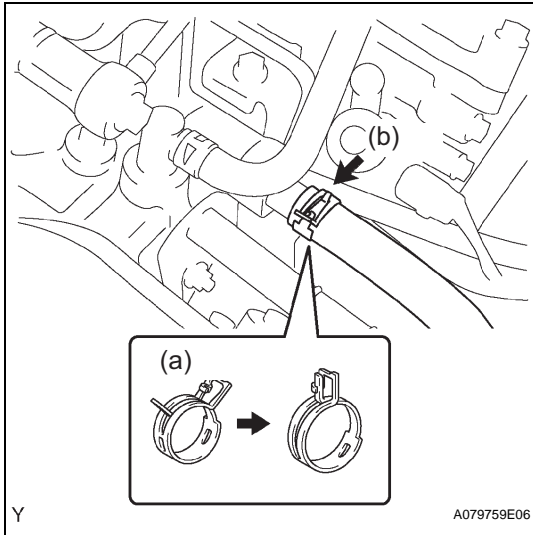


REMOVAL

1. **DISCHARGE FUEL SYSTEM PRESSURE**
 - (a) Discharge fuel system pressure (See page [FU-1](#)).
2. **REMOVE ENGINE UNDER COVER ASSEMBLY**
 - (a) w/ engine under cover assembly
3. **REMOVE ENGINE UNDER COVER NO.1**
4. **REMOVE ENGINE UNDER COVER NO.2**
 - (a) w/ engine under cover No.2
5. **DRAIN ENGINE COOLANT**
 - (a) Drain engine coolant (See page [CO-7](#)).
6. **DRAIN ENGINE OIL**
 - (a) Drain engine oil (See page [LU-5](#)).
7. **REMOVE FRONT WHEEL RH**
8. **REMOVE FR WIPER ARM RH**
 - (a) Remove the FR wiper arm LH (See page [WW-37](#)).
9. **REMOVE FR WIPER ARM LH**
 - (a) Remove the FR wiper arm LH (See page [WW-37](#)).
10. **REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY**
 - (a) Remove the cowl top ventilator louver sub-assembly (See page [WW-37](#)).
11. **REMOVE WINDSHIELD WIPER LINK ASSEMBLY**
 - (a) Remove the windshield wiper link assembly (See page [WW-37](#)).
12. **REMOVE COWL TOP PANEL SUB-ASSEMBLY OUTER**
 - (a) Remove the cowl top panel sub-assembly (See page [FU-10](#)).
13. **REMOVE V-BANK COVER SUB-ASSEMBLY**
 - (a) Remove the V-bank cover sub-assembly (See page [EM-8](#)).
14. **REMOVE AIR CLEANER CAP SUB-ASSEMBLY**
 - (a) Remove the air cleaner cap sub-assembly (See page [FU-10](#)).
15. **REMOVE AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY**
16. **REMOVE AIR CLEANER INLET NO.2**
 - (a) Remove the air cleaner inlet No.2 (See page [ST-5](#)).
17. **REMOVE AIR CLEANER CASE**
 - (a) Remove the air cleaner case (See page [ST-5](#)).
18. **REMOVE EMISSION CONTROL VALVE SET**
 - (a) Remove the emission control valve set (See page [EM-8](#)).
19. **REMOVE INTAKE AIR SURGE TANK**
 - (a) Remove the intake air surge tank (See page [EM-8](#)).

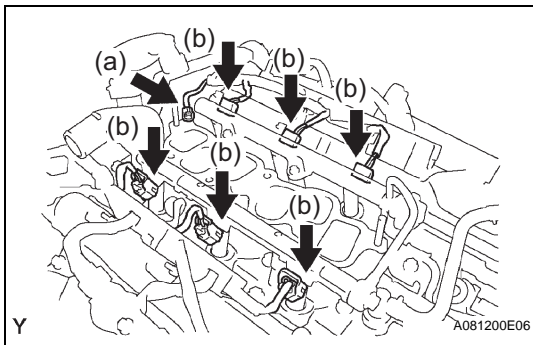
20. DISCONNECT FUEL PIPE SUB-ASSEMBLY NO.1

- (a) Disconnect the fuel pipe sub-assembly No.1 (See page [FU-1](#)).



