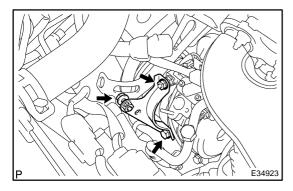
170HH-02

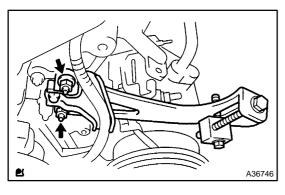
REPLACEMENT

- 1. REMOVE FRONT WHEEL RH
- 2. REMOVE FRONT FENDER APRON SEAL RH
- 3. REMOVE ENGINE UNDER COVER RH
- 4. DRAIN ENGINE OIL
- (a) Install a new gasket after draining engine oil.
 - Torque: 45 N·m (459 kgf·cm, 33 ft·lbf)
- 5. REMOVE FRONT SUSPENSION UPPER BRACE CENTER (W/ FRONT SUSPENSION BRACE UPPER CENTER)
- 6. REMOVE V BELT NO. 1 (See page 14-140)
- 7. REMOVE VANE PUMP V BELT (See page 14-140)
- 8. REMOVE ENGINE MOVING CONTROL ROD (See page 14-164)
- 9. REMOVE ENGINE MOUNTING STAY NO.2 RH (See page 14-164)
- 10. REMOVE GENERATOR BRACKET NO.2
- 11. REMOVE CRANKSHAFT PULLEY (See page 14-186)
- 12. REMOVE TIMING BELT NO.1 COVER (See page 14-186)
- 13. REMOVE TIMING BELT NO.2 COVER (See page 14-186)
- 14. REMOVE TIMING BELT GUIDE NO.2
- 15. REMOVE TIMING BELT (See page 14–186)
- 16. REMOVE EXHAUST PIPE NO.1 SUPPORT BRACKET
- 17. REMOVE EXHAUST PIPE ASSY FRONT
- 18. REMOVE EXHAUST PIPE SUPPORT BRACKET NO.1

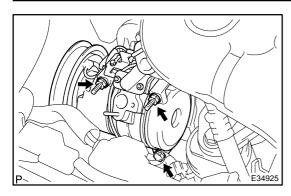


19. SEPARATE COMPRESSOR AND MAGNETIC CLUTCH

(a) Remove the 2 bolts, nut and the drive belt adjusting bar bracket.



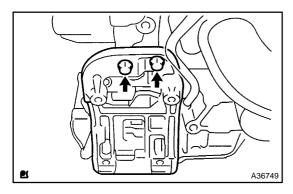
- (b) Remove the 2 nuts, the generator bracket adjusting bar with wire harness clamp bracket.
- (c) Disconnect the compressor, magnetic clutch connector and the wire harness clamp.



(d) Remove the 3 bolts, the compressor and magnetic clutch. HINT:

Hang up the hoses instead of detaching.

- 20. REMOVE TIMING BELT IDLER SUB-ASSY NO.2 (See page 14-186)
- 21. REMOVE CAMSHAFT TIMING PULLEY (See page 14–186)
- 22. REMOVE TIMING BELT IDLER SUB-ASSY NO.1
- (a) Using a 10 mm socket hexagon wrench, remove the timing belt idler and plate washer.
- 23. REMOVE CRANKSHAFT TIMING PULLEY (See page 14-186)
- 24. REMOVE TIMING BELT NO.3 COVER (See page 14-186)

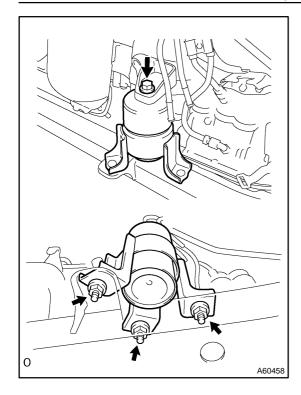


25. REMOVE COMPRESSOR MOUNTING BRACKET NO.1

(a) Remove the 2 bolts and mounting bracket.

26. REMOVE OIL LEVEL GAGE GUIDE

(a) Remove the bolt and gage guide.



27. SEPARATE ENGINE MOUNTING INSULATOR FR

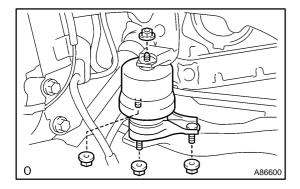
(a) Remove the 3 nuts and bolt. Then separate the engine mounting insulator.

