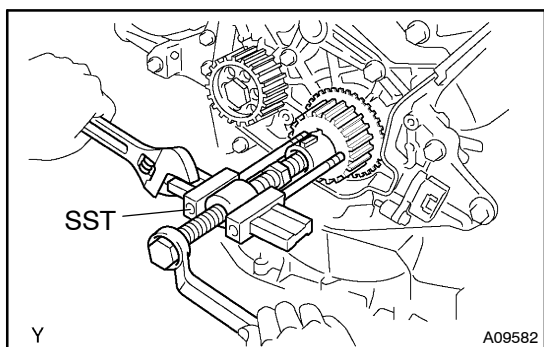


REPLACEMENT

1. DRAIN ENGINE OIL
2. REMOVE FRONT WHEEL RH
3. REMOVE ENGINE UNDER COVER RH
4. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1
(See page 4-75)
5. REMOVE FAN AND GENERATOR V BELT
(See page 4-75)
6. REMOVE ENGINE MOUNTING BRACKET NO.2 RH
(See page 4-114)
7. REMOVE CRANKSHAFT PULLEY
(See page 4-114)
SST 09213-54015 (91651-60855), 09330-00021, 09950-50013 (09951-05010, 09952-05010, 09953-05010, 09953-05020, 09954-05021, 09954-05030)
8. REMOVE TIMING BELT NO.2 COVER
(See page 4-114)
9. REMOVE TIMING BELT NO.1 COVER
(See page 4-114)
10. REMOVE TIMING BELT GUIDE
11. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET
(See page 4-114)
12. SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 4-114)
13. REMOVE TIMING BELT
14. REMOVE TIMING BELT IDLER SUB-ASSY NO.2



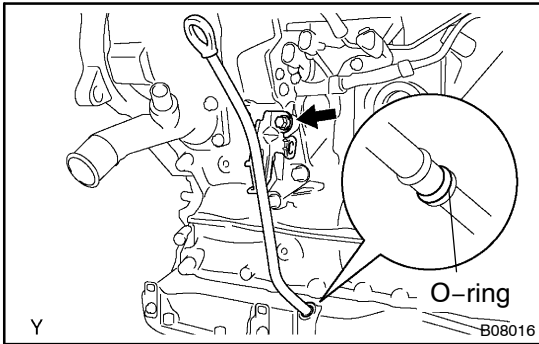
15. REMOVE CRANKSHAFT TIMING PULLEY

- (a) If the pulley cannot be removed by hand, use SST to remove the timing pulley.

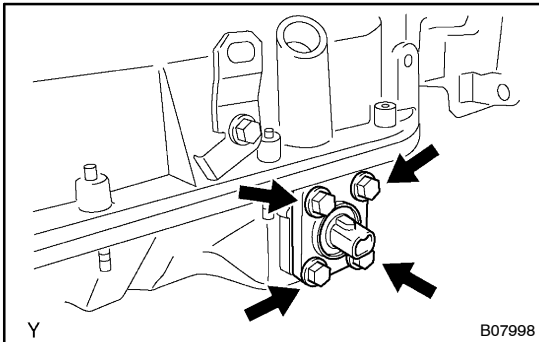
SST 09950-50013 (09951-05010, 09952-05010, 09953-05010, 09953-05020, 09954-05021)

16. REMOVE GENERATOR ASSY
(See page 9-15)
17. REMOVE V-RIBBED BELT TENSIONER ASSY

- (a) Remove the bolt, 2 nuts and V-ribbed belt tensioner.

**18. REMOVE OIL LEVEL GAGE GUIDE**

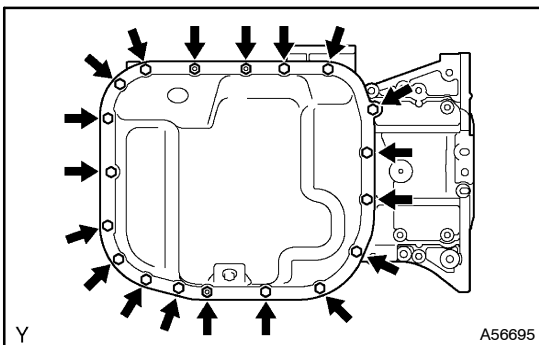
- (a) Remove the bolt holding the oil level gage guide to the supply pump stay.
- (b) Pull out the oil level gage guide together with the oil level gage from the No. 1 oil pan.
- (c) Remove the O-ring from the oil level gage guide.

