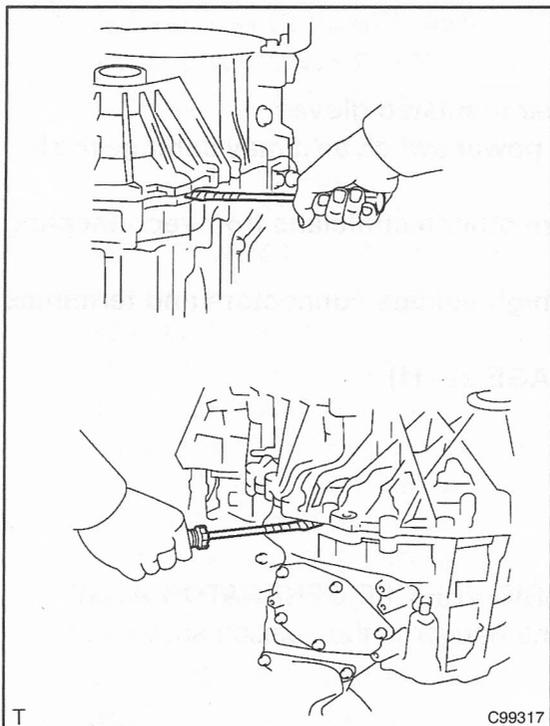
- Fix the transaxle assy on a wooden block, etc.
  - Fix the transaxle assy so that no excessive force is applied to the cable.
- (c) Remove the drain plug.



- (d) Remove the 21 bolts shown in the illustration.

#### HINT:

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



- (e) Separate the motor assy and generator assy by inserting a flat-head screwdriver in the position shown and prying the two apart.

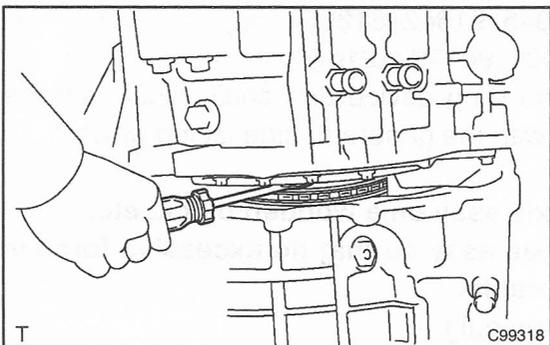
**NOTICE:**

**Be careful not to damage the two faces of each part.**

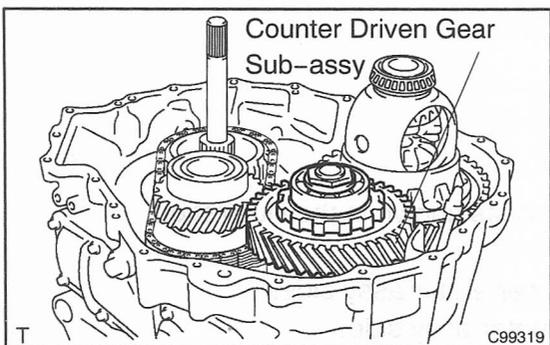
- (f) Using an engine sliding device and a chain block, raise the generator assy.

**HINT:**

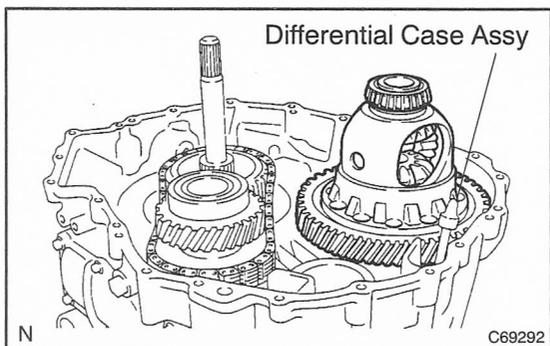
Raise the generator assy approximately 3 to 4 cm.



