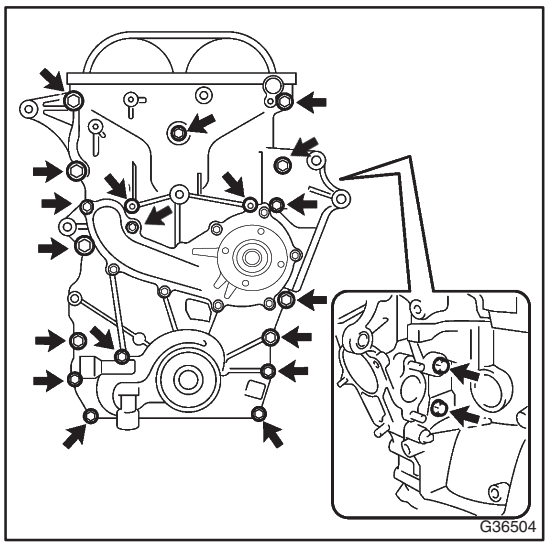
170NF–01

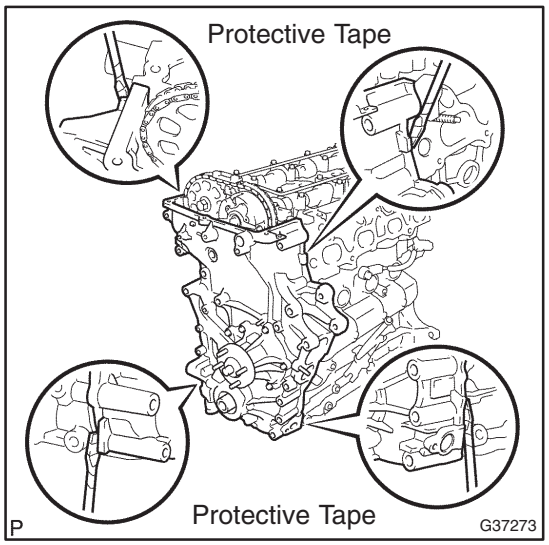
REPLACEMENT

1. REMOVE FLUID COUPLING ASSY (SEE PAGE 14–19)
2. REMOVE FAN PULLEY (SEE PAGE 14–19)
3. REMOVE GENERATOR ASSY (SEE PAGE 19–8)
4. REMOVE COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING) (SEE PAGE 14–19)
5. REMOVE INTAKE MANIFOLD (SEE PAGE 14–19)
6. REMOVE IGNITION COIL ASSY (SEE PAGE 14–44)
7. REMOVE CYLINDER HEAD COVER SUB–ASSY (SEE PAGE 14–44)
8. SET NO. 1 CYLINDER TO TDC/COMPRESSION (SEE PAGE 14–44)
9. REMOVE CRANKSHAFT PULLEY (SEE PAGE 14–44)
   SST 09213–54015 (91651–60855), 09330–00021, 09950–50013 (09951–05010, 09952–05010, 09953–05010, 09954–05021)
10. REMOVE OIL PAN SUB–ASSY NO.2 (SEE PAGE 14–44)
    SST 09032–00100
11. REMOVE OIL STRAINER SUB–ASSY (SEE PAGE 14–44)
12. REMOVE OIL PAN SUB–ASSY (SEE PAGE 14–44)
13. REMOVE IDLER PULLEY SUB–ASSY NO.1 (SEE PAGE 14–44)
14. REMOVE V–RIBBED BELT TENSIONER ASSY (SEE PAGE 14–44)
15. REMOVE CRANK POSITION SENSOR (SEE PAGE 18–6)
16. REMOVE CAM POSITION SENSOR (SEE PAGE 18–5)
17. REMOVE THERMOSTAT (SEE PAGE 16–9)



18. REMOVE TIMING CHAIN COVER

(a) Remove the 19 bolts and 2 nuts as shown in the illustration.