**19. REMOVE ENGINE OIL LEVEL SENSOR**

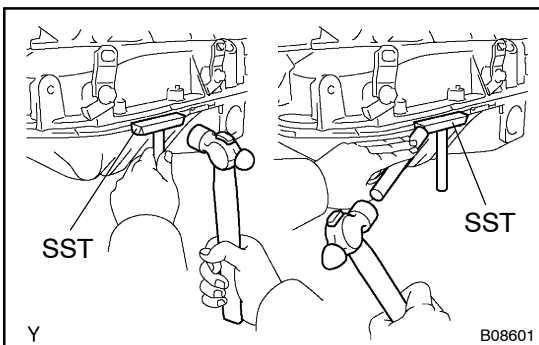
- (a) Remove the 4 bolts and level sensor.

NOTICE:

Be careful not to drop the oil level sensor when removing it.

**20. REMOVE OIL PAN SUB-ASSY NO.2**

- (a) Remove the 16 bolts and 3 nuts.

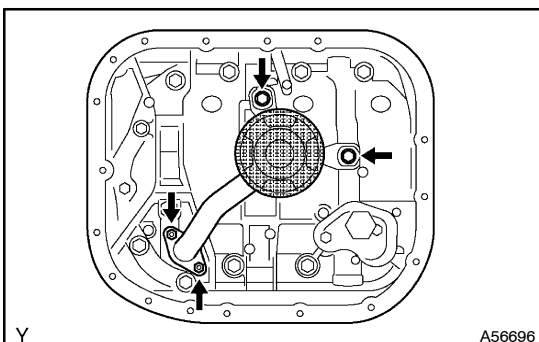


- (b) Insert the blade of SST between the No. 1 and No. 2 oil pans, and cut off applied sealer and remove the No. 2 oil pan.

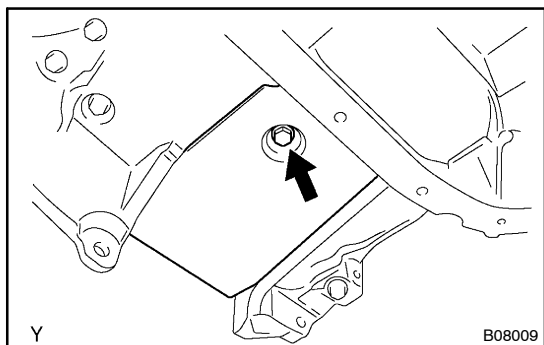
SST 09032-00100

NOTICE:

Be careful not to damage the contact surfaces of the No. 1 and No. 2 oil pans.

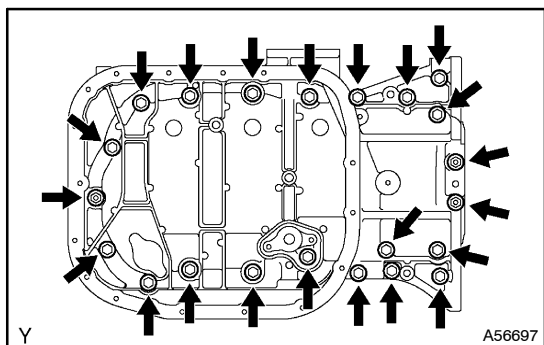
**21. REMOVE OIL STRAINER SUB-ASSY**

- (a) Remove the 2 bolts, 2 nuts, oil strainer and gasket.



