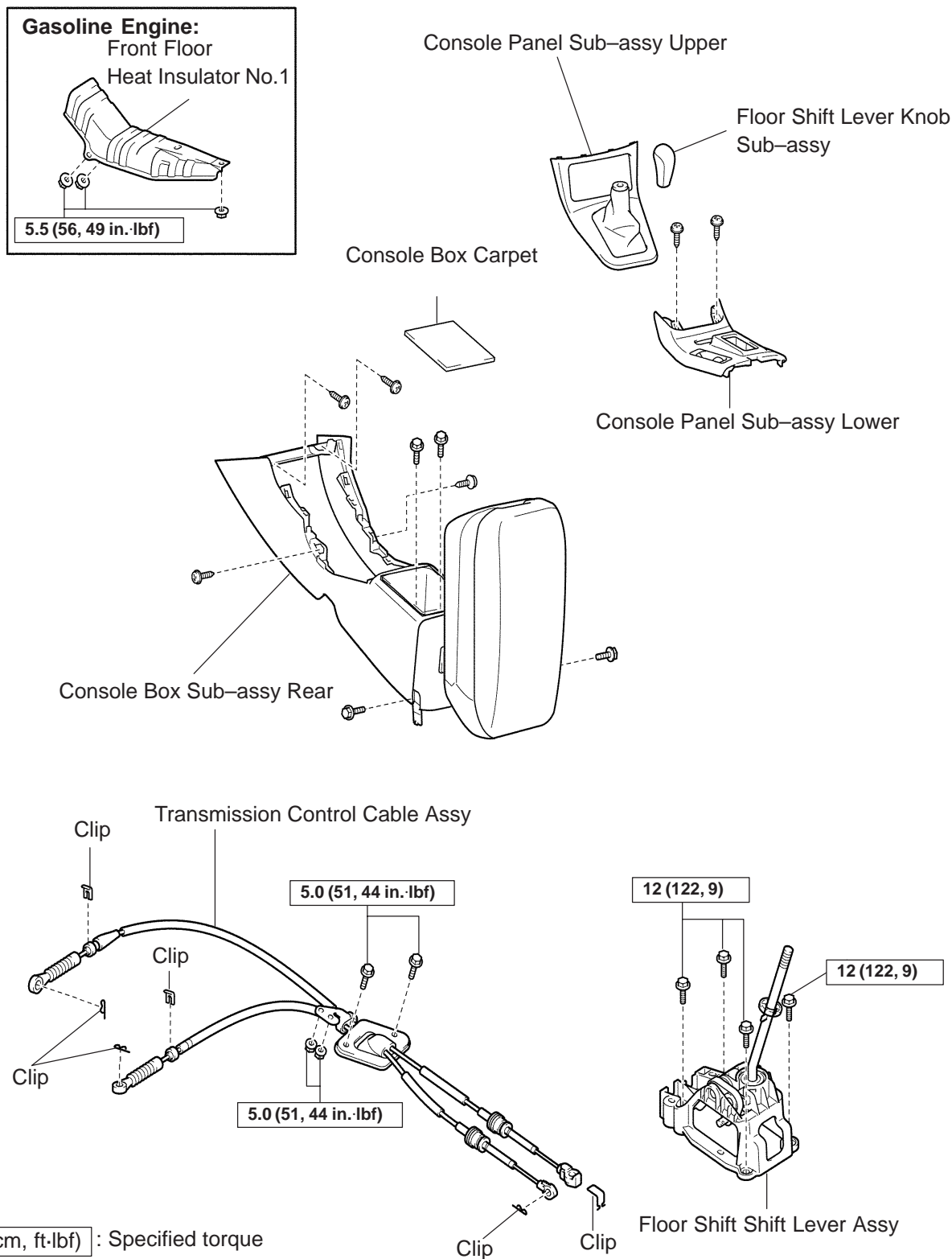


# FLOOR SHIFT SHIFT LEVER ASSY (MTM)

## COMPONENTS

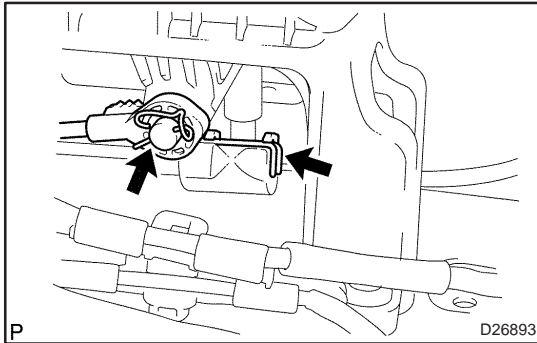
4105U-03



D30489

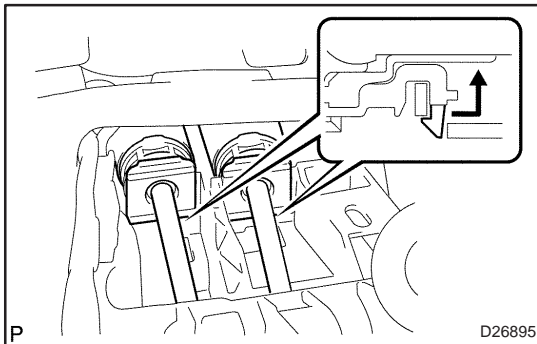
## REPLACEMENT

1. REMOVE FLOOR SHIFT SHIFT LEVER KNOB SUB-ASSY (See page 71-11)
2. REMOVE CONSOLE PANEL UPPER (See page 71-11)
3. REMOVE CONSOLE PANEL SUB-ASSY LOWER (See page 71-11)
4. REMOVE CONSOLE BOX ASSY REAR (See page 71-11)

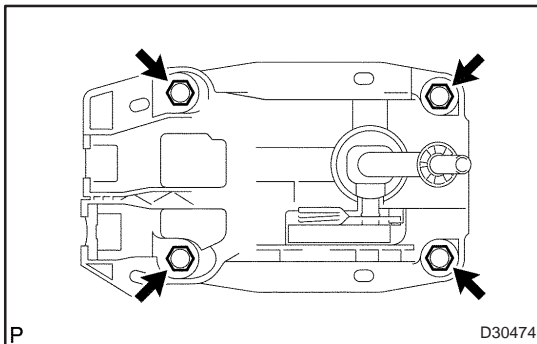


### 5. SEPARATE TRANSMISSION CONTROL CABLE ASSY

- (a) Remove the 2 clips, separate the cable ends of the control cable assy.

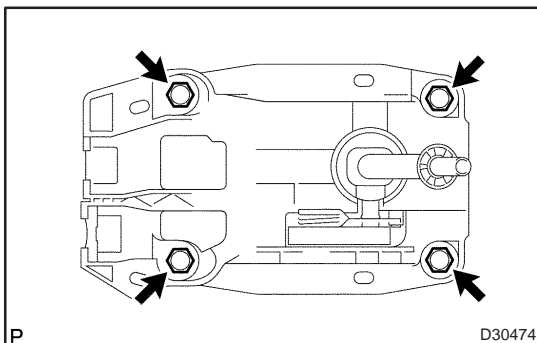


- (b) Release the claws, separate the control cable assy.



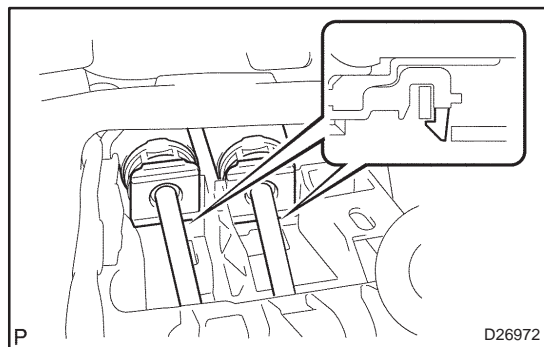
### 6. REMOVE FLOOR SHIFT SHIFT LEVER ASSY

- (a) Remove the 4 bolts and shift lever assy.



### 7. INSTALL FLOOR SHIFT SHIFT LEVER ASSY

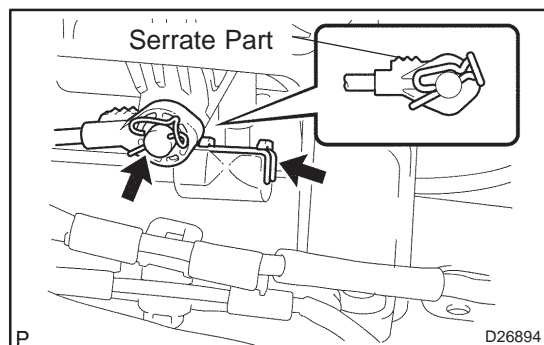
- (a) Install the shift lever assy with the 4 bolts.  
Torque: 12 N·m (122 kgf·cm, 9 ft·lbf)

**8. CONNECT TRANSMISSION CONTROL CABLE ASSY**

- (a) Connect the control cable assy to the shift lever assy.

**NOTICE:**

**Make sure that the claws are firmly engaged.**



- (b) Connect the end of the select cable to the shift lever assy, install the clip.

**NOTICE:**

- The serrate part of the select cable point should face upward when the select cable point is connected.
- The clip should be inserted to the direction as shown in the illustration.

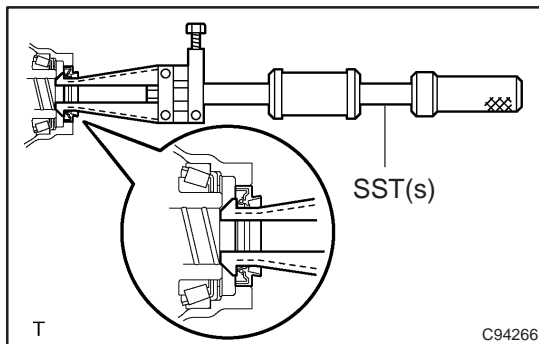
- (c) Connect the end of the shift cable to the shift lever assy.

# FRONT DIFFERENTIAL OIL SEAL (C50/C250)

## REPLACEMENT

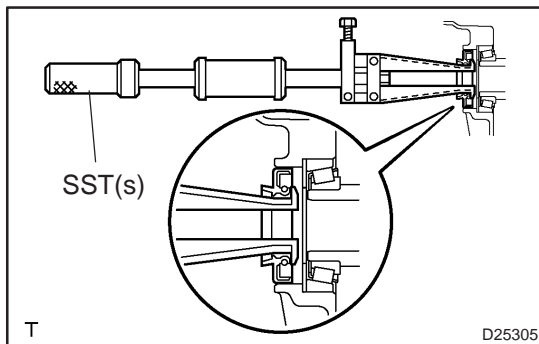
41046-11

1. DRAIN MANUAL TRANSAXLE OIL  
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
2. REMOVE FRONT WHEELS
3. REMOVE ENGINE UNDER COVER LH
4. REMOVE ENGINE UNDER COVER RH
5. REMOVE FRONT DRIVE SHAFT ASSY LH (See page 30-6)  
SST 09520-01010, 09520-24010 (09520-32040)
6. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30-6)  
SST 09520-01010, 09520-24010 (09520-32040)



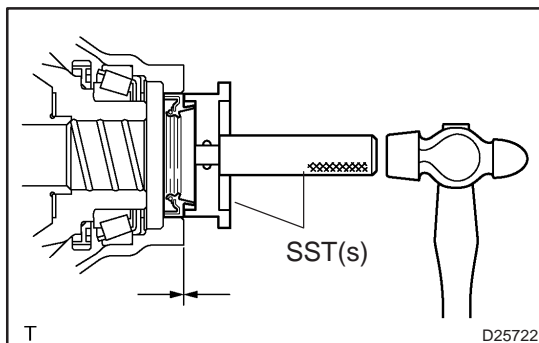
### 7. REMOVE TRANSAXLE CASE OIL SEAL

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



### 8. REMOVE TRANSMISSION CASE OIL SEAL

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

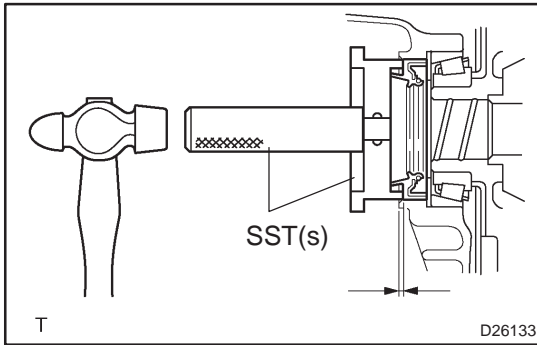


### 9. INSTALL TRANSAXLE CASE OIL SEAL

- (a) Coat a new oil seal lip with MP grease.
- (b) Using SST(s) and a hammer, install the oil seal.  
SST 09554-14010, 09950-70010 (09951-07200)  
Drive in depth: 1.9 ± 0.3 mm (0.075 ± 0.012 in.)

#### NOTICE:

Be careful not to damage the oil seal lip.