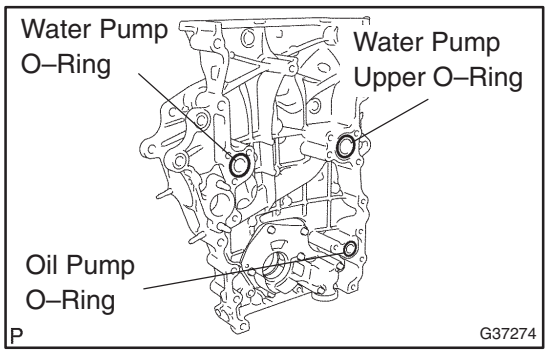
(b) Remove the timing chain cover by prying between the timing chain cover and cylinder head or cylinder block with a screwdriver.

HINT:

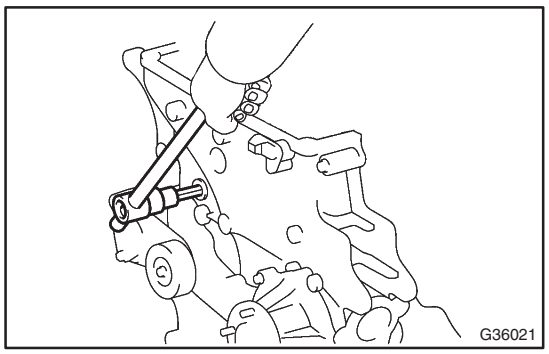
Tape the screwdriver tip before use.

NOTICE:

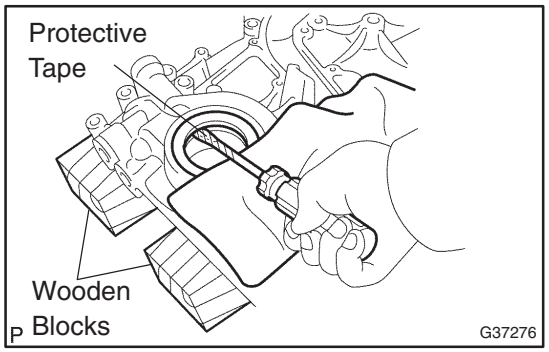
Be careful not to damage the contact surfaces of the cylinder head, cylinder block and timing chain cover.



(c) Remove the 3 O–rings.



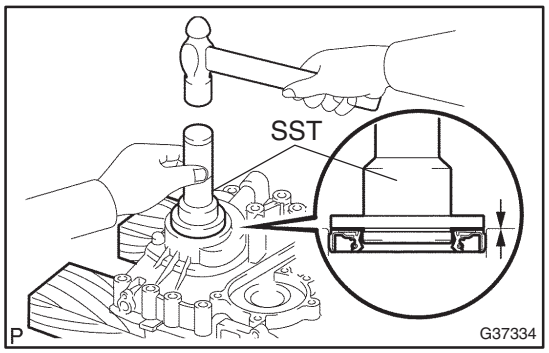
(d) Using a 10 mm socket hexagon wrench, remove the timing chain case plug.



19. REMOVE TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL

(a) Place the timing chain cover on wooden blocks.

(b) Using a screwdriver with its tip taped, pry out the oil seal.



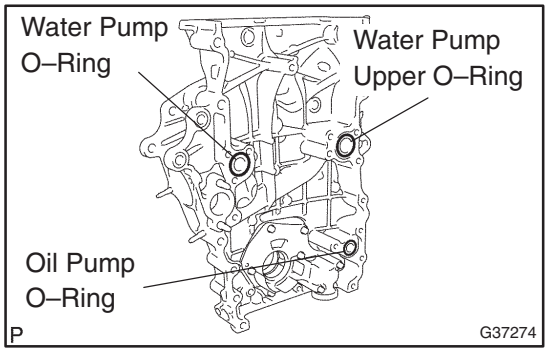
20. INSTALL TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL

(a) Using SST, tap a new oil seal until its surface is flush with the timing gear case edge.
SST 09223–50010

NOTICE:

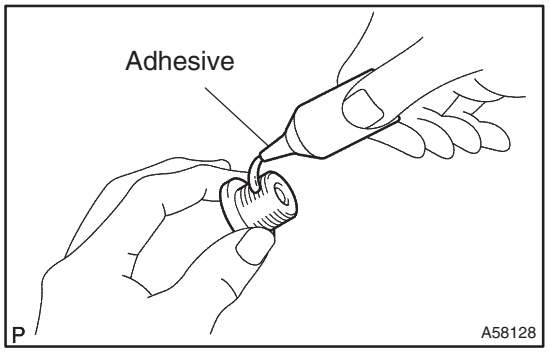
- **Keep the lip free from foreign matter.**
- **Do not tap the oil seal at an angle.**

(b) Apply a light coat of MP grease to the oil seal lip.