21. DISCONNECT HEATER INLET WATER HOSE

- (a) Lock the hose clamp as shown in the illustration .
- (b) Disconnect the heater inlet water hose.



22. REMOVE INTAKE MANIFOLD

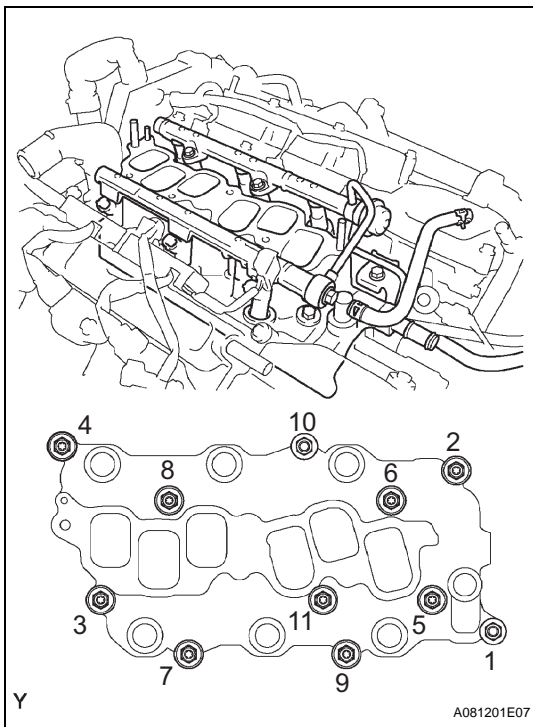
- (a) Remove the nut and disconnect the ground cable.
- (b) Disconnect the 6 fuel injector connectors.

- (c) In order to remove the intake manifold, using several steps, remove the 9 bolts and 2 nuts in the sequence shown in the illustration.

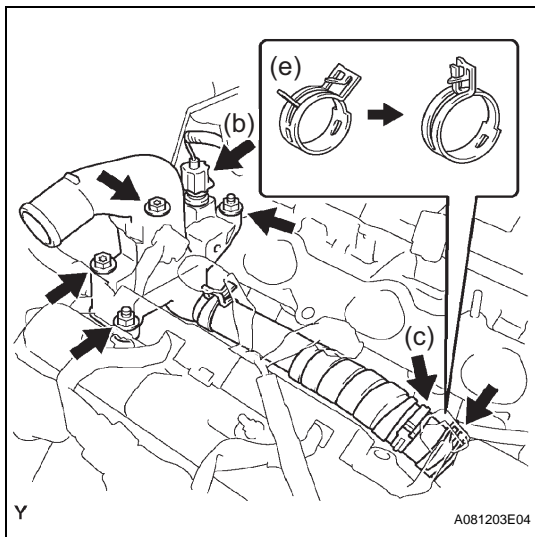
23. DISCONNECT RADIATOR HOSE INLET

24. REMOVE WATER OUTLET

- (a) Disconnect the radiator hose inlet.



EM



- (b) Disconnect the engine coolant temperature sensor connector.
- (c) Remove the clamp.
- (d) Remove the 2 bolts, 2 nuts and 2 washers.
- (e) Lock the hose clamp as shown in the illustration and remove the water outlet together with water by-pass hose No. 1.
- (f) Remove the 2 gaskets from the 2 cylinder heads.

25. REMOVE FRONT FENDER APRON SEAL RH

- (a) Remove the front fender apron seal RH (See page [ES-367](#)).

26. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1

- (a) Remove the V (cooler compressor to crankshaft pulley) belt No.1 (See page [EM-6](#)).