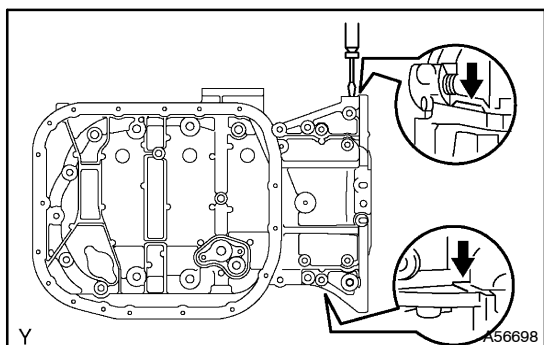
22. REMOVE OIL PAN INSULATOR

- (a) Remove the bolt and oil pan insulator.



23. REMOVE OIL PAN SUB-ASSY

- (a) Remove the 19 bolts and 3 nuts.



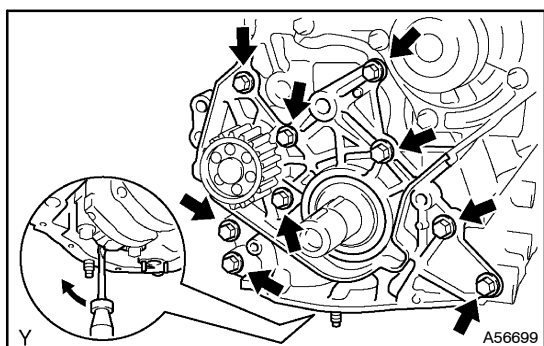
- (b) Using a screwdriver, remove the oil pan by prying the portions between the cylinder block and No. 1 oil pan.

NOTICE:

Be careful not to damage the contact surfaces of the cylinder block and No. 1 oil pan.

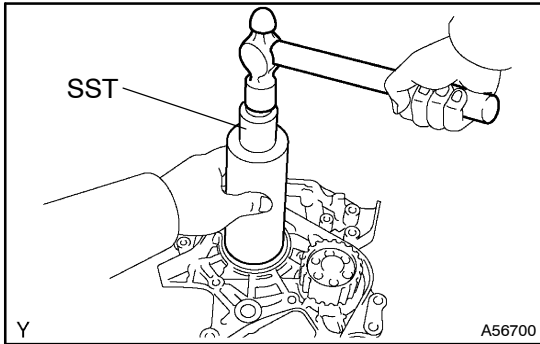
24. REMOVE CRANK POSITION SENSOR

25. REMOVE OIL PUMP INSULATOR



26. REMOVE OIL PUMP ASSY

- (a) Remove the 9 bolts.
 (b) Remove the oil pump by prying a screwdriver between the oil pump and main bearing cap.
 (c) Remove the gasket.

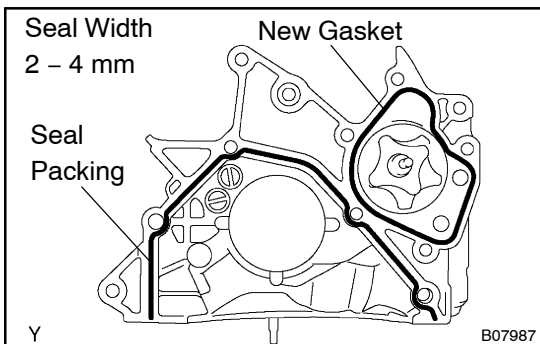


27. INSTALL CRANKSHAFT SEAL

- (a) Using SST and a hammer, tap in a new oil seal until its surface is flush with the oil pump edge.
SST 09316-60011 (09316-00011, 09316-00021)

28. INSTALL OIL PUMP ASSY

- (a) Remove any old packing (FIPG) material and be careful not to drop any oil on the contact surfaces of the oil pump and cylinder block.
- (1) Using a razor blade and gasket scraper, remove all the old packing (FIPG) material from the gasket surfaces and sealing groove.
 - (2) Thoroughly clean all components to remove all the loose material.
 - (3) Using a non-residue solvent, clean both sealing surfaces.



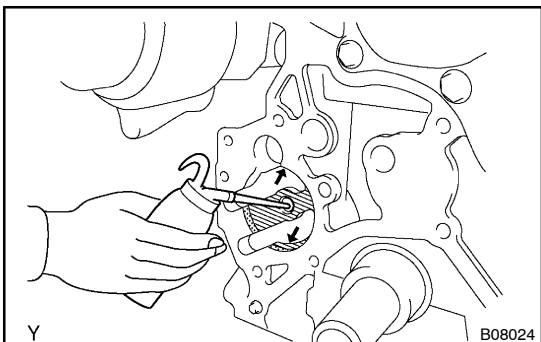
- (b) Apply seal packing to the oil pump as shown in the illustration.

