

CYLINDER HEAD GASKET NO.2 (1MZ-FE)

14017-01

REPLACEMENT

1. WORK FOR PREVENTING GASOLINE FROM SPILLING OUT (See page 1-49)
2. DRAIN COOLANT (See page 6-31)
3. DRAIN ENGINE OIL
4. REMOVE MANIFOLD STAY NO.2
5. SEPARATE EXHAUST MANIFOLD CONVERTER SUB-ASSY NO.2
 - (a) Remove the 2 nuts, and separate the exhaust manifold converter from the front exhaust pipe.
6. REMOVE V-BANK COVER SUB-ASSY
(See page 4-156)
7. REMOVE FRONT SUSPENSION UPPER BRACE CENTER
(W/ FRONT SUSPENSION BRACE UPPER CENTER)
8. REMOVE AIR CLEANER ASSEMBLY WITH HOSE (See page 10-18)
9. REMOVE INTAKE AIR SURGE TANK
(See page 4-143)
10. SEPARATE FUEL PIPE SUB-ASSY NO.1
(See page 4-156)
11. DISCONNECT HEATER INLET WATER HOSE
12. REMOVE INTAKE MANIFOLD
(See page 4-198)
13. REMOVE RADIATOR HOSE INLET
14. REMOVE WATER OUTLET
(See page 4-198)
15. DISCONNECT RADIATOR HOSE OUTLET
16. REMOVE WATER INLET PIPE
(See page 6-35)
17. REMOVE OIL LEVEL GAGE SUB-ASSY
18. REMOVE OIL LEVEL GAGE GUIDE
19. REMOVE FRONT WHEEL RH
20. REMOVE FRONT FENDER APRON SEAL RH
21. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1
(See page 4-141)
22. REMOVE VANE PUMP V BELT
(See page 4-141)
23. REMOVE ENGINE MOVING CONTROL ROD
(See page 4-156)
24. REMOVE ENGINE MOUNTING STAY NO.2 RH
(See page 4-156)

25. REMOVE GENERATOR BRACKET NO.2**26. REMOVE CRANKSHAFT PULLEY**

(See page 14-174)

SST 09213-54015 (91651-60855), 09330-00021, 09950-50013 (09951-05010, 09952-05010, 09953-05010, 09954-05030)

27. REMOVE TIMING BELT NO.1 COVER**28. REMOVE TIMING BELT NO.2 COVER**

(See page 14-174)

29. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**30. REMOVE TIMING BELT GUIDE NO.2****31. REMOVE TIMING BELT**

(See page 14-211)

32. REMOVE TIMING BELT IDLER SUB-ASSY NO.2**33. REMOVE CAMSHAFT TIMING PULLEY**

(See page 14-180)

SST 09960-10010 (09962-01000, 09963-01000), 09249-63010

34. REMOVE TIMING BELT NO.3 COVER**35. REMOVE IGNITION COIL ASSY****36. REMOVE CYLINDER HEAD COVER SUB-ASSY LH**

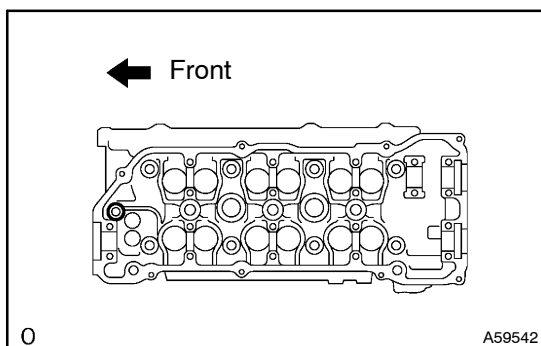
(See page 14-143)

37. REMOVE NO.3 CAMSHAFT SUB-ASSY

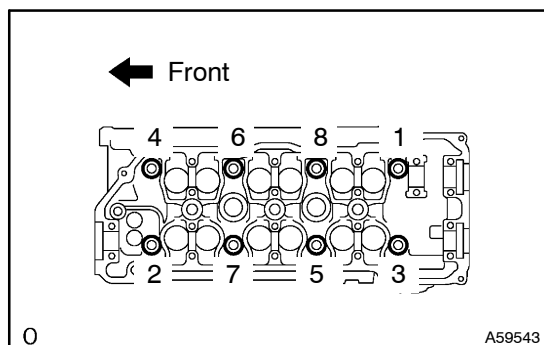
(See page 14-190)

38. REMOVE NO.4 CAMSHAFT SUB-ASSY

(See page 14-190)

**39. REMOVE CYLINDER HEAD LH**

- (a) Using an 8 mm hexagon wrench, remove the hexagon bolt.