27. REMOVE VANE PUMP V BELT

- (a) Remove the vane pump V belt (See page [EM-6](#)).

28. REMOVE ENGINE MOVING CONTROL ROD

- (a) Remove the engine moving control rod (See page [EM-22](#)).

29. REMOVE ENGINE MOUNTING STAY NO.2 RH

- (a) Remove the engine mounting stay No.2 RH (See page [EM-22](#)).

30. REMOVE GENERATOR BRACKET NO.2

- (a) Remove the generator bracket No.2 (See page [EM-22](#)).

31. REMOVE CRANKSHAFT PULLEY

SST 09213-54015 (91651-60855), 09330-00021,
09950-50013 (09951-05010, 09952-05010,
09953-05020, 09954-05031)

- (a) Remove the crankshaft pulley (See page [EM-22](#)).

32. REMOVE TIMING BELT NO.1 COVER

33. REMOVE TIMING BELT NO.2 COVER

- (a) Remove the timing belt No.2 cover (See page [EM-22](#)).

34. REMOVE ENGINE MOUNTING BRACKET RH

- (a) Remove the engine mounting bracket RH (See page [EM-22](#)).

35. REMOVE TIMING BELT GUIDE NO.2

36. REMOVE TIMING BELT

- (a) Remove the timing belt (See page [EM-22](#)).

37. REMOVE TIMING BELT IDLER SUB-ASSEMBLY NO.2

38. REMOVE CAMSHAFT TIMING PULLEY

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

- (a) Remove the camshaft timing pulley (See page [EM-39](#)).

39. REMOVE TIMING BELT NO.3 COVER

- (a) Remove the timing belt No.3 cover (See page [EM-39](#)).

40. SEPARATE VANE PUMP ASSEMBLY**41. REMOVE PROPELLER SHAFT (for 4WD)**

SST 09325-20010

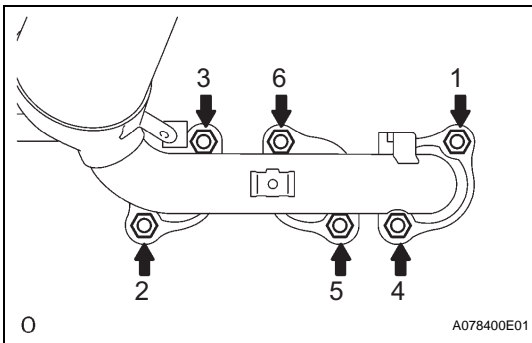
- (a) Remove the propeller shaft (See page [PR-3](#)).

42. REMOVE EXHAUST PIPE SUB-ASSEMBLY FRONT NO.3

- (a) Remove the exhaust pipe sub-assembly (See page [EX-3](#)).

43. REMOVE EXHAUST MANIFOLD HEAT INSULATOR NO.1**44. REMOVE MANIFOLD STAY****45. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY**

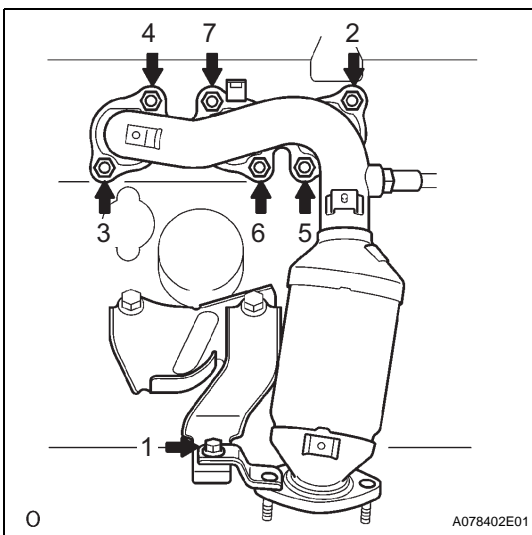
- (a) Disconnect the heated oxygen sensor connector.
 (b) Using several steps, loosen and remove the 6 nuts in the sequence shown in the illustration.
 (c) Remove the exhaust manifold RH and the gasket from the cylinder head RH.

