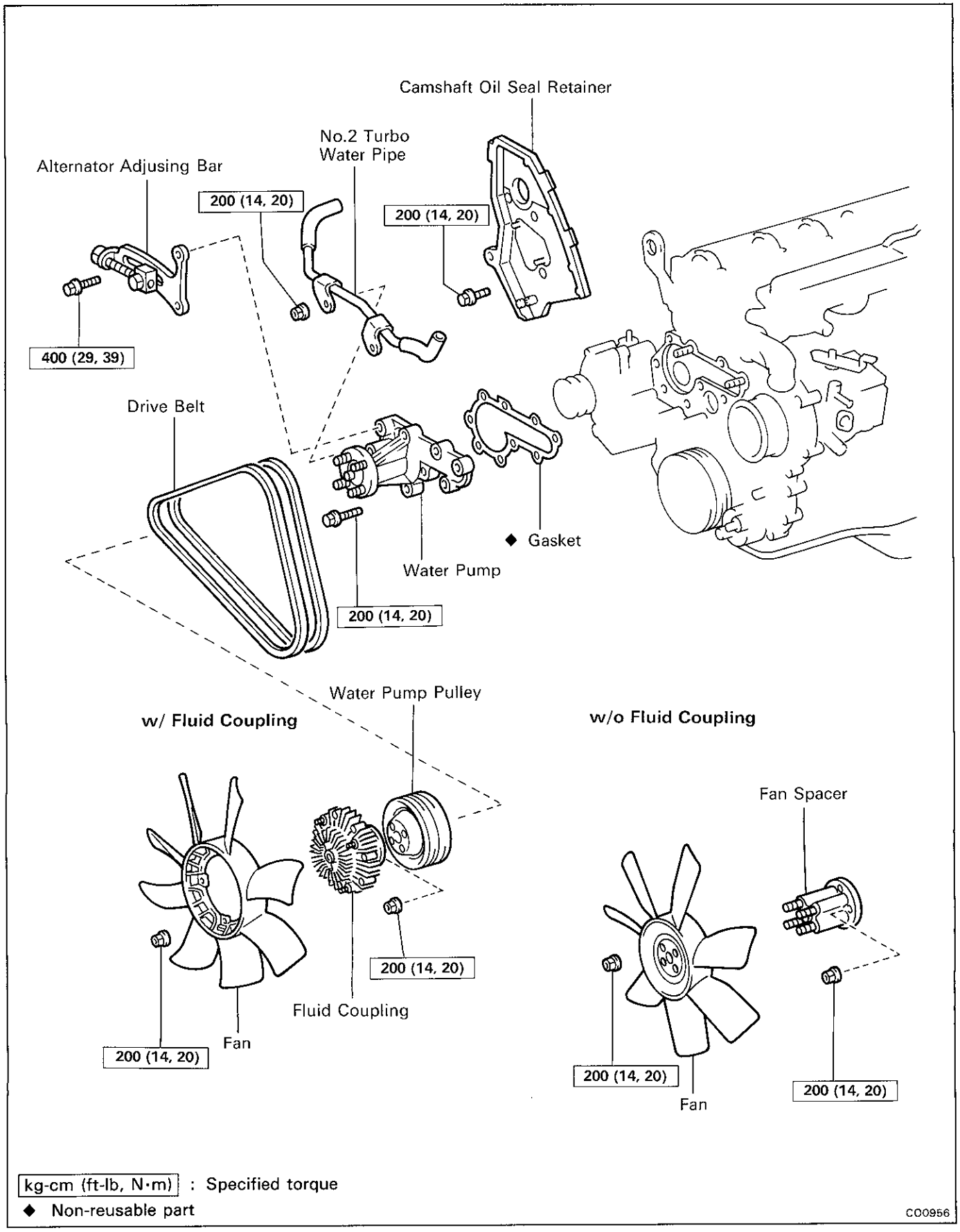
WATER PUMP

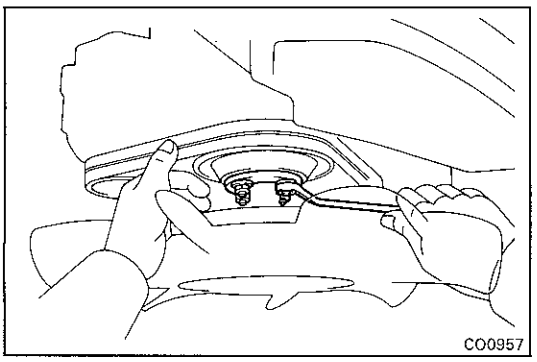
COMPONENTS



kg-cm (ft-lb, N·m) : Specified torque

◆ Non-reusable part

CO0956



REMOVAL OF WATER PUMP

(See page CO-6)

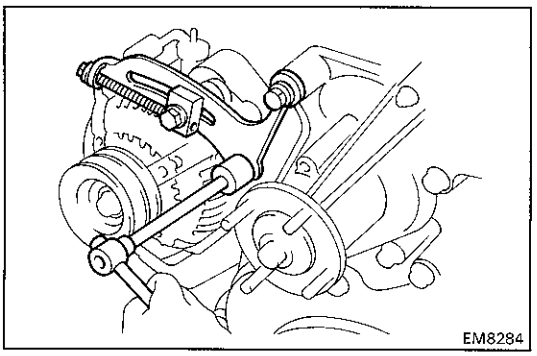
1. **DRAIN ENGINE COOLANT (See page CO-5)**

2. **REMOVE DRIVE BELT, FAN AND WATER PUMP PULLEY**
   (a) Stretch the belt tight and loosen the four pump pulley set nuts.
   (b) Loosen the pivot bolt, lock bolt and adjusting bolt, and remove the drive belt.
   (c) Remove the four nuts, fan and fluid coupling (fan spacer) assembly and pulley.