Seal packing: Part No. 08826-00080 or equivalent

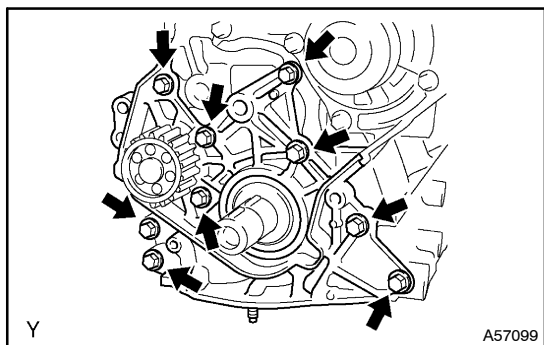
NOTICE:

Avoid applying an excessive amount to the surface.

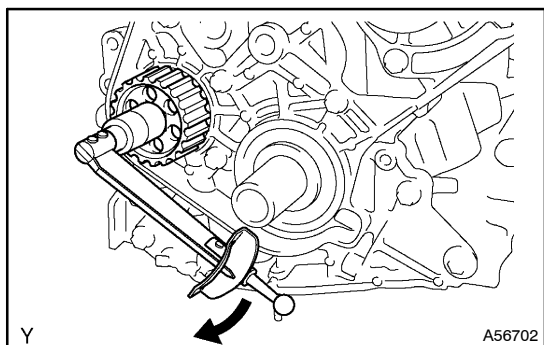
- (1) Install a nozzle that has been cut to a 2 - 4 mm (0.08 - 0.16 in.) opening.
 - (2) Parts must be assembled within 15 minutes of application. Otherwise the material must be removed and reapplied.
 - (3) Immediately remove nozzle from the tube and reinstall cap.
- (c) Install a new gasket to the oil pump.



- (d) Pour in 0.5 cm³ (0.03 cu in.) or more of engine oil into the bushing of the cylinder block.
- (e) Apply engine oil to the cylinder block side where it contacts with the oil pump driven rotor.



- (f) Install the oil pump with the 9 bolts.
Torque: 31 N·m (316 kgf·cm, 23 ft·lbf)



- (g) Measure the oil pump rotating torque.
 (1) Check that the pump rotates smoothly without abnormal noise.
 (2) Using a torque wrench, check the pump rotating torque.

Rotating torque: 3.0 N·m (30 kgf·cm, 26 in·lbf) or less

29. INSTALL OIL PUMP INSULATOR

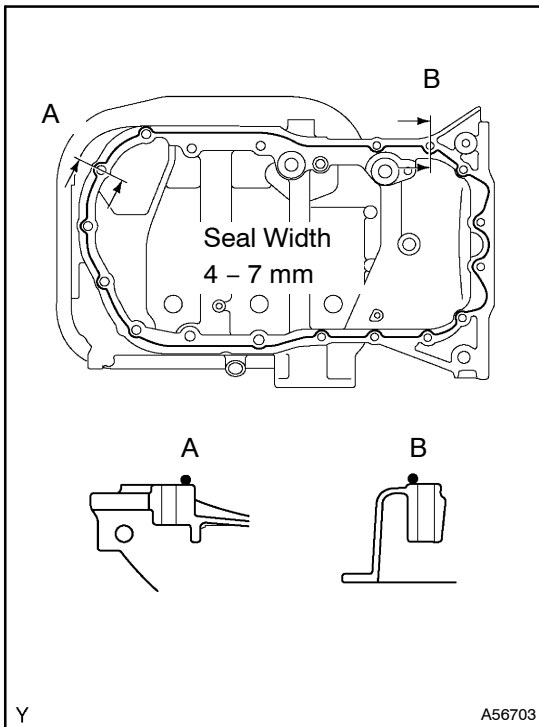
Torque: 7.5 N·m (77 kgf·cm, 66 in·lbf)

