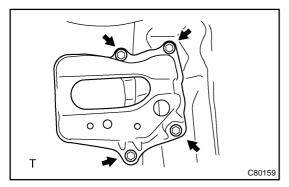
#### 40MT-01

## REPLACEMENT

- 1. REMOVE HOOD SUB-ASSY
- 2. REMOVE CYLINDER HEAD COVER NO.2
- 3. REMOVE BATTERY



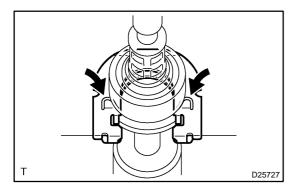
## 4. REMOVE BATTERY CARRIER

(a) Remove the 4 bolts and battery carrier.

## 5. REMOVE AIR CLEANER ASSEMBLY WITH HOSE



- (a) Remove the nut from the control shaft lever.
- (b) Disconnect the control cable from the control shaft lever.
- (c) Push the claw of the clip and disconnect the control cable from the bracket.
- (d) Remove the clip from the bracket.



# P C95377

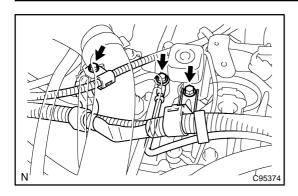
# 7. REMOVE TRANSMISSION CONTROL CABLE SUPPORT

- (a) Disconnect the control cable from the control cable support.
- (b) Remove the bolt and control cable support.

## 8. REMOVE TRANSMISSION CONTROL CABLE BRACKET NO.1

(a) Remove the 2 bolts and control cable bracket.

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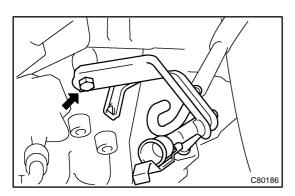


## 9. DISCONNECT WIRE HARNESS

- (a) Remove the bolt and disconnect the wire harness.
- (b) Remove the 2 bolts and disconnect the 2 wire harness clamp brackets.

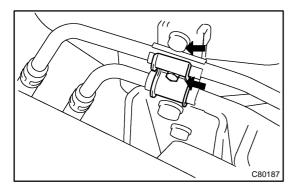
## 10. DISCONNECT CONNECTOR

- (a) Disconnect the transmission wire connector.
- (b) Disconnect the park/neutral position switch connector.
- (c) Disconnect the 2 transmission revolution sensor connectors.



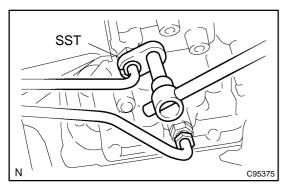
# 11. REMOVE TRANSMISSION OIL FILLER TUBE SUB-ASSY

- (a) Remove the ATF lever gauge.
- (b) Remove the bolt and oil filler tube.
- (c) Remove the O-ring from the oil filler tube.



## 12. REMOVE OIL COOLER INLET TUBE NO.1

(a) Remove the 2 bolts and oil tube clamp.



(b) Using SST, disconnect the oil cooler inlet tube No. 1. SST 09023–12700

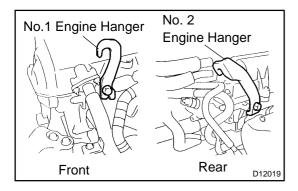
#### 13. REMOVE OIL COOLER OUTLET TUBE NO.1

(a) Using SST, disconnect the oil cooler outlet tube No. 1. SST 09023–12700

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#### 14. DISCONNECT OXYGEN SENSOR CONNECTOR

- (a) Remove the foot rest.
- (b) Pull up the floor carpet.
- (c) Disconnect the oxygen sensor connector.



#### 15. SUSPEND ENGINE ASSY

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

## Parts No.:

No.1 engine hanger: 12281-88600 No.2 engine hanger: 12282-88600

Bolt: 91512-61020

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

(c) Attach the engine chain hoist to the engine hangers.

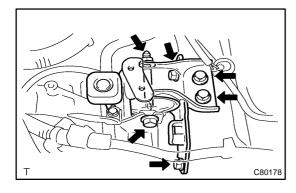
## **CAUTION:**

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

- 16. REMOVE FRONT WHEELS
- 17. REMOVE ENGINE UNDER COVER RH
- 18. REMOVE ENGINE UNDER COVER LH
- 19. DRAIN AUTOMATIC TRANSAXLE FLUID
- (a) Remove the drain plug and gasket, and drain ATF.
- (b) Install a new gasket and drain plug.