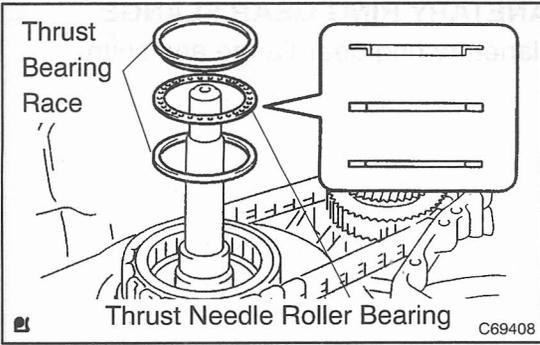
- (g) Apply protective tape to the head of a flat-head screwdriver and use it to hold down the chain with input shaft assy while removing the generator assy.

**3. REMOVE DIFFERENTIAL DRIVE PINION**

- (a) Remove the counter driven gear from the HV motor.

**4. REMOVE DIFFERENTIAL CASE ASSY**

- (a) Remove the differential case assy from the HV motor.

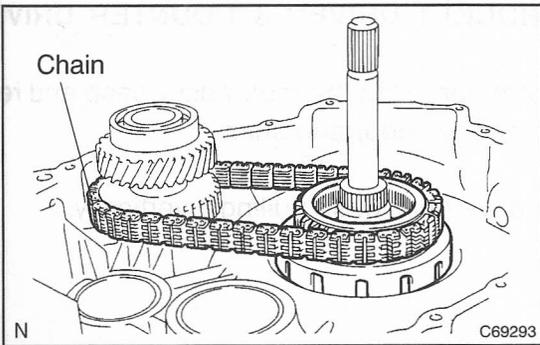


**5. REMOVE TRANSMISSION DRIVE SPROCKET SUB-ASSY**

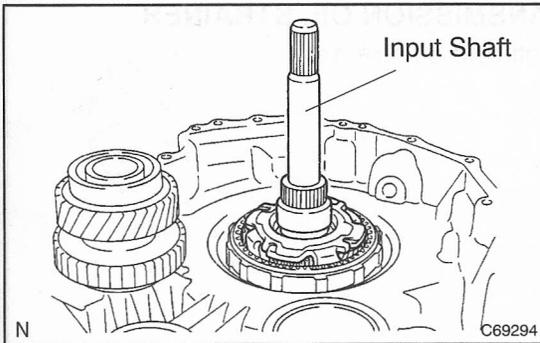
- (a) Remove the thrust bearing race, thrust needle roller bearing and thrust bearing race No.1.

HINT:

The thrust bearing race may be attached to the generator assy side.

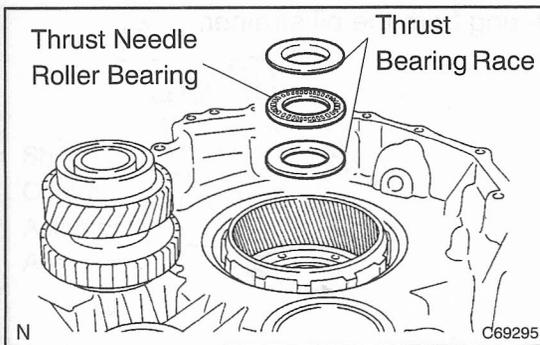


- (b) Remove the drive sprocket and chain.



**6. REMOVE INPUT SHAFT ASSY**

- (a) Remove the input shaft assy.

