

REPLACEMENT

1. REMOVE HOOD SUB-ASSY

(a) Remove the 4 bolts, then remove the hood.

2. REMOVE COWL TOP VENTILATOR LOUVER CENTER NO.1 (See Pub. No. RM864E, page 66-9)

3. REMOVE FRONT WIPER ARM HEAD CAP

4. REMOVE FR WIPER ARM LH (See Pub. No. RM864E, page 66-9)

5. REMOVE FR WIPER ARM RH (See Pub. No. RM864E, page 66-9)

6. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSY (See Pub. No. RM864E, page 66-9)

7. REMOVE WIPER LINK ASSY (See Pub. No. RM864E, page 66-9)

8. REMOVE COWL TOP PANEL SUB-ASSY OUTER (See page 10-16)

9. REMOVE FRONT WHEEL RH

10. REMOVE ENGINE UNDER COVER RH

11. DRAIN ENGINE OIL

(a) Install a new gasket and drain plug after draining engine oil.

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

12. REMOVE EXHAUST PIPE ASSY FRONT (See page 15-2)

13. REMOVE FAN AND GENERATOR V-BELT (See page 4-5)

14. REMOVE GENERATOR ASSY (See page 9-15)

15. SEPARATE VANE PUMP ASSY (See page 4-22)

16. SEPARATE BRAKE MASTER CYLINDER RESERVOIR SUB-ASSY (See page 4-22)

17. SEPARATE VANE PUMP OIL RESERVOIR ASSY (See page 4-22)

18. REMOVE ENGINE COVER SUB-ASSY NO.1

(a) Remove the 2 nuts, then remove the engine cover No. 1.

19. REMOVE IGNITION COIL ASSY

(a) Remove the 4 bolts, then remove the 4 ignition coils.

20. SEPARATE VENTILATION HOSE

21. SEPARATE VENTILATION HOSE NO.2

22. REMOVE CYLINDER HEAD COVER SUB-ASSY (See page 4-41)

23. INSTALL ENGINE HANGER NO.1 (See page 4-41)

24. INSTALL ENGINE HANGER NO.2 (See page 4-41)

25. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR (See page 4-41)

26. SEPARATE TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR (See page 4-41)

27. SET NO. 1 CYLINDER TO TDC/COMPRESSION (See page 4-41)

28. REMOVE CRANKSHAFT PULLEY (See page 4-41)

SST 09213-54015 (91651-60855), 09330-00021, 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05021)

29. REMOVE CRANKSHAFT POSITION SENSOR (See page 8-6)

30. REMOVE OIL PAN SUB-ASSY (See page 4-41)

SST 09032-00100

31. REMOVE CHAIN TENSIONER ASSY NO.1 (See page 4-41)

32. REMOVE V-RIBBED BELT TENSIONER ASSY (See page 4-41)

33. REMOVE TIMING CHAIN OR BELT COVER SUB-ASSY (See page 4-41)

34. REMOVE TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL (See page 4-71)

35. REMOVE CRANKSHAFT POSITION SENSOR PLATE NO.1

36. REMOVE CHAIN VIBRATION DAMPER NO.1 (See page 4-41)

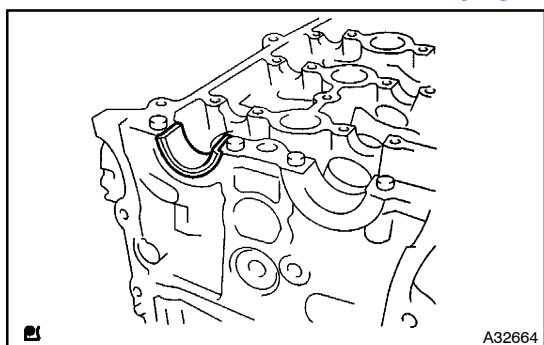
37. REMOVE CHAIN TENSIONER SLIPPER (See page 4-41)