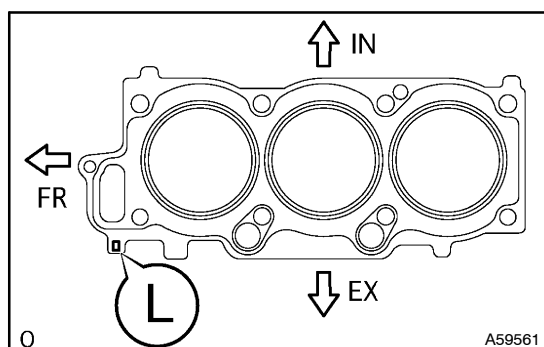
- (b) Uniformly loosen the 8 cylinder head bolts, in several passes, in the sequence shown. Remove the 8 cylinder head bolts and plate washers.

NOTICE:

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

40. REMOVE CYLINDER HEAD GASKET NO.2**41. INSPECT CYLINDER HEAD SET BOLT**

(See page 4-198)

**42. INSTALL CYLINDER HEAD GASKET NO.2**

- (a) Place a new cylinder head gasket on the cylinder block surface with the L mark upward.

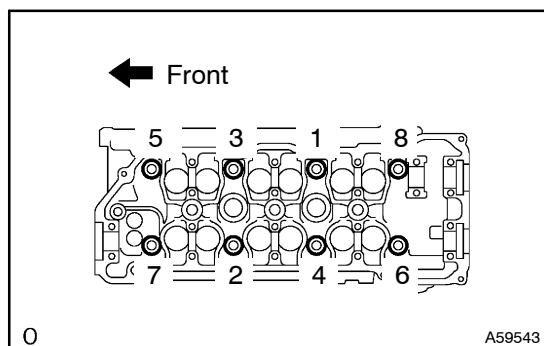
NOTICE:

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

43. INSTALL CYLINDER HEAD LH**NOTICE:**

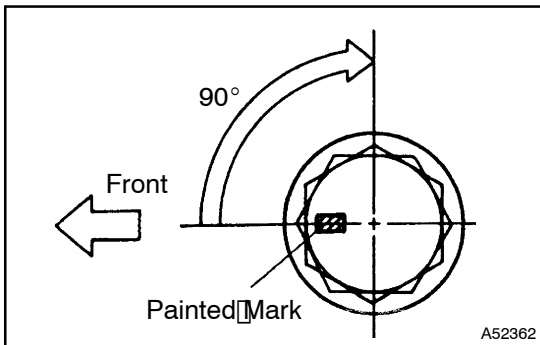
The cylinder head bolts are tightened in 2 progressive steps.

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

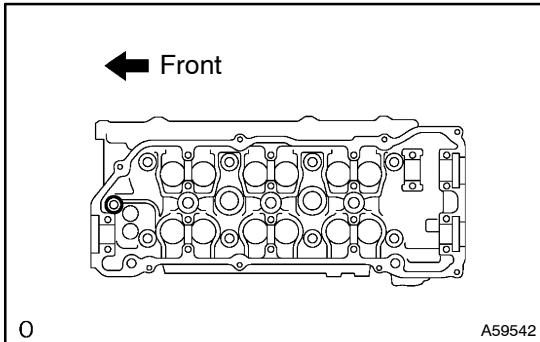


- (c) Install and uniformly tighten the 8 cylinder head bolts, in several passes, in the sequence shown.

Torque: 54 N·m (551 kgf·cm, 40 ft·lbf)



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



- (g) Using an 8 mm socket hexagon wrench, install the hexagon bolt.