**10. INSTALL TRANSMISSION CASE OIL SEAL**

- (a) Coat a new oil seal lip with MP grease.
- (b) Using SST(s) and a hammer, install the oil seal.  
SST 09554-14010, 09950-70010 (09951-07200)

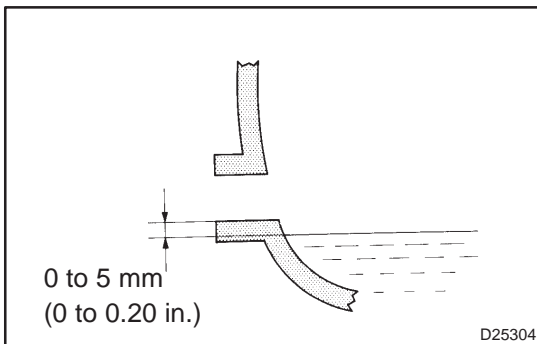
**Drive in depth:  $9.9 \pm 0.3$  mm ( $0.390 \pm 0.012$  in.)**

**NOTICE:**

**Be careful not to damage the oil seal lip.**

**11. INSTALL FRONT DRIVE SHAFT ASSY LH (See page 30-6)****12. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-6)****13. INSTALL FRONT WHEELS**

**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

**14. ADD MANUAL TRANSAXLE OIL**

**Oil grade: API GL-4 or GL-5**

**Viscosity: SAE 75 W-90**

**Capacity: 1.9 liters (2.0 US qts, 1.7 Imp. qts)**

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

**15. INSPECT MANUAL TRANSAXLE OIL (See page 41-2)****16. INSPECT FRONT WHEEL ALIGNMENT (See page 26-6)****17. CHECK ABS SPEED SENSOR SIGNAL**

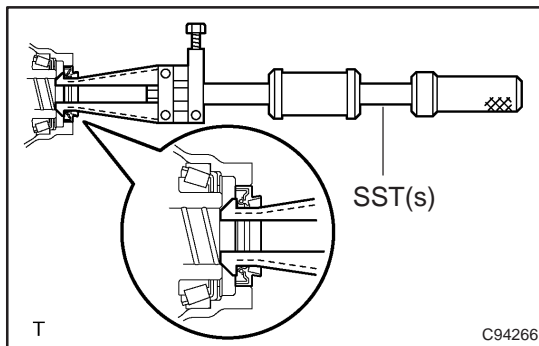
- (a) w/ VSC (See page 05-756)
- (b) w/o VSC (See page 05-699)

# FRONT DIFFERENTIAL OIL SEAL (E354/E357)

## REPLACEMENT

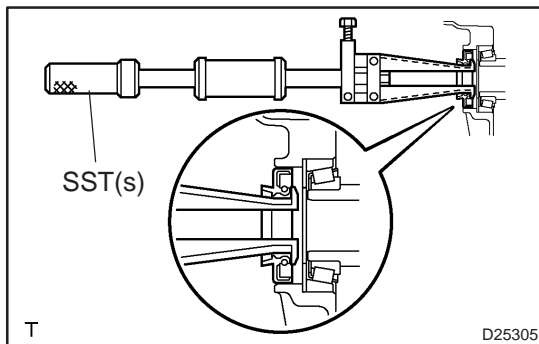
41046-12

1. DRAIN MANUAL TRANSAXLE OIL  
Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)
2. REMOVE FRONT WHEELS
3. REMOVE ENGINE UNDER COVER LH
4. REMOVE ENGINE UNDER COVER RH
5. REMOVE FRONT DRIVE SHAFT ASSY LH (See page 30-6)  
SST 09520-01010, 09520-24010 (09520-32040)
6. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30-6)  
SST 09520-01010, 09520-24010 (09520-32040)



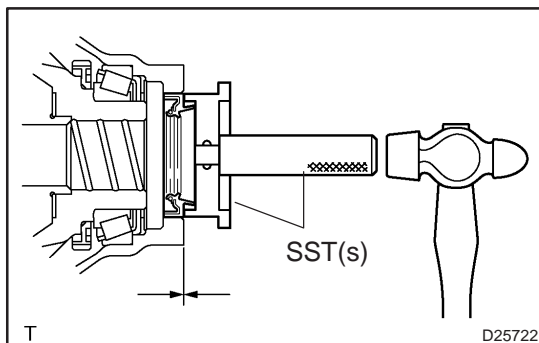
### 7. REMOVE FRONT TRANSAXLE CASE COVER OIL SEAL

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



### 8. REMOVE TRANSMISSION CASE OIL SEAL

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

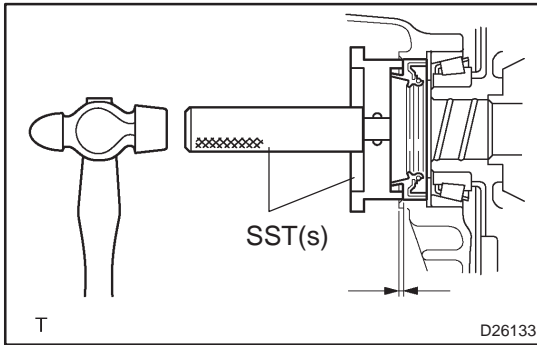


### 9. INSTALL FRONT TRANSAXLE CASE COVER OIL SEAL

- (a) Coat a new oil seal lip with MP grease.
- (b) Using SST(s) and a hammer, install the oil seal.  
SST 09608-10010, 09950-70010 (09951-07200)  
Drive in depth:  $0 \pm 0.5$  mm ( $0 \pm 0.020$  in.)

#### NOTICE:

Be careful not to damage the oil seal lip.

**10. INSTALL TRANSMISSION CASE OIL SEAL**

- (a) Coat a new oil seal lip with MP grease.
- (b) Using SST(s) and a hammer, install the oil seal.  
SST 09608-32010, 09950-70010 (09951-07200)

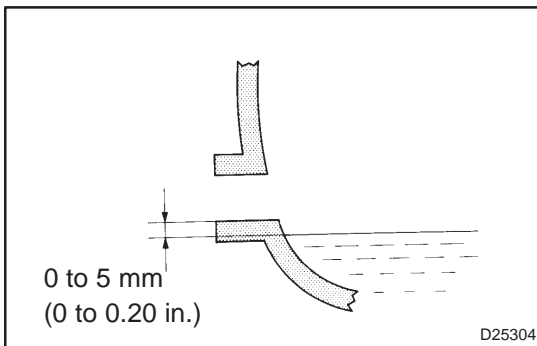
**Drive in depth: 3.5 ± 0.5 mm (0.138 ± 0.020 in.)**

**NOTICE:**

**Be careful not to damage the oil seal lip.**

**11. INSTALL FRONT DRIVE SHAFT ASSY LH (See page 30-6)****12. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-6)****13. INSTALL FRONT WHEELS**

**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

**14. ADD MANUAL TRANSAXLE OIL**

**Oil grade: API GL-4 or GL-5**

**Viscosity: SAE 75 W-90**

**Capacity: 2.5 liters (2.6 US qts, 2.2 Imp. qts)**

**Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)**

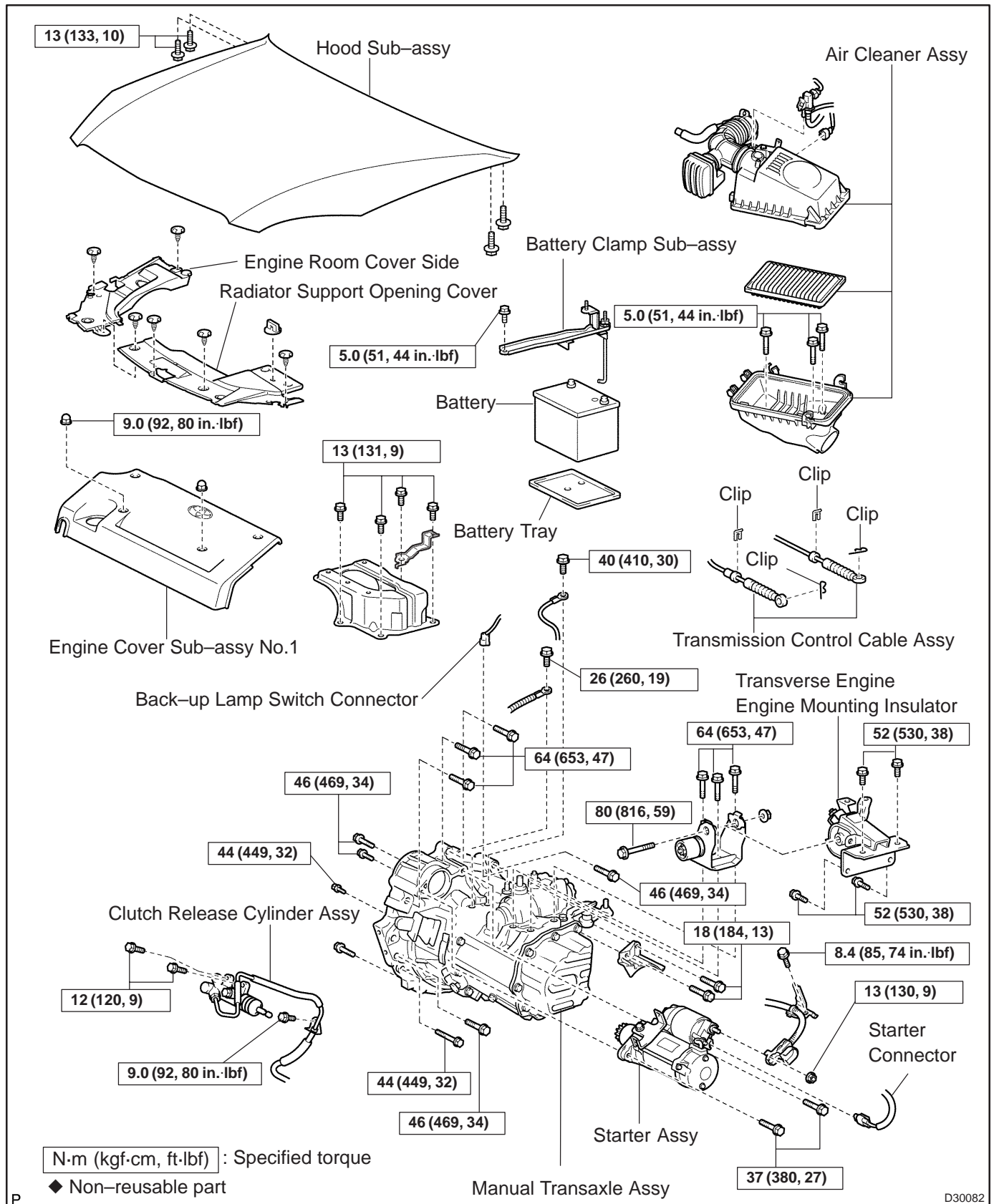
**15. INSPECT MANUAL TRANSAXLE OIL (See page 41-2)****16. INSPECT FRONT WHEEL ALIGNMENT (See page 26-6)****17. CHECK ABS SPEED SENSOR SIGNAL**

- (a) w/ VSC (See page 05-756)
- (b) w/o VSC (See page 05-699)

# MANUAL TRANSAXLE ASSY (1AZ-FE/1AZ-FSE)

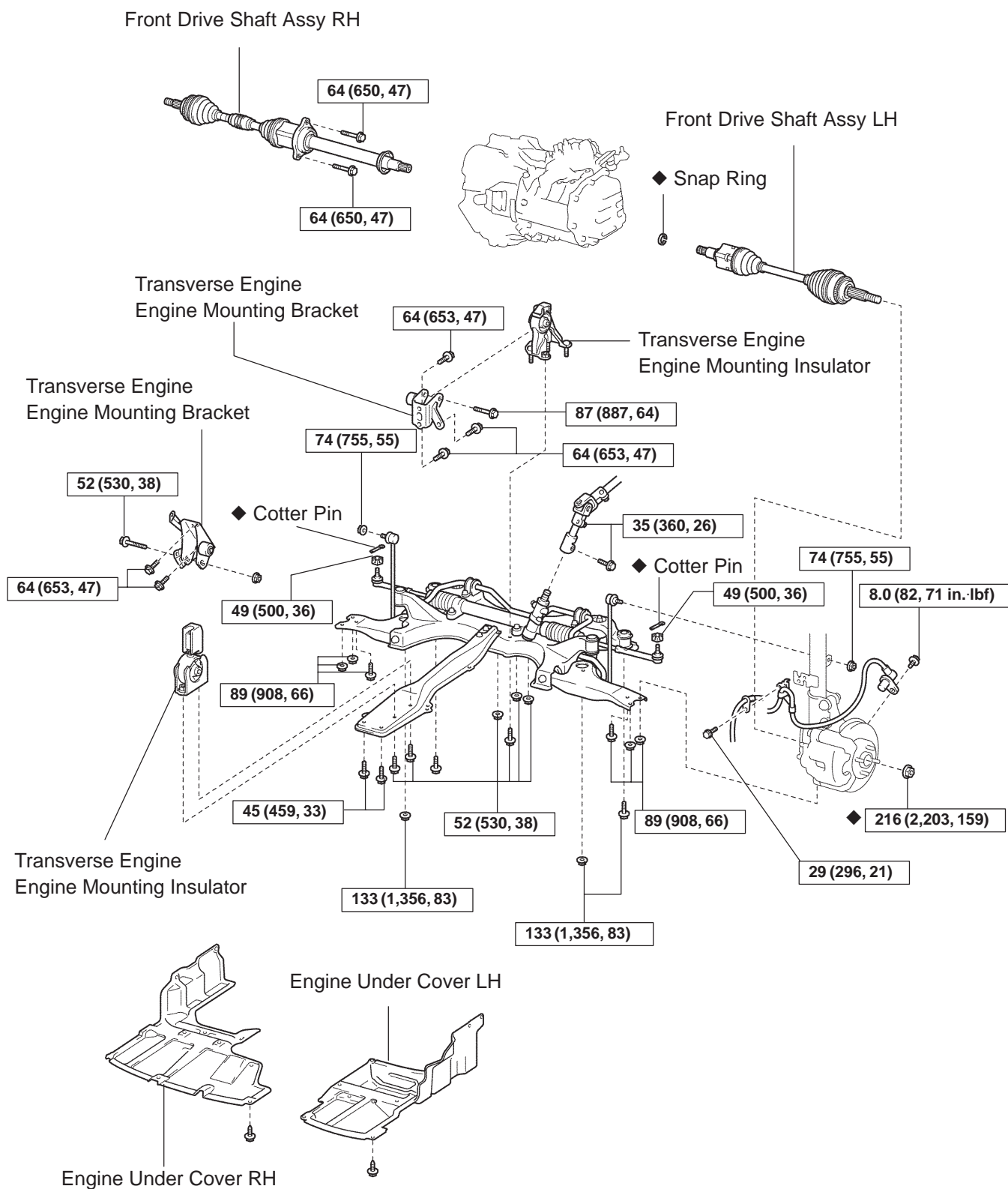
## COMPONENTS

410DT-01



D30082





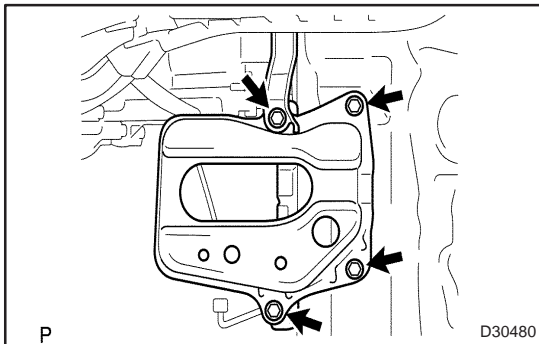
N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