38. REMOVE TIMING CHAIN GUIDE (See page 4-41)

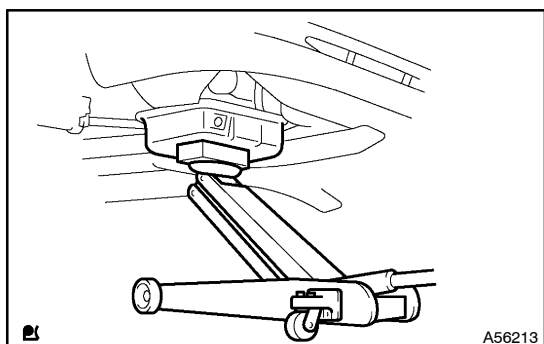
39. REMOVE CHAIN SUB-ASSY

40. DRAIN COOLANT (See page 6-7)

41. SEPARATE RADIATOR HOSE OUTLET (See page 16-13)
42. SEPARATE UNION TO CHECK VALVE HOSE
 - (a) Disconnect the union to check valve hose from the brake booster.
43. SEPARATE HEATER WATER INLET HOSE
44. SEPARATE FUEL TUBE SUB-ASSY (See page 11-5)
45. REMOVE CAMSHAFT TIMING OIL CONTROL VALVE ASSY (See page 10-7)
46. REMOVE BATTERY (See page 16-13)
47. REMOVE AIR CLEANER ASSY
48. REMOVE INTAKE MANIFOLD (See page 10-26)
49. SEPARATE ENGINE WIRE
50. REMOVE INTAKE MANIFOLD INSULATOR NO.1 (See page 10-26)
51. REMOVE EXHAUST MANIFOLD HEAT INSULATOR NO.1 (See page 14-22)
52. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSY (See page 14-22)
53. REMOVE NO.2 CAMSHAFT (See page 14-55)
54. REMOVE CAMSHAFT (See page 14-55)

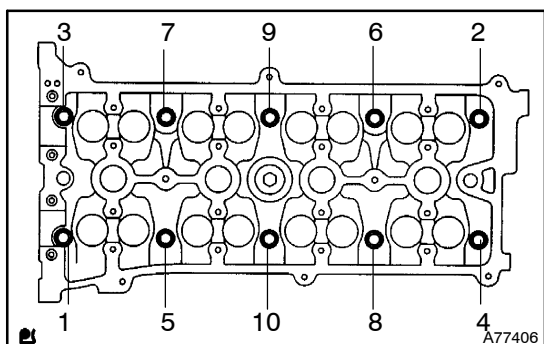


55. REMOVE CAMSHAFT BEARING NO.2



56. SUPPORT ENGINE ASSEMBLY WITH TRANSAXLE

- (a) Install the oil pan.
- (b) Place a wooden block on a transmission jack underneath the oil pan.
- (c) Remove the chain block and sling device.



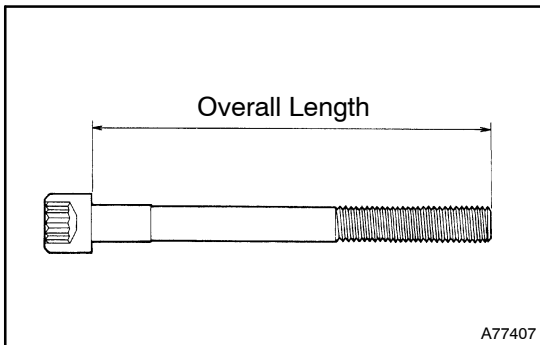
57. REMOVE CYLINDER HEAD SUB-ASSY

- (a) Using several steps, loosen the 10 cylinder head bolts with 10 mm bi-hexagon wrench uniformly in the sequence shown in the illustration.
- (b) Remove the 10 cylinder head bolts and plate washers.

NOTICE:

- Be careful not to drop washers into the cylinder head.
- Head warpage or cranking could result from removing bolts and installing in incorrect order.

58. REMOVE CYLINDER HEAD GASKET

**59. INSPECT CYLINDER HEAD SET BOLT**

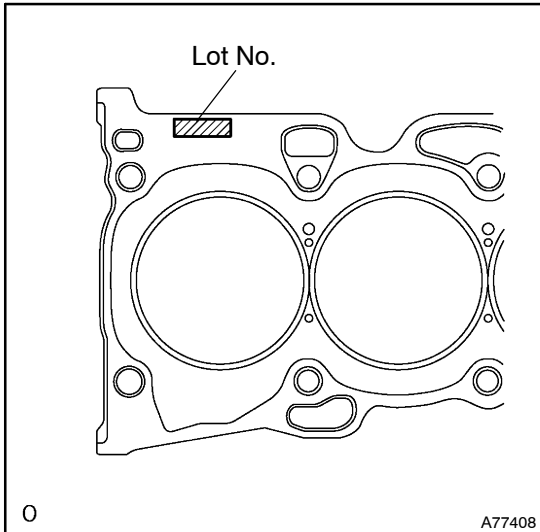
- (a) Using a vernier calipers, measure the length of the cylinder head set bolts from the seat to the end.

Standard bolt length:

161.3 to 162.7 mm (6.350 to 6.406 in.)

Maximum bolt length: 164.2 mm (6.465 in.)

If the length is greater than maximum, replace the cylinder head set bolts.

**60. INSTALL CYLINDER HEAD GASKET**

- (a) Place a new cylinder head gasket on the cylinder block surface with the Lot No. stamp upward.

NOTICE:

- **Remove any oil from contact surface.**
- **Be careful of the installation direction.**
- **Place the cylinder head gently in order not to damage the gasket with the bottom part of the head.**

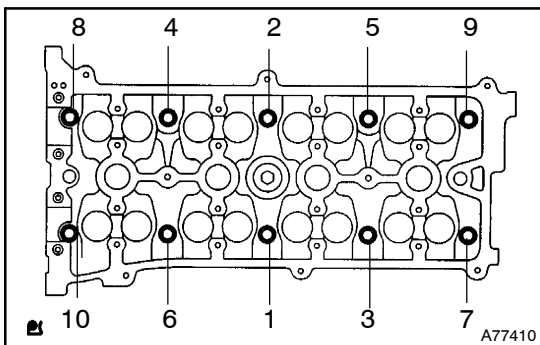
61. INSTALL CYLINDER HEAD SUB-ASSY**HINT:**

The cylinder head set bolts are tightened in the 2 successive steps.

