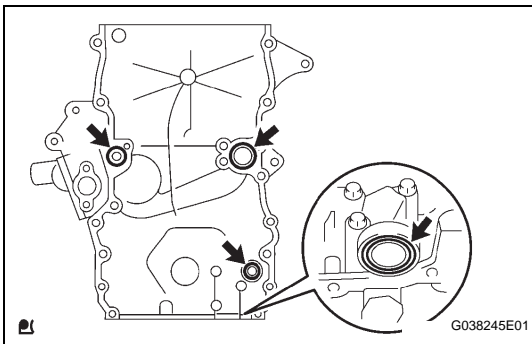
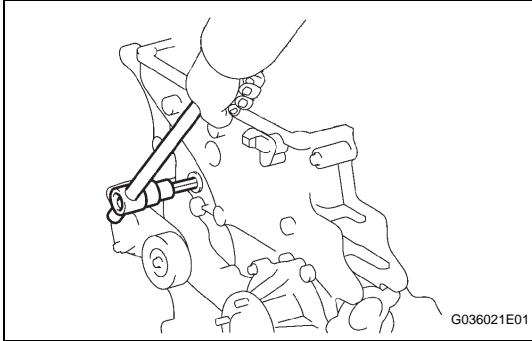


INSTALLATION

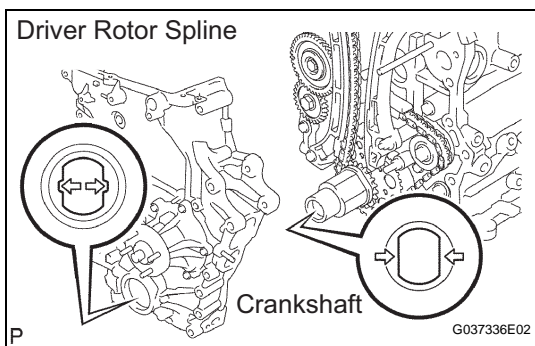
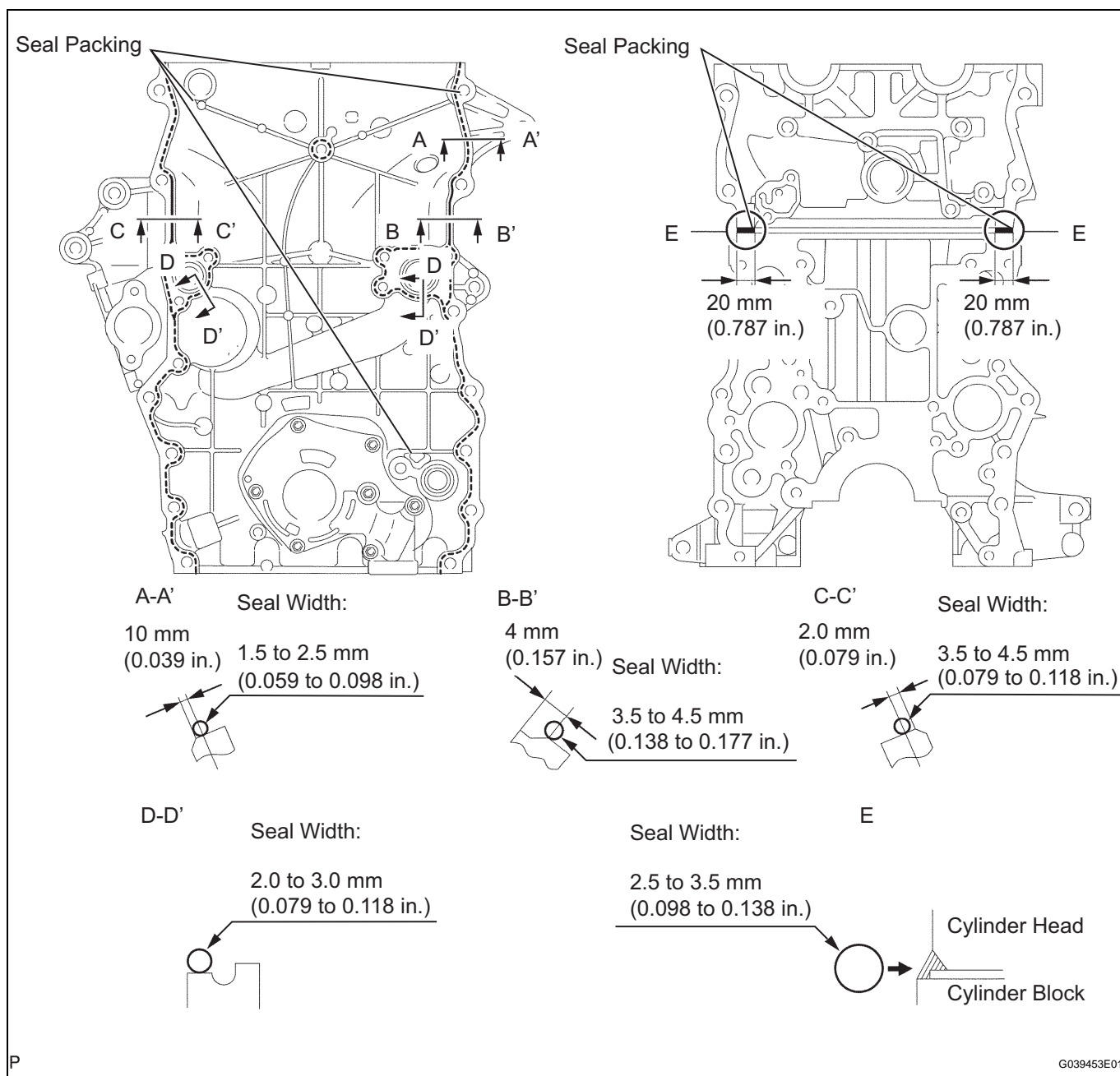
1. **INSTALL TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL** (See page [EM-149](#))
2. **INSTALL THERMOSTAT** (See page [CO-8](#))
3. **INSTALL WATER INLET** (See page [CO-8](#))
4. **INSTALL OIL PUMP**
 - (a) Apply adhesive to the head straight screw plug.
Adhesive:
Part No. 08833-00070, THREE BOND 1324 or equivalent
 - (b) Using a 10 mm socket hexagon wrench, install the head straight screw plug.
Torque: 17 N*m (170 kgf*cm, 12 ft.*lbf)
 - (c) Install 4 new O-rings onto the oil pump as shown in the illustration.
 - (d) Apply continuous beads of seal packing to the places shown in the illustration.
Seal packing:
Part No. 08826-00080 or equivalent
Seal width:



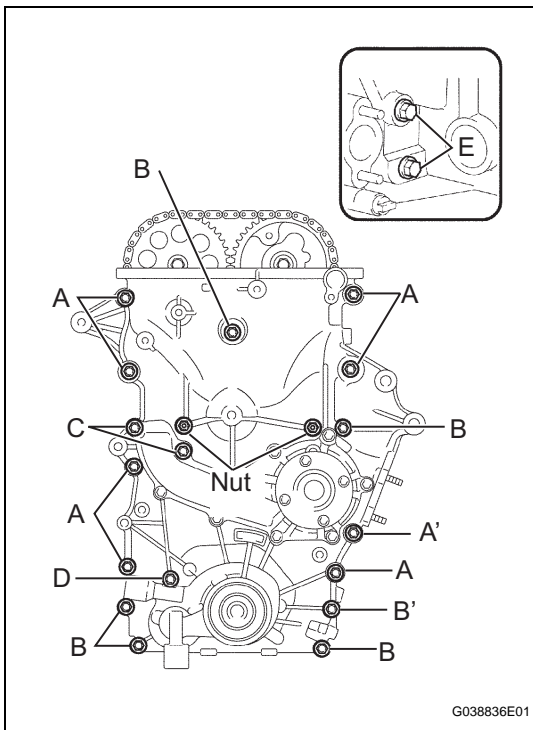
Position	Specified Condition
A - A'	2.5 to 3.0 mm (0.098 to 0.118 in.)
B - B', C - C'	4.0 to 4.5 mm (0.157 to 0.177 in.)
D - D'	2.5 to 3.0 mm (0.098 to 0.118 in.)
E	2.5 to 3.5 mm (0.098 to 0.138 in.)

NOTICE:

- Remove any oil from the contact surface.
- Install the chain cover within 3 minutes and tighten the bolts within 15 minutes of applying seal packing.
- Do not start the engine for at least 4 hours after installation.



- (e) Align the oil pump's drive rotor spline and the crankshaft as shown in the illustration. Install the spline and chain cover onto the crankshaft.
- (f) Loosely install the oil pump with the 19 bolts and 2 nuts, but do not tighten the bolts and nuts yet.



- (g) Provisionally install the oil pump with the 19 bolts and 2 nuts.

NOTICE:

If the vehicle is equipped with air conditioning, install bolts A' and B' when installing the idle pulley with bracket since they are for this purpose.

