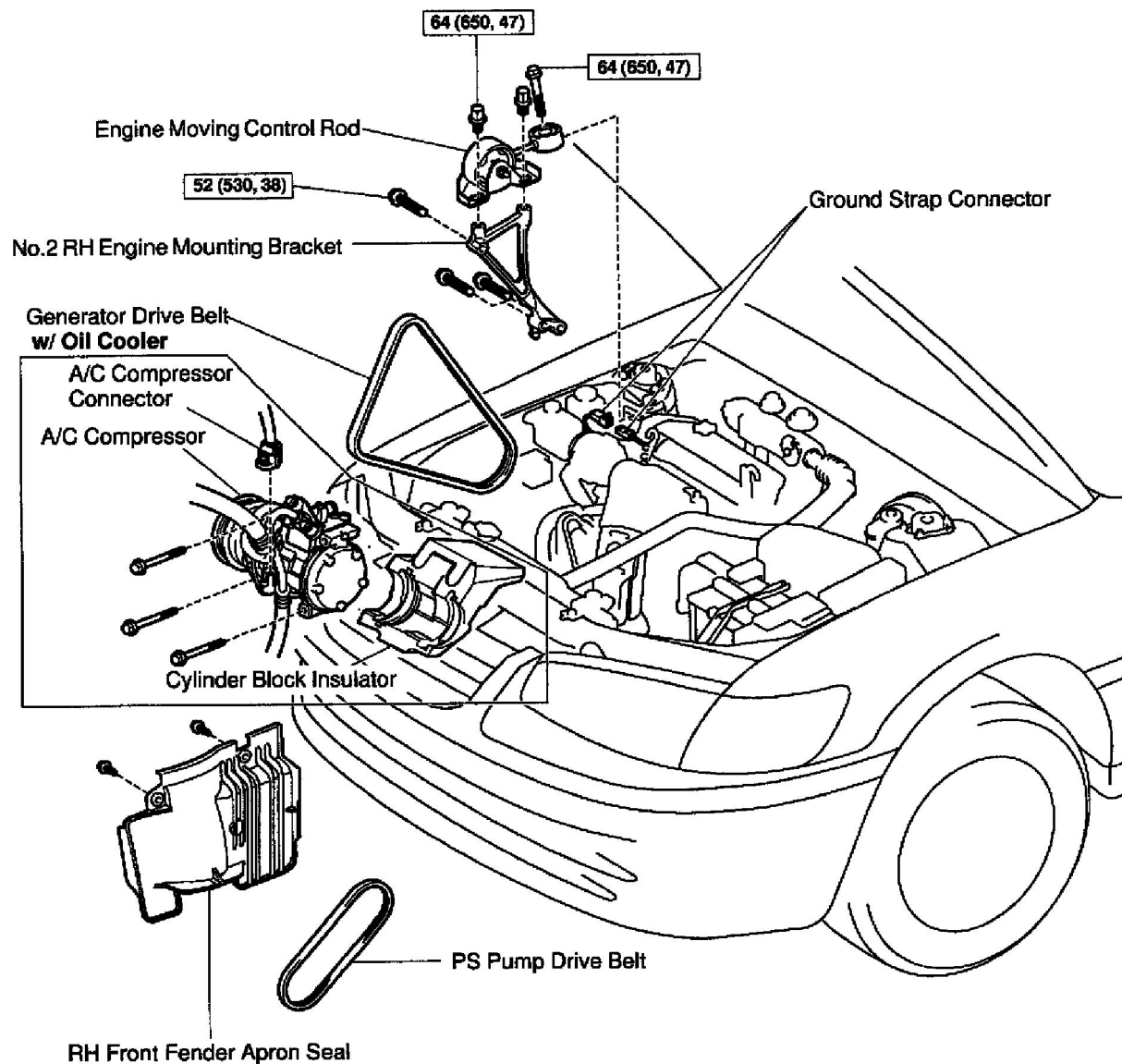