- (a) Apply a light coat of engine oil on the threads of the cylinder head bolts.
- (b) Install bolts and plate washers to the cylinder head.

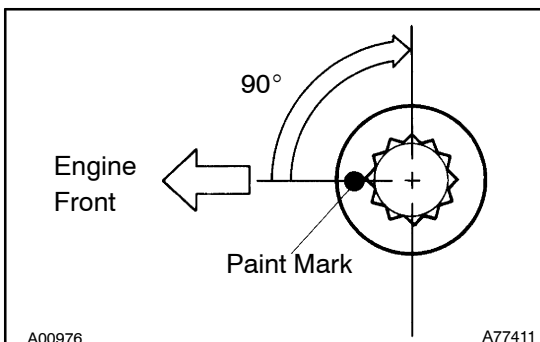
NOTICE:

Do not drop the washers into the cylinder head.



- (c) Using several steps, install and tighten the 10 cylinder head bolts and plate washers with a 10 mm bi-hexagon wrench uniformly in the sequence shown in the illustration.

Torque: 79 N·m (806 kgf·cm, 58 ft·lbf)



- (d) Mark the front side of the cylinder head set bolts with paint.
- (e) Retighten the cylinder head set bolts by 90° in the same sequence as a step (d).
- (f) Check that each paint mark is now at a 90° angle to the front.

62. SUSPEND ENGINE ASSEMBLY WITH TRANSAXLE

- (a) Using a chain block or sling device, hang the engine.
- (b) Remove the oil pan.

63. INSTALL CAMSHAFT (See page 14-55)**64. INSTALL NO.2 CAMSHAFT (See page 14-55)****65. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSY (See page 14-22)****66. INSTALL EXHAUST MANIFOLD HEAT INSULATOR NO.1 (See page 14-22)****67. INSTALL INTAKE MANIFOLD (See page 10-26)****68. INSTALL CAMSHAFT TIMING OIL CONTROL VALVE ASSY (See page 10-7)****69. CONNECT FUEL TUBE SUB-ASSY (See page 11-5)****70. INSTALL CHAIN VIBRATION DAMPER NO.1 (See page 14-41)****71. INSTALL CHAIN SUB-ASSY (See page 14-41)**

SST 09309-37010

72. INSTALL CHAIN TENSIONER SLIPPER (See page 14-41)**73. INSTALL TIMING CHAIN GUIDE (See page 14-41)****74. INSTALL CRANKSHAFT POSITION SENSOR PLATE NO.1 (See page 14-41)****75. INSTALL TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL (See page 14-71)**

SST 09223-22010

76. INSTALL TIMING CHAIN OR BELT COVER SUB-ASSY (See page 14-41)**77. INSTALL V-RIBBED BELT TENSIONER ASSY (See page 14-41)****78. INSTALL OIL PAN SUB-ASSY (See page 14-41)****79. INSTALL CRANKSHAFT POSITION SENSOR (See page 18-6)****80. INSTALL CRANKSHAFT PULLEY (See page 14-41)**

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

81. INSTALL CHAIN TENSIONER ASSY NO.1 (See page 14-41)**82. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR (See page 14-41)****83. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING INSULATOR (See page 14-41)****84. INSTALL CYLINDER HEAD COVER SUB-ASSY (See page 14-41)****85. INSTALL IGNITION COIL ASSY**

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

86. INSTALL ENGINE COVER SUB-ASSY NO.1

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

87. INSTALL VANE PUMP ASSY (See page 14-22)**88. INSTALL BRAKE MASTER CYLINDER RESERVOIR SUB-ASSY****89. INSTALL GENERATOR ASSY (See page 19-15)****90. INSTALL FAN AND GENERATOR V-BELT (See page 14-5)**

SST 09249-63010

91. INSTALL EXHAUST PIPE ASSY FRONT (See page 15-2)**92. INSTALL FRONT WHEEL RH**

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

93. INSTALL WIPER LINK ASSY (See Pub. No. RM864E, page 66-9)**94. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSY****95. INSTALL FR WIPER ARM RH (See Pub. No. RM864E, page 66-9)****96. INSTALL FR WIPER ARM LH (See Pub. No. RM864E, page 66-9)****97. INSTALL COWL TOP VENTILATOR LOUVER CENTER NO.1****98. INSTALL HOOD SUB-ASSY****99. ADJUST HOOD SUB-ASSY (See Pub. No. RM864E, page 75-1)****100. ADD ENGINE OIL (See page 17-12)****101. CHECK FOR ENGINE COOLANT LEAKS (See page 16-1)****102. CHECK FOR ENGINE OIL LEAKS**

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103. CHECK FOR EXHAUST GAS LEAKS