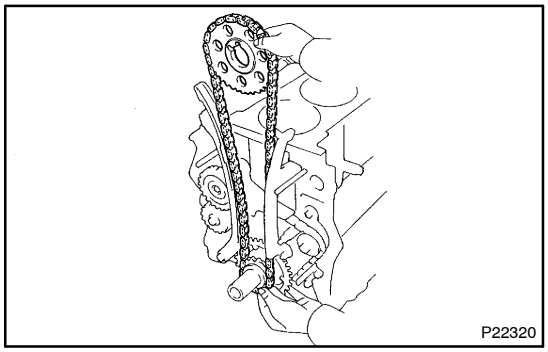
14122–02

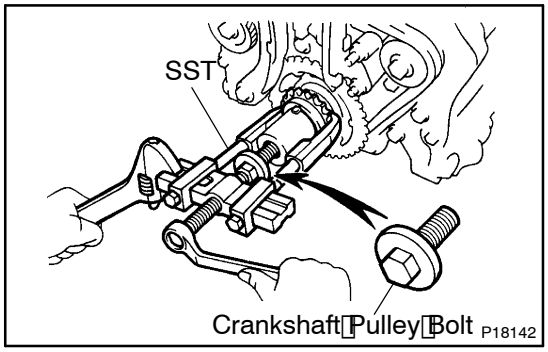
REPLACEMENT

1. WORK FOR PREVENTING GASOLINE FROM SPILLING OUT (See page 11–1)
2. REMOVE ENGINE UNDER COVER SUB–ASSY NO.1
(a) Remove the 4 bolts and engine under cover.
3. REMOVE ENGINE UNDER COVER ASSY REAR
(a) Remove the 4 bolts and engine under cover.
4. DRAIN ENGINE COOLANT (See page 16–7)
5. DRAIN ENGINE OIL (See page 17–15)
6. SEPARATE ACCELERATOR CONTROL CABLE ASSY
7. SEPARATE THROTTLE CABLE ASSY (A/T TRANSAXLE)
8. REMOVE AIR CLEANER CAP SUB–ASSY (See page 10–10)
9. REMOVE INTAKE AIR CONNECTOR SUB–ASSY (See page 10–10)
10. SEPARATE EXHAUST PIPE ASSY FRONT (See page 14–63)
11. REMOVE TRANSMISSION OIL LEVEL GAGE SUB–ASSY (A/T TRANSAXLE)
12. REMOVE TRANSMISSION OIL FILLER TUBE SUB–ASSY (A/T TRANSAXLE) (See page 40–6)
13. REMOVE VANE PUMP V BELT (See page 14–7)
14. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (W/ AIR CONDITIONING) (See page 14–7)
15. REMOVE RADIATOR SUPPORT SEAL UPPER (See page 16–10)
16. REMOVE FLUID COUPLING ASSY (See page 16–5)
17. REMOVE FAN AND GENERATOR V BELT
18. REMOVE FAN PULLEY
19. REMOVE GENERATOR ASSY (See page 19–8)
20. REMOVE FAN BELT ADJUSTING BAR (See page 17–8)
21. REMOVE GENERATOR BRACKET NO.1 (See page 18–6)
22. REMOVE CRANKSHAFT POSITION SENSOR (See page 18–6)
23. SEPARATE VANE PUMP ASSY (See page 14–63)
24. SEPARATE COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONING) (See page 17–8)
25. REMOVE COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING) (See page 17–8)
26. DISCONNECT HEATER WATER OUTLET HOSE A (FROM HEATER UNIT) (See page 14–63)
27. REMOVE EGR PIPE SUB–ASSY NO.1 (W/ EGR) (See page 14–63)
28. DISCONNECT VENTILATION HOSE
29. DISCONNECT VENTILATION HOSE NO.2
30. DISCONNECT FUEL VAPOR FEED HOSE ASSY
31. DISCONNECT WATER BY–PASS HOSE
32. DISCONNECT WATER BY–PASS HOSE NO.3
33. REMOVE SURGE TANK STAY NO.1 (See page 14–63)
34. REMOVE INTAKE AIR SURGE TANK (See page 14–63)
35. SEPARATE FUEL PIPE SUB–ASSY NO.1 (See page 14–63)
36. DISCONNECT FUEL HOSE NO.2
37. DISCONNECT RADIATOR HOSE NO.1
38. DISCONNECT RADIATOR HOSE NO.2
39. REMOVE IGNITION COIL BRACKET (LEADED GASOLINE) (See page 14–9)
40. REMOVE IGNITION COIL NO.1 (UNLEADED GASOLINE) (See page 14–9)
41. REMOVE CYLINDER HEAD COVER SUB–ASSY (See page 14–9)
42. SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 14–9)
43. REMOVE CHAIN TENSIONER ASSY NO.1 (See page 14–51)

