110LG–01

REPLACEMENT

1. REMOVE ENGINE UNDER COVER SUB–ASSY NO.1
2. DRAIN ENGINE COOLANT (See page 16–18)
3. REMOVE AIR CLEANER ASSY (See page 14–91)
4. REMOVE RADIATOR SUPPORT SEAL UPPER
5. REMOVE RADIATOR HOSE NO.1
6. REMOVE RADIATOR HOSE NO.2
7. DISCONNECT HEATER WATER INLET HOSE A
8. DISCONNECT HEATER WATER OUTLET HOSE A (FROM HEATER UNIT)
9. REMOVE VANE PUMP V BELT (See page 14–77)
10. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (W/ AIR CONDITIONING) (See page 14–77)
11. REMOVE FAN AND GENERATOR V BELT (W/O AIR CONDITIONING) (See page 14–77)

HINT:

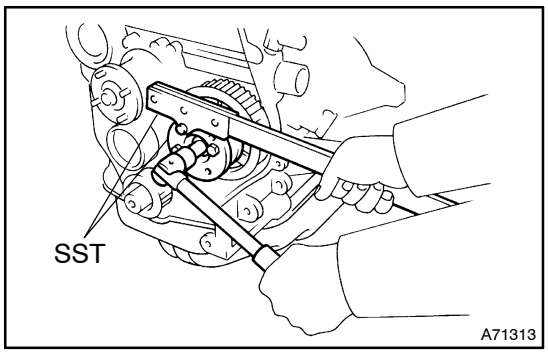
Loosen the 4 fan pulley nuts.

12. REMOVE FAN AND GENERATOR V BELT (W/ AIR CONDITIONING) (See page 14–77)

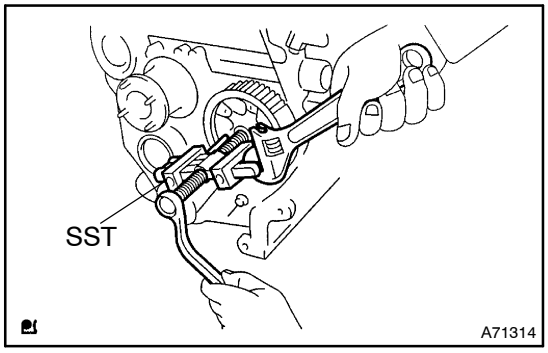
HINT:

Loosen the 4 fan pulley nuts.

13. REMOVE FLUID COUPLING ASSY (See page 14–99)
14. REMOVE FAN SHROUD
15. REMOVE INTAKE PIPE
16. REMOVE INTAKE FLANGE (See page 10–19)
17. REMOVE VENTURI ASSY (See page 10–19)
18. REMOVE STARTER ASSY (See page 19–11)
19. REMOVE INJECTION PIPE SET (See page 11–46)
20. REMOVE IDLE PULLEY BRACKET (W/ AIR CONDITIONING)
21. SEPARATE COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONING) (See page 14–91)
22. REMOVE COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING)
23. REMOVE VANE PUMP DRIVE PULLEY (W/O AIR CONDITIONING) (See page 14–99)
24. REMOVE VANE PUMP DRIVE PULLEY (W/ AIR CONDITIONING) (See page 14–99)
25. REMOVE CRANKSHAFT PULLEY (See page 14–99)
    SST 09213–54015 (91651–60855), 09330–00021, 09950–50013 (09951–05010, 09952–05010, 09953–05010, 09953–05020, 09954–05030)
26. REMOVE RADIATOR HOSE HOSE CLAMP
27. REMOVE TIMING CHAIN OR BELT COVER SUB–ASSY (See page 14–99)
28. REMOVE TIMING BELT GUIDE
29. SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 14–99)
30. REMOVE TIMING BELT (See page 14–99)



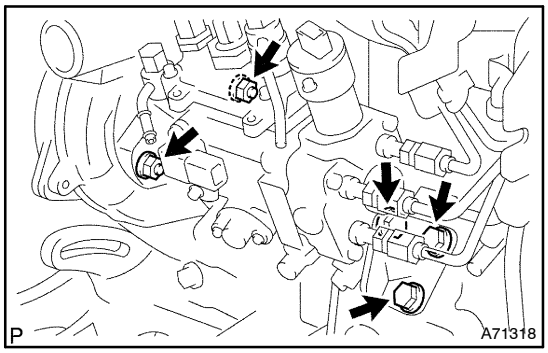
31. REMOVE INJECTION PUMP DRIVE PULLEY
    (a) Using SST, remove the pulley nut.
        SST 09213–14010 (91651–60865), 09330–00021,



(b) Using SST, remove the drive pulley.
SST 09950–50013 (09951–05010, 09952–05010, 09953–05010, 09954–05021)

32. REMOVE INJECTION OR SUPPLY PUMP ASSY

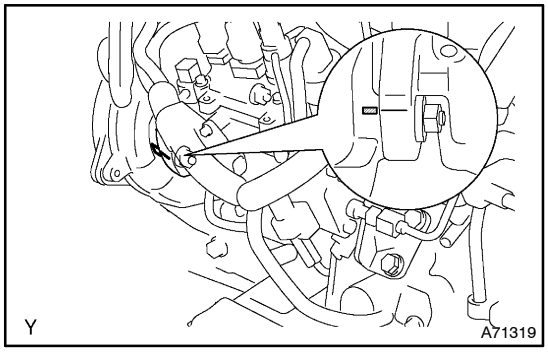
(a) Disconnect the engine speed sensor connector.
(b) Disconnect the spill control valve connector.
(c) Disconnect the correction unit connector.
(d) Disconnect the timer control valve connector.
(e) Disconnect the fuel temperature sensor connector.
(f) Disconnect the engine wire clamp.
(g) Disconnect the fuel hose.
(h) Disconnect the injection pump to fuel filter fuel hose or pipe.
(i) Disconnect the injection pump to fuel pipe fuel hose.