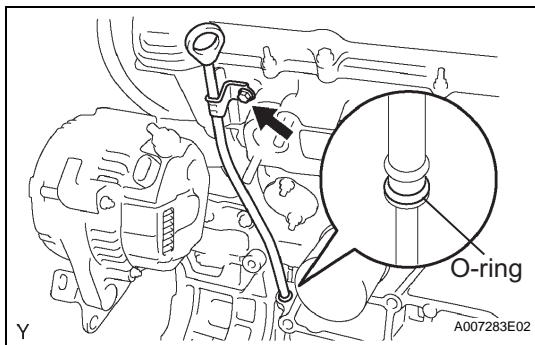
**46. SEPARATE EXHAUST PIPE ASSEMBLY FRONT**

- (a) Separate the exhaust pipe assembly front (See page [EX-3](#)).

47. REMOVE MANIFOLD CONVERTER INSULATOR NO.3**48. REMOVE EXHAUST MANIFOLD HEAT INSULATOR NO.2****49. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY NO.2**

- (a) Disconnect the heated oxygen sensor connector.
 (b) Using several steps, loosen and remove the 6 nuts and bolt in the sequence shown in the illustration.
 (c) Remove the exhaust manifold converter No. 2 and the gasket from the cylinder head LH.



**50. REMOVE OIL LEVEL GAGE GUIDE**

- (a) Remove the bolt which is used to secure the oil level gage guide from the cylinder head LH.
- (b) Pull out the oil level gage guide and the oil level gage together from the cylinder block.
- (c) Remove the O-ring from the oil level gage guide.

51. REMOVE IGNITION COIL ASSEMBLY**52. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY**

- (a) Remove the cylinder head cover sub-assembly (See page [EM-8](#)).

53. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY LH

- (a) Remove the cylinder head cover sub-assembly LH (See page [EM-8](#)).

54. REMOVE CAMSHAFT

- (a) Remove the camshaft (See page [EM-39](#)).

55. REMOVE NO.2 CAMSHAFT

- (a) Remove the No.2 camshaft (See page [EM-39](#)).

56. REMOVE NO.3 CAMSHAFT SUB-ASSEMBLY

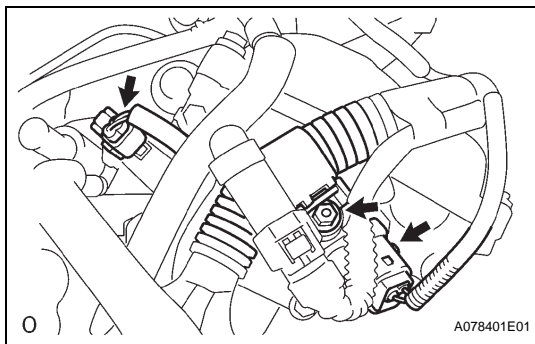
- (a) Remove the No.3 camshaft sub-assembly (See page [EM-39](#)).

57. REMOVE NO.4 CAMSHAFT SUB-ASSEMBLY

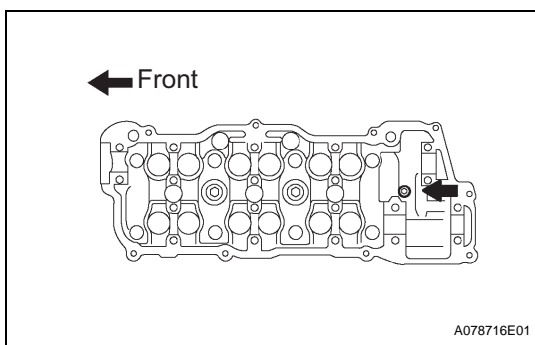
- (a) Remove the No.4 camshaft sub-assembly (See page [EM-39](#)).