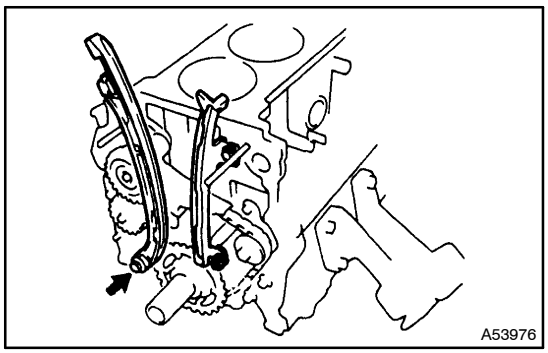
44. REMOVE SEMICIRCULAR PLUG
45. REMOVE CAMSHAFT TIMING GEAR OR SPROCKET (See page 14–51)
46. REMOVE CAMSHAFT (See page 14–51)
47. REMOVE NO.2 CAMSHAFT (See page 14–51)
48. REMOVE CYLINDER HEAD GASKET (See page 14–63)
49. REMOVE VANE PUMP DRIVE PULLEY (See page 17–8)
50. REMOVE VANE PUMP DRIVE PULLEY SPACER (W/O AIR CONDITIONING)
51. CRANKSHAFT PULLEY (W/ AIR CONDITIONING)
52. REMOVE CRANKSHAFT PULLEY
53. REMOVE DIFFERENTIAL CARRIER ASSY FRONT (See page 29–13)
54. REMOVE STIFFENER PLATE RH (ATM) (A/T TRANSAXLE) (See page 17–8)
55. REMOVE STIFFENER PLATE RH (MTM) (M/T TRANSAXLE) (See page 17–8)
56. REMOVE STIFFENER PLATE LH (ATM) (A/T TRANSAXLE) (See page 17–8)
57. REMOVE STIFFENER PLATE LH (MTM) (M/T TRANSAXLE) (See page 17–8)
58. REMOVE FLYWHEEL HOUSING UNDER COVER
59. REMOVE FLYWHEEL HOUSING DUST SEAL
60. REMOVE OIL PAN SUB–ASSY (See page 17–8)
    SST 09032–00100
61. REMOVE OIL STRAINER SUB–ASSY (See page 17–8)
62. REMOVE TIMING GEAR CASE SUB–ASSY (See page 17–8)



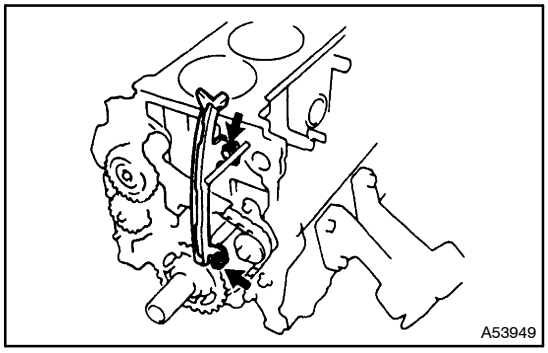
63. REMOVE CHAIN SUB–ASSY



64. REMOVE CRANKSHAFT TIMING GEAR OR SPROCKET
(a) Using SST, remove the crankshaft timing gear and crankshaft timing gear key.
    SST 09950–40011 (09951–04010, 09952–04010, 09953–04010, 09954–04010, 09955–04061)

