REMOVAL

1. REMOVE BATTERY
2. DRAIN ENGINE COOLANT (See page CO-3)
3. DRAIN ENGINE OIL (See page LU-4)
4. REMOVE POWER STEERING LINK ASSEMBLY (for 2WD)
   Refer to the procedures up to "REMOVE POWER STEERING LINK ASSEMBLY" (See page PS-18).
5. REMOVE POWER STEERING LINK ASSEMBLY (for 4WD)
   Refer to the procedures up to "REMOVE POWER STEERING LINK ASSEMBLY" (See page PS-37).
6. REMOVE FRONT DIFFERENTIAL CARRIER ASSEMBLY (for 4WD)
   Refer to the procedures up to "REMOVE FRONT DIFFERENTIAL CARRIER ASSEMBLY" (See page DF-20).
7. REMOVE FAN
   Refer to the procedures up to "REMOVE FAN PULLEY" (See page CO-17).
8. REMOVE GENERATOR ASSEMBLY
   Refer to the procedures up to "REMOVE GENERATOR ASSEMBLY" (See page CH-9)
9. SEPARATE COOLER COMPRESSOR ASSEMBLY
    (See page ES-420)
10. REMOVE V-RIBBED BELT TENSIONER ASSEMBLY
    (a) Remove the 5 bolts, then remove the V-ribbed belt tensioner.
11. REMOVE OIL LEVEL GAUGE GUIDE
    (a) Remove the oil level gauge.
    (b) Remove the bolt and pull out the oil level gauge guide.
    (c) Remove the O-ring from the oil level gauge guide.
12. SEPARATE VANE PUMP ASSEMBLY
    (a) Disconnect the power steering pressure switch connector.
    (b) Remove the 2 bolts, then separate the vane pump.
    NOTICE:
    Do not hit the pulley with other parts when separating the vane pump.
    HINT:
    The vane pump is suspended securely.
13. REMOVE NO. 2 IDLER PULLEY SUB-ASSEMBLY
   (a) Remove the 2 bolts, then remove the No. 2 idler pulleys.

14. REMOVE NO. 1 IDLER PULLEY SUB-ASSEMBLY
   (a) Remove the bolt, then remove the No. 1 idler pulley.

15. REMOVE CRANKSHAFT PULLEY
   (a) Using SST, hold the crankshaft pulley and loosen the pulley set bolt.
       SST 09213-54015 (91651-60855), 09330-00021

   (b) Using the pulley set bolt and SST, remove the crankshaft pulley.
       SST 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05030)

16. REMOVE NO. 2 OIL PAN SUB-ASSEMBLY
   (a) Remove the 10 bolts and 2 nuts.
(b) Insert the blade of SST between the oil pan and No. 2 oil pan, cut off applied sealer and remove the No. 2 oil pan.
SST 09032-00100
NOTICE:
• Be careful not to damage the contact surfaces of the oil pan and No. 2 oil pan.
• Be careful not to damage the No. 2 oil pan flange.

17. REMOVE OIL STRAINER SUB-ASSEMBLY
(a) Remove the 2 nuts, then remove the oil strainer and gasket.

18. REMOVE OIL PAN SUB-ASSEMBLY
(a) Remove the 4 housing bolts.
(b) Remove the flywheel housing under cover.
(c) Remove the 17 bolts and 2 nuts.
(d) Using a screwdriver, remove the oil pan by prying between the oil pan and cylinder block.
   NOTICE:
   Be careful not to damage the contact surfaces of the cylinder block and oil pan.
(e) Remove the O-ring from the oil pump.

19. REMOVE AIR CLEANER ASSEMBLY (See page ES-429)

20. REMOVE THROTTLE BODY BRACKET (See page FU-11)
21. REMOVE OIL BAFFLE PLATE (See page FU-11)
22. REMOVE NO. 1 SURGE TANK STAY (See page FU-11)
23. REMOVE NO. 2 SURGE TANK STAY (See page FU-12)
24. REMOVE INTAKE AIR SURGE TANK (See page FU-12)
25. REMOVE IGNITION COIL ASSEMBLY (See page IG-8)
26. REMOVE CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY (See page ES-414)
27. REMOVE VVT SENSOR (See page ES-417)
28. REMOVE WATER INLET (See page CO-8)
29. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY (See page EM-40)
30. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY LH (See page EM-40)
31. REMOVE TIMING CHAIN OR BELT COVER SUB-ASSEMBLY
   (a) Remove the 24 bolts and 2 nuts.
   (b) Remove the timing chain cover by prying between the timing chain cover, cylinder head or cylinder block with a screwdriver.
   NOTICE:
   Be careful not to damage the contact surfaces of the timing chain cover, cylinder block and cylinder head.
   (c) Remove the O-ring from the LH cylinder head.
32. REMOVE TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL (See page EM-163)
33. SET NO. 1 COMPRESSION TO TDC/COMPRESSION
   (a) Using the crankshaft pulley set bolt, turn the crankshaft to align the crankshaft set key with the timing line of the cylinder block.
   (b) Check that the timing marks of the camshaft timing gears are aligned with the timing marks of the bearing caps as shown in the illustration. If not, turn the crankshaft 1 complete revolution (360°) and align the timing marks as above.

34. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY
   NOTICE:
   • Never rotate the crankshaft with the chain tensioner removed.
   • When rotating the camshaft with the timing chain removed, rotate the crankshaft counterclockwise 40° from the TDC first.
   (a) While turning the stopper plate of the tensioner upward, push in the plunger of the chain tensioner as shown in the illustration.
   (b) While turning the stopper plate of the tensioner downward, insert a bar of φ 3.5 mm (0.138) into the holes in the stopper plate and tensioner to fix the stopper plate.
   (c) Remove the 2 bolts, then remove the chain tensioner.

35. REMOVE CHAIN TENSIONER SLIPPER

36. REMOVE IDLE SPROCKET ASSEMBLY
   (a) Using a 10 mm hexagon wrench, remove the No. 2 idle gear shaft, No. 1 idle gear and No. 1 idle gear shaft.

37. REMOVE NO. 2 CHAIN VIBRATION DAMPER
   (a) Remove the 2 No. 2 chain vibration dampers.

38. REMOVE CHAIN SUB-ASSEMBLY