Torque: 19 N·m (189 kgf·cm, 14 ft·lbf)

44. INSTALL NO.4 CAMSHAFT SUB-ASSY

(See page 14-190)

45. INSTALL NO.3 CAMSHAFT SUB-ASSY

(See page 14-190)

46. INSTALL CYLINDER HEAD COVER SUB-ASSY LH

(See page 14-143)

47. INSTALL IGNITION COIL ASSY

Torque: 3.0 N·m (82 kgf·cm, 71 in. lbf)

48. INSTALL TIMING BELT NO.3 COVER

(See page 14-180)

49. INSTALL CAMSHAFT TIMING PULLEY

(See page 14-180)

SST 09960-10010 (09962-01000, 09963-01000), 09249-63010

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

Torque: 43 N·m (438 kgf·cm, 32 ft·lbf)

51. INSPECT TIMING BELT

(See page 14-174)

52. INSTALL TIMING BELT

(See page 14-211)

SST 09960-10010 (09962-01000, 09963-01000)

53. INSTALL CHAIN TENSIONER ASSY NO.1

(See page 14-174)

54. INSTALL TIMING BELT GUIDE NO.2

(See page 14-174)

55. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

Torque: 28 N·m (286 kgf·cm, 21 ft·lbf)

56. INSTALL TIMING BELT NO.2 COVER

(See page 4-174)

57. INSTALL TIMING BELT NO.1 COVER

(See page 4-174)

58. INSTALL CRANKSHAFT PULLEY

(See page 4-174)

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

59. INSTALL GENERATOR BRACKET NO.2

Torque: 28 N·m (286 kgf·cm, 21 ft·lbf)

60. INSTALL ENGINE MOUNTING STAY NO.2 RH

(See page 4-156)

61. INSTALL ENGINE MOVING CONTROL ROD

(See page 4-156)

62. INSTALL VANE PUMP V BELT

(See page 4-141)

63. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1

(See page 4-141)

64. INSPECT DRIVE BELT DEFLECTION AND TENSION (REFERENCE) (See page 4-137)**65. INSTALL OIL LEVEL GAGE GUIDE**

(See page 4-156)

66. INSTALL WATER INLET PIPE

(See page 6-35)

67. INSTALL WATER OUTLET

(See page 4-198)

68. INSTALL INTAKE MANIFOLD

(See page 4-198)

69. CONNECT FUEL PIPE SUB-ASSY NO.1

(See page 4-156)

70. INSTALL INTAKE AIR SURGE TANK

(See page 4-143)

71. INSTALL AIR CLEANER ASSEMBLY WITH HOSE (See page 10-18)**72. CONNECT VACUUM HOSE (See page 4-156)****73. INSTALL FRONT SUSPENSION UPPER BRACE CENTER
(W/ FRONT SUSPENSION BRACE UPPER CENTER)**

Torque: 80 N·m (816 kgf·cm, 59 ft·lbf)

74. INSTALL V-BANK COVER SUB-ASSY

(See page 4-156)

75. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSY NO.2

(a) Install a new gasket and the exhaust manifold converter to the front exhaust pipe.

Torque: 62 N·m (633 kgf·cm, 46 ft·lbf)

76. INSTALL MANIFOLD STAY NO.2

(See page 4-156)

77. INSTALL FRONT WHEEL RH

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

78. ADD ENGINE OIL**79. ADD COOLANT (See page 16-31)****80. INSPECT OIL LEAK**

- 81. CHECK ENGINE COOLANT LEAK ([See page 16-31](#))
- 82. INSPECT FUEL LEAK
- 83. CHECK EXHAUST GAS LEAK
- 84. INSPECT IGNITION TIMING ([See page 14-137](#))
SST 09843-18040, 09843-18020
- 85. INSPECT ENGINE IDLE SPEED ([See page 14-137](#))
SST 09843-18040
- 86. INSPECT COMPRESSION ([See page 14-137](#))
SST 09992-00500
- 87. INSPECT CO/HC ([See page 14-137](#))