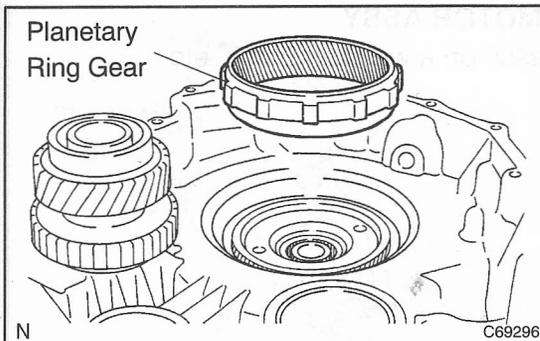


**7. REMOVE PLANETARY RING GEAR**

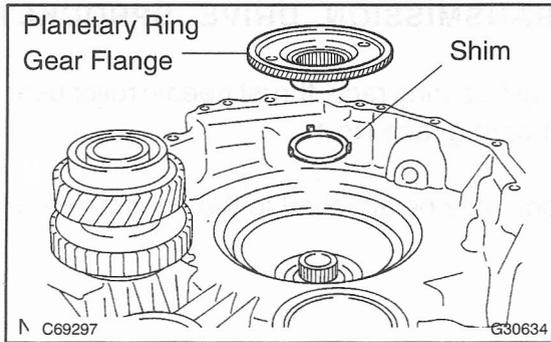
- (a) Remove the thrust bearing race, thrust needle roller bearing and thrust bearing race No.1.

HINT:

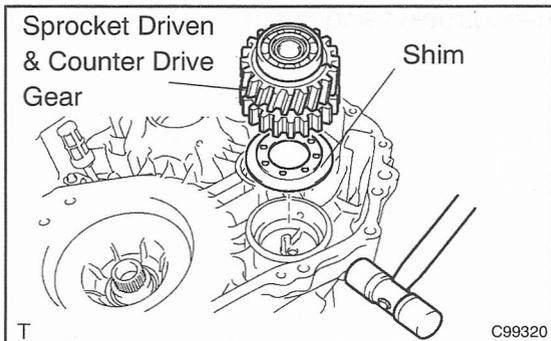
The thrust bearing race may be attached to the input shaft side.



- (b) Remove the planetary ring rear.



- 8. REMOVE PLANETARY RING GEAR FLANGE**  
 (a) Remove the planetary ring gear flange and shim.

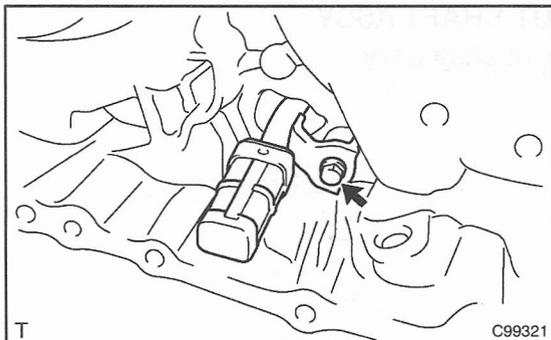


- 9. REMOVE SPROCKET DRIVEN & COUNTER DRIVE GEAR**

- (a) Use a plastic hammer to tap the motor assy case and remove the counter drive gear and shim.

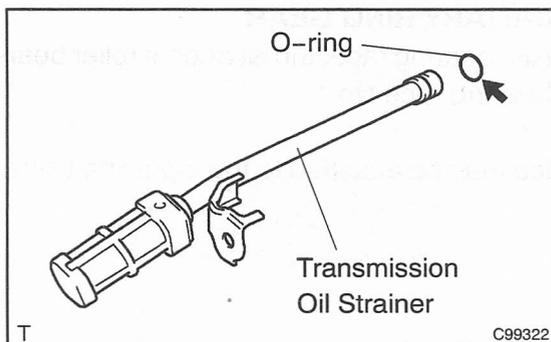
**HINT:**

Remove the counter drive gear while pulling it vertically.

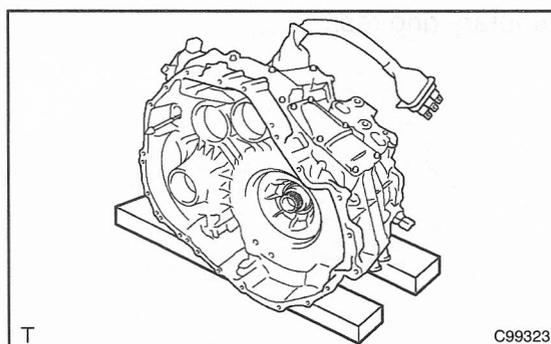


- 10. REMOVE TRANSMISSION OIL STRAINER**

- (a) Remove the bolt and oil strainer.