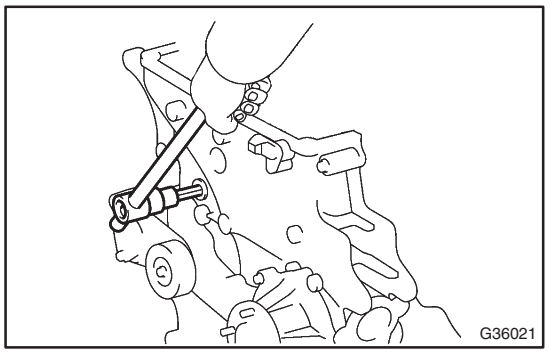


21. INSTALL TIMING CHAIN COVER

(a) Install 3 new O–rings to the timing chain cover as shown in the illustration.



(b) Apply adhesive to the timing chain gear plug.
Adhesive:
Part No. 08833–00070, THREE BOND 1324 or equivalent



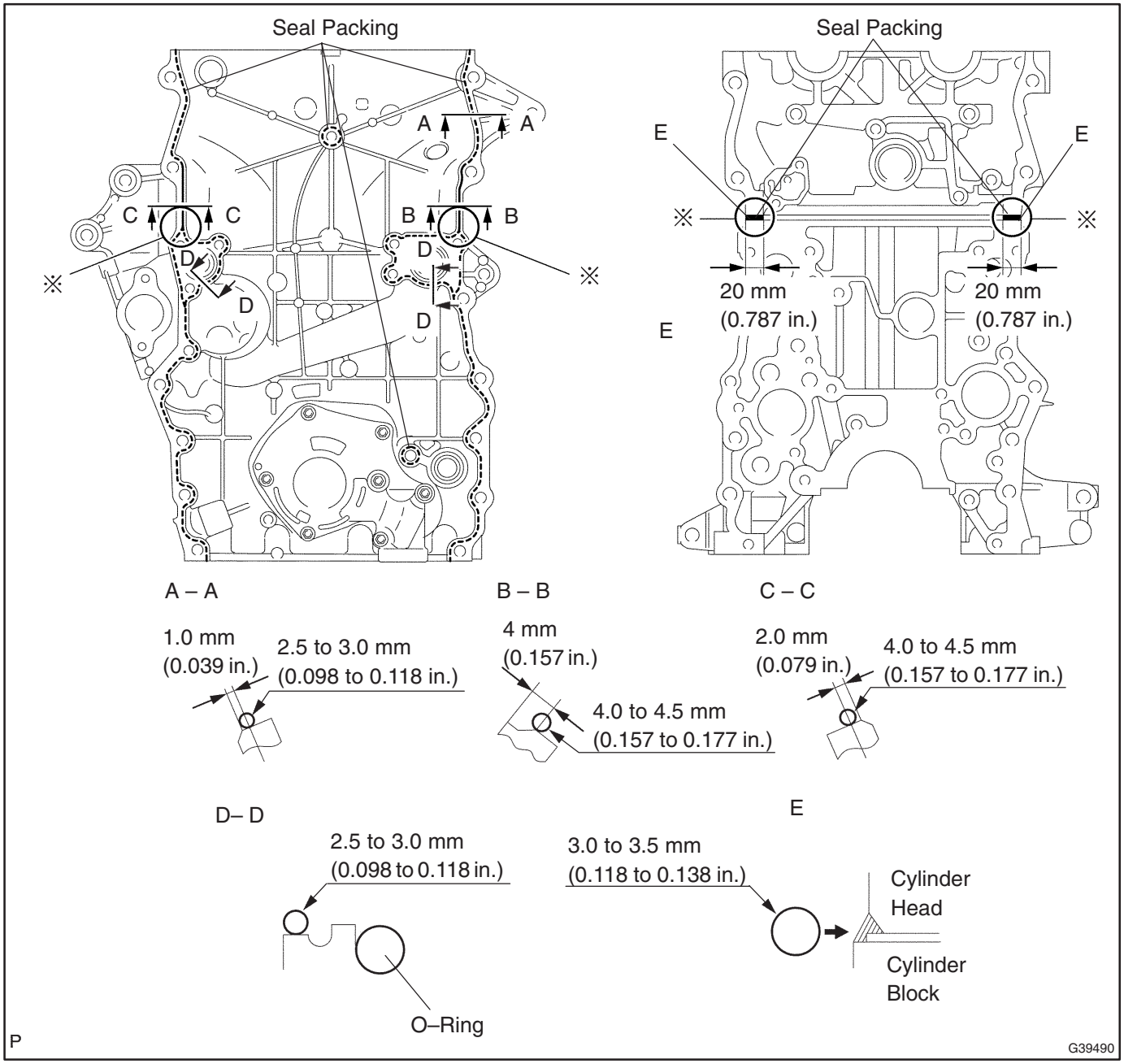
(c) Using a 10 mm socket hexagon wrench, install the timing chain case plug.
Torque: 17 N·m (169 kgf·cm, 12 ft·lbf)