D30473

## REPLACEMENT

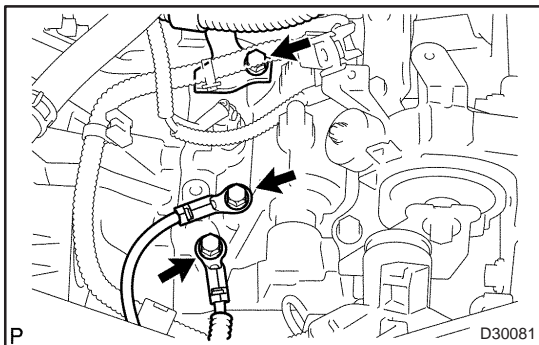
1. INSPECT CENTER FRONT WHEEL
2. REMOVE COLUMN HOLE COVER SILENCER SHEET (See page 50-9)
3. SEPARATE STEERING INTERMEDIATE SHAFT ASSY NO.2 (See page 50-9)
4. REMOVE STEERING COLUMN HOLE COVER SUB-ASSY NO.1 (See page 50-9)
5. REMOVE STEERING INTERMEDIATE SHAFT (See page 50-9)
6. REMOVE FRONT WHEELS
7. REMOVE ENGINE UNDER COVER LH
8. REMOVE ENGINE UNDER COVER RH
9. DRAIN TRANSAXLE OIL  
Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)
10. REMOVE HOOD SUB-ASSY
11. REMOVE RADIATOR SUPPORT OPENING COVER
12. REMOVE ENGINE ROOM COVER SIDE
13. REMOVE ENGINE COVER SUB-ASSY NO.1
14. REMOVE AIR CLEANER ASSY
15. REMOVE BATTERY CLAMP SUB-ASSY
16. REMOVE BATTERY
17. REMOVE BATTERY TRAY



### 18. REMOVE BATTERY CARRIER

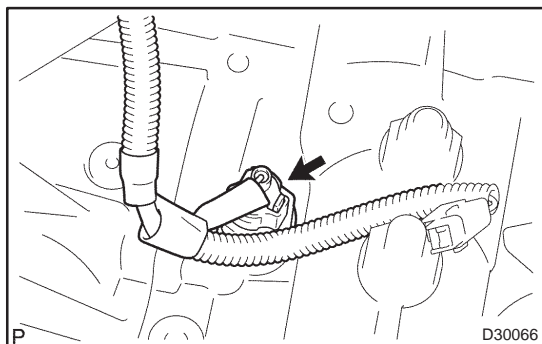
- (a) Remove the 4 bolts and battery carrier.

### 19. REMOVE STARTER ASSY (See page 19-12)

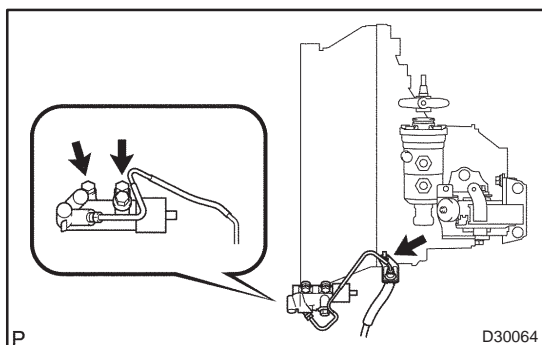


### 20. SEPARATE WIRE HARNESS

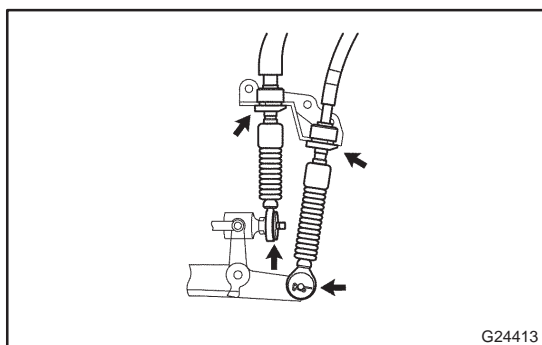
- (a) Remove the 3 bolts, and separate the 3 wire harnesses.

**21. SEPARATE CONNECTOR**

- (a) Separate the back-up lamp switch connector.

**22. SEPARATE CLUTCH RELEASE CYLINDER ASSY**

- (a) Remove the 3 bolts and separate the release cylinder.

**23. SEPARATE TRANSMISSION CONTROL CABLE ASSY**

- (a) Remove the 2 clips, separate the 2 cables from the trans-axle.  
 (b) Remove the 2 clips, separate the 2 cables from the bracket.

**24. REMOVE FRONT DRIVE SHAFT ASSY LH (See page 30-6)**

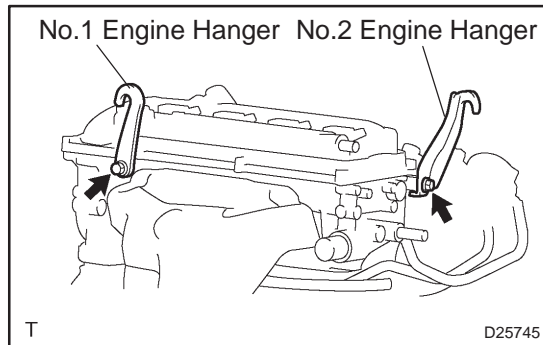
SST 09520-01010, 09520-24010 (09520-32040)

**25. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30-6)****26. REMOVE HEIGHT CONTROL SENSOR SUB-ASSY FR RH (W/ DISCHARGE HEAD LAMP) (See page 65-28)****27. DISCONNECT STEERING GEAR OUTLET RETURN TUBE (See page 51-36)**

SST 09023-12700

**28. DISCONNECT PRESSURE FEED TUBE ASSY (See page 51-36)**

SST 09023-12700



## 29. SUSPEND ENGINE ASSY

- (a) Install the No.1 and No.2 engine hangers in the correct direction.

### Parts No.:

No. 1 engine hanger: 12281-28010

No. 2 engine hanger: 12282-28010

Bolt: 91512-61020

Torque: 38 N·m (387 kgf·cm, 28 ft·lbf)

- (b) Attach the engine chain hoist to the engine hanger.

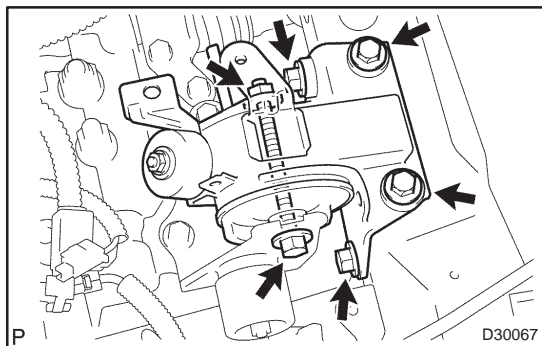
### CAUTION:

Do not attempt to hang the engine by hooking the chain to any other part.

## 30. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSY (See page 26-26)

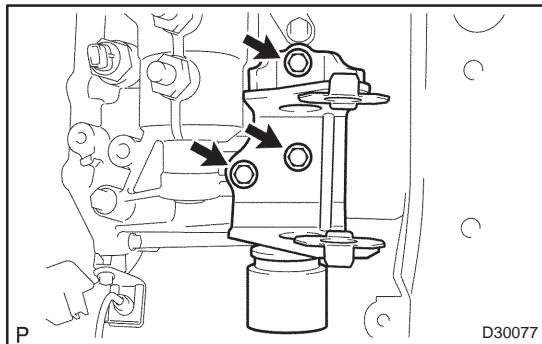
## 31. SUPPORT MANUAL TRANSAXLE ASSY

- (a) Support the manual transaxle with a transmission jack.



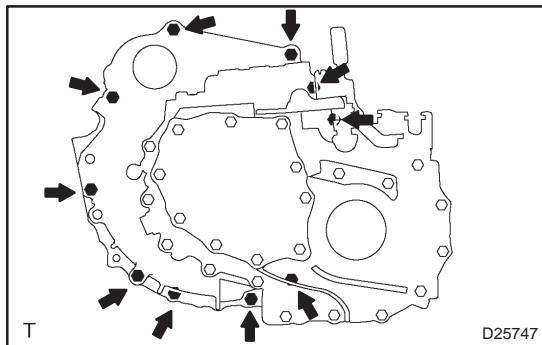
## 32. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

- (a) Remove the 5 bolts, nut and engine mounting insulator LH.



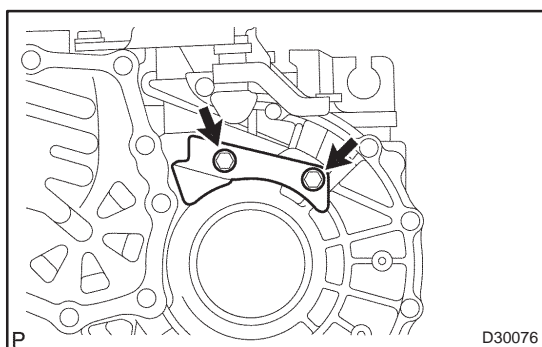
## 33. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

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



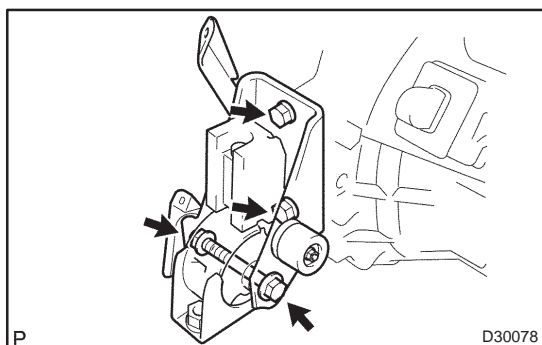
## 34. REMOVE MANUAL TRANSAXLE ASSY

- (a) Separate the wire harness clamp.  
 (b) Remove the 10 bolts.  
 (c) Separate and remove the transaxle from the engine.



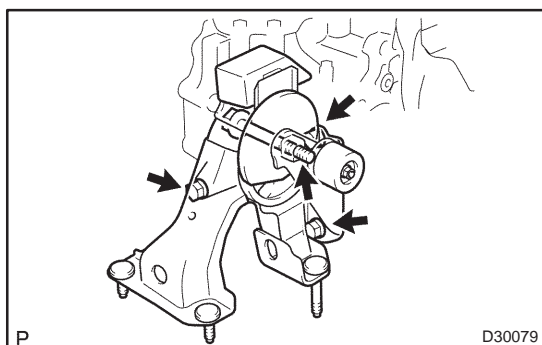
### 35. REMOVE MANUAL TRANSMISSION CASE PROTECTOR

- (a) Remove the 2 bolts and case protector.



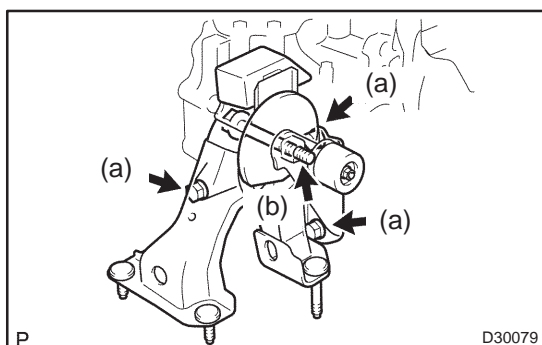
### 36. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Remove the bolt, nut and engine mounting insulator FR from the engine mounting bracket.
- (b) Remove the 2 bolts and engine mounting bracket FR from the transaxle.



### 37. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Remove the bolt and engine mounting insulator RR from the engine mounting bracket.
- (b) Remove the 3 bolts and engine mounting bracket RR from the transaxle.