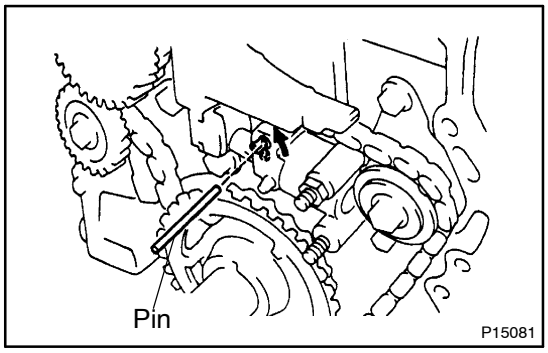


65. REMOVE CHAIN TENSIONER SLIPPER
(a) Remove the bolt and chain tensioner slipper.



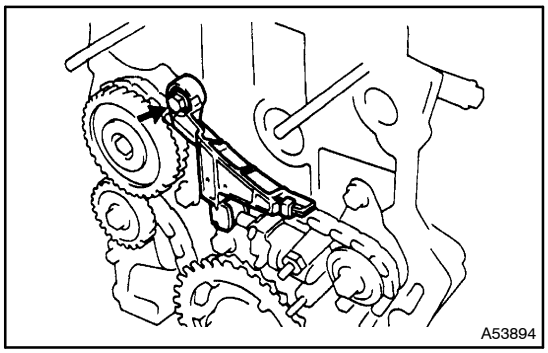
66. REMOVE CHAIN VIBRATION DAMPER NO.1

(a) Remove the bolt, nut and chain vibration damper.

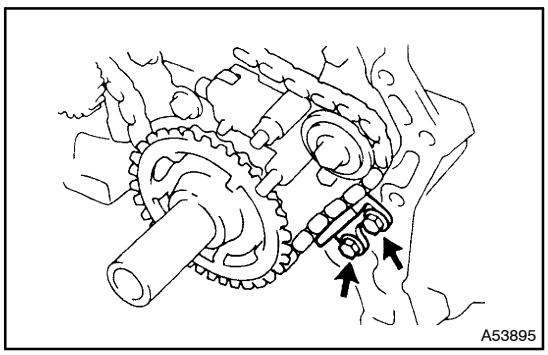


67. REMOVE CHAIN VIBRATION DAMPER NO.2

(a) Install a pin to the chain tensioner and lock the plunger.

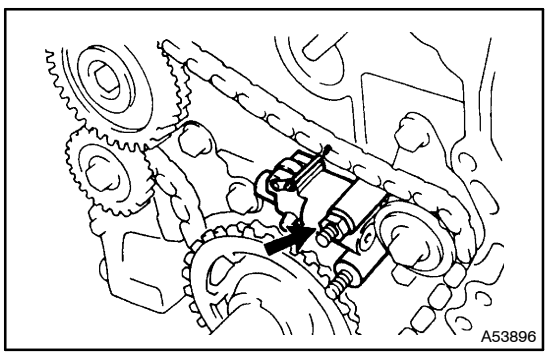


(b) Remove the bolt and chain vibration damper.



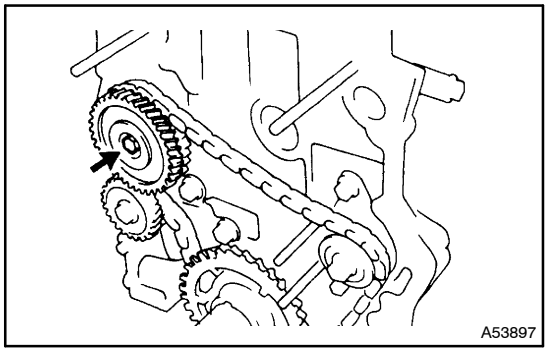
68. REMOVE CHAIN VIBRATION DAMPER NO.3

(a) Remove the 2 bolts and chain vibration damper.



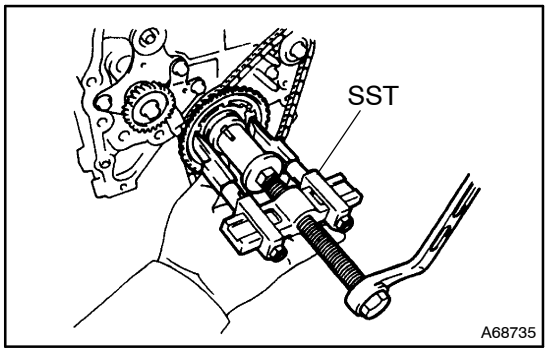
69. REMOVE CHAIN TENSIONER ASSY NO.2

(a) Remove the nut and chain tensioner.