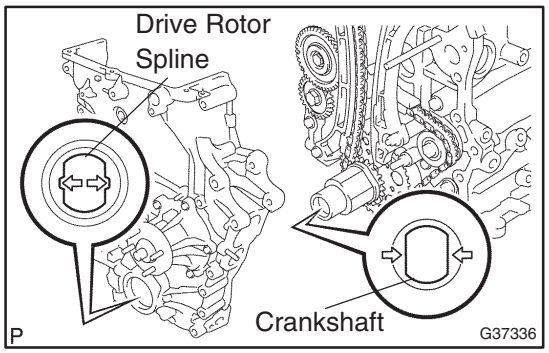
(d) Apply seal packing in a continuous bead to the timing chain cover as shown in the following illustration.
Seal packing: Part No. 08826–00080 or equivalent
Seal width:

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	3.0 to 3.5 mm (0.118 to 0.138 in.)

NOTICE:

- **Be sure to clean and degrease the contact surfaces, especially 4 areas indicated by ※ in the illustration.**
- **When the contact surfaces are wet, wipe off with an oil–free cloth before applying seal packing.**
- **Install the crankcase within 3 minutes and tighten the bolts within 15 minutes after applying seal packing.**
- **Do not start the engine for at least 4 hours after installing.**





(e) Align the oil pump's drive rotor spline and the crankshaft as shown in the illustration. Install the spline and chain cover plate to the crankshaft.

(f) Loosely install the the timing chain cover with the 19 bolts and nut, but do not tighten the bolts and nuts yet.