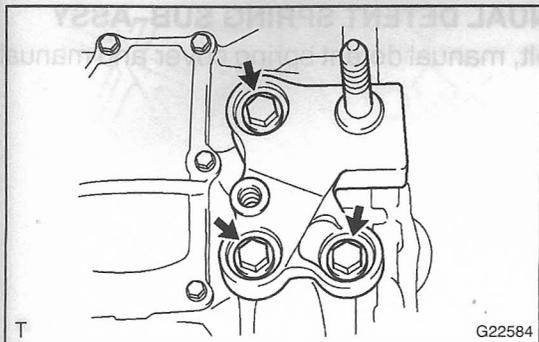


- (b) Remove the O-ring from the oil strainer.



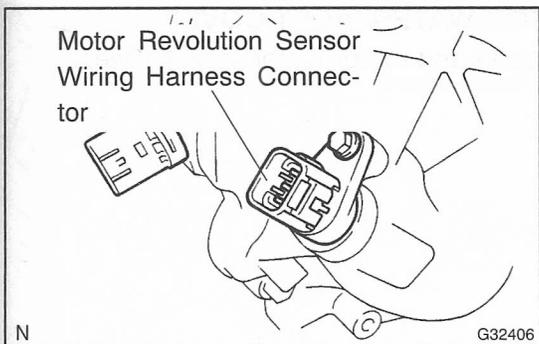
- 11. REMOVE HV MOTOR ASSY**

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



**12. REMOVE ENGINE MOUNTING BRACKET NO.3**

- (a) Remove the 3 bolts and mounting bracket.



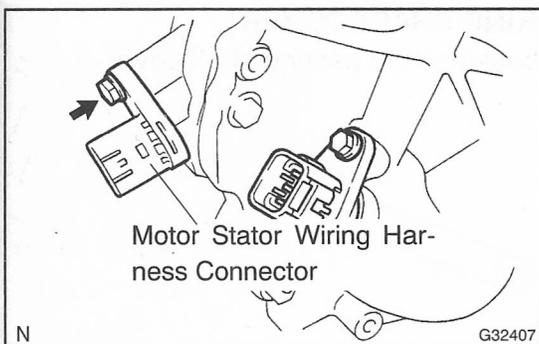
**13. REMOVE MOTOR REVOLUTION SENSOR WIRING HARNESS CONNECTOR**

- (a) Remove the bolt and pull out the HV motor side motor revolution sensor wire harness connector (gray).

**NOTICE:**

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

- (b) Remove the connector and motor revolution sensor wire harness connector (gray).



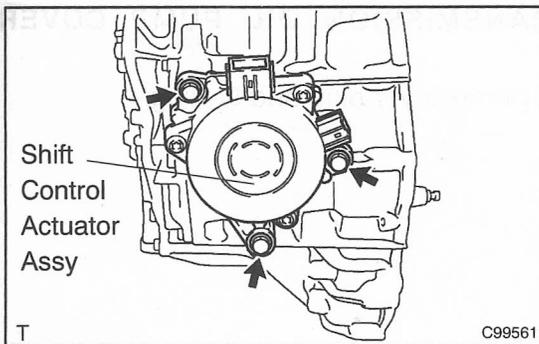
**14. REMOVE MOTOR STATOR WIRING HARNESS CONNECTOR**

- (a) Remove the bolt and pull out the motor stator wire harness connector (black).