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

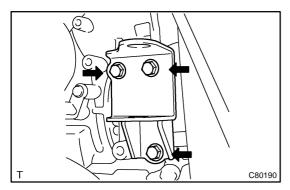
- 20. REMOVE FLOOR PANEL BRACE FRONT (See page 15-9)
- 21. REMOVE EXHAUST PIPE ASSY FRONT (See page 15–9)
- **22. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30–32)** SST 09520–01010, 09520–24010 (09520–32040)
- **23. REMOVE FRONT DRIVE SHAFT ASSY LH (See page 30–32)** SST 09520–01010, 09520–24010 (09520–32040)
- 24. REMOVE STARTER ASSY
- (a) Remove the nut and disconnect the starter wire.
- (b) Disconnect the connector.
- (c) Remove the 2 bolts and starter.
- 25. SUPPORT AUTOMATIC TRANSAXLE ASSY
- (a) Support the automatic transaxle with a transmission jack.



# 26. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

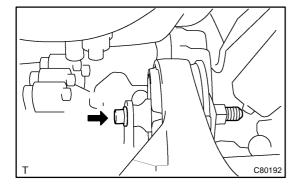
(a) Remove the 5 bolts, nut and engine mounting insulator LH.

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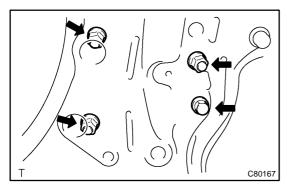
# 27. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

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

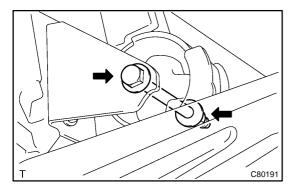


# 28. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

(a) Remove the bolt from the engine mounting bracket RR.

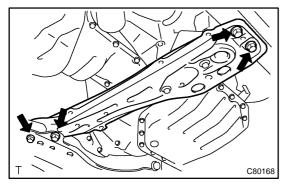


(b) Remove the 3 nuts, bolt and engine mounting insulator RR from the suspension member.



# 29. SEPARATE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

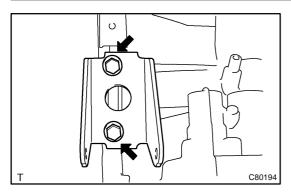
(a) Remove the bolt and nut from the engine mounting bracket FR.



# 30. REMOVE ENGINE MOUNTING MEMBER SUB-ASSY CENTER

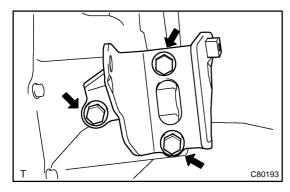
(a) Remove the 4 bolts and member sub–assy center with engine mounting insulator FR.

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# 31. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

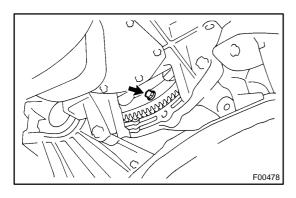
(a) Remove the 2 bolts and engine mounting bracket FR.



# 32. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

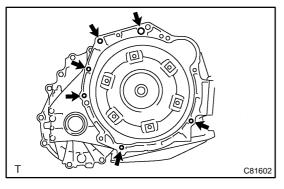
(a) Remove the 3 bolts and engine mounting bracket RR.

## 33. REMOVE FLYWHEEL HOUSING UNDER COVER



## 34. REMOVE AUTOMATIC TRANSAXLE ASSY

(a) Turn the crankshaft to gain access and remove the 6 bolts while holding the crankshaft pulley bolt with a wrench.



- (b) Remove the 6 bolts.
- (c) Separate and remove the automatic transaxle.

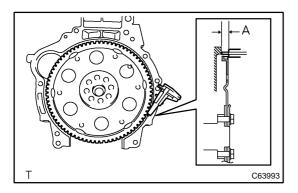
- 35. REMOVE TORQUE CONVERTER CLUTCH ASSY
- 36. INSPECT TORQUE CONVERTER CLUTCH ASSY (See page 40-43)

SST 09350-32014 (09351-32010, 09351-32020)

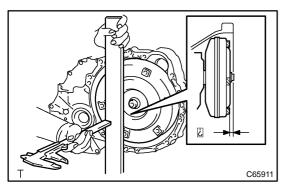
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## 37. INSTALL TORQUE CONVERTER CLUTCH ASSY

(a) Install the torque converter clutch to the automatic transaxle.



(b) Using vernier calipers, measure the dimension "A" between the transaxle fitting part and the converter fitting part of the drive plate.

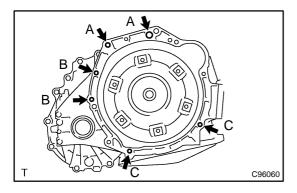


(c) Using vernier calipers and a straight edge, measure the dimension "B" shown in the illustration and check that "B" is greater than "A" measured in (b).

Standard: A + 1 mm or more

#### NOTICE:

Do not add the thickness of straight edge.