30. INSTALL CRANK POSITION SENSOR

Torque: 8.8 N·m (90 kgf·cm, 78 in·lbf)

31. INSTALL OIL PAN SUB-ASSY

- (a) Remove any old packing (FIPG) material and be careful not to drop any oil on the contact surfaces of the No. 1 oil pan, cylinder block and oil pump and rear oil seal retainer.
- (1) Using a razor blade and gasket scraper, remove all the old packing (FIPG) material from the gasket surfaces.
 - (2) Thoroughly clean all components to remove all the loose material.
 - (3) Using a non-residue solvent, clean both sealing surfaces.



- (b) Apply a seal packing to the No. 1 oil pan as shown in the illustration.

Seal packing: Part No. 08826-00080 or equivalent

- (1) Install a nozzle that has been cut to a 4 – 7 mm (0.16 – 0.28 in.) opening.
 - (2) Parts must be assembled within 15 minutes of application. Otherwise the material must be removed and reapplied.
 - (3) Immediately remove nozzle from the tube and re-install cap.
- (c) Install the oil pan with the 19 bolts and 3 nuts.

Torque:

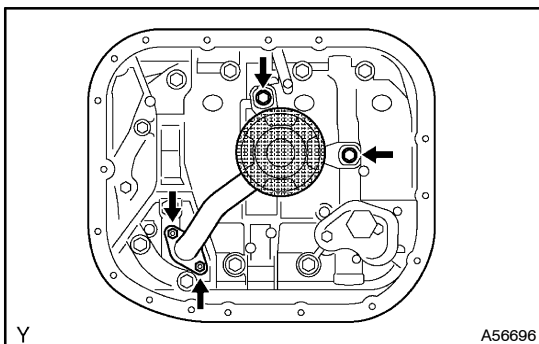
8.0 N·m (80 kgf·cm, 69 in·lbf) for 10 mm head bolt and nut

21 N·m (210 kgf·cm, 15 ft·lbf) for 12 mm head bolt

32. INSTALL OIL PAN INSULATOR

- (a) Install the oil pan insulator with the bolt.

Torque: 7.5 N·m (75 kgf·cm, 65 in·lbf)



33. INSTALL OIL STRAINER SUB-ASSY

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

Torque:

21 N·m (214 kgf·cm, 15 ft·lbf) for bolt

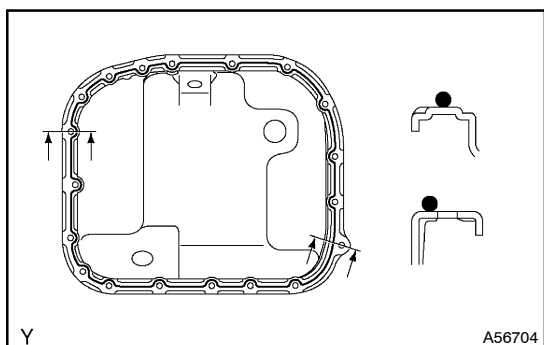
13 N·m (133 kgf·cm, 10 ft·lbf) for nut

34. INSTALL OIL PAN SUB-ASSY NO.2

- (a) Remove any old packing (FIPG) material and be careful not to drop any oil on the contact surfaces of the No. 1 and No. 2 oil pans.
- (1) Using a razor blade and gasket scraper, remove all the old packing (FIPG) material from the gasket surfaces.
 - (2) Thoroughly clean all components to remove all the loose material.
 - (3) Using a non-residue solvent, clean both sealing surfaces.

NOTICE:

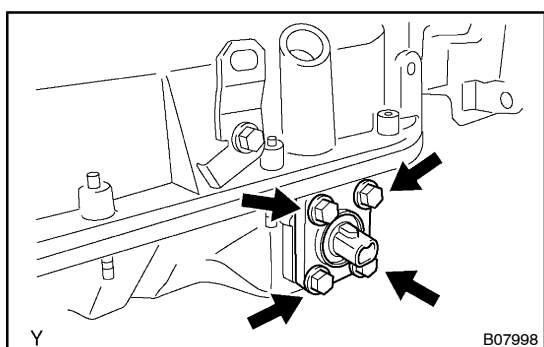
Do not use a solvent which will affect the painted surfaces.



