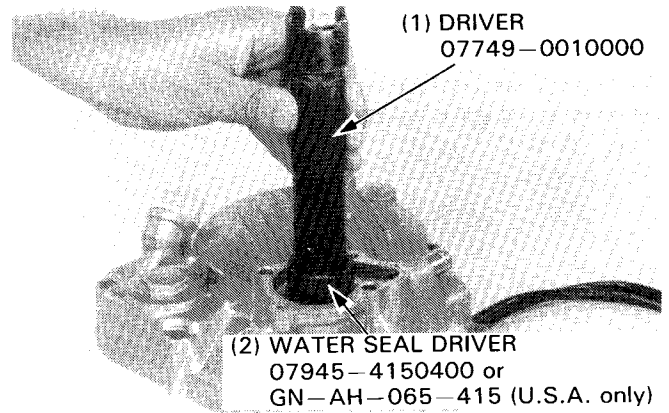


## COOLING SYSTEM

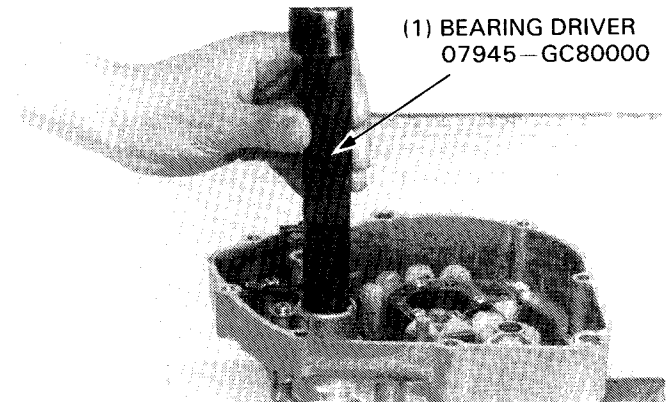
Apply sealant to the right crankcase cover fitting surface of a new mechanical seal.  
Install the mechanical seal into the right crankcase cover.



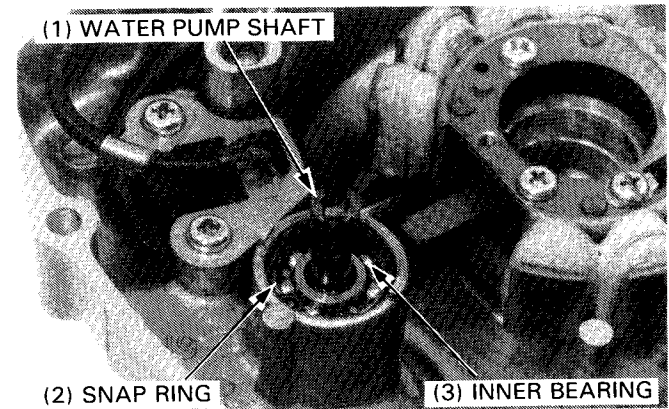
Drive a new water pump shaft outer bearing into the right crankcase cover.

### NOTE

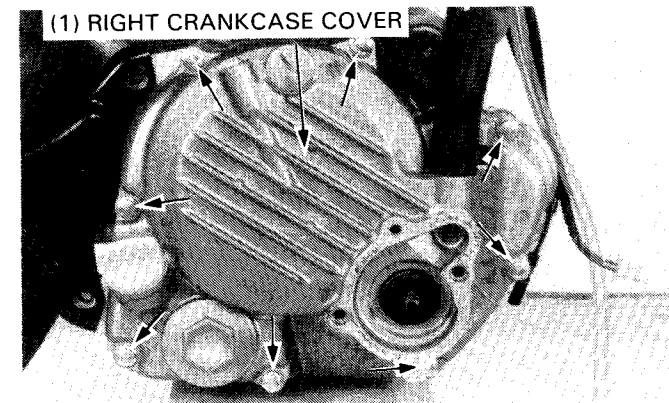
- Never reinstall the old bearing, once removed, it must be replaced with a new one.



Install the water pump shaft and inner bearing into the right crankcase cover.  
Install the snap ring into the ring groove to secure the inner bearing.



Install the right crankcase cover (Page 10-6).

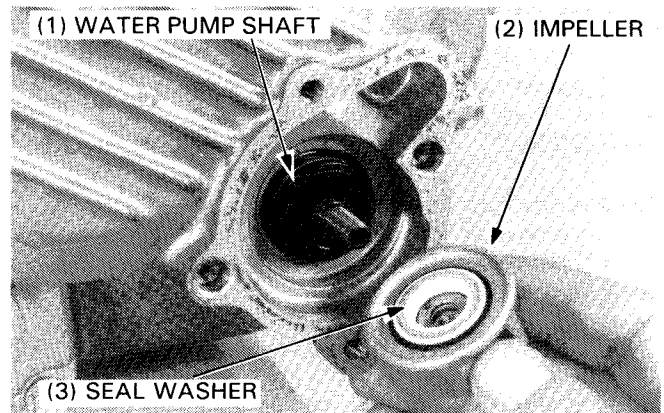


## WATER PUMP IMPELLER INSTALLATION

Install the seal washer into the impeller.

### NOTE

- When the mechanical seal is replaced, a new seal washer must be used.

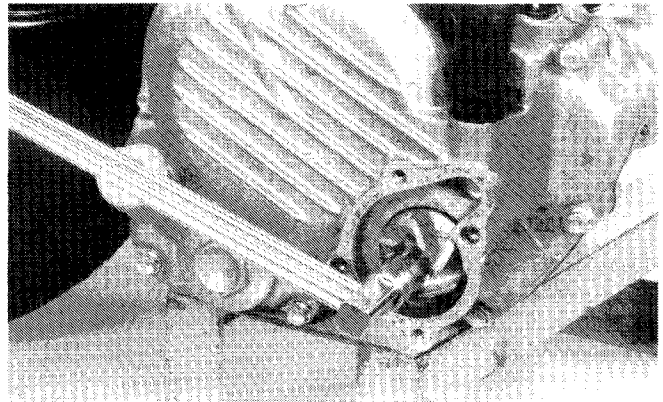


Install the impeller onto the pump shaft and tighten it.