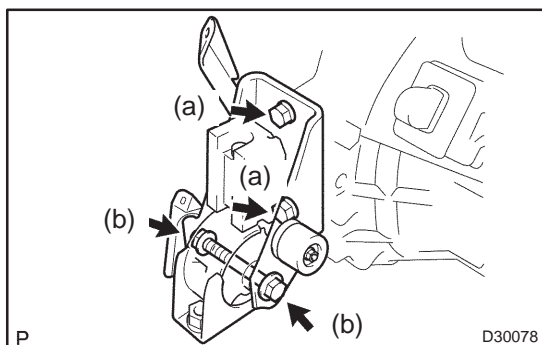
### 38. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket RR and 3 bolts to the transaxle.

**Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)**

- (b) Install the engine mounting insulator RR and bolt to the engine mounting bracket RR.

**Torque: 87 N·m (887 kgf·cm, 64 ft·lbf)**



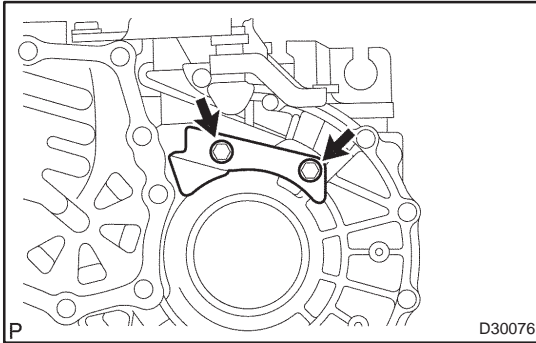
### 39. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket FR and 2 bolts to the transaxle.

**Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)**

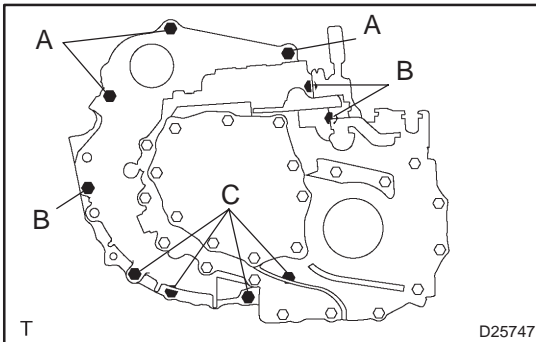
- (b) Install the engine mounting insulator FR, bolt and nut to the engine mounting bracket FR.

**Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)**



#### 40. INSTALL MANUAL TRANSMISSION CASE PROTECTOR

- (a) Install the case protector with the 2 bolts.  
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)



#### 41. INSTALL MANUAL TRANSAXLE ASSY

- (a) Align the input shaft with the clutch disc and install the transaxle to the engine.  
(b) Install the 10 bolts.

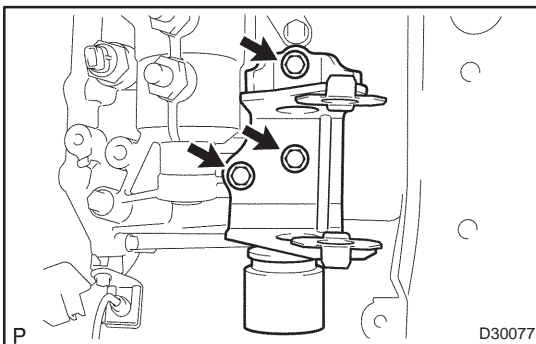
**Torque:**

**Bolt A:** 64 N·m (653 kgf·cm, 47 ft·lbf)

**Bolt B:** 46 N·m (469 kgf·cm, 34 ft·lbf)

**Bolt C:** 44 N·m (449 kgf·cm, 32 ft·lbf)

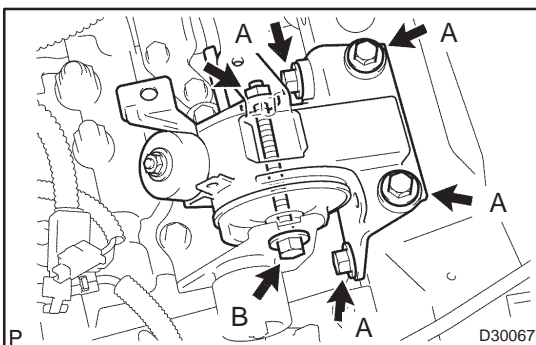
- (c) Connect the wire harness clamp.



#### 42. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket LH to the transaxle with the 3 bolt.

**Torque:** 64 N·m (653 kgf·cm, 47 ft·lbf)



#### 43. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

- (a) Install the engine mounting insulator LH with the 5 bolts and nut.

**Torque:**

**Bolt A:** 52 N·m (530 kgf·cm, 38 ft·lbf)

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

#### 44. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSY (See page 26-26)

SST 09670-00010

#### 45. CONNECT PRESSURE FEED TUBE ASSY (See page 51-36)

SST 09023-12700

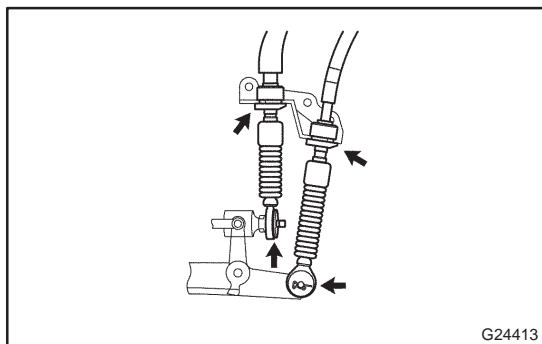
#### 46. CONNECT STEERING GEAR OUTLET RETURN TUBE (See page 51-36)

SST 09023-12700

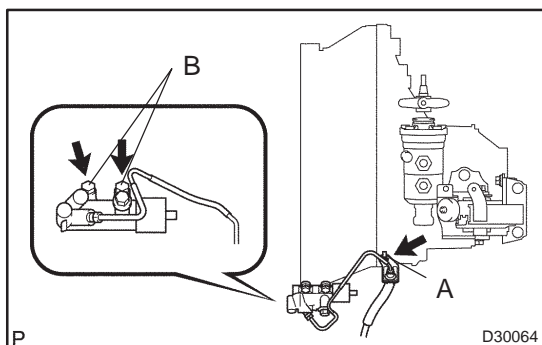
#### 47. INSTALL HEIGHT CONTROL SENSOR SUB-ASSY FR RH (W/ DISCHARGE HEAD LAMP) (See page 65-28)

#### 48. INSTALL FRONT DRIVE SHAFT ASSY LH (See page 30-6)

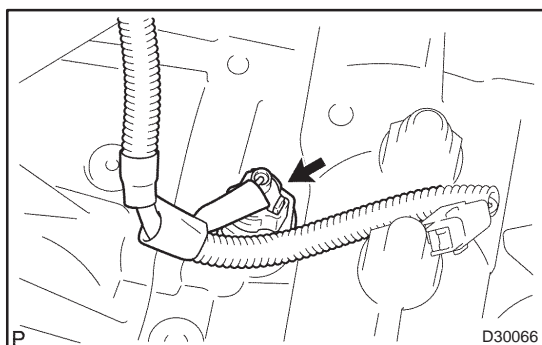
#### 49. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-6)

**50. INSTALL TRANSMISSION CONTROL CABLE ASSY**

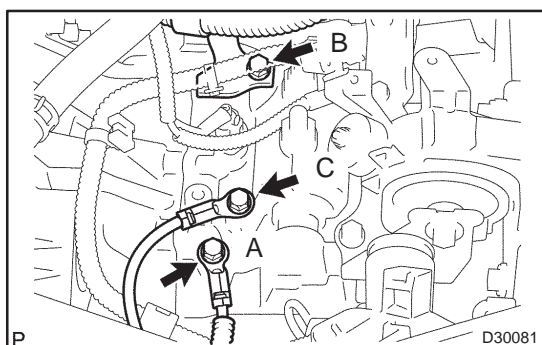
- (a) Connect the 2 cable ends, install the 2 clips.
- (b) Install the 2 clips to the control cable bracket.

**51. INSTALL CLUTCH RELEASE CYLINDER ASSY**

- (a) Install the release cylinder with the 3 bolts.

**Torque:****Bolt A: 9.0 N·m (92 kgf·cm, 80 in·lbf)****Bolt B: 12 N·m (120 kgf·cm, 9 ft·lbf)****52. CONNECT CONNECTOR**

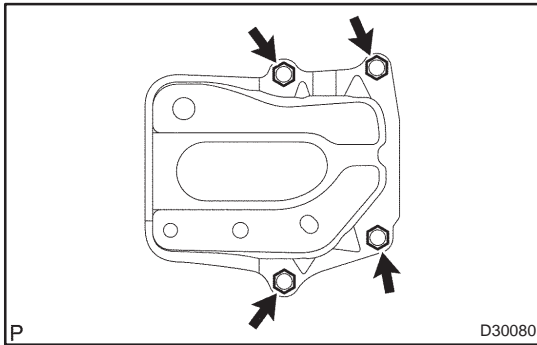
- (a) Connect the back-up lamp switch connector.

**53. CONNECT WIRE HARNESS**

- (a) Install the 3 wire harnesses with the 3 bolts.

**Torque:****Bolt A: 26 N·m (260 kgf·cm, 19 ft·lbf)****Bolt B: 8.4 N·m (85 kgf·cm, 74 in·lbf)****Bolt C: 40 N·m (410 kgf·cm, 30 ft·lbf)****54. INSTALL STARTER ASSY (See page 19-12)**



**55. INSTALL BATTERY CARRIER**

- (a) Install the battery carrier and 4 bolts.

**Torque: 13 N·m (131 kgf·cm, 9 ft·lbf)**

**56. INSTALL BATTERY TRAY****57. INSTALL BATTERY****58. INSTALL BATTERY CLAMP SUB-ASSY**

**Torque:**

**Bolt: 5.0 N·m (51 kgf·cm, 44 in·lbf)**

**Nut: 3.5 N·m (36 kgf·cm, 31 in·lbf)**

**59. INSTALL AIR CLEANER ASSY**

**Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)**

**60. INSTALL ENGINE COVER SUB-ASSY NO.1**

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

**61. INSTALL ENGINE ROOM COVER SIDE****62. INSTALL RADIATOR SUPPORT OPENING COVER****63. INSTALL HOOD SUB-ASSY**

**Torque: 13 N·m (132 kgf·cm, 10 ft·lbf)**

**64. INSPECT HOOD SUB-ASSY (See page 75-2)****65. ADJUST HOOD SUB-ASSY (See page 75-2)****66. ADD TRANSAXLE OIL (See page 41-5)****67. INSPECT TRANSAXLE OIL (See page 41-2)****68. INSTALL FRONT WHEELS**

**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

**69. INSTALL STEERING INTERMEDIATE SHAFT (See page 50-9)****70. INSTALL STEERING COLUMN HOLE COVER SUB-ASSY NO.1 (See page)See page 50-9)****71. INSTALL STEERING INTERMEDIATE SHAFT ASSY NO.2 (See page 50-9)****72. INSTALL COLUMN HOLE COVER SILENCER SHEET (See page 50-9)****73. PLACE FRONT WHEELS FACING STRAIGHT AHEAD****74. STEERING WHEEL CENTER POINT****75. ADD POWER STEERING FLUID****76. BLEED POWER STEERING FLUID (See page 51-4)****77. CHECK POWER STEERING FLUID LEVEL IN RESERVER (See page 51-4)****78. INSPECT FLUID LEAK (See page 51-4)****79. INSPECT FRONT WHEEL ALIGNMENT (See page 26-6)****80. INSTALL ENGINE UNDER COVER LH****81. INSTALL ENGINE UNDER COVER RH****82. CHECK ABS SPEED SENSOR SIGNAL**

- (a) w/ VSC (See page 05-756)

- (b) w/o VSC (See page 05-699)