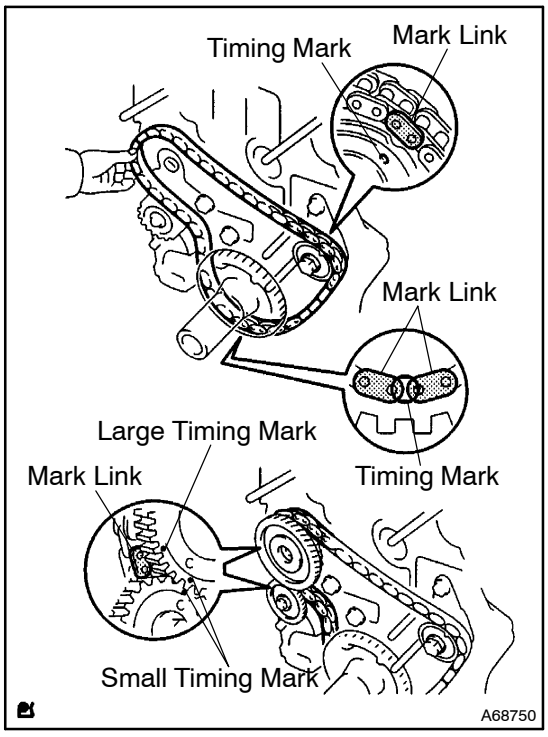
70. REMOVE NO.2 CHAIN SUB–ASSY

(a) Remove the bolt, balanceshaft drive gear shaft and balanceshaft drive gear.



(b) Using SST and crankshaft pulley bolt, remove the crankshaft timing gear and chain.

SST 09950–40011 (09951–04010, 09952–04010, 09953–04020, 09954–04010, 09955–04061)



71. INSTALL NO.2 CHAIN SUB–ASSY

NOTICE:

Check that No. 1 cylinder is at TDC and that the weights of the balanceshaft No. 1 and No. 2 are at the bottom side.

(a) Install the chain by matching its mark links with the timing marks on the crankshaft timing sprocket and balanceshaft timing sprocket.

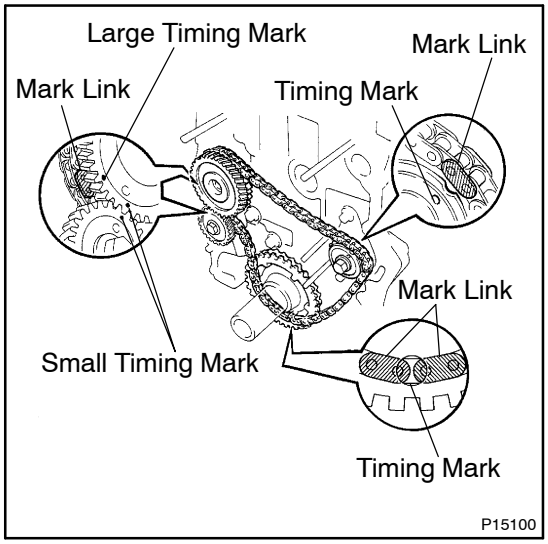
(b) Fit the other mark link of crankshaft timing sprocket behind the large timing mark of the balanceshaft drive gear.

(c) Insert the balanceshaft drive gear shaft through the balanceshaft drive gear so that it fits into the thrust plate hole.

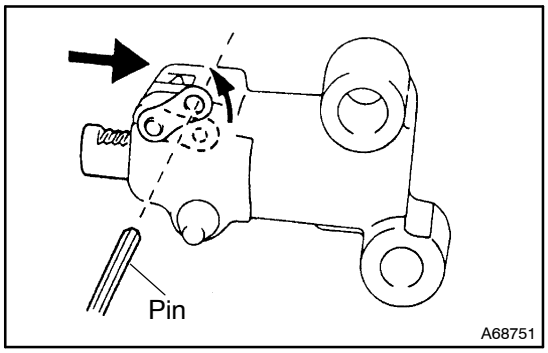
(d) Then align the small timing mark of the balanceshaft drive gear with the timing mark of the balanceshaft timing gear.

(e) Install the bolt to the balanceshaft drive gear and tighten it.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)



(f) Check that each timing mark is matched with the the corresponding mark link.



72. INSTALL CHAIN TENSIONER ASSY NO.2

NOTICE:

Assemble the chain tensioner with the pin installed, then remove the pin after assembly. When doing this, avoid pushing the vibration damper against the chain.

(a) Install the chain tensioner with the nut.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

73. INSTALL CHAIN VIBRATION DAMPER NO.3

(a) Install the chain vibration damper with the 2 bolts.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

74. INSTALL CHAIN VIBRATION DAMPER NO.2

(a) Install the chain vibration damper with the bolt.
Torque: 27 N·m (270 kgf·cm, 20 ft·lbf)

(b) Remove a pin from the chain tensioner and free the plunger.

