160HG–01

REPLACEMENT

1. REMOVE ENGINE UNDER COVER SUB–ASSY NO.1

(a) Remove the 4 bolts and engine under cover No. 1.

2. REMOVE ENGINE UNDER COVER ASSY REAR

(a) Remove the 4 bolts and engine under cover rear.

3. DRAIN ENGINE COOLANT (See page 16–50)

4. REMOVE RADIATOR SUPPORT SEAL UPPER

(a) Remove the 11 clips and radiator support seal upper.

5. REMOVE WIRE HARNESS (W/ COLD AREA)

(a) Remove the wire harness from the fan shroud.

6. REMOVE RADIATOR RESERVE TANK ASSY

(a) Remove the radiator reserve tank hose first, and then remove the 3 bolts and radiator reserve tank.

7. REMOVE RADIATOR HOSE NO.1

8. REMOVE FAN AND GENERATOR V BELT (See page 14–189)

HINT:

Loosen the 4 nuts for the fan with fluid coupling assy in advance.

9. REMOVE FAN SHROUD

(a) Remove the oil cooler inlet hose and outlet hose from the hose clamp. (AT TRANSMISSION)

(b) Remove the 4 nuts for the fan with fluid coupling assy and 2 bolts for the fan shroud.

(c) Remove the fan with fluid coupling assy together with the fan shroud.

10. REMOVE FAN PULLEY

11. REMOVE INTERCOOLER PROTECTOR (See page 13–30)

12. REMOVE INTERCOOLER ASSY (See page 10–31)

13. REMOVE VACUUM SWITCHING VALVE ASSY NO.1 (See page 10–31)

14. REMOVE DIESEL THROTTLE BODY ASSY (See page 10–31)

15. REMOVE TIMING BELT NO.1 COVER (See page 14–214)

16. REMOVE TIMING BELT (See page 14–214)

17. REMOVE COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONER)

(a) Disconnect the connector and remove the 4 bolts, and remove the cooler compressor assy with magnet clutch assy.

HINT:

It is not necessary that remove the cooler hose from the cooler compressor assy when you remove the assembly. Also, for your work in the rest of the following removal process, you may put and hang the removed cooler compressor to an appropriate location on the vehicle with a rope.

18. REMOVE GENERATOR ASSY (See page 19–40)

19. REMOVE IDLE PULLEY ASSY

(a) Remove the bolt and idle pulley assy.

20. REMOVE COMPRESSOR MOUNTING BRACKET NO.1

(a) Remove the 5 bolts and compressor mounting bracket No. 1.

21. REMOVE CYLINDER HEAD COVER SUB–ASSY NO.2 (See page 14–223)

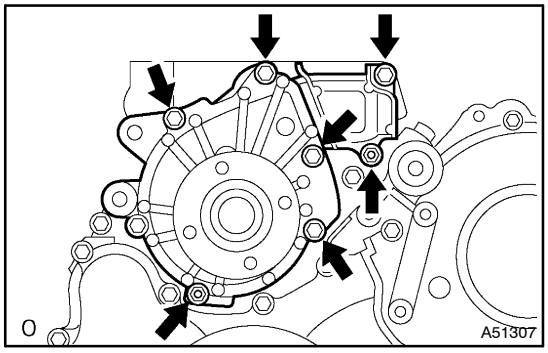
22. REMOVE INJECTION PIPE (See page 11–106)

23. REMOVE CYLINDER HEAD COVER SUB–ASSY (See page 14–214)

24. REMOVE CAMSHAFT TIMING PULLEY (See page 14–223)

25. REMOVE TIMING BELT IDLER SUB–ASSY NO.1 (See page 14–223)

26. REMOVE TIMING BELT NO.2 COVER (See page 14–223)



27. REMOVE WATER PUMP ASSY

(a) Remove the 5 bolts and 2 nuts, and remove the water pump assy.

28. INSTALL WATER PUMP ASSY

(a) Set a new gasket and install the water pump assy with the 5 bolts and 2 nuts.
Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)

29. INSTALL TIMING BELT NO.2 COVER (See page 14–223)

30. INSTALL TIMING BELT IDLER SUB–ASSY NO.1 (See page 14–223)

31. INSTALL CAMSHAFT TIMING PULLEY (See page 14–223)

32. INSTALL CYLINDER HEAD COVER SUB–ASSY (See page 14–214)

33. INSTALL INJECTION PIPE (See page 14–214)

34. INSTALL CYLINDER HEAD COVER SUB–ASSY NO.2 (See page 14–223)

35. INSTALL COMPRESSOR MOUNTING BRACKET NO.1

(a) Install the compressor mounting bracket No. 1 with the 5 bolts.
Torque: 21 N·m (214 kgf·cm, 16 ft·lbf)

36. INSTALL IDLE PULLEY ASSY

(a) Install the idle pulley with the bolt.
Torque: 45 N·m (459 kgf·cm, 33 ft·lbf)

37. INSTALL GENERATOR ASSY (See page 19–35)

38. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONER)

(a) Install the cooler compressor assy with magnet clutch assy with the 4 bolts.
Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

39. INSTALL TIMING BELT (See page 14–214)

40. INSTALL TIMING BELT NO.1 COVER

(a) Install the timing belt cover No. 1 with the 6 bolts.
Torque: 6.0 N·m (61 kgf·cm, 53 in.·lbf)

(b) Install the wire harness clamp.

(c) Install the water hose clamp with the bolt.
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

41. INSTALL DIESEL THROTTLE BODY ASSY (See page 10–31)

42. INSTALL VACUUM SWITCHING VALVE ASSY NO.1 (See page 10–31)

43. INSTALL INTERCOOLER ASSY (See page 10–31)

44. INSTALL INTERCOOLER PROTECTOR

(a) Install the intercooler protector with the 5 bolts.
Torque: 6.0 N·m (61 kgf·cm, 53 in.·lbf)

45. INSTALL FAN PULLEY

46. INSTALL FAN SHROUD

(a) Temporarily place the fan shroud together with the fan with fluid coupling assy to the correct location inside the engine room first.

(b) Install the fan shroud to the radiator with the 2 bolts.
Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

(c) Install the fan with fluid coupling assy to the water pump with the 4 nuts.
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

(d) Install the oil cooler inlet hose and outlet hose to the hose clamp. (AT TRANSMISSION)

47. INSTALL FAN AND GENERATOR V BELT (See page 14–189)

48. INSTALL RADIATOR HOSE NO.1

49. INSTALL RADIATOR RESERVE TANK ASSY

(a) Install the radiator reserve tank with the 3 bolts.
Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

(b) Install the radiator reserve tank hose.

50. INSTALL WIRE HARNESS (W/ COLD AREA)

(a) Install the wire harness to the fan shroud.

51. INSTALL RADIATOR SUPPORT SEAL UPPER

(a) Install the radiator support seal upper with the 11 clips.

52. ADD ENGINE COOLANT (See page 16–50)

53. CHECK FOR ENGINE COOLANT LEAKS

54. CHECK FUEL LEAK (See page 11–101)

55. INSTALL ENGINE UNDER COVER ASSY REAR

(a) Install the engine under cover rear with the 4 bolts.
Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)

56. INSTALL ENGINE UNDER COVER SUB–ASSY NO.1

(a) Install the engine under cover No.1 with the 4 bolts.
Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)