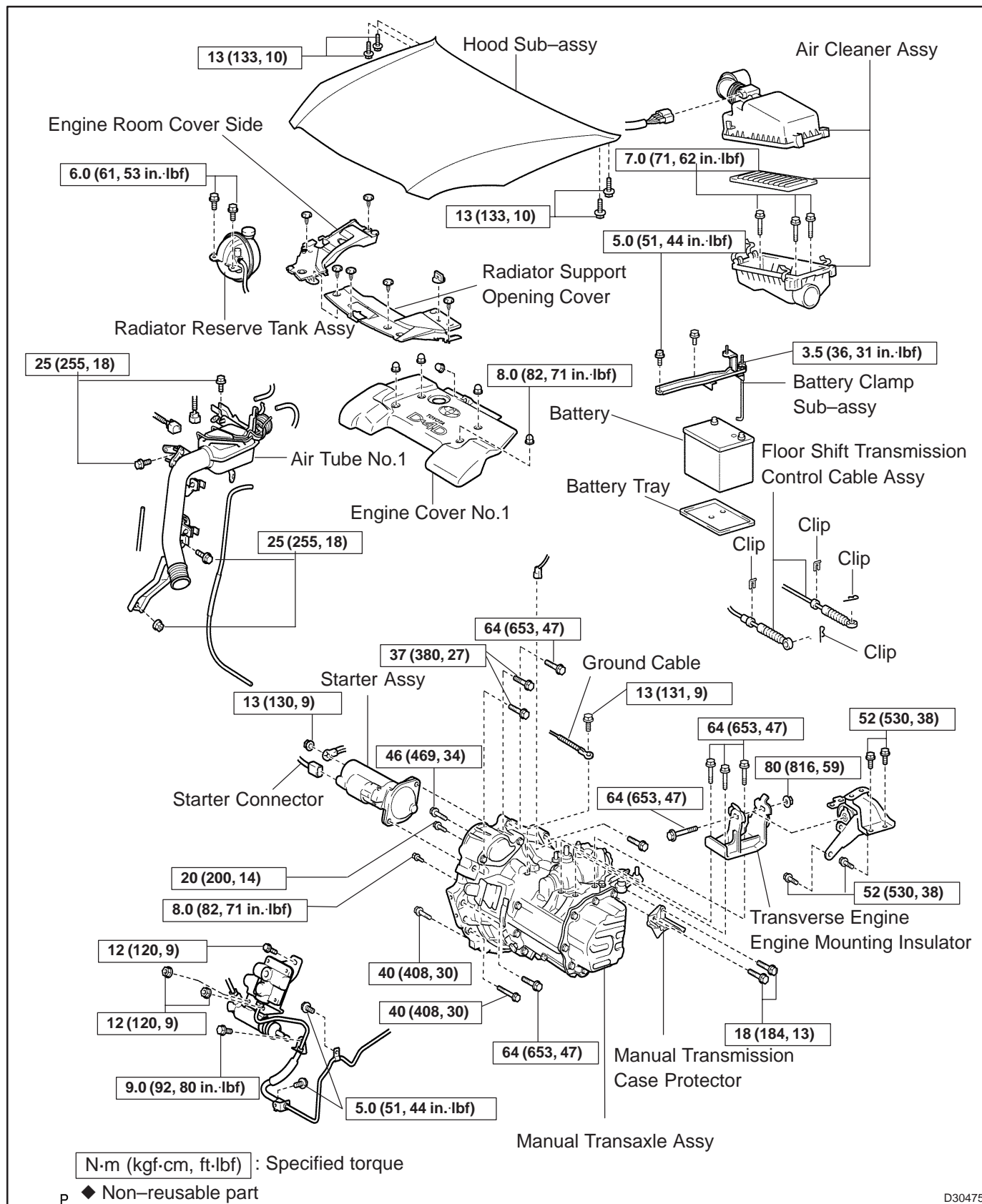
**83. HEADLIGHT AIM ONLY (W/ DISCHARGE HEAD LAMP) (See page 65-19)**



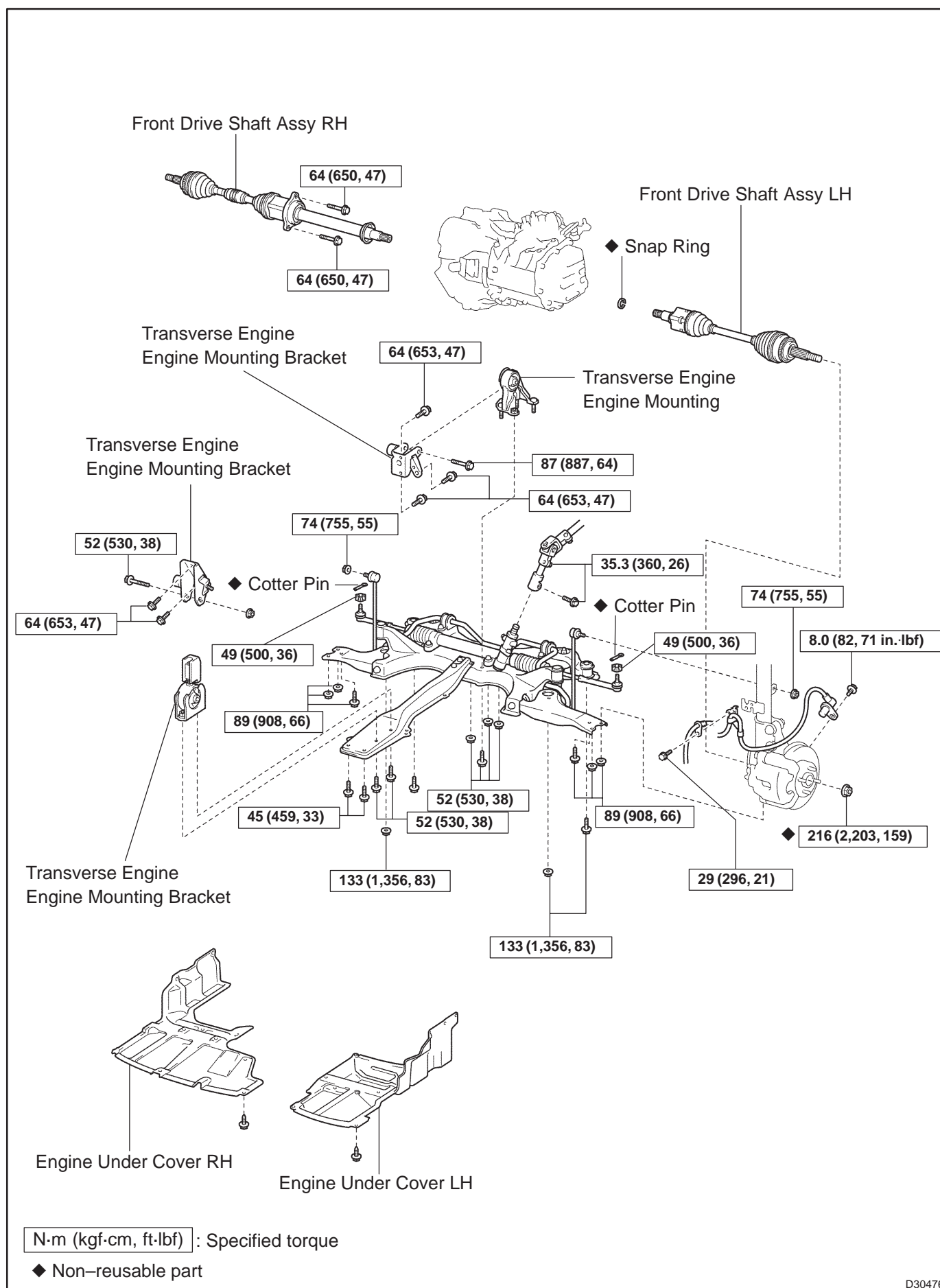
# MANUAL TRANSAXLE ASSY (1CD-FTV)

## COMPONENTS

410DV-01

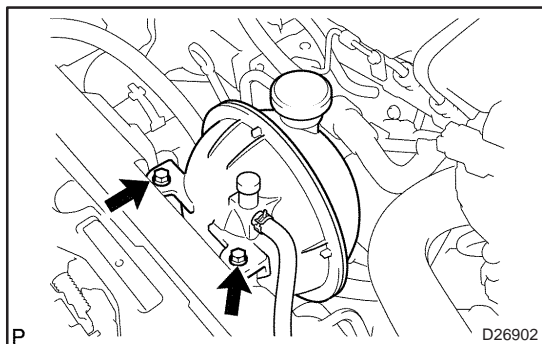


D30475



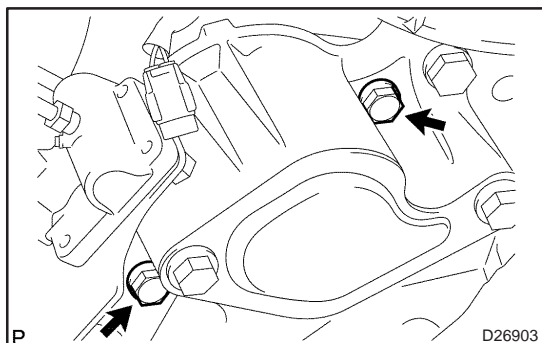
## REPLACEMENT

1. INSPECT CENTER FRONT WHEEL
2. REMOVE COLUMN HOLE COVER SILENCER SHEET (See page 50-9)
3. SEPARATE STEERING INTERMEDIATE SHAFT ASSY NO.2 (See page 50-9)
4. REMOVE STEERING COLUMN HOLE COVER SUB-ASSY NO.1 (See page 50-9)
5. REMOVE STEERING INTERMEDIATE SHAFT (See page 50-9)
6. REMOVE FRONT WHEELS
7. REMOVE ENGINE UNDER COVER RH
8. REMOVE ENGINE UNDER COVER LH
9. DRAIN TRANSAXLE OIL  
Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)
10. REMOVE HOOD SUB-ASSY
11. REMOVE RADIATOR SUPPORT OPENING COVER
12. REMOVE ENGINE ROOM COVER SIDE
13. REMOVE ENGINE COVER NO.1
14. REMOVE AIR CLEANER ASSY
15. REMOVE BATTERY CLAMP SUB-ASSY
16. REMOVE BATTERY
17. REMOVE BATTERY TRAY
18. REMOVE AIR TUBE NO.1 (See page 14-286)



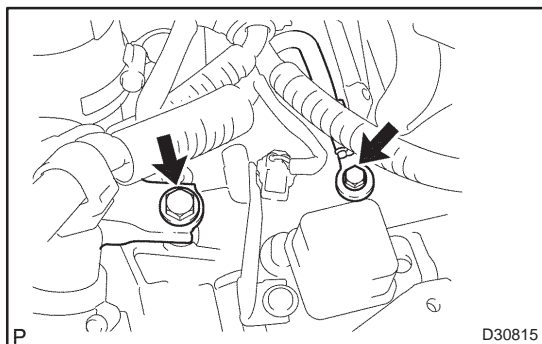
### 19. SEPARATE RADIATOR RESERVE TANK ASSY

- (a) Remove the 2 bolts, separate the radiator reserve tank assy.

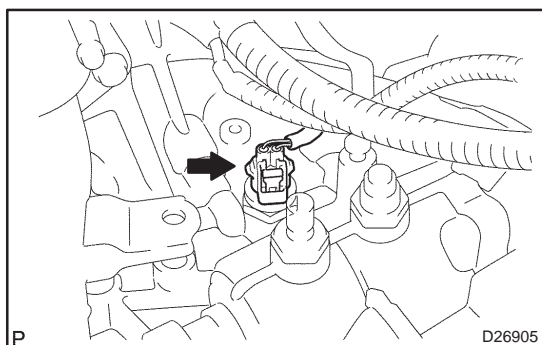


### 20. REMOVE STARTER ASSY

- (a) Remove the nut, disconnect the starter wire.
- (b) Disconnect the connector.
- (c) Remove the 2 bolts and starter assy.

**21. DISCONNECT WIRE HARNESS**

- (a) Remove the bolt, disconnect the ground cable.
- (b) Remove the bolt, separate the air tube.

**22. DISCONNECT CONNECTOR**

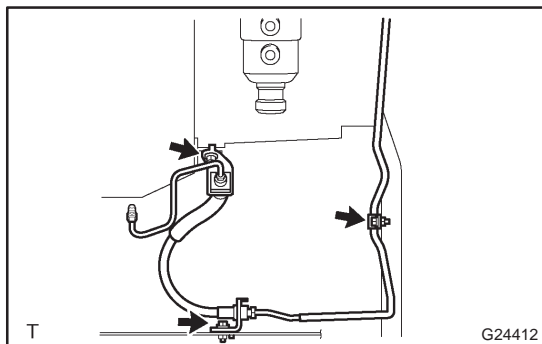
- (a) Disconnect the back-up lamp switch connector.

**23. REMOVE CLUTCH ACCUMULATOR ASSY (See page 42-22)**

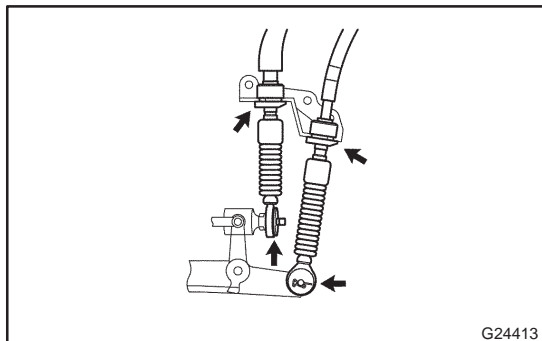
SST 09023-00100

**24. REMOVE CLUTCH RELEASE CYLINDER ASSY (See page 42-17)**

SST 09023-00100

**25. SEPARATE ACCUMULATOR TO FLEXIBLE HOSE TUBE**

- (a) Remove the 3 bolts, separate the flexible hose tube with brackets from the transaxle.

**26. SEPARATE TRANSMISSION CONTROL CABLE ASSY**

- (a) Remove the 2 clips, separate the 2 cables from the transaxle.
- (b) Remove the 2 clips, separate the 2 cables from the bracket.

**27. REMOVE FRONT DRIVE SHAFT ASSY LH (See page 30-6)**

SST 09520-01010, 09520-24010 (09520-32040)

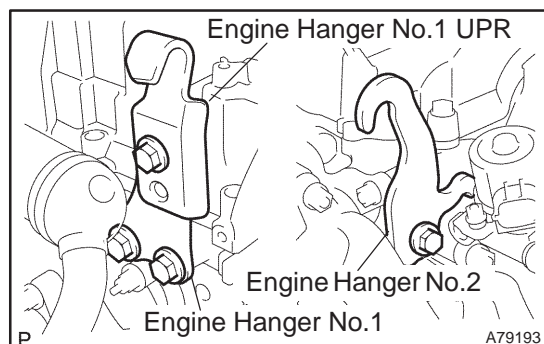
**28. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30-6)****29. REMOVE HEIGHT CONTROL SENSOR SUB-ASSY FR RH (W/ DISCHARGE HEAD LAMP) (See page 65-28)**

**30. DISCONNECT STEERING GEAR OUTLET RETURN TUBE (See page 51-36)**

SST 09023-12700

**31. DISCONNECT PRESSURE FEED TUBE ASSY (See page 51-36)**

SST 09023-12700

**32. SUSPEND ENGINE ASSY**

- (a) Install the 2 engine hangers with the 2 bolts.

