OIL COOLER ASSY (1KD–FTV)

170C0–01

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 COOLANT (See page 16–50)

4. REMOVE STARTER ASSY (See page 19–35)

5. REMOVE RADIATOR SUPPORT SEAL UPPER

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

6. REMOVE WIRE HARNESS (W/ COLD AREA)

(a) Disengage the wire harness from fan shroud.

7. REMOVE RADIATOR RESERVE TANK ASSY

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

8. REMOVE RADIATOR HOSE NO.1

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

HINT:

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

10. 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.

(c) Remove the 2 bolts, and remove the fan shroud together with fan with fluid coupling assy.

11. REMOVE FAN PULLEY

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

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

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

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

16. REMOVE OIL FILTER SUB–ASSY (See page 17–79)

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

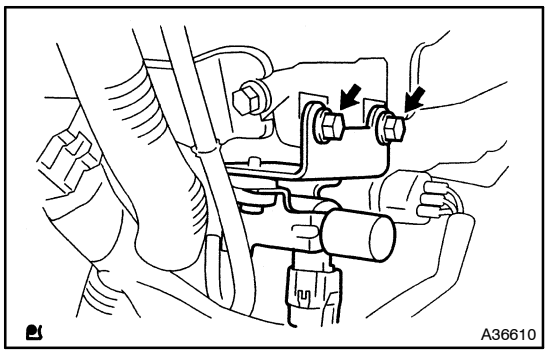
18. REMOVE FUEL INLET PIPE SUB–ASSY (See page 11–122)

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

20. REMOVE VANE PUMP OIL RESERVOIR ASSY

(a) Remove the 3 bolts and vane pump oil reservoir assy.

21. REMOVE NOZZLE LEAKAGE PIPE ASSY NO.2 (See page 11–122)

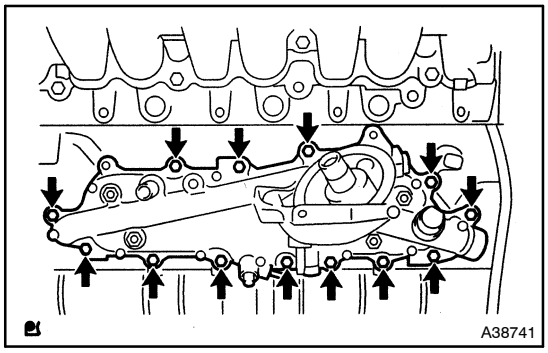


22. REMOVE ELECTRIC EGR CONTROL VALVE ASSY

(a) Remove the 2 bolts and E–VRV with bracket.

23. REMOVE COMMON RAIL ASSY (See page 11–122)

24. REMOVE INJECTION OR SUPRY PUMP ASSY (See page 11–117)



25. REMOVE OIL COOLER COVER SUB–ASSY

(a) Disconnect the oil pressure switch connector and wire harness.

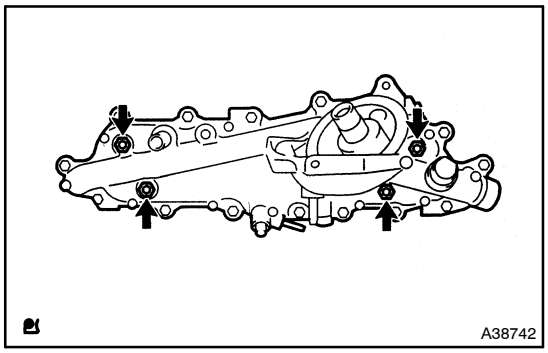
(b) Remove the clip, and remove the water by–pass hose No. 3.

(c) Remove the vacuum hose and 2 nuts, and remove the vacuum transmitting pipe No. 2.

(d) Remove the bolt and vacuum switching valve assy.

(e) Remove the oil filter drain hose.

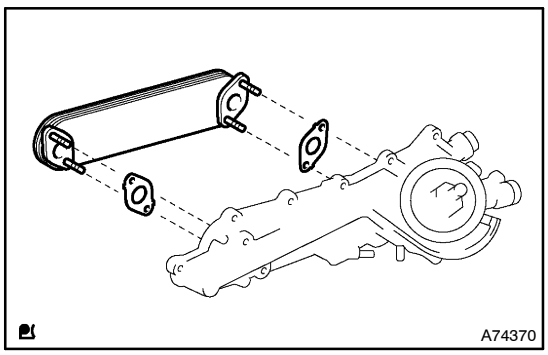
(f) Remove the 13 bolts and oil cooler cover.



26. REMOVE OIL COOLER ASSY

(a) Loosen the 4 nuts first.

(b) As hammering the each nut head equally by a plastic hammer to remove the oil cooler.



(c) Remove all the bolts and oil cooler.

27. INSTALL OIL COOLER ASSY

(a) Install the oil cooler assy to the oil cooler cover with set a new gasket in between them.

(b) Tighten the 4 nuts.

Torque: 16 N·m (163 kgf·cm, 12 ft·lbf)

28. OIL COOLER COVER SUB–ASSY

(a) Set a new gasket, and install the oil cooler cover with the 13 bolts.

Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)

(b) Install the oil filter drain hose.

(c) Install the vacuum switching valve assy No. 1 with the bolt.

Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

(d) Install the vacuum transmitting pipe No. 2 with the 2 nuts.

(e) Install the water by–pass hose No. 3.

(f) Connect the oil pressure connector, and install the wire harness.

29. INSTALL INJECTION OR SUPRY PUMP ASSY (See page 11–117)

30. INSTALL COMMON RAIL ASSY (See page 11–122)

31. INSTALL ELECTRIC EGR CONTROL VALVE ASSY

(a) Install E–VRV with bracket with the 2 bolts.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

32. INSTALL NOZZLE LEAKAGE PIPE ASSY NO.2 (See page 11–122)

33. INSTALL VANE PUMP OIL RESERVOIR ASSY

(a) Install the vane pump oil reservoir assy with the 3 bolts.
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

34. INSTALL INJECTION PIPE (See page 11–106)

35. INSTALL FUEL INLET PIPE SUB–ASSY (See page 11–122)

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

37. INSTALL OIL FILTER SUB–ASSY (See page 17–79)

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

39. 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)

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

41. INSTALL INTERCOOLER PROTECTOR

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

42. INSTALL FAN PULLEY

43. 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 ft·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)

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

45. INSTALL RADIATOR HOSE NO.1

46. INSTALL RADIATOR RESERVE TANK ASSY

(a) Install the radiator reserve tank with the 3 bolts.
Torque: 5.0 N·m (51 kgf·cm, 4 ft·lbf)

(b) Install the reserve tank hose.

47. INSTALL WIRE HARNESS (W/ COLD AREA)

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

48. INSTALL RADIATOR SUPPORT SEAL UPPER

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

49. INSTALL STARTER ASSY (See page 19–35)

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

51. CHECK FOR ENGINE COOLANT LEAKS

52. CHECK FUEL LEAK (See page 11–101)

53. 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)

54. 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)