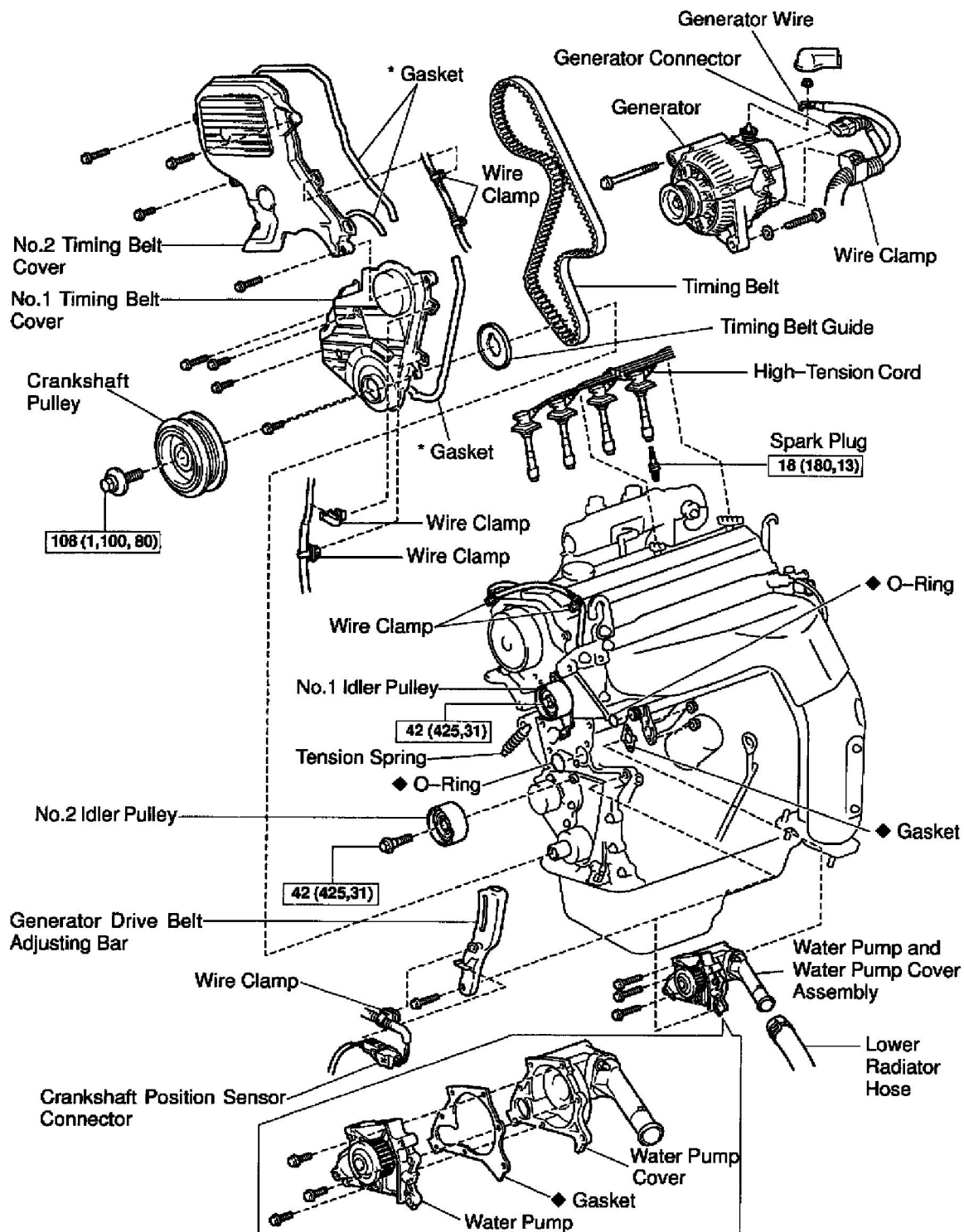