**NOTICE:**

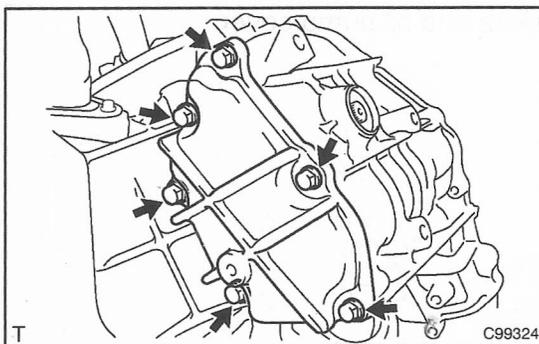
**Do not pull on the sensor connector any more than necessary.**

- (b) Remove the connector and the motor stator wire harness connector (black).



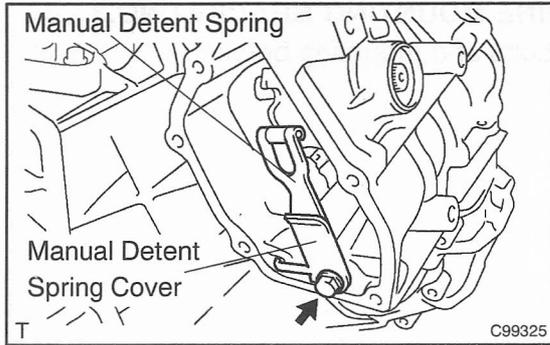
**15. REMOVE SHIFT CONTROL ACTUATOR ASSY**

- (a) Remove the 3 bolts and shift control actuator assy.

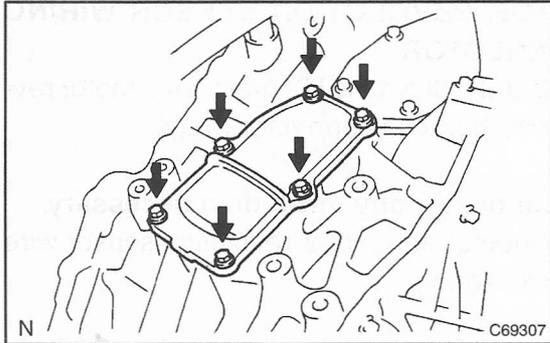


**16. REMOVE PARKING COVER**

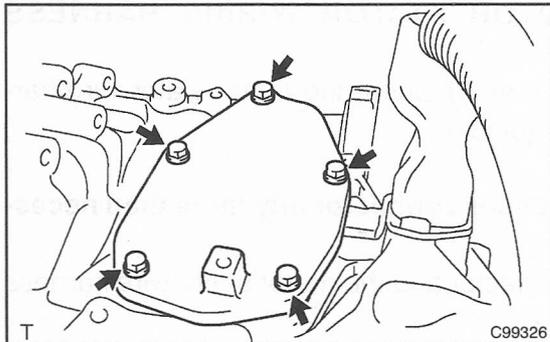
- (a) Remove the 6 bolts and the parking cover.



- 17. REMOVE MANUAL DETENT SPRING SUB-ASSY**
- (a) Remove the bolt, manual detent spring cover and manual detent spring.



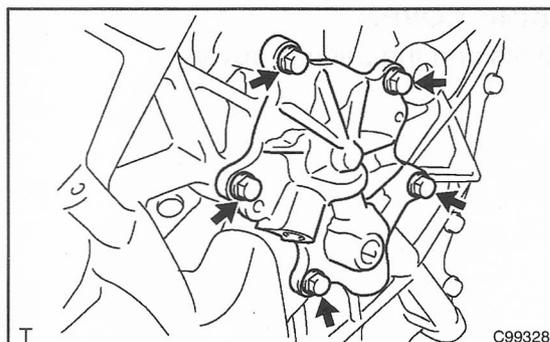
- 18. REMOVE MOTOR WATERJACET COVER**
- (a) Remove the 6 bolts and motor water jacket cover.