HINT:

Bolt length:

75 mm (2.95 in.) for bolt A, B

87 mm (3.43 in.) for bolt C

95 mm (3.74 in.) for bolt D

35 mm (1.37 in.) for bolt E

- (h) Fully tighten the bolts and nuts, except bolts A, in the following order: Area 1, Area 3 and then Area 2.

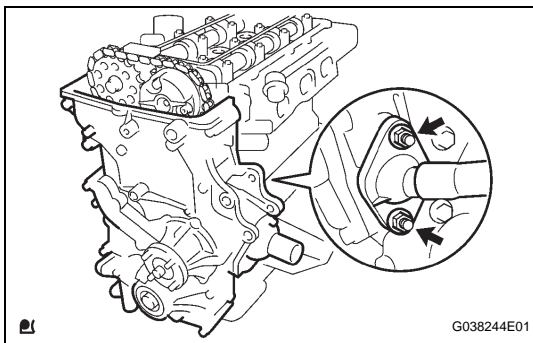
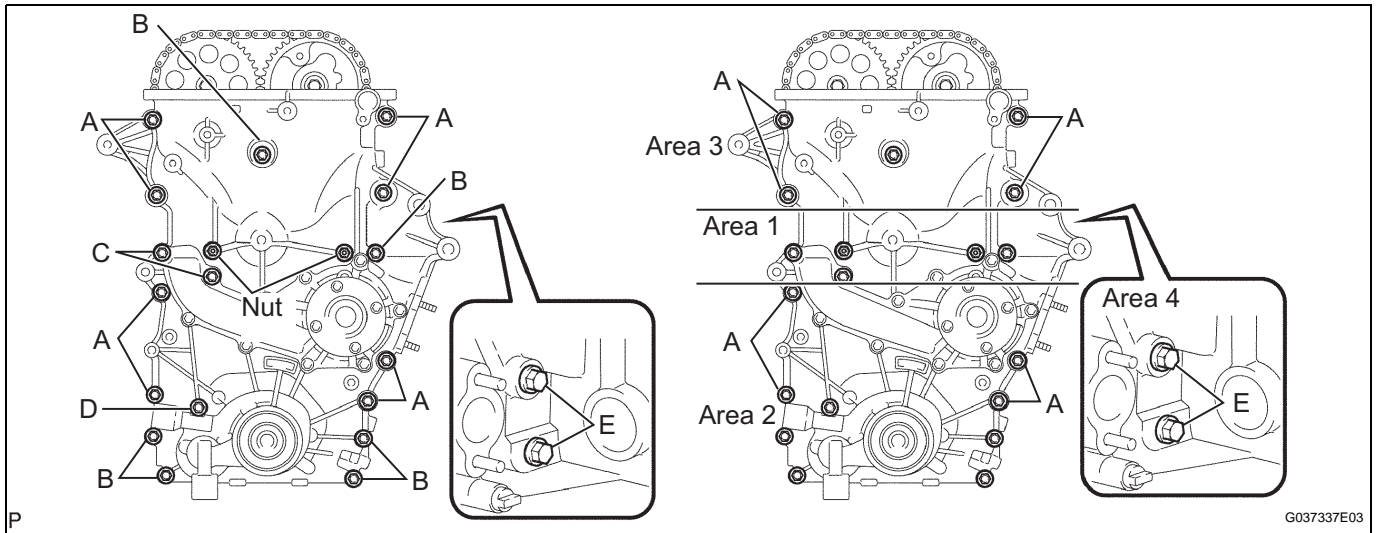
Torque: 21 N*m (214 kgf*cm, 15 ft.*lbf)

- (i) Fully tighten the bolts A in the following order: Area 2 and then Area 3.

Torque: 46 N*m (469 kgf*cm, 34 ft.*lbf)

- (j) Fully tighten the bolts E in Area 4.

Torque: 21 N*m (214 kgf*cm, 15 ft.*lbf)



- (k) Install a new gasket, then install the water by-pass pipe No. 1 with the 2 nuts.

