



INSTALLATION

1. **INSTALL KNOCK SENSOR**
 - (a) Install the 2 knock sensors with the 2 bolts as shown in the illustration.
Torque: 20 N*m (204 kgf*cm, 15 ft.*lbf)
 - (b) Connect the 2 knock sensor connectors.
2. **INSTALL WATER OUTLET PIPE NO.1**
 - (a) Install the water outlet pipe with the 3 bolts.
Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)
 - (b) Install the 4 wire harness clamps.
3. **CONNECT HEATER WATER INLET HOSE**
4. **INSPECT CYLINDER HEAD SET BOLT** (See page [EM-95](#))
5. **INSTALL CYLINDER HEAD SUB-ASSEMBLY** (See page [EM-96](#))
6. **INSTALL CAMSHAFT BEARING NO.2**
7. **INSTALL CAMSHAFTS** (See page [EM-97](#))
8. **INSTALL CHAIN TENSIONER ASSEMBLY NO.2** (See page [EM-98](#))
9. **INSTALL CAMSHAFT TIMING GEARS AND NO.2 CHAIN (RH BANK)** (See page [EM-99](#))
10. **INSTALL CHAIN VIBRATION DAMPER NO.1** (See page [EM-142](#))
11. **INSTALL WATER BY-PASS JOINT RR** (See page [EM-99](#))
12. **INSTALL INTAKE MANIFOLD** (See page [EM-99](#))
13. **INSTALL EXHAUST MANIFOLD SUB-ASSEMBLY RH** (See page [EM-99](#))
14. **INSTALL MANIFOLD STAY** (See page [EM-100](#))
15. **INSTALL EXHAUST PIPE ASSEMBLY FRONT** (See page [EX-3](#))
16. **INSTALL EXHAUST FRONT PIPE ASSEMBLY NO.2** (See page [EX-3](#))
17. **INSTALL COOL AIR INLET NO.1**
 - (a) Install the cool air inlet with the 2 bolts.
Torque: 12 N*m (122 kgf*cm, 9.0 ft.*lbf)
18. **INSTALL CHAIN TENSIONER SLIPPER**
19. **INSTALL CHAIN TENSIONER ASSEMBLY NO.1** (See page [EM-48](#))
20. **INSTALL CHAIN SUB-ASSEMBLY** (See page [EM-27](#))
21. **INSTALL TIMING CHAIN OR BELT COVER SUB-ASSEMBLY** (See page [LU-20](#))

22. **INSTALL ENGINE ASSEMBLY**
(See page [EM-190](#))
23. **INSTALL BATTERY**
24. **ADD ENGINE COOLANT** (See page [CO-3](#))
25. **ADD ENGINE OIL** (See page [LU-5](#))
26. **CHECK FOR ENGINE COOLANT LEAKAGE** (See page [CO-4](#))
27. **CHECK FOR ENGINE OIL LEAKAGE**
28. **CHECK FOR FUEL LEAKAGE**
29. **CHECK FOR EXHAUST GAS LEAKAGE**
30. **INSPECT IGNITION TIMING** (See page [EM-1](#))
31. **INSPECT ENGINE IDLING SPEED** (See page [EM-2](#))
32. **INSPECT CO/HC** (See page [EM-3](#))