

REMOVAL

1. REMOVE HOOD SUB-ASSEMBLY
2. DISCHARGE FUEL SYSTEM PRESSURE
(See page [FU-1](#))
3. REMOVE NO. 1 ENGINE UNDER COVER SUB-ASSEMBLY (for Pre Runner and 4WD Type)
 - (a) Remove the 4 bolts, then remove the No. 1 engine under cover.
4. REMOVE NO. 2 ENGINE UNDER COVER SUB-ASSEMBLY (for Pre Runner and 4WD Type, Regular Cab)
 - (a) Remove the 4 bolts, then remove the No. 2 engine under cover.
5. DRAIN ENGINE OIL (See page [LU-3](#))
6. DRAIN ENGINE COOLANT (See page [CO-3](#))
7. REMOVE BATTERY
8. REMOVE BATTERY TRAY
9. REMOVE RADIATOR SUPPORT TO FRAME SEAL LH
(See page [CO-12](#))
10. REMOVE FAN SHROUD (See page [CO-13](#))
11. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page [EC-14](#))
12. REMOVE AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY
13. REMOVE AIR CLEANER CASE
 - (a) Remove the 3 bolts, then remove the air cleaner case.
14. SEPARATE VANE PUMP ASSEMBLY (See page [EM-21](#))
15. REMOVE NO. 2 RADIATOR HOSE
16. SEPARATE COMPRESSOR AND MAGNETIC CLUTCH (w/ Air Conditioning) (See page [EM-21](#))
17. REMOVE RADIATOR HOSE INLET
18. SEPARATE WATER HOSE SUB-ASSEMBLY (See page [EM-92](#))
19. DISCONNECT FUEL HOSE (See page [FU-11](#))
20. DISCONNECT NO. 2 FUEL HOSE (See page [FU-11](#))
21. SEPARATE FUEL VAPOR FEED HOSE ASSEMBLY
(See page [EM-93](#))
22. DISCONNECT NO. 1 AIR INJECTION HOSE (See page [EM-93](#))
23. DISCONNECT ENGINE WIRE (See page [EM-93](#))

24. REMOVE EXHAUST PIPE ASSEMBLY TAIL (See page [EX-2](#))
25. REMOVE EXHAUST PIPE ASSEMBLY FRONT (See page [EX-2](#))
26. REMOVE MANUAL TRANSMISSION UNIT ASSEMBLY

Transmission	See page
R155	MT-6
R155F	MT-8

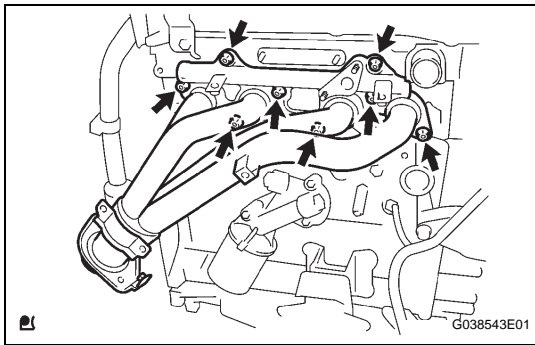
27. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY (See page [AT-113](#))
28. REMOVE ENGINE ASSEMBLY (See page [EM-98](#))
29. REMOVE CLUTCH COVER ASSEMBLY (for Manual Transmission)

Transmission	See page
R155	CL-30
R155F	CL-35

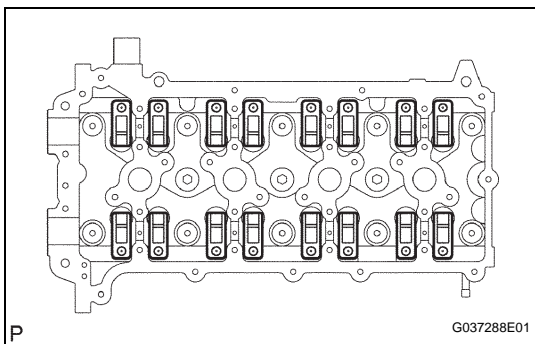
30. REMOVE CLUTCH DISC ASSEMBLY (for Manual Transmission)

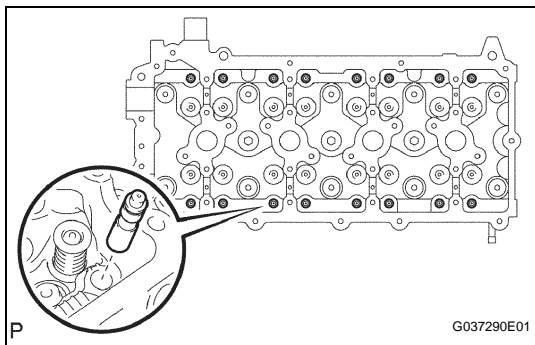
Transmission	See page
R155	CL-30
R155F	CL-35