**Parts No.:****No.1 engine hanger UPR (yellow) 12284-27020****No.1 engine hanger UPR (black) 12284-27030****No.1 engine hanger 12281-27050****No.2 engine hanger (yellow) 12282-27060****No.2 engine hanger (black) 12282-27070****Bolt: 91642-81025****Torque: 37 N·m (377 kgf·cm, 27 ft·lbf)**

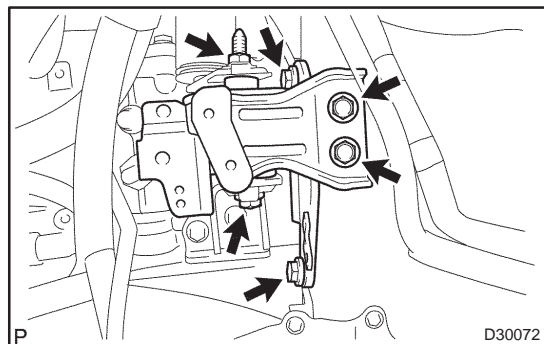
- (b) Attach the engine chain hoist to the hanger.

**CAUTION:**

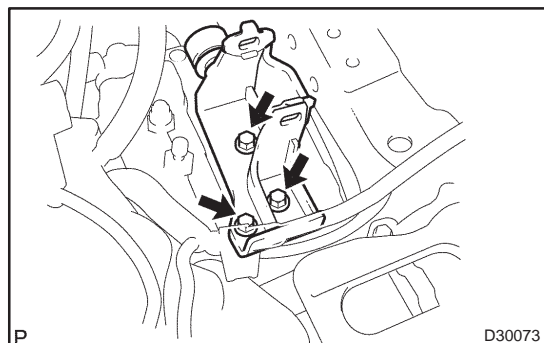
Do not attempt to hang the engine by hooking the chain to any other part.

**33. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSY (See page 26-26)****34. SUPPORT MANUAL TRANSAXLE ASSY**

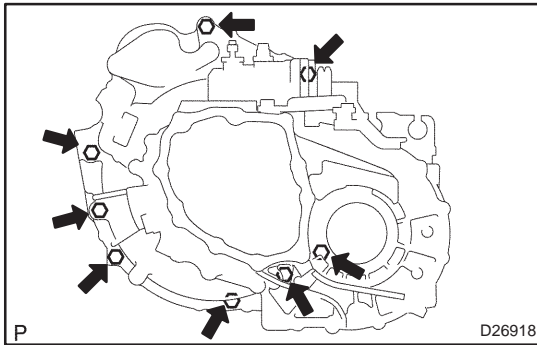
- (a) Support the transaxle with a transmission jack.

**35. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR**

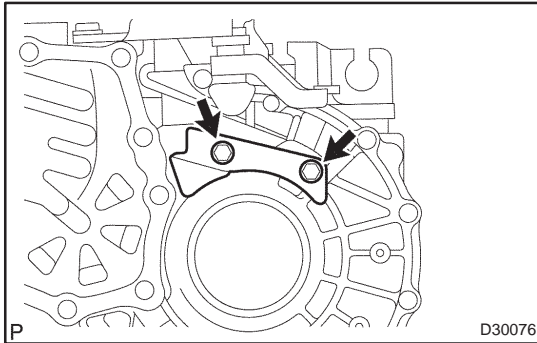
- (a) Remove the 5 bolts, nut and engine mounting insulator LH from the body.

**36. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

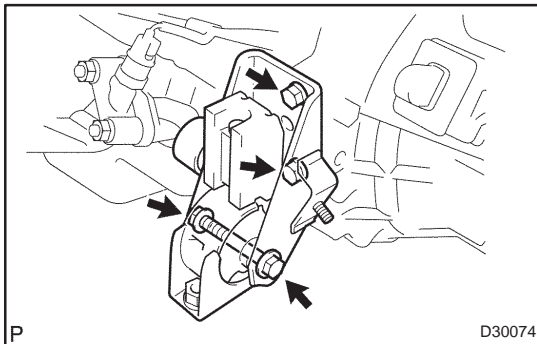
- (a) Remove the 3 bolts and engine mounting bracket LH from the transaxle.

**37. REMOVE MANUAL TRANSAXLE ASSY**

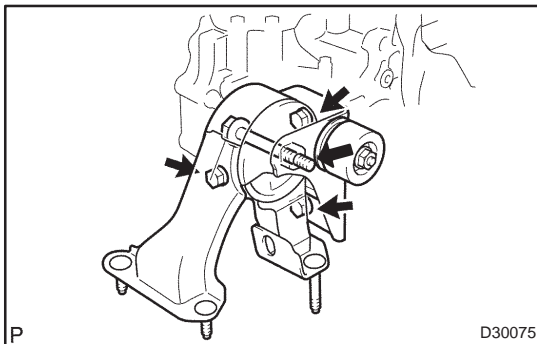
- (a) Remove the 8 bolts.
- (b) Remove the transaxle from the engine.

**38. REMOVE MANUAL TRANSMISSION CASE PROTECTOR**

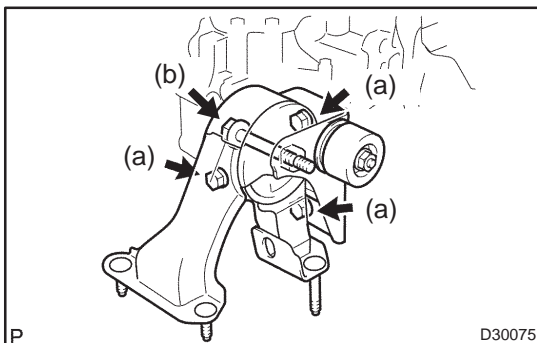
- (a) Remove the 2 bolts and case protector.

**39. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

- (a) Remove the bolt, nut and engine mounting insulator FR from the engine mounting bracket.
- (b) Remove the 2 bolts and engine mounting bracket FR from the transaxle.

**40. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

- (a) Remove the bolt and engine mounting insulator RR from the engine mounting bracket.
- (b) Remove the 3 bolts and engine mounting bracket RR from the transaxle.

**41. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

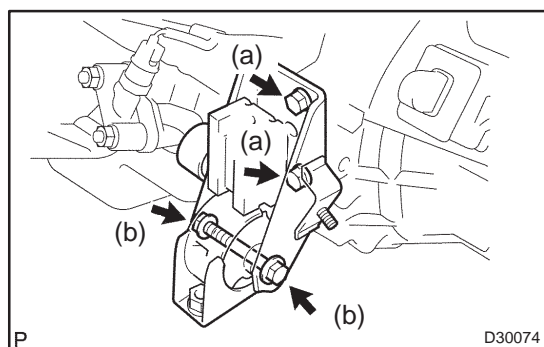
- (a) Install the engine mounting bracket RR and 3 bolts to the transaxle.

**Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)**

- (b) Install the engine mounting insulator RR and bolt to the engine mounting bracket.

**Torque: 87 N·m (887 kgf·cm, 64 ft·lbf)**





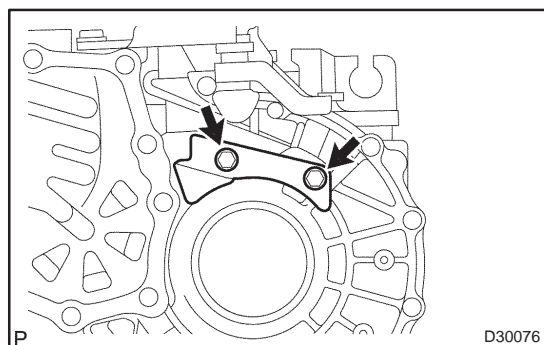
#### 42. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket FR and 2 bolts to the transaxle.

**Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)**

- (b) Install the engine mounting insulator FR, bolt and nut to the engine mounting bracket.

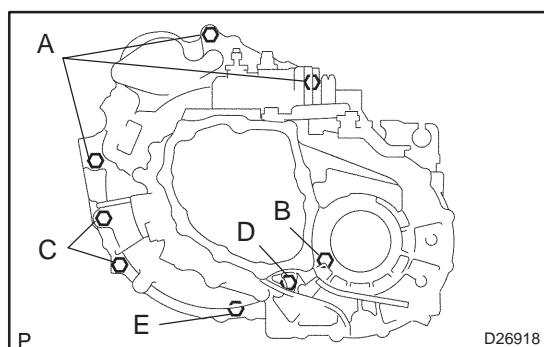
**Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)**



#### 43. INSTALL MANUAL TRANSMISSION CASE PROTECTOR

- (a) Install the case protector with the 2 bolts.

**Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)**



#### 44. INSTALL MANUAL TRANSAXLE ASSY

- (a) Align the input shaft with the clutch disc and install the transaxle to the engine.

- (b) Install the 8 bolts.

**Torque:**

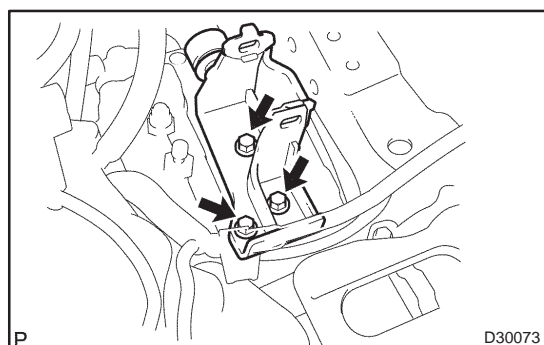
**Bolt A: 64 N·m (653 kgf·cm, 47 ft·lbf)**

**Bolt B: 46 N·m (469 kgf·cm, 34 ft·lbf)**

**Bolt C: 40 N·m (408 kgf·cm, 30 ft·lbf)**

**Bolt D: 20 N·m (200 kgf·cm, 14 ft·lbf)**

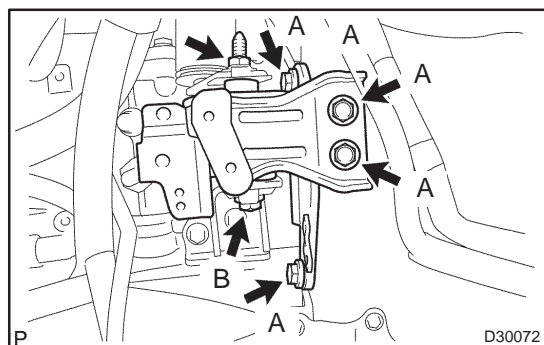
**Bolt E: 8.0 N·m (82 kgf·cm, 71 in·lbf)**



#### 45. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket LH to the transaxle with the 3 bolts.

**Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)**



#### 46. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

- (a) Install the engine mounting insulator LH with the 5 bolts and nut.

**Torque:**

**Bolt A: 52 N·m (530 kgf·cm, 38 ft·lbf)**

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

**47. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSY (See page 26-26)**

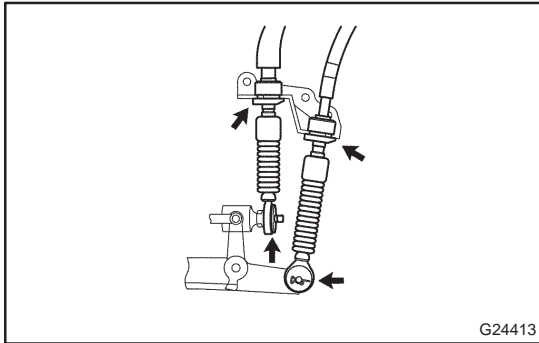
SST 09670-00010

**48. CONNECT PRESSURE FEED TUBE ASSY (See page 51-36)**

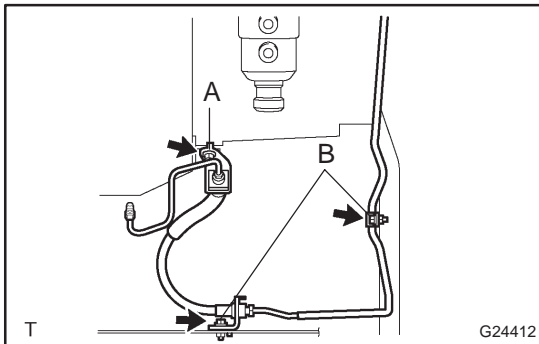
SST 09023-12700

**49. CONNECT STEERING GEAR OUTLET RETURN TUBE (See page 51-36)**

SST 09023-12700

**50. INSTALL HEIGHT CONTROL SENSOR SUB-ASSY FR RH (W/ DISCHARGE HEAD LAMP) (See page 65-28)****51. INSTALL FRONT DRIVE SHAFT ASSY LH (See page 30-6)****52. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-6)****53. CONNECT TRANSMISSION CONTROL CABLE ASSY**

- (a) Connect the 2 cable ends, install the 2 clips.
- (b) Install the 2 clips to the control cable bracket.

**54. INSTALL ACCUMULATOR TO FLEXIBLE HOSE TUBE**

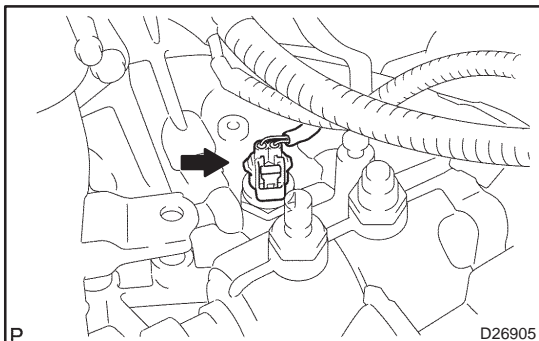
- (a) Install the flexible hose tube with the 3 bolts.