NOTICE:

Do not remove the engine mounting insulator.



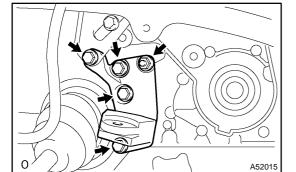
(a) Remove the bolt and disconnect the power steering return hose clamp from the frame.



- (b) Remove the 4 nuts.
- (c) Prepare a jack. Place a wooden block on the jack and set the jack under the engine. Remove the engine mounting insulator.
- (d) Raise the jack and lift up the engine. Then remove the engine mounting insulator RH.

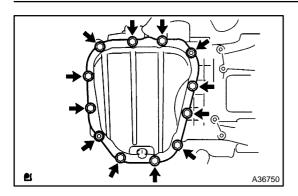
NOTICE:

Be careful not to damage the contact surfaces of the oil pan.



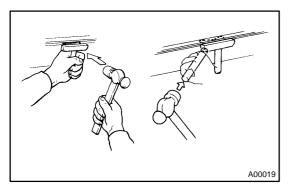
29. REMOVE ENGINE MOUNTING BRACKET RH

(a) Remove the 4 bolts, nut and bracket.



30. REMOVE OIL PAN SUB-ASSY NO.2

(a) Remove the 10 bolts, 2 nuts and oil pan.



(b) Insert the blade of SST between the oil pan No. 1 and oil pan No. 2, cut through the sealer and remove oil pan No. 2.

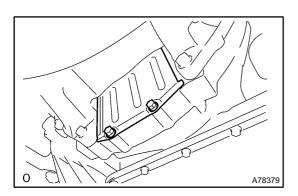
SST 09032-00100

NOTICE:

- Do not damage the contact surface of oil pan No. 1 and oil pan No. 2.
- Do not damage the flange portion of oil pan No.2 during removal.

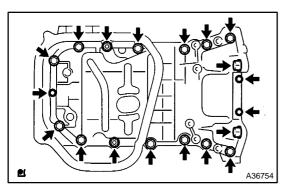
31. REMOVE OIL STRAINER SUB-ASSY

(a) Remove the bolt and 2 nuts, and remove the oil strainer and gasket.

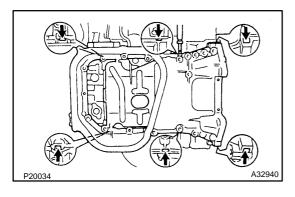


32. REMOVE OIL PAN SUB-ASSY

(a) Remove the 2 bolts and the flywheel housing under cover.



(b) Uniformly loosen the 17 bolts and 2 nuts. Remove the bolts and nuts.



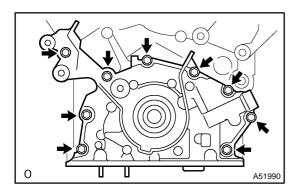
(c) Using a screwdriver, remove the oil pan by prying the portions between the cylinder block and oil pan shown in the illustration.

NOTICE:

Be careful not to damage the contact surfaces of the cylinder block and oil pan.

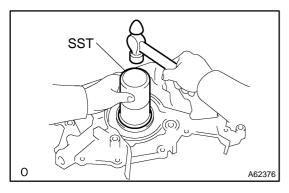
33. REMOVE CRANKSHAFT POSITION SENSOR

- (a) Disconnect the sensor connector.
- (b) Remove the bolt and sensor.



34. REMOVE OIL PUMP ASSY

- (a) Remove the 9 bolts.
- (b) Using a screwdriver, remove the oil pump by prying between the oil pump and the main bearing cap.
- (c) Remove the O-ring.



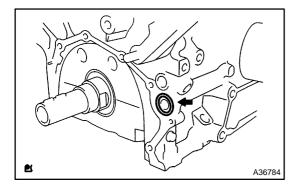
35. INSTALL OIL PUMP ASSY

(a) Using SST and a hammer, install a new oil seal. Tap the surface of the SST with the hammer until the oil seal's surface is flush with oil pump body edge.

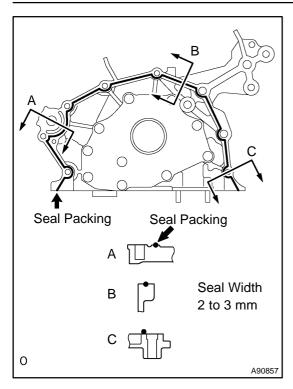
SST 09223-00010

NOTICE:

- Be careful not to tap the oil seal at an angle.
- Keep the gap between the oil pump body edge and the oil seal free from contamination.
- (b) Apply a small amount of MP grease to the oil seal lip.
- (c) Remove any old seal packing material from the contact surface.