31. REMOVE FLYWHEEL SUB-ASSEMBLY (for Automatic Transmission) (See page [EM-77](#))
32. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY (for Manual Transmission) (See page [EM-78](#))
33. REMOVE REAR END PLATE
(a) Remove the 2 bolts, then remove the rear end plate.
34. REMOVE INTAKE AIR CONNECTOR (See page [ES-452](#))
35. REMOVE GENERATOR ASSEMBLY (See page [CH-7](#))
36. REMOVE NO. 1 EXHAUST MANIFOLD HEAT INSULATOR (See page [EC-14](#))
37. REMOVE INTAKE PIPE INSULATOR (See page [EC-14](#))
38. REMOVE AIR SWITCHING VALVE ASSEMBLY (See page [EC-15](#))

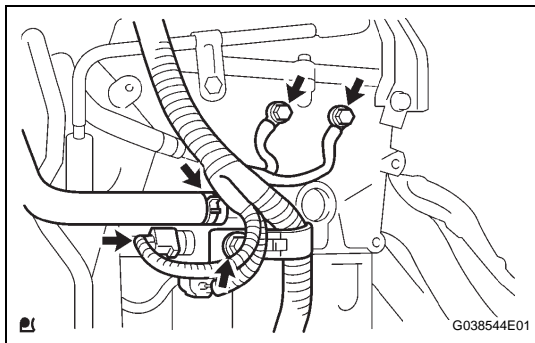


39. REMOVE EXHAUST MANIFOLD
 - (a) Remove the 8 nuts, then remove the exhaust manifold.
40. REMOVE V-RIBBED BELT TENSIONER ASSEMBLY (See page [CO-5](#))
41. REMOVE NO. 1 IDLER PULLEY SUB-ASSEMBLY (See page [EM-23](#))
42. REMOVE IDLE PULLEY ASSEMBLY WITH BRACKET (w/ Air Conditioning System) (See page [ES-446](#))
43. REMOVE CRANKSHAFT POSITION SENSOR (See page [ES-444](#))
44. REMOVE CAMSHAFT POSITION SENSOR (See page [ES-444](#))
45. REMOVE NO. 1 INTAKE MANIFOLD HEAD GASKET (See page [ES-460](#))
46. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY (See page [EM-38](#))
47. REMOVE CRANKSHAFT PULLEY (See page [EM-74](#))
48. REMOVE OIL LEVEL GAGE SUB-ASSEMBLY
49. REMOVE NO. 2 OIL PAN SUB-ASSEMBLY (See page [EM-24](#))
50. REMOVE OIL STRAINER SUB-ASSEMBLY (See page [EM-24](#))
51. REMOVE OIL PAN SUB-ASSEMBLY (See page [EM-25](#))
52. REMOVE TIMING CHAIN COVER (See page [LU-21](#))
53. REMOVE TIMING CHAIN GUIDE (See page [EM-25](#))
54. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY (See page [EM-26](#))
55. REMOVE CHAIN TENSIONER SLIPPER (See page [EM-26](#))
56. REMOVE NO. 1 CHAIN VIBRATION DAMPER (See page [EM-27](#))
57. REMOVE CHAIN SUB-ASSEMBLY
58. REMOVE CAMSHAFT (See page [EM-40](#))
59. REMOVE NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY
 - (a) Remove the 16 valve rocker arms.

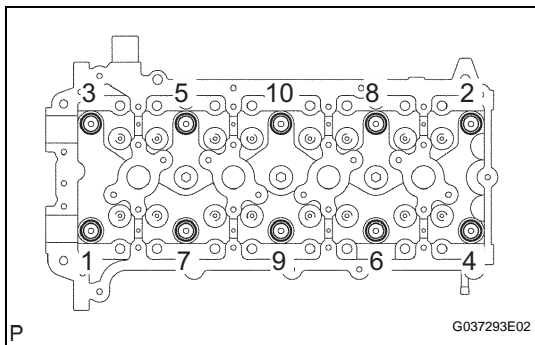


**60. REMOVE VALVE LASH ADJUSTER ASSEMBLY**

- (a) Remove the valve lash adjuster.

**61. REMOVE CYLINDER HEAD SUB-ASSEMBLY**

- (a) Disconnect the water hose shown in the illustration.
 (b) Disconnect the engine coolant temperature sensor connector.
 (c) Remove the bolts, then separate the wire harness.
 (d) Remove the bolt, then separate the wire harness bracket.



- (e) Using a 10 mm bi-hexagon wrench, uniformly loosen the 10 bolts in the sequence shown in the illustration. Remove the 10 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 the bolts in the wrong order.

62. REMOVE CYLINDER HEAD GASKET**INSPECTION****1. INSPECT CYLINDER HEAD SET BOLT**

- (a) Using vernier calipers, measure the minimum diameter of the elongated thread at the measuring point.

Standard outside diameter:

10.76 to 10.97 mm (0.4236 to 0.4319 in.)

Minimum outside diameter:

10.40 mm (0.4094 in.)

HINT:

If a visual check reveals no excessively thin areas, check the center of the bolt (see illustration) and find the area that has the smallest diameter.