**Torque:****Bolt A:** 12 N·m (120 kgf·cm, 9 ft·lbf)**Bolt B:** 5.0 N·m (51 kgf·cm, 44 in·lbf)**Bolt C:** 9.0 N·m (92 kgf·cm, 80 in·lbf)**55. INSTALL CLUTCH RELEASE CYLINDER ASSY (See page 42-17)**

SST 09023-00100

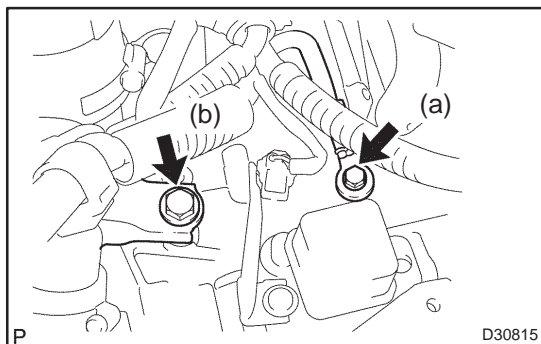
**56. INSTALL CLUTCH ACCUMULATOR ASSY (See page 42-22)**

SST 09023-00100

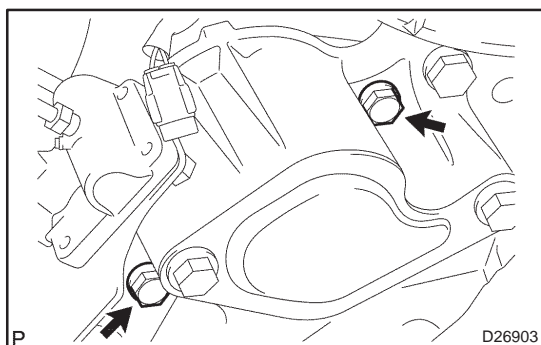
**57. CONNECT CONNECTOR**

- (a) Connect the back-up lamp switch connector.

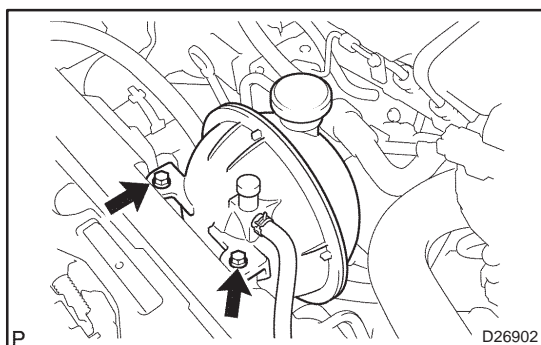


**58. CONNECT WIRE HARNESS**

- (a) Install the ground cable with bolt.  
**Torque: 13 N·m (131 kgf·cm, 9 ft·lbf)**
- (b) Install the air tube with bolt.  
**Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)**

**59. INSTALL STARTER ASSY**

- (a) Connect the starter connector.
- (b) Install the starter assy to the transaxle with the 2 bolts.  
**Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)**
- (c) Install the starter wire to starter assy with the nut.  
**Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)**

**60. CONNECT RADIATOR RESERVE TANK ASSY**

- (a) Install the radiator reserve tank assy with the 2 bolts.  
**Torque: 6.0 N·m (61 kgf·cm, 53 in·lbf)**

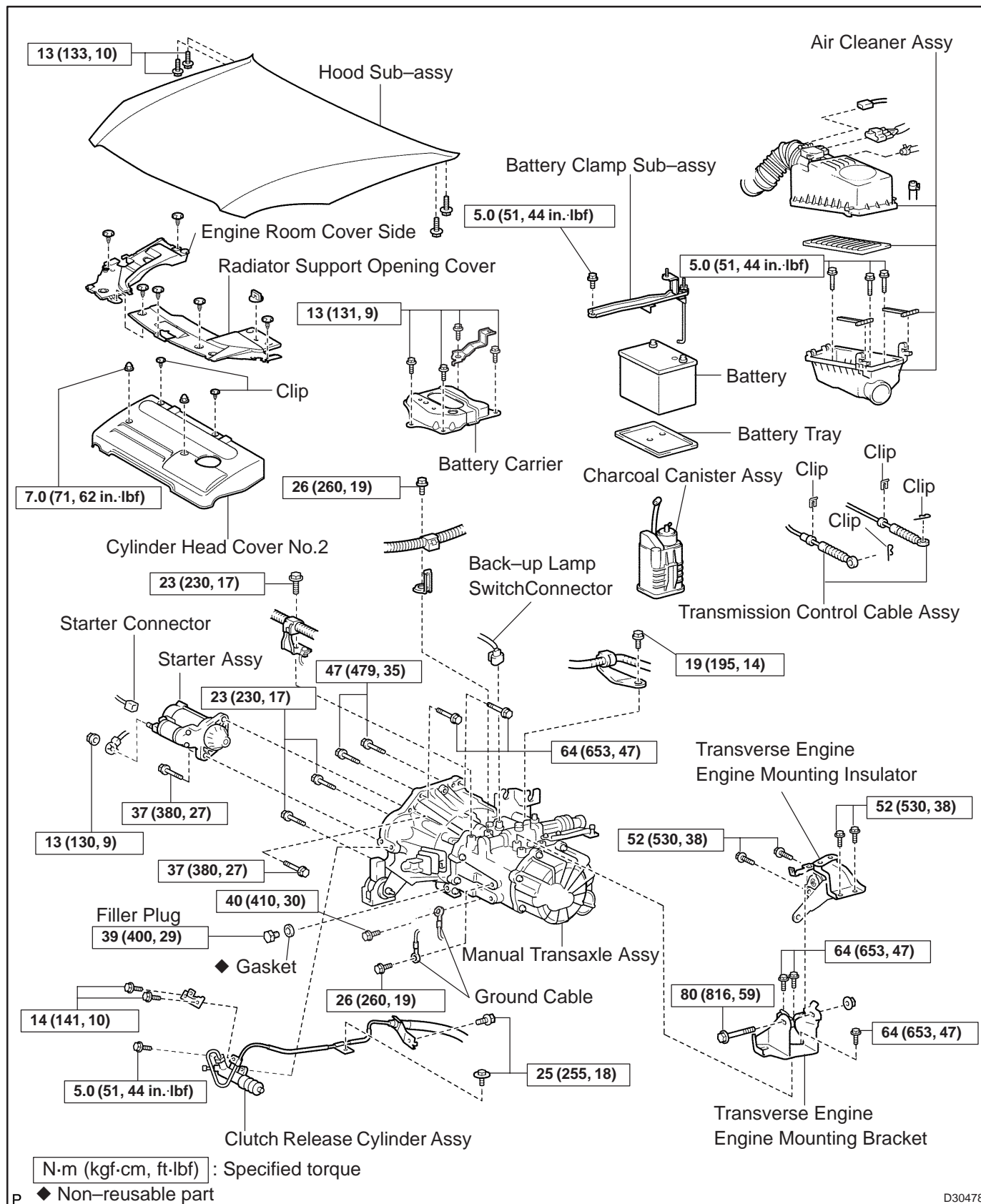
**61. INSTALL AIR TUBE NO.1 (See page 14-286)****62. INSTALL BATTERY TRAY****63. INSTALL BATTERY****64. INSTALL BATTERY CLAMP SUB-ASSY****Torque:****Bolt: 5.0 N·m (51 kgf·cm, 44 in·lbf)****Nut: 3.5 N·m (36 kgf·cm, 31 in·lbf)****65. INSTALL AIR CLEANER ASSY****Torque: 7.0 N·m (71 kgf·cm, 62 in·lbf)****66. INSTALL ENGINE COVER NO.1****Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)****67. INSTALL STEERING INTERMEDIATE SHAFT (See page 50-9)****68. INSTALL STEERING COLUMN HOLE COVER SUB-ASSY NO.1 (See page 50-9)****69. INSTALL STEERING INTERMEDIATE SHAFT ASSY NO.2 (See page 50-9)****70. INSTALL COLUMN HOLE COVER SILENCER SHEET (See page 50-9)****71. PLACE FRONT WHEELS FACING STRAIGHT AHEAD****72. STEERING WHEEL CENTER POINT****73. INSTALL ENGINE ROOM COVER SIDE****74. INSTALL RADIATOR SUPPORT OPENING COVER**

- 75. **INSTALL HOOD SUB-ASSY**  
Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)
- 76. **INSPECT HOOD SUB-ASSY** ([See page 75-2](#))
- 77. **ADJUST HOOD SUB-ASSY** ([See page 75-2](#))
- 78. **ADD TRANSAXLE OIL** ([See page 41-5](#))
- 79. **INSPECT TRANSAXLE OIL** ([See page 41-2](#))
- 80. **ADD POWER STEERING FLUID**
- 81. **BLEED POWER STEERING FLUID** ([See page 51-4](#))
- 82. **CHECK POWER STEERING FLUID LEVEL IN RESERVOIR** ([See page 51-4](#))
- 83. **INSPECT FLUID LEAK** ([See page 51-4](#))
- 84. **INSTALL FRONT WHEELS**  
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
- 85. **INSPECT FRONT WHEEL ALIGNMENT** ([See page 26-6](#))
- 86. **INSTALL ENGINE UNDER COVER RH**
- 87. **INSTALL ENGINE UNDER COVER LH**
- 88. **CHECK ABS SPEED SENSOR SIGNAL**
  - (a) w/ VSC ([See page 05-756](#))
  - (b) w/o VSC ([See page 05-699](#))
- 89. **HEADLIGHT AIM ONLY (W/ DISCHARGE HEAD LAMP)** ([See page 65-19](#))

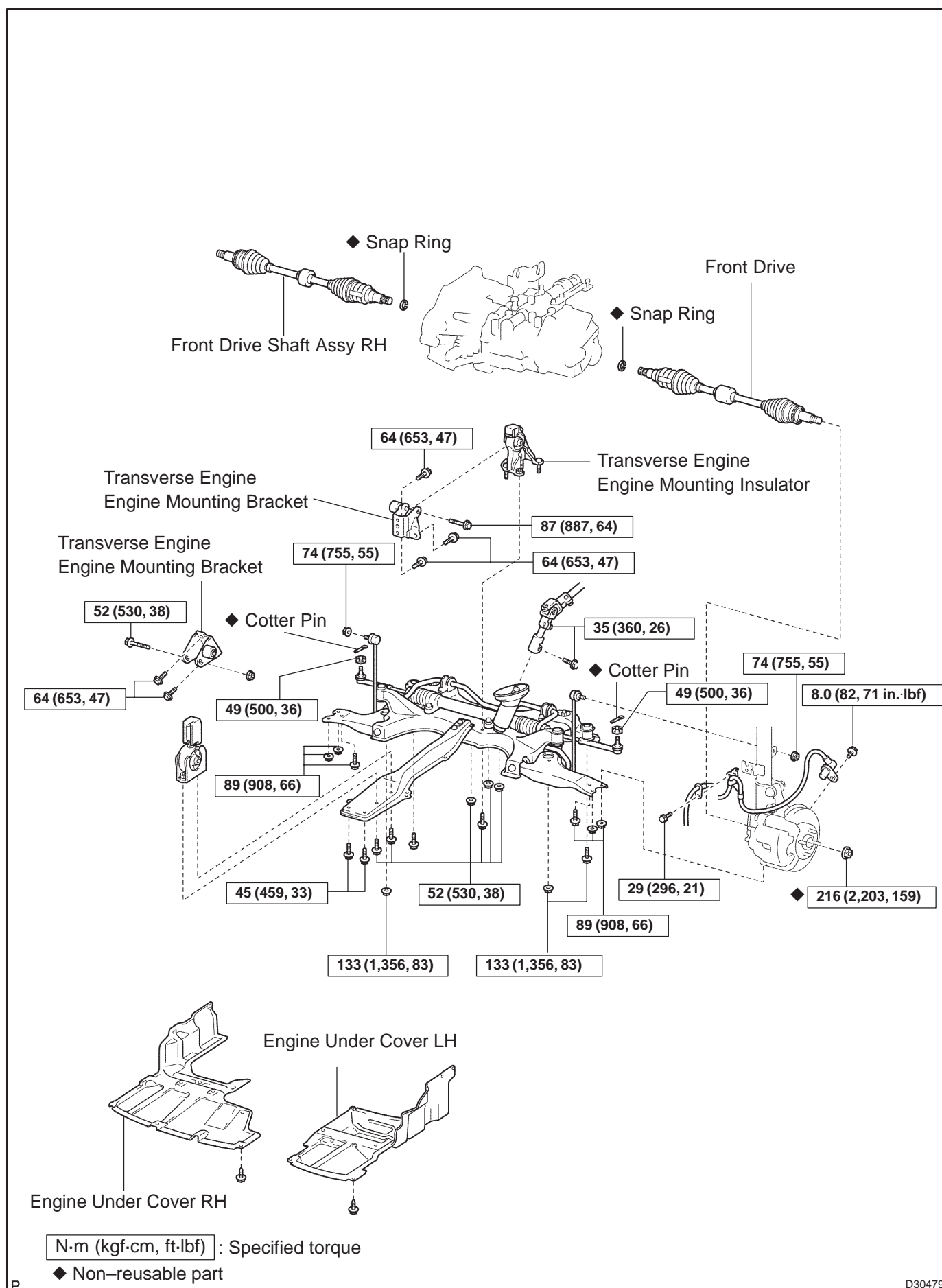
# MANUAL TRANSAXLE ASSY (1ZZ-FE/3ZZ-FE)

## COMPONENTS

410DS-01

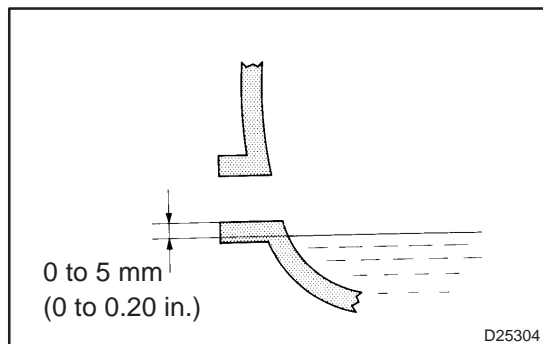


D30478



# MANUAL TRANSAXLE OIL (MTM) ON-VEHICLE INSPECTION

4100Z-05



## 1. INSPECT TRANSAXLE OIL

- (a) Stop the vehicle on the level place.
- (b) Remove the transmission filler plug and gasket.
- (c) Check that the oil surface is within 5 mm (0.20 in.) from the lowest position of the inner surface of the transmission filler plug opening.