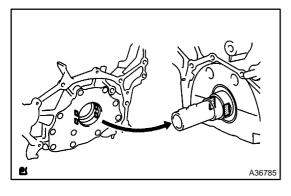
(d) Apply a light coat of engine oil to a new O-ring and place it on the cylinder block.



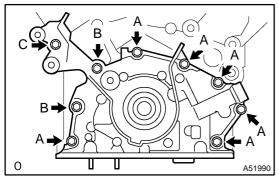
(e) Apply a continuous bead of seal packing (diameter 2 to 3 mm (0.08 to 0.12 in.)) as shown in the illustration.

Seal packing: Part No. 08226–00080 or equivalent NOTICE:

- Remove any oil from contact surface.
- Apply seal packing to the inner side of the bolt holes.
- Install the oil pump within 3 minutes after applying seal packing.
- Do not expose the seal to engine oil for at least 2 hours after installing the oil pump.



(f) Align the key of the oil pump drive gear with the key way located on the crankshaft, and slide the oil pump into place.

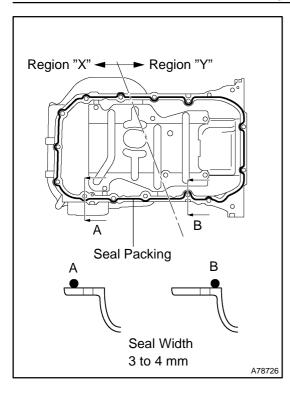


(g) Install the oil pump by tightening the 9 bolts uniformly. **Torque:**

8.0 N m (82 kgf cm, 71 in. lbf) for bolt A 20 N m (203 kgf cm, 15 ft lbf) for bolt B 43 N m (439 kgf cm, 32 ft lbf) for bolt C

36. INSTALL CRANKSHAFT POSITION SENSOR

Torque: 8 N·m (82 kgf·cm, 71 in. lbf)



37. INSTALL OIL PAN SUB-ASSY

- (a) Remove any old seal packing from the contact surface.
- (b) Apply a continuous bead of seal packing (diameter 3 to 4 mm (0.12 to 0.16 in.)) as shown in the illustration.

Seal packing: Part No. 08826–00080 or equivalent NOTICE:

- Remove any oil from the contact surface.
- Apply seal packing to the outer side of the bolt holes in the region "X".
- Apply seal packing to the inner side of the bolt holes in the region "Y".
- Install the oil pan within 3 minutes after applying seal packing.
- Do not expose the seal to engine oil for at least 2 hours after installing the oil pan.
- (c) Install the oil pan No.1 by tightening the oil pan's 17 bolts and 2 nuts uniformly.

Torque:

8.0 N m (82 kgf cm, 71 in. lbf) for 10 mm head 20 N m (204 kgf cm, 15 ft lbf) for 12 mm head 37 N m (379 kgf cm, 27 ft lbf) for 14 mm head

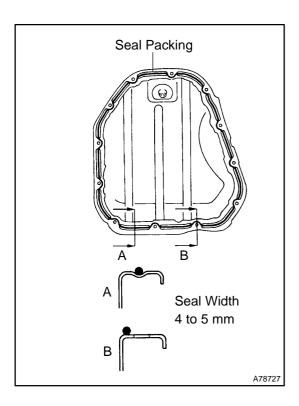
(d) Install the flywheel housing under cover with the 2 bolts.

Torque: 7.8 N·m (80 kgf·cm, 69 in.·lbf)

38. INSTALL OIL STRAINER SUB-ASSY

(a) Install a new gasket and the oil strainer with the bolt and 2 nuts.

Torque: 8 N·m (82 kgf·cm, 71 in. lbf)



39. INSTALL OIL PAN SUB-ASSY NO.2

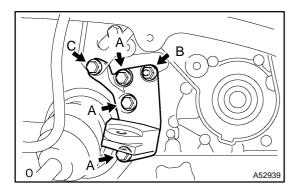
- (a) Remove any old seal packing from the contact surface.
- (b) Apply a continuous bead of seal packing (diameter 4 to 5 mm (0.16 to 0.20 in.)) as shown in the illustration.