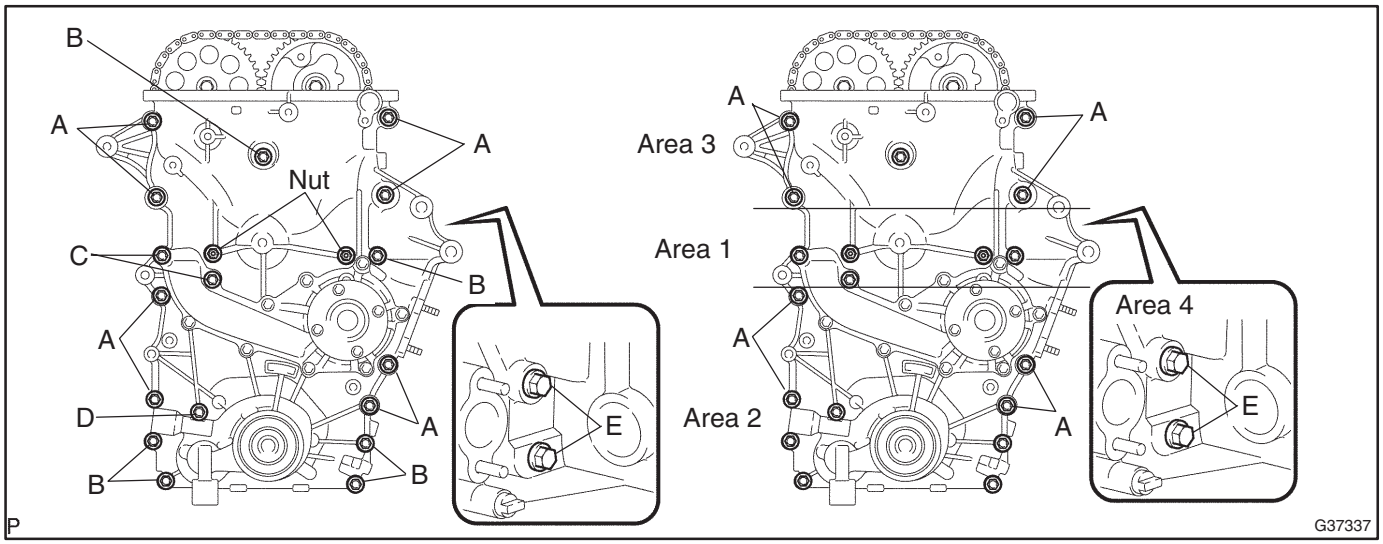
(g) Excluding bolt A, fully tighten the bolts and nuts in this order: Area 1, Area 2 and Area 3.
Torque: 21 N·m (214 kgf·cm, 15 ft·lbf)

HINT:
Bolt length:
75 mm (2.95 in.) for bolt A (M10)
75 mm (2.95 in.) for bolt B (M8)
87 mm (3.43 in.) for bolt C
95 mm (3.74 in.) for bolt D

(h) Fully tighten the bolts A in this order: Area 2 and Area 3.
Torque: 46 N·m (469 kgf·cm, 34 ft·lbf)

(i) Fully tighten the bolts E for Area 4.
Torque: 21 N·m (214 kgf·cm, 15 ft·lbf)

HINT:
Bolt length:
35 mm (1.37 in.) for bolt E



22. **INSTALL THERMOSTAT (SEE PAGE 16–9)**
23. **INSTALL CAM POSITION SENSOR (SEE PAGE 18–5)**
24. **INSTALL CRANK POSITION SENSOR (SEE PAGE 18–6)**
25. **INSTALL V–RIBBED BELT TENSIONER ASSY (SEE PAGE 14–44)**
26. **INSTALL IDLER PULLEY SUB–ASSY NO.1 (SEE PAGE 14–44)**

27. **INSTALL OIL PAN SUB–ASSY (SEE PAGE 14–44)**
    SST 09950–60010 (09951–00300), 09950–70010 (09951–07100)
28. **INSTALL OIL STRAINER SUB–ASSY (SEE PAGE 14–44)**
29. **INSTALL OIL PAN SUB–ASSY NO.2 (SEE PAGE 14–44)**
30. **INSTALL CYLINDER HEAD COVER SUB–ASSY (SEE PAGE 14–44)**
31. **INSTALL CRANKSHAFT PULLEY (SEE PAGE 14–44)**
    SST 09213–54015 (91651–60855), 09330–00021
32. **INSTALL IGNITION COIL ASSY (SEE PAGE 14–44)**
33. **INSTALL INTAKE MANIFOLD (SEE PAGE 14–19)**
34. **INSTALL COMPRESSOR MOUNTING BRACKET NO.1 (W/ AIR CONDITIONING) (SEE PAGE 14–19)**
35. **INSTALL GENERATOR ASSY (SEE PAGE 19–8)**
36. **INSTALL FAN PULLEY (SEE PAGE 14–19)**
37. **INSTALL FLUID COUPLING ASSY (SEE PAGE 14–19)**