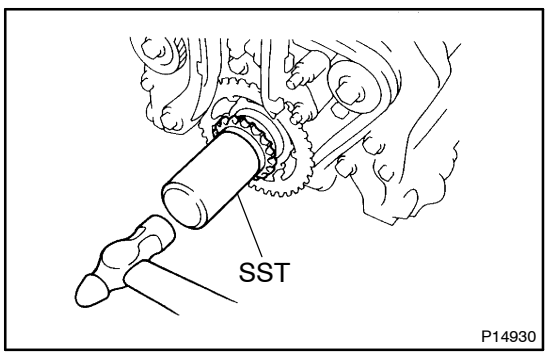
75. INSTALL CHAIN VIBRATION DAMPER NO.1

(a) Install the chain vibration damper with the bolts and nut.
Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)

76. INSTALL CHAIN TENSIONER SLIPPER

(a) Install the chain tensioner slipper with the bolt.
Torque: 27 N·m (270 kgf·cm, 20 ft·lbf)

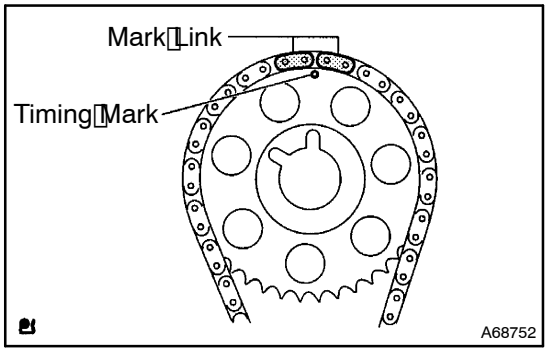
(b) Check that the chain tensioner slipper moves smoothly.



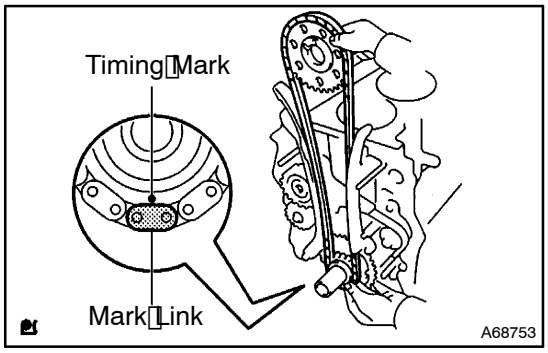
77. INSTALL CRANKSHAFT TIMING GEAR OR SPROCKET

(a) Install the crankshaft timing gear key.

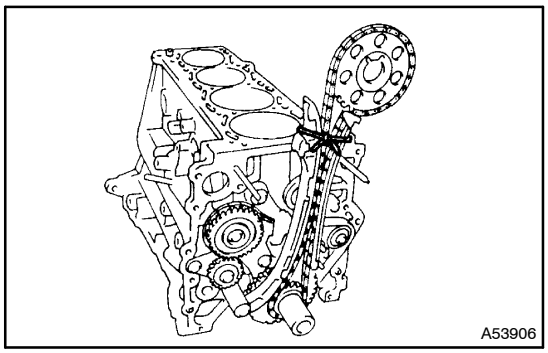
(b) Using SST, install the crankshaft timing gear.
SST 09636–20010



78. INSTALL CHAIN SUB–ASSY
(a) Align the timing mark between the mark link of the chain, and install the chain to the camshaft timing gear.



(b) Align the timing mark of the crankshaft timing gear with the mark link of the chain and install the chain.



(c) Tie the chain with a cord as shown in the illustration, and make sure it doesn't come loose.

79. INSTALL TIMING GEAR CASE SUB–ASSY (See page 17–8)
80. INSTALL TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL (See page 17–8)
SST 09223–50010
81. INSTALL OIL STRAINER SUB–ASSY (See page 17–8)
82. INSTALL OIL PAN SUB–ASSY (See page 17–8)
83. INSTALL FLYWHEEL HOUSING DUST SEAL
84. INSTALL FLYWHEEL HOUSING UNDER COVER
85. INSTALL STIFFENER PLATE LH (ATM) (A/T TRANSAXLE) (See page 17–8)
86. INSTALL STIFFENER PLATE LH (MTM) (M/T TRANSAXLE) (See page 17–8)
87. INSTALL STIFFENER PLATE RH (ATM) (A/T TRANSAXLE) (See page 17–8)
88. INSTALL STIFFENER PLATE RH (MTM) (M/T TRANSAXLE) (See page 17–8)
89. INSTALL DIFFERENTIAL CARRIER ASSY FRONT (See page 29–13)
90. INSTALL CRANKSHAFT PULLEY (See page 17–8)
SST 09213–54015 (91651–60855), 09330–00021
91. INSTALL VANE PUMP DRIVE PULLEY SPACER (W/O AIR CONDITIONING)
92. INSTALL CRANKSHAFT PULLEY (W/ AIR CONDITIONING)
93. INSTALL VANE PUMP DRIVE PULLEY (See page 17–8)
94. INSPECT CYLINDER HEAD SET BOLT (See page 14–63)
95. REMOVE CYLINDER HEAD GASKET (See page 14–63)
96. INSTALL NO.2 CAMSHAFT (See page 14–51)