### NOTICE:

- **Excessively large or small amount of oil may cause troubles.**
  - **After replacing oil, drive the vehicle and check the oil level.**
- (d) Check for oil leakage when the oil level is low.
  - (e) Install the transmission filler plug and new gasket.

### Torque:

**C50, C250: 39 N·m (400 kgf·cm, 29 ft·lbf)**

**E354, E357: 49 N·m (500 kgf·cm, 36 ft·lbf)**

# MANUAL TRANSAXLE SYSTEM (MTM)

4100Y-05

## PROBLEM SYMPTOMS TABLE

Use the table below to help find the cause of the problem. The numbers indicate the likelihood of the possible cause in descending order. Check each part in the order shown. Replace these parts as necessary.

★: (C50 MANUAL TRANSAXLE Repair Manual Pub. No. 826E or C250 MANUAL TRANSAXLE Repair Manual Pub. No. RM1020E or E354 MANUAL TRANSAXLE Repair Manual Pub. No. RM944E)

Symptom	Suspect Area	See page
Noise	6. Oil (Level low)	<a href="#">41-2</a>
	7. Oil (Wrong) C50/C250	<a href="#">41-3</a>
	E354/E357	<a href="#">41-5</a>
	8. Gear (Worn or damaged)	★
	9. Bearing (Worn or damaged)	★
Oil leakage	1. Oil (Level too high)	<a href="#">41-2</a>
	2. Gasket (Damaged)	★
	3. Oil seal (Worn or damaged) C50/C250	<a href="#">41-3</a>
	E354/E357	<a href="#">41-5</a>
Hard to shift or will not shift	4. O-Ring (Worn or damaged)	★
	1. Control cable (Faulty)	<a href="#">41-7</a>
	2. Synchronizer ring (Worn or damaged)	★
	3. Shift key spring (Damaged)	★
Jumps out of gear	1. Locking ball spring (Damaged)	★
	2. Shift fork (Worn)	★
	3. Gear (Worn or damaged)	★
	4. Bearing (Worn or damaged)	★

# TRANSMISSION CONTROL CABLE ASSY (MTM)

## REPLACEMENT

4105R-02

HINT:

COMPONENTS: [See page 41-10](#)**1. REMOVE AIR CONDITIONER UNIT ASSY ([See page 55-55](#))**

HINT:

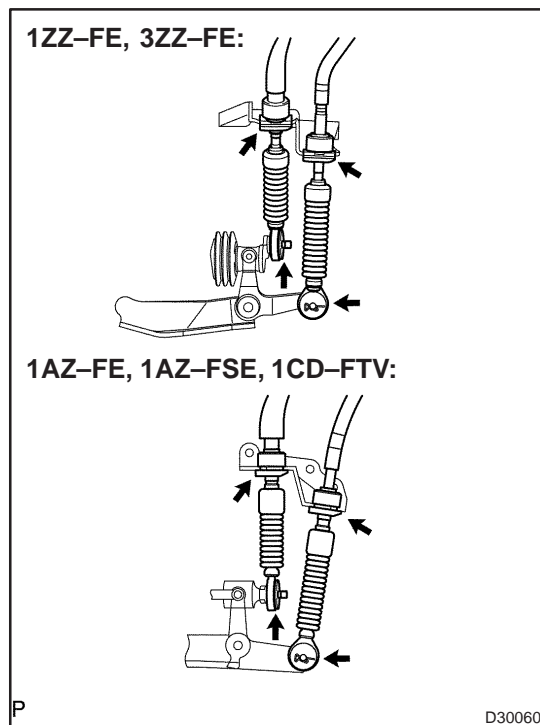
Refer to the instructions for removal of the instrument panel sub-assy lower.

**2. REMOVE EXHAUST PIPE ASSY**

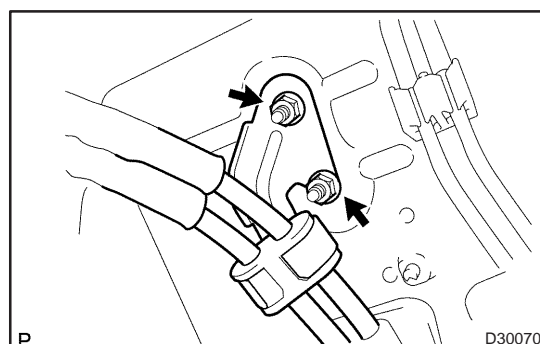
- (a) 1ZZ-FE, 3ZZ-FE Engine ([See page 15-2](#))
- (b) 1AZ-FE, 1AZ-FSE Engine ([See page 15-7](#))
- (c) 1CD-FTV Engine ([See page 15-10](#))

**3. REMOVE FRONT FLOOR HEAT INSULATOR NO.1 (GASOLINE ENGINE TYPE)**

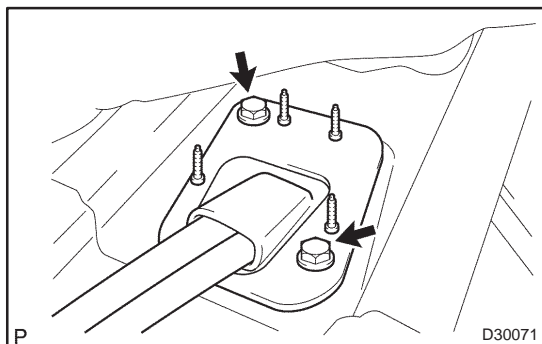
- (a) Remove the 3 nuts and heat insulator No.1.

**4. REMOVE TRANSMISSION CONTROL CABLE ASSY**

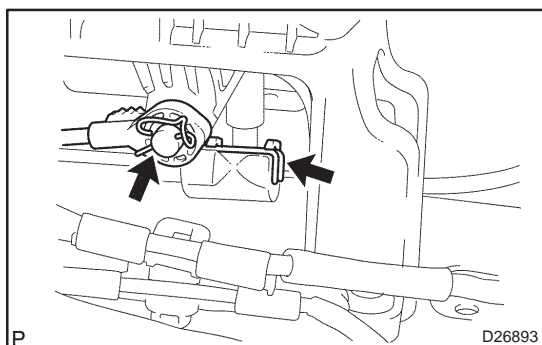
- (a) Remove the 2 clips, separate the 2 cables from the transaxle.
- (b) Remove the 2 clips, separate the 2 cables from the bracket.



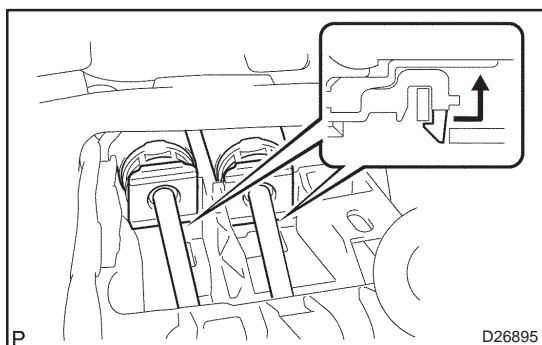
- (c) Remove the 2 nuts, separate the control cable assy.



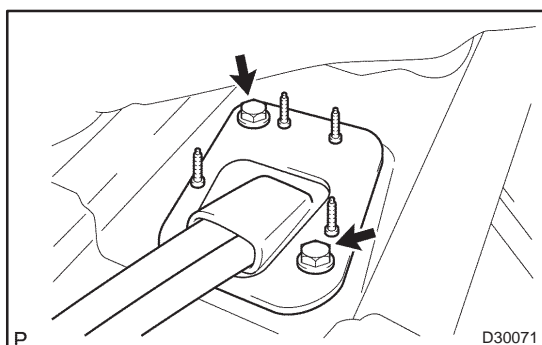
(d) Remove the 2 bolts, separate the control cable assy.



(e) Remove the 2 clips, separate the cable ends of the control cable assy.



(f) Release the claws, remove the control cable assy.

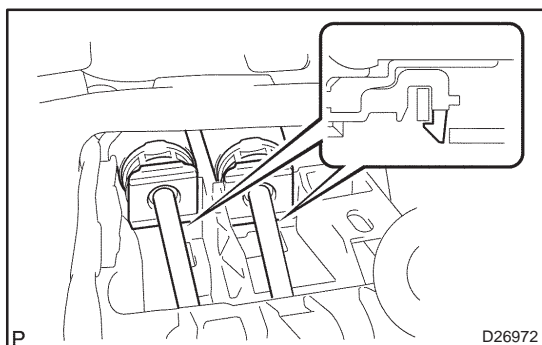


## 5. INSTALL TRANSMISSION CONTROL CABLE ASSY

(a) Put the control cable assy through the floor hole.

(b) Install the control cable assy with the 2 bolts.

**Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)**

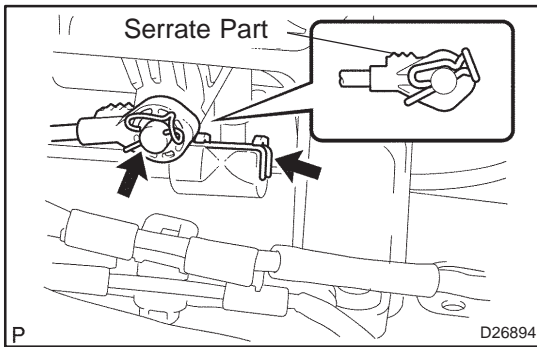


(c) Connect the control cable assy to the shift lever assy.

### NOTICE:

**Make sure that the claws are firmly engaged.**



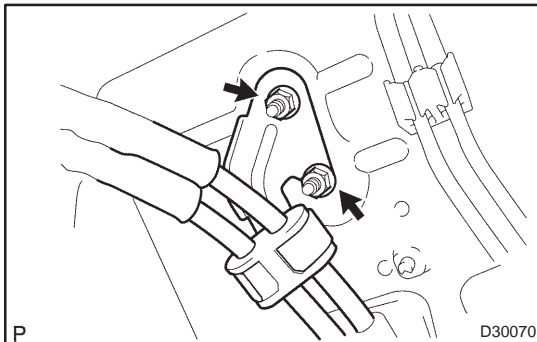


- (d) Connect the end of the select cable to the shift lever assy and install the clip.

**NOTICE:**

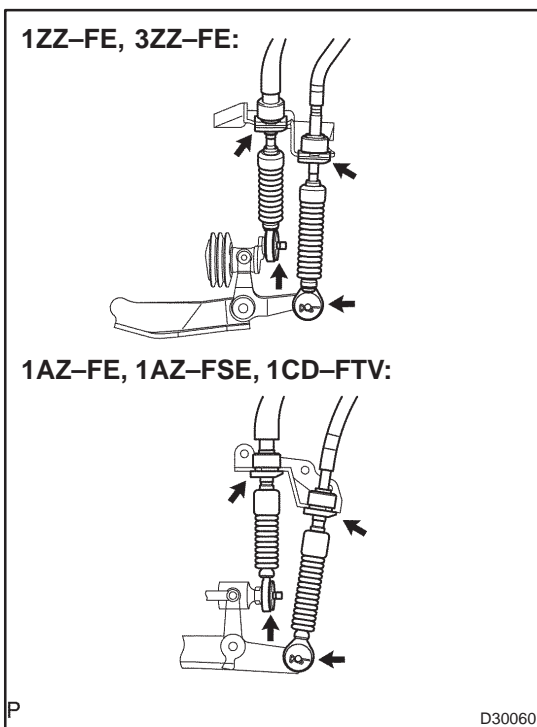
- The serrate part of the select cable point should face upward when the select cable point is connected.
- The clip should be inserted to the direction as shown in the illustration.

- (e) Connect the end of the shift cable to the shift lever assy.



- (f) Connect the control cable assy with the 2 nuts.

**Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)**



- (g) Connect the 2 cable ends, install the 2 clips.

- (h) Install the 2 clips to the control cable bracket.

## 6. INSTALL FRONT FLOOR HEAT INSULATOR NO.1 (GASOLINE ENGINE TYPE)

- (a) Install the heat insulator No.1 with the 3 nuts.

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

## 7. INSTALL EXHAUST PIPE ASSY

- (a) 1ZZ-FE, 3ZZ-FE Engine ([See page 15-2](#))  
 (b) 1AZ-FE, 1AZ-FSE Engine ([See page 15-7](#))  
 (c) 1CD-FTV Engine ([See page 15-10](#))