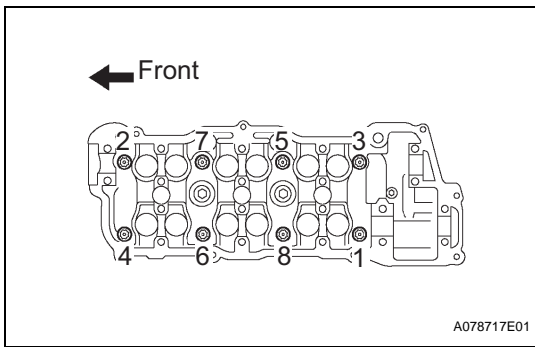
58. REMOVE CYLINDER HEAD SUB-ASSEMBLY

- (a) Disconnect the VVT sensor connector.
- (b) Disconnect the camshaft timing oil control valve connector.
- (c) Remove the nut and disconnect the engine wire harness clamp.



- (d) Using a socket hexagon wrench 8, remove the hexagon bolt.

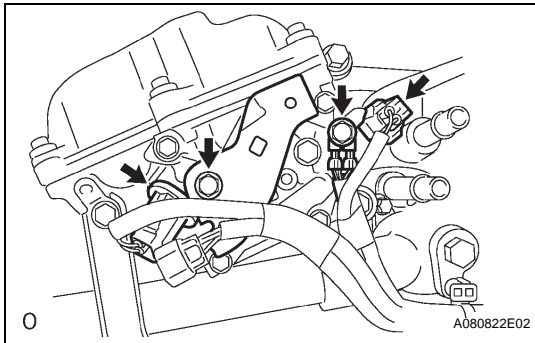




- (e) Using several steps, loosen the 8 cylinder head bolts uniformly in the sequence shown in the illustration. Remove the 8 cylinder head bolts and plate washers.

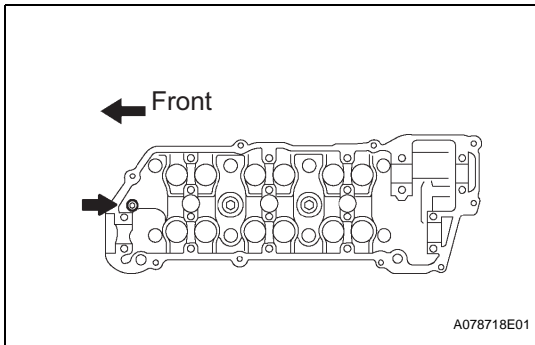
NOTICE:

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

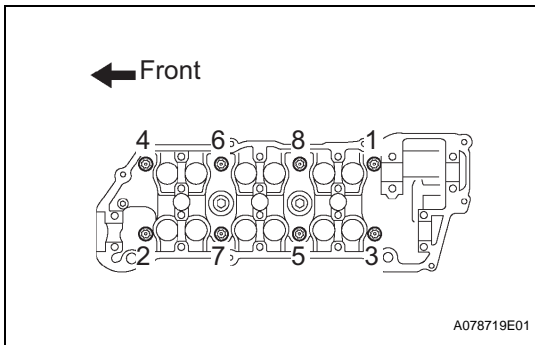


59. REMOVE CYLINDER HEAD LH

- (a) Disconnect the VVT sensor connector.
 (b) Disconnect the camshaft timing oil control valve connector.
 (c) Remove the bolts and disconnect the ground cable.
 (d) Remove the bolt and the wire harness clamp bracket.
 (e) Remove the bolt and separate the water inlet. (TMMWV MADE)



- (f) Using a socket hexagon wrench 8, remove the hexagon bolt.



- (g) Using several steps, loosen the 8 cylinder head bolts uniformly in the sequence shown in the illustration. Remove the 8 cylinder head bolts and plate washers.

NOTICE:

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

60. REMOVE CYLINDER HEAD GASKET

61. REMOVE CYLINDER HEAD GASKET NO.2

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