97. INSTALL CAMSHAFT (See page 14–51)
98. SET NO.1 CYLINDER TO TDC/COMPRESSION (See page 14–51)
99. INSTALL CAMSHAFT TIMING GEAR OR SPROCKET (See page 14–51)
100. INSTALL SEMICIRCULAR PLUG (See page 14–51)
101. INSTALL CHAIN TENSIONER ASSY NO.1 (See page 14–51)
102. INSTALL CYLINDER HEAD COVER SUB–ASSY (See page 14–9)
103. INSTALL IGNITION COIL BRACKET (LEADED GASOLINE)
104. INSTALL IGNITION COIL NO.1 (UNLEADED GASOLINE) (See page 14–9)
105. CONNECT RADIATOR HOSE NO.2
106. CONNECT RADIATOR HOSE NO.1
107. CONNECT FUEL HOSE NO.2
108. INSTALL FUEL PIPE SUB–ASSY NO.1 (See page 14–63)
109. INSTALL INTAKE AIR SURGE TANK (See page 14–63)
110. INSTALL SURGE TANK STAY NO.1 (See page 14–63)
111. CONNECT WATER BY–PASS HOSE NO.3
112. CONNECT WATER BY–PASS HOSE
113. CONNECT FUEL VAPOR FEED HOSE ASSY
114. CONNECT VENTILATION HOSE NO.2
115. CONNECT VENTILATION HOSE
116. INSTALL EGR PIPE SUB–ASSY NO.1 (W/ EGR) (See page 14–63)
117. CONNECT HEATER WATER OUTLET HOSE A (FROM HEATER UNIT)
118. INSTALL COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING) (See page 17–8)
119. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (W/ AIR CONDITIONING) (See page 17–8)
120. INSTALL VANE PUMP ASSY (See page 14–63)
121. INSTALL CRANKSHAFT POSITION SENSOR (See page 18–6)
122. INSTALL GENERATOR BRACKET NO.1 (See page 18–6)
123. INSTALL FAN BELT ADJUSTING BAR (See page 17–8)
124. INSTALL GENERATOR ASSY (See page 17–8)
125. INSTALL FAN PULLEY
126. INSTALL FAN AND GENERATOR V BELT
127. INSTALL FLUID COUPLING ASSY (See page 16–5)
128. INSTALL RADIATOR SUPPORT SEAL UPPER
129. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (W/ AIR CONDITIONING) (See page 14–7)
130. INSTALL VANE PUMP V BELT (See page 14–7)
131. INSPECT DRIVE BELT (See page 14–1)
132. INSTALL TRANSMISSION OIL FILLER TUBE SUB–ASSY (A/T TRANSAXLE) (See page 40–6)
133. INSTALL TRANSMISSION OIL LEVEL GAGE SUB–ASSY (A/T TRANSAXLE)
134. INSTALL EXHAUST PIPE ASSY FRONT (See page 14–63)
135. INSTALL INTAKE AIR CONNECTOR SUB–ASSY (See page 10–10)
136. INSTALL AIR CLEANER CAP SUB–ASSY
137. INSTALL THROTTLE CABLE ASSY (A/T TRANSAXLE)
138. INSTALL ACCELERATOR CONTROL CABLE ASSY
139. ADD ENGINE OIL (See page 17–15)
140. ADD ENGINE COOLANT (See page 16–7)
141. CHECK FOR ENGINE OIL LEAKS
142. CHECK FOR ENGINE COOLANT LEAKS (See page 16–1)
143. CHECK FOR FUEL LEAKS (See page 11–4)

144. CHECK IDLE SPEED AND IGNITION TIMING (See page 14–1)

SST 09843–18030

145. INSPECT COMPRESSION (See page 14–1)

146. INSPECT CO/HC (See page 14–1)

147. INSTALL ENGINE UNDER COVER ASSY REAR

(a) Install the engine under cover with the 4 bolts.

Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)

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

(a) Install the engine under cover with the 4 bolts.

Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)