(j) Remove the 3 bolts and injection pump stay.
(k) Remove the 2 nuts and injection pump.

33. INSTALL INJECTION OR SUPPLY PUMP ASSY

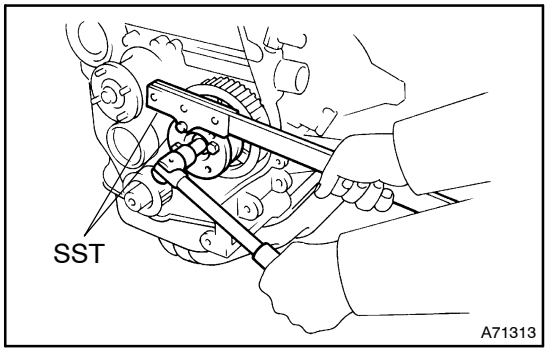
(a) Install the injection pump to timing gear case, and temporary tightening two nuts.
(b) Install injection pump stay to injection pump rear end, and temporary tighten three bolts.



(c) Rotate the pump body to make the marking of pump flange conform to the marking of timing gear case.
(d) Tighten the fixing nuts and bolts to secure the pump body.
Installing order of injection pump stay (after temporary tightening).

CAUTION:
First tighten the block side bolts, then the pump side bolt.
Torque:
Injection pump × Belt case: 21 N·m (210 kgf·cm, 15 ft·lbf)
Block side bolts: 26 N·m (270 kgf·cm, 19 ft·lbf)
Pump side bolts: 26 N·m (270 kgf·cm, 19 ft·lbf)

(e) Connect the fuel hose.
(f) Connect the injection pump to fuel filter fuel hose or pipe.
(g) Connect the injection pump to fuel pipe fuel hose.
(h) Connect the engine speed sensor connector.
(i) Connect the spill control valve connector.
(j) Connect the correction unit connector.
(k) Connect the timer control valve connector.
(l) Connect the fuel temperature sensor connector.
(m) Connect the engine wire clamp.



34. INSTALL INJECTION PUMP DRIVE PULLEY

(a) Using SST, install the pulley nut.

SST 09213–14010 (91651–60865), 09330–00021

Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

35. INSPECT TIMING BELT (See page 14–99)
36. INSPECT TIMING BELT IDLER SUB–ASSY NO.1 (See page 14–99)
37. INSPECT IDLER TENSION SPRING (See page 14–99)
38. INSPECT WATER PUMP ASSY (See page 14–99)
39. SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 14–99)
40. INSTALL TIMING BELT (See page 14–99)

SST 09960–10010 (09962–01000, 09963–01000)

41. CHECK VALVE TIMING (See page 14–99)
42. INSTALL TIMING BELT GUIDE (See page 14–99)
43. INSTALL TIMING CHAIN OR BELT COVER SUB–ASSY (See page 14–99)
44. INSTALL RADIATOR HOSE HOSE CLAMP (See page 14–99)
45. INSTALL CRANKSHAFT PULLEY (See page 14–99)

SST 09213–54015 (91651–60855), 09330–00021

46. INSTALL VANE PUMP DRIVE PULLEY (W/O AIR CONDITIONING) (See page 14–99)
47. INSTALL VANE PUMP DRIVE PULLEY (W/ AIR CONDITIONING) (See page 14–99)
48. INSTALL COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING) (See page 14–91)
49. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONING) (See page 14–91)
50. INSTALL IDLE PULLEY BRACKET (W/ AIR CONDITIONING) (See page 14–91)
51. INSTALL INJECTION PIPE SET (See page 11–46)
52. INSTALL STARTER ASSY (See page 19–11)
53. INSTALL VENTURI ASSY (See page 10–19)
54. INSTALL INTAKE FLANGE (See page 10–19)
55. INSTALL INTAKE PIPE (See page 10–19)
56. INSTALL FAN SHROUD (See page 16–20)
57. TEMPORARILY TIGHTEN FLUID COUPLING ASSY (See page 14–99)
58. INSTALL FAN AND GENERATOR V BELT (W/O AIR CONDITIONING) (See page 14–77)
59. INSTALL FAN AND GENERATOR V BELT (W/ AIR CONDITIONING) (See page 14–77)
60. TIGHTEN FLUID COUPLING ASSY (See page 14–99)
61. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (W/ AIR CONDITIONING) (See page 14–77)
62. INSTALL VANE PUMP V BELT (See page 14–77)
63. INSTALL AIR CLEANER ASSY (See page 14–91)
64. BLEED INJECTION PIPE (See page 11–46)
65. ADD ENGINE COOLANT (See page 16–18)
66. CHECK FOR ENGINE COOLANT LEAKS (See page 16–18)
67. CHECK FOR FUEL LEAKS (See page 11–46)
68. INSTALL ENGINE UNDER COVER SUB–ASSY NO.1 (See page 14–91)