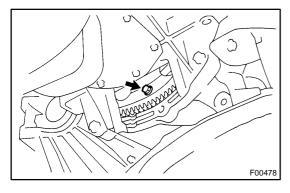


## 38. INSTALL AUTOMATIC TRANSAXLE ASSY

(a) Install the automatic transaxle and 6 bolts to the engine.

Torque:

Bolt A: 64 N m (650 kgf cm, 47 ft lbf) Bolt B: 46 N m (470 kgf cm, 34 ft lbf) Bolt C: 23 N m (235 kgf cm, 17 ft lbf)



(b) Install the 6 torque converter mounting bolts.

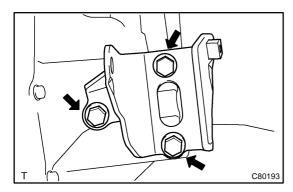
Torque: 41 N·m (418 kgf·cm, 30 ft·lbf)

HINT:

First install yellowish green colored bolt and then the 5 bolts.

#### 39. INSTALL FLYWHEEL HOUSING UNDER COVER

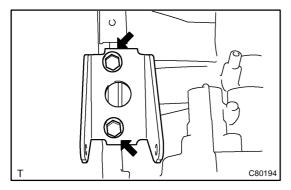
2003 COROLLA MATRIX (RM940U)



# 40. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

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

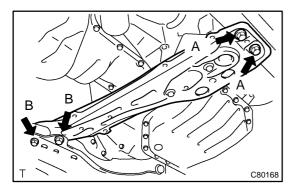
Torque: 64 N·m (652 kgf·cm, 47 ft·lbf)



## 41. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

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

Torque: 64 N·m (652 kgf·cm, 47 ft·lbf)

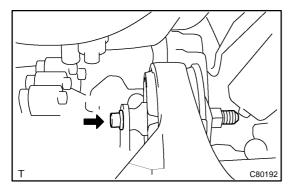


# 42. INSTALL ENGINE MOUNTING MEMBER SUB-ASSY CENTER

(a) Install the member sub–assy center with engine mounting insulator FR and 4 bolts.

Torque:

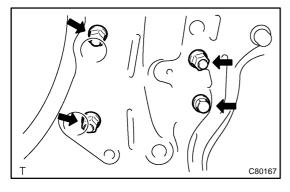
Bolt A: 39 N·m (398 kgf·cm, 29 ft·lbf) Bolt B: 52 N·m (530 kgf·cm, 38 ft·lbf)



# 43. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

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

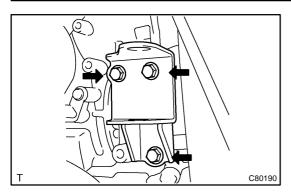
Torque: 87 N·m (887 kgf·cm, 64 ft·lbf)



(b) Tighten the 3 nuts and bolt.

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

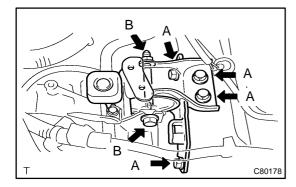
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## 44. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

(a) Install the engine mounting bracket LH and 3 bolts to the automatic transaxle.

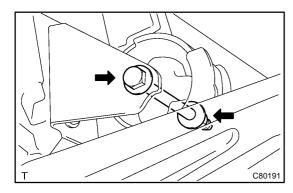
Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)



# 45. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

(a) Install the engine mounting insulator LH, 5 bolts and nut. **Torque:** 

Bolt A: 52 N·m (530 kgf·cm, 38 ft·lbf) Bolt B: 80 N·m (815 kgf·cm, 59 ft·lbf) Nut B: 80 N·m (815 kgf·cm, 59 ft·lbf)



# 46. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR

(a) Install the bolt and nut to the engine mounting bracket FR. Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)

## 47. INSTALL STARTER ASSY

(a) Install the starter and 2 bolts.

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

- (b) Connect the connecter.
- (c) Install the starter wire and nut.

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

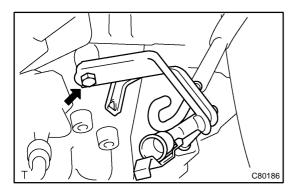
- 48. INSTALL FRONT DRIVE SHAFT ASSY LH (See page 30–32)
- 49. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-32)
- 50. INSTALL EXHAUST PIPE ASSY FRONT (See page 15-9)
- 51. INSTALL ENGINE UNDER COVER LH
- 52. INSTALL ENGINE UNDER COVER RH
- 53. INSTALL FRONT WHEELS

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

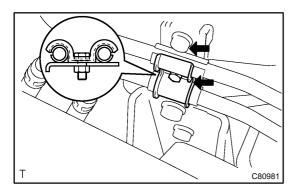
- 54. INSTALL OXYGEN SENSOR CONNECTOR
- (a) Connect the oxygen sensor connector.
- (b) Install the floor carpet and foot rest.