Torque: 18 N*m (178 kgf*cm, 13 ft.*lbf)

5. **INSTALL OIL PAN SUB-ASSEMBLY** (See page [LU-24](#))
6. **INSTALL OIL STRAINER SUB-ASSEMBLY** (See page [EM-32](#))
7. **INSTALL OIL PAN SUB-ASSEMBLY NO.2** (See page [EM-32](#))
8. **INSTALL OIL LEVEL GAGE SUB-ASSEMBLY**
9. **INSTALL CRANKSHAFT PULLEY** (See page [EM-75](#))
10. **INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY** (See page [EM-48](#))

11. INSTALL INTAKE MANIFOLD TO HEAD GASKET NO. 1 (See page [ES-463](#))
12. INSTALL CAMSHAFT POSITION SENSOR (See page [ES-444](#))
13. INSTALL CRANKSHAFT POSITION SENSOR (See page [ES-447](#))
14. INSTALL IDLE PULLEY ASSEMBLY W/BRACKET (w/ Air Conditioning System) (See page [ES-448](#))
15. INSTALL IDLER PULLEY SUB-ASSEMBLY NO.1 (See page [EM-33](#))
16. INSTALL V-RIBBED BELT TENSIONER ASSEMBLY (See page [CO-6](#))
17. INSTALL GENERATOR ASSEMBLY (See page [CH-13](#))
18. INSTALL INTAKE AIR CONNECTOR (See page [ES-455](#))
19. INSTALL REAR END PLATE (See page [EM-72](#))
20. INSTALL DRIVE PLATE & RING GEAR SUB-ASSEMBLY (for Automatic Transmission) (See page [EM-79](#))
21. INSTALL FLYWHEEL SUB-ASSEMBLY (for Manual Transmission) (See page [EM-79](#))
22. INSTALL CLUTCH DISC ASSEMBLY (for Manual Transmission)

Transmission	See page
R155	CL-32
R155F	CL-37

23. INSTALL CLUTCH COVER ASSEMBLY (for Manual Transmission)

Transmission	See page
R155	CL-32
R155F	CL-37

24. INSTALL ENGINE ASSEMBLY (See page [EM-98](#))
25. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY (See page [AT-113](#))
26. INSTALL MANUAL TRANSMISSION UNIT ASSEMBLY

Transmission	See page
R155	MT-9
R155F	MT-11

27. INSTALL EXHAUST PIPE ASSEMBLY FRONT (See page [EX-2](#))
28. INSTALL EXHAUST PIPE ASSEMBLY TAIL (See page [EX-2](#))
29. CONNECT ENGINE WIRE

30. CONNECT AIR INJECTION SYSTEM NO.1 HOSE (See page [EM-99](#))
31. CONNECT FUEL VAPOR FEED HOSE ASSEMBLY (See page [EM-99](#))
32. CONNECT FUEL HOSE NO.2 (See page [FU-17](#))
33. CONNECT FUEL HOSE (See page [FU-17](#))
34. INSTALL WATER HOSE SUB-ASSEMBLY (See page [EM-99](#))
35. INSTALL RADIATOR HOSE INLET
36. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (w/ Air Conditioning System) (See page [EM-34](#))
37. INSTALL RADIATOR HOSE NO.2
38. INSTALL VANE PUMP ASSEMBLY (See page [EM-34](#))
39. INSTALL AIR CLEANER CASE
 - (a) Install the air cleaner case with the 3 bolts.
Torque: 12 N*m (122 kgf*cm, 9 ft.*lbf)
40. INSTALL AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY
41. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (See page [EC-17](#))
42. INSTALL FAN SHROUD (See page [CO-18](#))
43. INSTALL RADIATOR SUPPORT TO FRAME SEAL LH (See page [CO-19](#))
44. INSTALL BATTERY TRAY
45. INSTALL BATTERY
46. ADD ENGINE OIL (See page [LU-4](#))
47. ADD ENGINE COOLANT (See page [CO-3](#))
48. CHECK ENGINE OIL LEVEL
49. CHECK FUEL LEAKAGE
50. CHECK ENGINE COOLANT LEAKAGE (See page [CO-2](#))
51. CHECK OIL LEAKAGE
52. CHECK EXHAUST GAS LEAKAGE
53. INSTALL ENGINE UNDER COVER SUB-ASSEMBLY NO.1 (for Pre Runner and 4WD Type)
 - (a) Install the engine under cover No. 1 with the 4 bolts.
Torque: 30 N*m (306 kgf*cm, 22 ft.*lbf)
54. INSTALL ENGINE UNDER COVER SUB-ASSEMBLY NO.2 (for Pre Runner and 4WD Type, Regular Cab)
 - (a) Install the engine under cover No. 2 with the 4 bolts.
Torque: 30 N*m (306 kgf*cm, 22 ft.*lbf)
55. INSTALL HOOD SUB-ASSEMBLY (See page [ED-7](#))