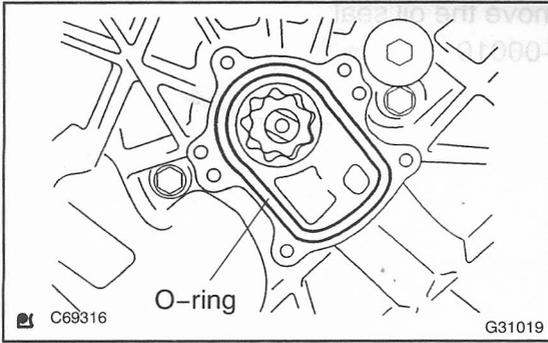
- 19. REMOVE PARKING SHAFT COVER**
- (a) Remove the 5 bolts and the parking shaft cover.



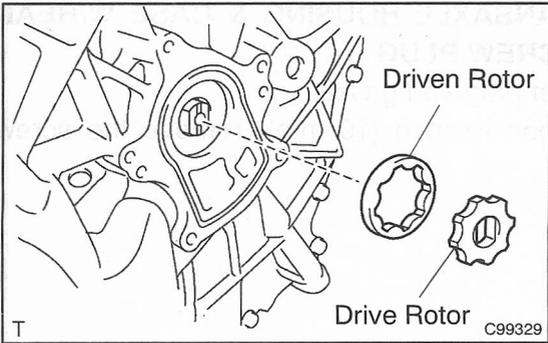
- 20. REMOVE TRANSMISSION OIL PUMP COVER SUB-ASSY**
- (a) Remove the oil pump cover plug and O-ring.



- (b) Remove the 5 bolts and oil pump cover.

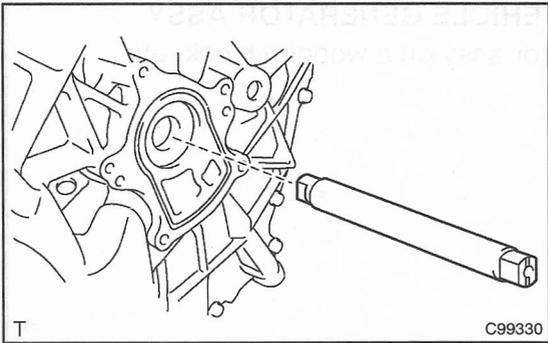


(c) Remove the O-ring.

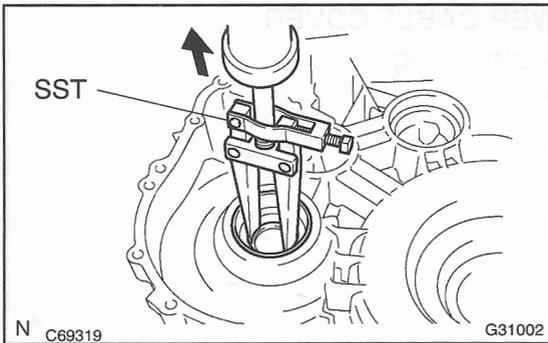


**21. REMOVE OIL PUMP DRIVE SHAFT**

(a) Remove the oil pump drive rotor and oil pump driven rotor.



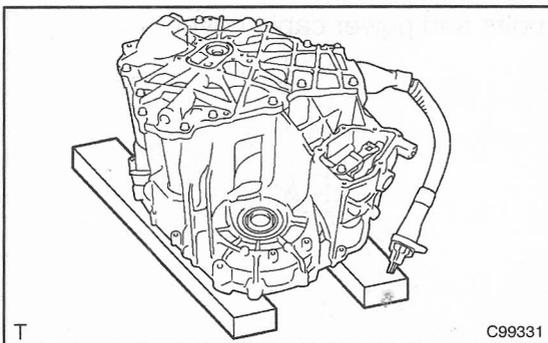
(b) Remove the oil pump drive shaft.



**22. REMOVE DIFFERENTIAL CASE LH TAPERED ROLLER BEARING**

(a) Using SST, remove the differential case tapered roller bearing LH outer race and shim.

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**23. REMOVE 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.**