## Water Pump: Service and Repair



**N·m (kgf·cm, ft·lbf) : Specified torque**



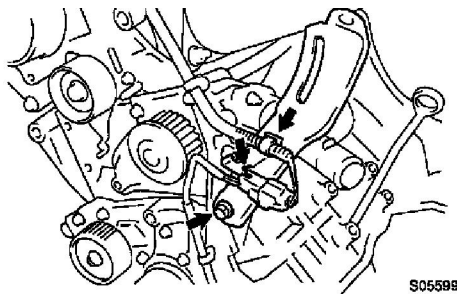
**N·m (kgf·cm, ft·lbf) : Specified torque**

\* Replace only if damaged

◆ Non-reusable part

## REMOVAL

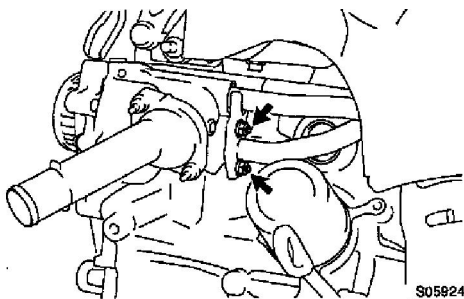
1. DRAIN ENGINE COOLANT
2. REMOVE TIMING BELT
3. DISCONNECT LOWER RADIATOR HOSE FROM WATER OUTLET
4. REMOVE TIMING BELT TENSION SPRING  
Loosen the No.1 idler pulley bolt, and remove the tension spring.
5. REMOVE NO.2 IDLER PULLEY  
Remove the bolt and idler pulley.
6. w/ Oil Cooler: REMOVE A/C COMPRESSOR



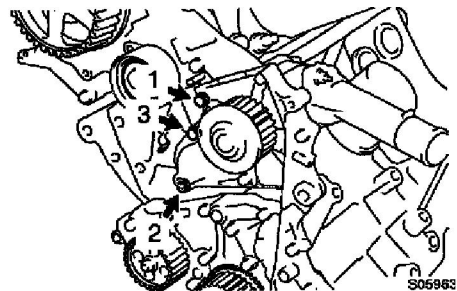
7. REMOVE GENERATOR DRIVE BELT ADJUSTING BAR

- a. Disconnect the engine wire clamp from the adjusting bar.
- b. Disconnect the crankshaft position sensor connector from the bracket on the adjusting bar.
- c. Remove the bolt and adjusting bar.

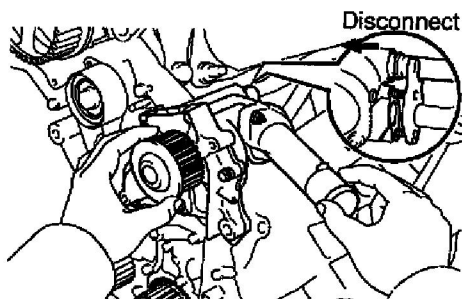
8. REMOVE WATER PUMP AND WATER PUMP COVER ASSEMBLY



- a. Remove the 2 nuts holding the water pump to the water bypass pipe.



- b. Remove the 3 bolts in the sequence shown.

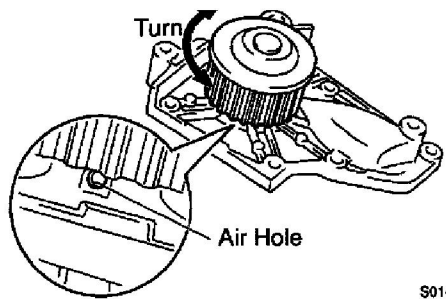


- c. Disconnect the water pump cover from the water bypass pipe, and remove the water pump and water pump cover assembly.
- d. Remove the gasket and 2 O-rings from the water pump and water bypass pipe.

9. REMOVE WATER PUMP FROM WATER PUMP COVER

Remove the 3 bolts, water pump and gasket.

INSPECTION



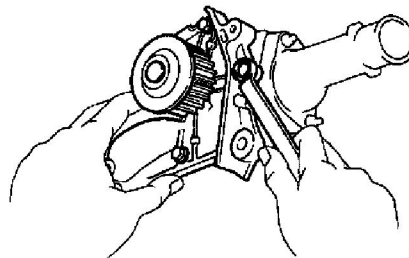
S01486

# 1. INSPECT WATER PUMP

- a. Visually check the air hole for coolant leakage.  
If leakage is found, replace the water pump.  
If engine coolant has leaked onto the timing belt, replace the timing belt.
- b. Turn the pulley, and check that the water pump bearing moves smoothly and quietly.  
If necessary, replace the water pump.