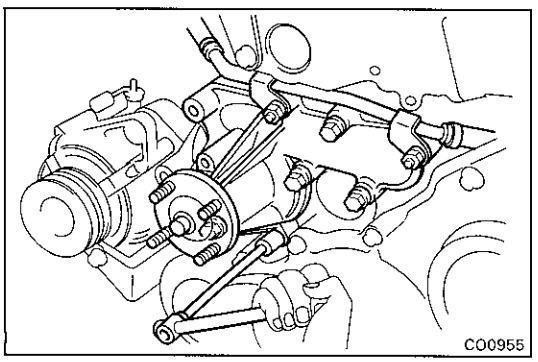
3. **REMOVE TIMING BELT AND IDLER PULLEY**
   (See steps 1 to 4 on pages EM-33 to 34)

4. **REMOVE NO.1 CAMSHAFT TIMING PULLEY**
   (See steps 6 to 8 on pages EM-34 to 35)

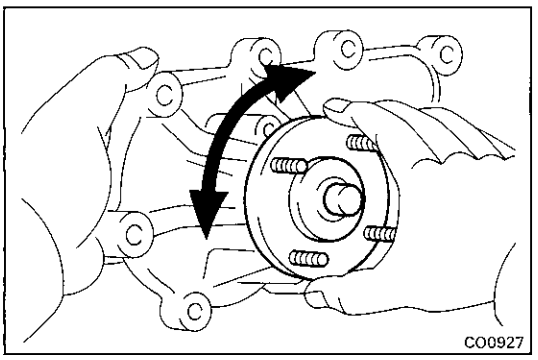
5. **REMOVE CAMSHAFT OIL SEAL RETAINER**
   (See step 14 on page EM-55)



6. **REMOVE WATER PUMP**
   (a) (1HD-T)
   Disconnect the turbo water by-pass hoses.
   (b) Remove the three bolts and alternator adjusting bar.



   (c) Remove the five bolts, two nuts, No.2 turbo water pipe (1HD-T), water pump and gasket.

