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 4WD and Pre-Runner)
   (a) Remove the 4 bolts, then remove the No. 1 engine under cover.

4. REMOVE NO. 2 ENGINE UNDER COVER SUB-ASSEMBLY (for 4WD and Pre-Runner, 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
   (a) Disconnect the vane pump connector.
   (b) Remove the 2 bolts, then separate the vane pump.
   HINT:
   Do not disconnect the hose. Hang the vane pump with a rope.

15. REMOVE NO. 2 RADIATOR HOSE

16. SEPARATE COMPRESSOR AND MAGNETIC CLUTCH (w/ Air Conditioning System)
   (a) Remove the bolt shown in the illustration.
(b) Disconnect the compressor and magnetic clutch connector.
(c) Remove the 4 bolts, then separate the compressor and magnetic clutch.
HINT:
Do not disconnect the hose. Hang the vane pump with a rope.

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 FUEL HOSE NO.2 (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 (See page EX-2)

25. REMOVE FRONT EXHAUST PIPE ASSEMBLY (See page EX-2)

26. REMOVE MANUAL TRANSMISSION UNIT ASSEMBLY

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27. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY (See page AT-109)

28. REMOVE ENGINE ASSEMBLY (See page EM-93)

29. REMOVE CLUTCH COVER ASSEMBLY (for Manual Transmission)

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<td>R155F</td>
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30. REMOVE CLUTCH DISC ASSEMBLY (for Manual Transmission)

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</tr>
</tbody>
</table>

31. REMOVE FLYWHEEL SUB-ASSEMBLY (for Manual Transmission) (See page EM-77)

32. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY (for Automatic 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 V-RIBBED BELT TENSIONER ASSEMBLY
   (See page CO-5)

37. REMOVE NO. 1 IDLER PULLEY SUB-ASSEMBLY
   (a) Remove the bolt and No. 1 idler pulley sub-assembly.

38. REMOVE IDLE PULLEY ASSEMBLY WITH BRACKET
   (w/ Air Conditioning System) (See page ES-446)

39. REMOVE CRANKSHAFT POSITION SENSOR (See page ES-444)

40. REMOVE CAMSHAFT POSITION SENSOR (See page ES-444)

41. REMOVE NO. 1 INTAKE MANIFOLD TO HEAD
    GASKET (See page ES-463)

42. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY
    (See page EM-38)

43. REMOVE CRANKSHAFT PULLEY
   (a) Set the No. 1 cylinder to the TDC/ compression.
      (1) Turn the crankshaft pulley clockwise and align
          its timing mark notch with the timing mark "0".
      (2) Check that the timing marks of the camshaft
          timing gear are located as illustrated.
          HINT: If not, turn the crankshaft to align the marks.
(b) Using SST, loosen the crankshaft pulley bolt.  
SST 09213-54015 (91651-60855), 09330-00021  
HINT: Loosen the crankshaft pulley bolt until only 2 or 3 threads are still installed in the crankshaft.

(c) Using SST, remove the crankshaft pulley and crankshaft pulley bolt.  
SST 09950-50013 (09951-05010, 09952-05010, 09953-05010, 09954-05021)

44. REMOVE OIL LEVEL GAGE SUB-ASSEMBLY

45. REMOVE NO. 2 OIL PAN SUB-ASSEMBLY
   (a) Remove the 18 bolts and 2 nuts.

   (b) Insert the blade of SST between the pans. Cut through the applied sealer and remove the oil pan.  
SST 09032-00100  
NOTICE: Be careful not to damage the contact surface of the oil pans.

46. REMOVE OIL STRAINER SUB-ASSEMBLY
   (a) Remove the 2 bolts, 2 nuts, oil strainer and gasket.
47. REMOVE OIL PAN SUB-ASSEMBLY
   (a) Remove the 16 bolts and 2 nuts.
   (b) Remove the oil pan by prying between the oil pan and cylinder block with a screwdriver.
   HINT:
   Tape the screwdriver tip before use.
   NOTICE:
   Be careful not to damage the contact surfaces of the cylinder block and oil pan.

48. REMOVE TIMING CHAIN COVER (See page LU-21)

49. REMOVE TIMING CHAIN GUIDE
   (a) Make sure that each matchmark is in the position shown in the illustration.
(b) Remove the 2 bolts, timing chain guide and O-ring.

50. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

NOTICE:
- When the chain tensioner is removed, do not rotate the crankshaft.
- When the chain is removed and the camshaft needs to be rotated, rotate the crankshaft 90° to the right.

(a) Move the stopper plate upward to release the lock, and push the plunger deep into the tensioner.
(b) Move the stopper plate downward to set the lock, and insert a 3.0 mm (0.118 in.) diameter bar into the stopper plate hole.
(c) Remove the bolt, nut, chain tensioner and gasket.

51. REMOVE CHAIN TENSIONER SLIPPER

(a) Remove the bolt and tensioner slipper.