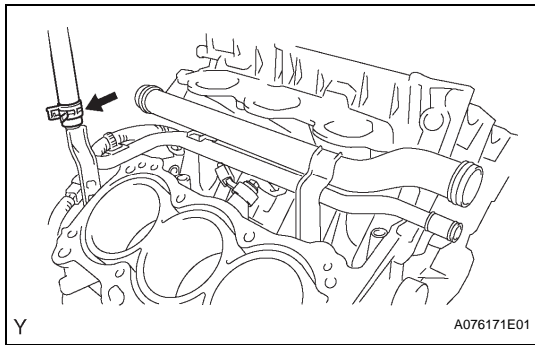


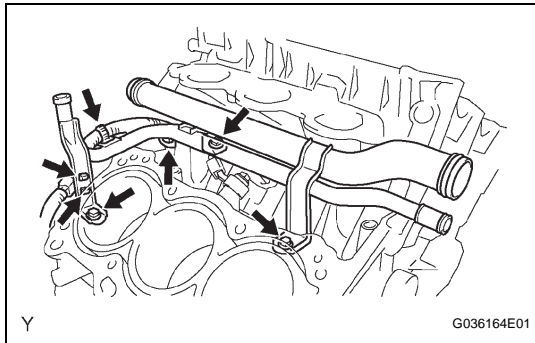
## KNOCK SENSOR (for 2WD)

### REMOVAL

1. **DISCHARGE FUEL SYSTEM PRESSURE**  
(See page [FU-1](#))
2. **REMOVE BATTERY**
3. **DRAIN ENGINE COOLANT** (See page [CO-3](#))
4. **DRAIN ENGINE OIL** (See page [LU-4](#))
5. **REMOVE ENGINE ASSEMBLY**  
(See page [EM-186](#))
6. **REMOVE TIMING CHAIN OR BELT COVER SUB-ASSEMBLY**  
(See page [LU-17](#))
7. **REMOVE COOL AIR INLET NO.1**  
(a) Remove the 2 bolts, then remove the cool air inlet.
8. **REMOVE EXHAUST FRONT PIPE ASSEMBLY NO.2**  
(See page [EX-3](#))
9. **REMOVE EXHAUST PIPE ASSEMBLY FRONT** (See page [EX-3](#))
10. **REMOVE MANIFOLD STAY**  
(a) Remove the 3 bolts, then remove the exhaust manifold stay.
11. **REMOVE EXHAUST MANIFOLD SUB-ASSEMBLY RH**  
(a) Disconnect the air fuel ratio sensor connector.  
(b) Remove the 6 nuts, then remove the exhaust manifold and gasket.
12. **REMOVE INTAKE MANIFOLD** (See page [EM-93](#))
13. **REMOVE WATER BY-PASS JOINT RR** (See page [EM-93](#))
14. **REMOVE CHAIN VIBRATION DAMPER NO.1**  
(a) Remove the 2 bolts, then remove the chain vibration damper No. 1.
15. **REMOVE CAMSHAFT TIMING GEARS AND NO.2 CHAIN (RH BANK)** (See page [EM-94](#))
16. **REMOVE CHAIN TENSIONER ASSEMBLY NO.2** (See page [EM-62](#))
17. **REMOVE CAMSHAFTS** (See page [EM-94](#))
18. **REMOVE CAMSHAFT BEARING NO.2**
19. **REMOVE CYLINDER HEAD SUB-ASSEMBLY** (See page [EM-95](#))

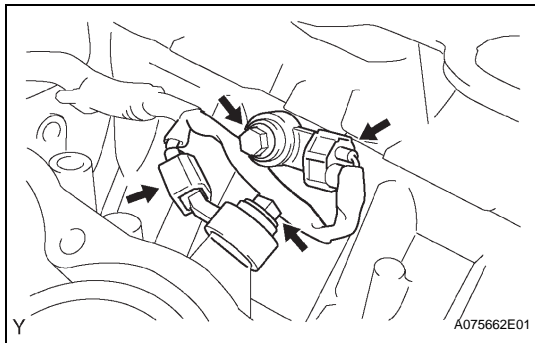


**20. DISCONNECT HEATER WATER INLET HOSE**



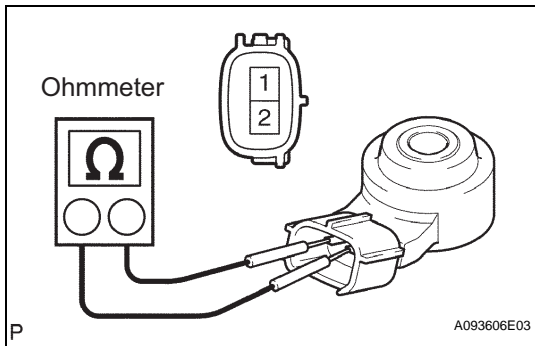
**21. REMOVE WATER OUTLET PIPE NO.1**

- (a) Remove the 4 wire harness clamps.
- (b) Remove the 3 bolts and water outlet pipe.



**22. REMOVE KNOCK SENSOR**

- (a) Disconnect the 2 knock sensor connectors.
- (b) Remove the 2 bolts and 2 knock sensors.



**INSPECTION**

**1. INSPECT KNOCK SENSOR**

- (a) Check the resistance.
  - (1) Using an ohmmeter, measure the resistance between the terminals.

**Resistance Standard**

Tester Connection	Specified Condition
1 (Ground) - 2 (Output)	120 to 180 Ω at 20°C (68°F)

If the result is not as specified, replace the knock sensor.

ES