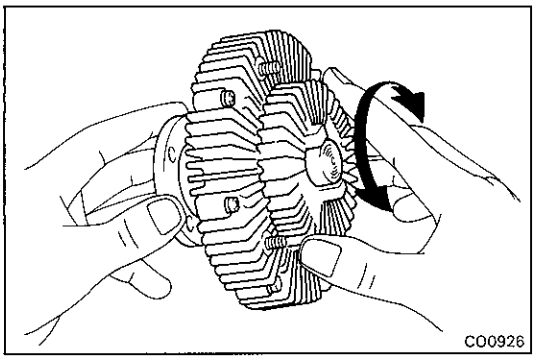


INSPECTION OF WATER PUMP

1. INSPECT WATER PUMP

Turn the pulley and check that the water pump bearing moves smoothly and quietly.

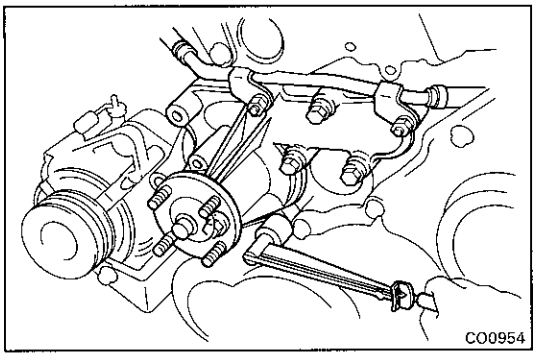
If necessary, replace the water pump.



2. INSPECT FLUID COUPLING

Check the fluid coupling for damage and silicon oil leakage.

If necessary, replace the fluid coupling.



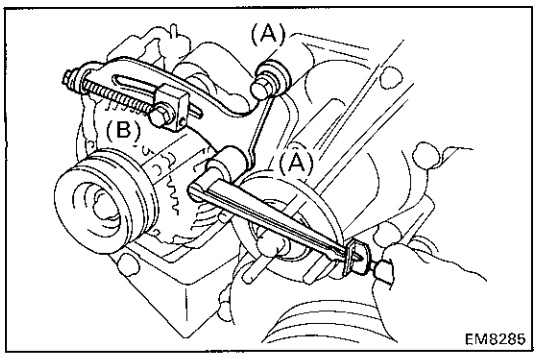
INSTALLATION OF WATER PUMP

(See page CO-6)

1. INSTALL WATER PUMP

(a) Install a new gasket, the water pump and No.2 turbo water pipe (1HD-T) with the five bolts and two nuts.

Torque: 200 kg-cm (14 ft-lb, 20 N-m)



(b) Install the alternator adjusting bar with the two bolts (A).

Torque: 400 kg-cm (29 ft-lb, 39 N-m)

(c) Temporarily install the lock bolt (B).

(d) (1HD-T)
Connect the water by-pass hoses.

2. INSTALL CAMSHAFT OIL SEAL RETAINER

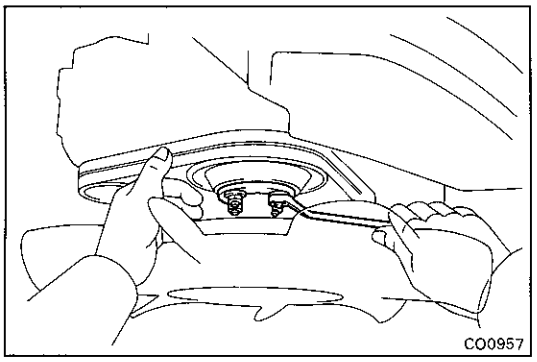
(See step 6 on page EM-79)

3. INSTALL NO.1 CAMSHAFT TIMING PULLEY

(See steps 1 to 3 on page EM-38)

4. INSTALL IDLER PULLEY TIMING BELT

(See steps 5 to 11 on pages EM-39 to 41)



5. **INSTALL WATER PUMP PULLEY, FAN AND DRIVE BELT**

   (a) Install the pump pulley, the fluid fan and coupling (fan spacer) assembly with the four nuts.

   (b) Place the drive belt on each pulley.

   (c) Stretch the belt tight and torque the four nuts.

   Torque: 200 kg-cm (14 ft-lb, 20 N-m)

   (d) Adjust the drive belt deflection.
   (See step 3 on page CH-5)

6. **FILL WITH ENGINE COOLANT (See page CO-5)**

7. **START ENGINE AND CHECK FOR LEAKS**