- (b) Apply a seal packing to the oil pan as shown in the illustration.

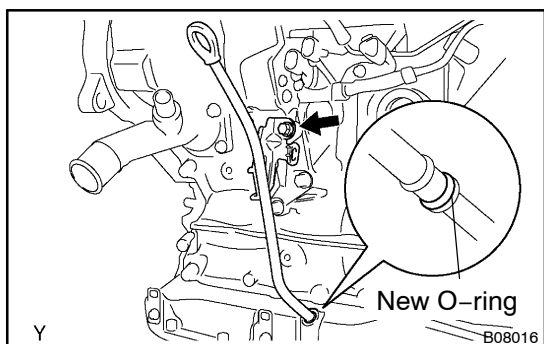
Seal packing: Part No. 08826-00080 or equivalent

- (1) Install a nozzle that has been cut to a 4 – 7 mm (0.16 – 0.28 in.) opening.
 - (2) Parts must be assembled within 15 minutes of application. Otherwise the material must be removed and reapplied.
 - (3) Immediately remove nozzle from the tube and reinstall the cap.
- (c) Install the oil pan with the 16 bolts and 3 nuts. Uniformly tighten the bolts and nuts in several passes.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)



35. INSTALL ENGINE OIL LEVEL SENSOR

- (a) Install the level sensor with the 4 bolts.
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)



36. INSTALL OIL LEVEL GAGE GUIDE

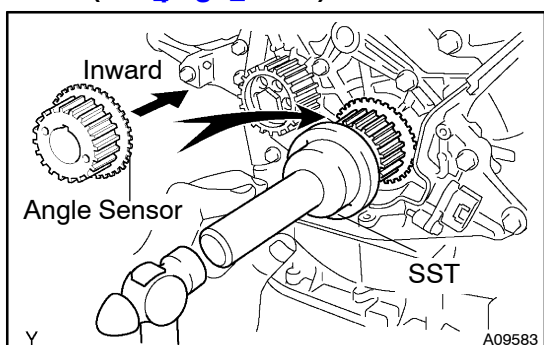
- (a) Install a new O-ring to the oil level gage guide.
- (b) Apply engine oil to the O-ring.
- (c) Push in the oil level gage guide end into the guide hole of the No. 1 oil pan.
- (d) Install the oil level gage guide with the bolt.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)
- (e) Apply engine oil to the O-ring on the oil level gage.
- (f) Install the oil level gage.

37. INSTALL V-RIBBED BELT TENSIONER ASSY

Torque: 87 N·m (888 kgf·cm, 64 ft·lbf)

38. INSTALL GENERATOR ASSY

(See [page 9-15](#))



39. INSTALL CRANKSHAFT TIMING PULLEY

- (a) Align the pulley set key with the key groove of the timing pulley.
- (b) Using SST and a hammer, tap in the timing pulley, facing the angle sensor inward.
SST 09223-46011

40. INSTALL TIMING BELT IDLER SUB-ASSY NO.2

Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)

41. □ SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 14-114)**42. INSTALL TIMING BELT**

(See page 14-114)

43. □ CHECK VALVE TIMING (See page 14-114)**44. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

(See page 14-114)

45. INSTALL TIMING BELT GUIDE

(See page 14-114)

46. INSTALL TIMING BELT NO.1 COVER

(See page 14-114)

47. INSTALL TIMING BELT NO.2 COVER

(See page 14-114)

48. INSTALL CRANKSHAFT PULLEY

(See page 14-114)

SST 09213-54015 (91651-60855), 09330-00021

49. INSTALL ENGINE MOUNTING BRACKET NO.2 RH

(See page 14-114)

50. ADJUST V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1

(See page 14-114)

51. INSTALL FRONT WHEEL RH

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

52. □ ADD ENGINE OIL (See page 17-27)**53. CHECK ENGINE OIL LEAK**