Seal packing: Part No. 08826–00080 or equivalent

NOTICE:

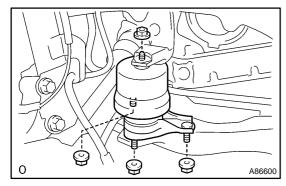
- Remove any oil from the contact surface.
- Apply seal packing to the inner side of the bolt holes.
- Install the oil pan within 3 minutes after applying seal packing.
- Do not expose the seal to engine oil for at least 2 hours after installing the oil pan.
- (c) Install the oil pan with the 10 bolts and 2 nuts.

Torque: 8.0 N·m (82 kgf·cm, 71 in. lbf)



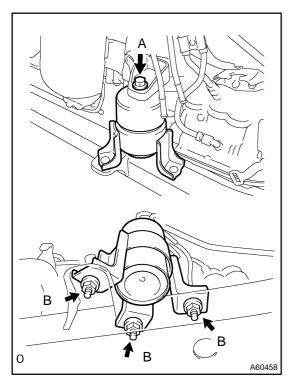
40. INSTALL ENGINE MOUNTING BRACKET RH Torque:

54 N m (550 kgf cm, 40 ft lbf) for bolt A 54 N m (550 kgf cm, 40 ft lbf) for nut B 43 N m (439 kgf cm, 32 ft lbf) for bolt C



41. INSTALL ENGINE MOUNTING INSULATOR RH Torque:

95 N·m (969 kgf·cm, 70 ft·lbf) for nut A 87 N·m (887 kgf·cm, 64 ft·lbf) for nut B



42. INSTALL ENGINE MOUNTING INSULATOR FR Torque:

87 N·m (887 kgf·cm, 64 ft·lbf) for bolt A 52 N·m (531 kgf·cm, 38 ft·lbf) for nut B

43. INSTALL OIL LEVEL GAGE GUIDE

(a) Install a new O-ring, bolt and gage guide.

Torque: 8 N·m (82 kgf·cm, 71 in. lbf)

44. INSTALL COMPRESSOR MOUNTING BRACKET NO.1

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

- 45. INSTALL TIMING BELT NO.3 COVER (See page 14–186)
- 46. INSTALL TIMING BELT IDLER SUB-ASSY NO.1
- (a) Using a 10 mm hexagon wrench, install the plate washer and idler pulley with the pivot bolt. Torque: 34 N·m (347 kgf·cm, 25 ft·lbf)
- 47. INSTALL TIMING BELT IDLER SUB-ASSY NO.2 (See page 14-186)

- 48. INSTALL CAMSHAFT TIMING PULLEY (See page 14–186)
- 49. INSTALL COMPRESSOR AND MAGNETIC CLUTCH Torque: 25 N m (250 kgf cm, 18 ft lbf)
- 50. INSTALL EXHAUST PIPE SUPPORT BRACKET NO.1 (See page 15–7)
- 51. INSTALL EXHAUST PIPE ASSY FRONT (See page 15-7)
- 52. INSTALL EXHAUST PIPE NO.1 SUPPORT BRACKET (See page 15-7)
- 53. INSPECT TIMING BELT (See page 14-186)
- 54. INSTALL TIMING BELT (See page 14–186)
- 55. INSTALL TIMING BELT GUIDE NO.2
- 56. INSTALL TIMING BELT NO.2 COVER (See page 14-186)
- 57. INSTALL TIMING BELT NO.1 COVER (See page 14–186)
- 58. INSTALL CRANKSHAFT PULLEY (See page 14–186)
- 59. INSTALL GENERATOR BRACKET NO.2 Torque: 28 N·m (286 kgf·cm, 21 in. lbf)
- 60. INSTALL ENGINE MOUNTING STAY NO.2 RH (See page 14-164)
- 61. INSTALL ENGINE MOVING CONTROL ROD (See page 14–164)
- 62. INSTALL VANE PUMP V BELT (See page 14-140)
- 63. INSTALL V BELT NO. 1 (See page 14–140)
- 64. INSPECT DRIVE BELT TENSION (See page 14-136)
- 65. INSTALL FRONT SUSPENSION UPPER BRACE CENTER (W/ FRONT SUSPENSION BRACE UPPER CENTER)
 - Torque: 80 N·m (816 kgf·cm, 59 ft·lbf)
- 66. ADD ENGINE OIL
- 67. INSPECT CHECK FOR ENGINE OIL LEAKS
- 68. INSTALL FRONT WHEEL RH
- 69. CHECK FOR EXHAUST GAS LEAKS