# 55. INSTALL TRANSMISSION OIL FILLER TUBE SUB-ASSY

(a) Coat a new O-ring with ATF, and install them to the oil filler tube.

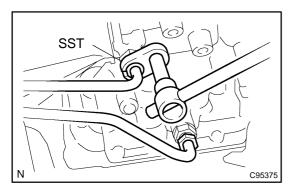


- (b) Install the oil filler tube and bolt to the automatic transaxle.
  - Torque: 5.5 N m (56 kgf cm, 49 in. lbf)
- (c) Install the ATF lever gauge.
- 56. INSTALL OIL COOLER OUTLET TUBE NO.1
- (a) Temporarily install the oil cooler outlet tube No. 1.
- (b) Temporarily install the oil cooler inlet tube No. 1.



- (c) Install the oil cooler tube clamp and 2 bolts.
  - Torque: 5.5 N·m (56 kgf·cm, 49 in. lbf)
- (d) Using SST, tighten the oil cooler outlet tube No. 1.
  - SST 09023-12700

Torque: 34.5 N·m (350 kgf·cm, 25 ft·lbf)



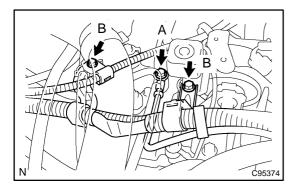
## 57. INSTALL OIL COOLER INLET TUBE NO.1

(a) Using SST, tighten the oil cooler inlet tube No. 1. SST 09023–12700

Torque: 34.5 N m (350 kgf cm, 25 ft lbf)

## 58. CONNECT CONNECTOR

- (a) Connect the transmission wire connector.
- (b) Connect the park/neutral position switch connector.
- (c) Connect the 2 transmission revolution sensor connector.



## **59. INSTALL WIRE HARNESS**

- (a) Install the wire harness with the bolt.
  - **Torque:**

Bolt A: 13 N m (132 kgf cm, 10 ft lbf)

(b) Install the 2 wire harness clamp brackets with the 2 bolts.

Torque:

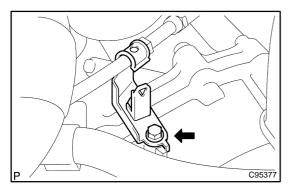
Bolt B: 5.4 N·m (55 kgf·cm, 48 in. lbf)

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#### 60. INSTALL TRANSMISSION CONTROL CABLE BRACKET NO.1

(a) Install the control cable bracket and 2 bolts.

Torque: 12 N·m (122 kgf·cm, 9 ft·lbf)



# 61. INSTALL TRANSMISSION CONTROL CABLE SUPPORT

(a) Install the control cable support and bolt.

Torque: 12 N m (122 kgf cm, 9 ft lbf)

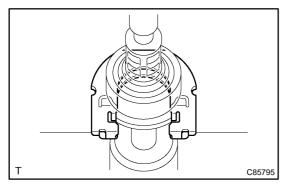
(b) Connect the control cable and wire harness to the control cable support.

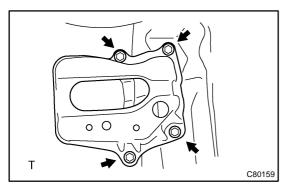
# 62. INSTALL FLOOR SHIFT CABLE TRANSMISSION CONTROL SHIFT

- (a) Temporarily install the control cable to the control shaft lever with the nut.
- (b) Install a new clip to the bracket.
- (c) Connect the control cable to the bracket.



Insert the cable securely.





## 63. INSTALL BATTERY CARRIER

(a) Install the battery carrier and 4 bolts.

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

64. INSTALL AIR CLEANER ASSEMBLY WITH HOSE

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

65. INSTALL CYLINDER HEAD COVER NO.2

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

66. INSTALL HOOD SUB-ASSY

Torque: 13 N·m (130 kgf·cm, 10 ft·lbf)

- 67. INSPECT HOOD SUB-ASSY (See page 75-1)
- 68. ADJUST HOOD SUB-ASSY (See page 75-1)
- 69. ADD AUTOMATIC TRANSAXLE FLUID
- 70. INSPECT AUTOMATIC TRANSAXLE FLUID (See page 40-2)
- 71. ADJUST SHIFT LEVER POSITION (See page 40–87)
- 72. INSPECT SHIFT LEVER POSITION (See page 40–87)
- 73. INSPECT FRONT WHEEL ARIMENT (See page 26-6)
- 74. CHECK ABS SPEED SENSOR SIGNAL (See page 05-316)

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