# 2. INSPECT TIMING BELT COMPONENTS

## INSTALLATION



N00918

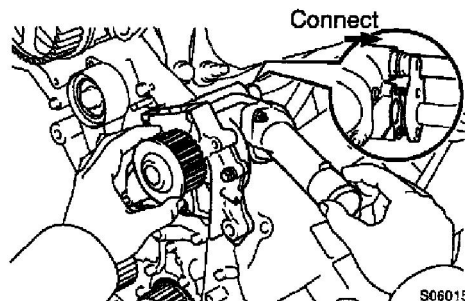
# 1. INSTALL WATER PUMP TO WATER PUMP COVER

Install a new gasket and the water pump with the 3 bolts.

Torque: **8.8 Nm (90 kgf.cm, 78 inch lbs.)**

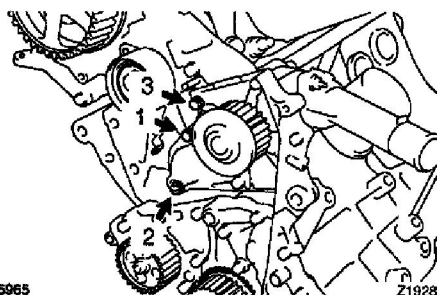
# 2. INSTALL WATER PUMP AND WATER PUMP COVER ASSEMBLY

- a. Install new O-ring and gasket to water pump cover.
- b. Install a new O-ring to the water bypass pipe.
- c. Apply soapy water to the O-ring on the water bypass pipe.



S06015

- d. Connect the water pump cover to the water bypass pipe. Do not install the nuts yet.

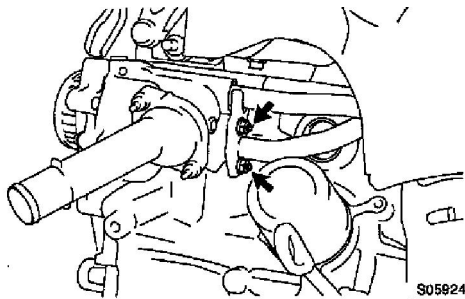


S05065

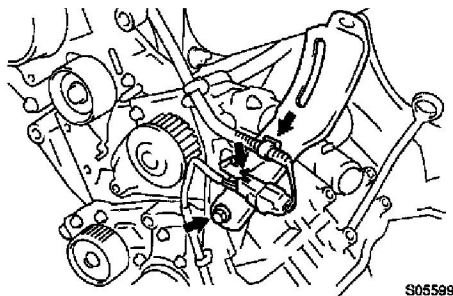
Z19283

- e. Install the water pump with the 3 bolts. Tighten the bolts in the sequence shown.

Torque: **8.8 Nm (90 kgf.cm, 78 inch lbs.)**



- f. Install the 2 nuts holding the water pump cover to the water bypass pipe.  
Torque: **9.3 Nm (95 kgf.cm, 82 inch lbs.)**



### 3. INSTALL GENERATOR DRIVE BELT ADJUSTING BAR

- Install the adjusting bar with the bolt.  
Torque: **22 Nm (224 kgf.cm, 16 ft. lbs.)**
- Install the engine wire clamp to the adjusting bar.
- Install the crankshaft position sensor connector to the bracket on the adjusting bar.

### 4. w/ Oil Cooler: INSTALL A/C COMPRESSOR

### 5. INSTALL NO.2 IDLER PULLEY

### 6. INSTALL TIMING BELT TENSION SPRING

### 7. CONNECT LOWER RADIATOR HOSE TO WATER INLET

### 8. INSTALL TIMING BELT

### 9. FILL WITH ENGINE COOLANT

### 10. START ENGINE AND CHECK FOR COOLANT LEAKS