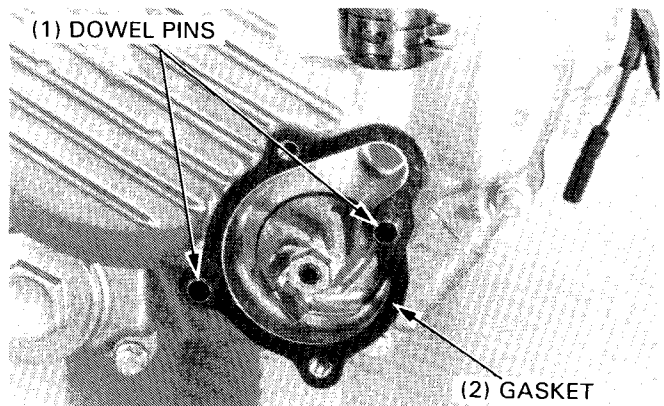
**TORQUE: 10 – 14 N·m (1.0 – 1.4 kg·m, 7 – 10 ft·lb)**

### NOTE

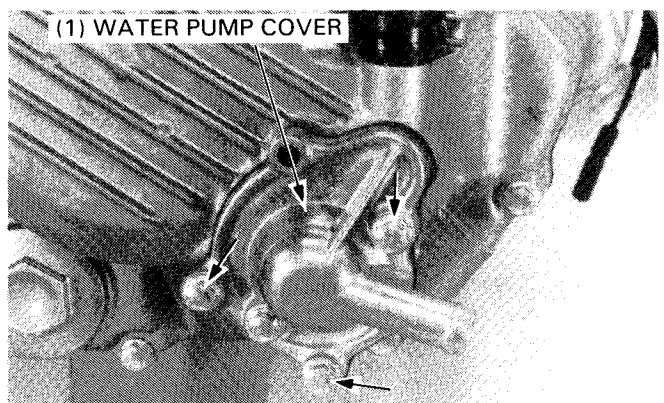
- The impeller has left hand threads.



Install the dowel pins and a new gasket.



Install the water pump cover with the three bolts.  
Install the oil pipe (Page 10-7).  
Install the engine (Section 5).



## COOLING SYSTEM

### THERMOSENSOR

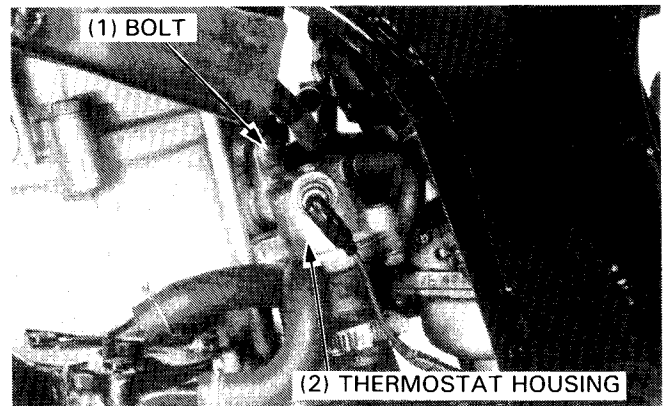
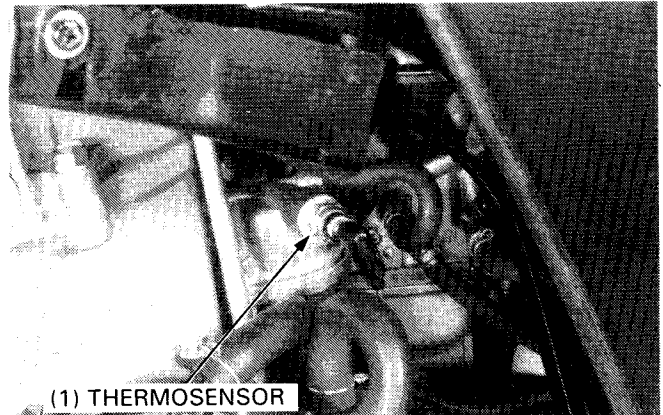
See page 16-19 for thermosensor inspection.

#### REMOVAL

Remove the right rear cover.  
Drain the coolant (Page 12-2).  
Disconnect the thermosensor wire.  
Remove the thermosensor.

#### INSTALLATION

Apply 3-BOND No. 1212 sealant or equivalent to the thermosensor threads and install it into the thermostat housing.  
Connect the thermosensor wire.  
Fill and bleed the cooling system (Page 12-3).  
Install the right rear cover.



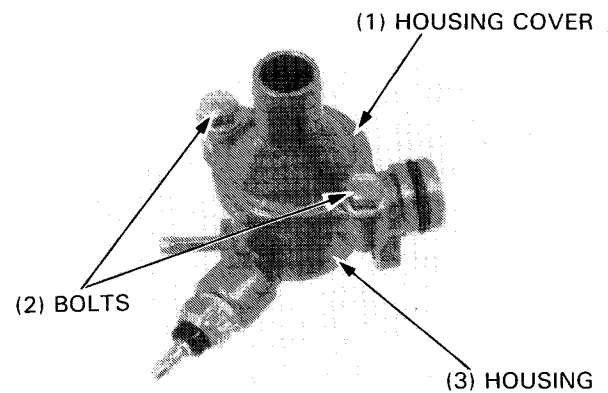
### THERMOSTAT

#### REMOVAL

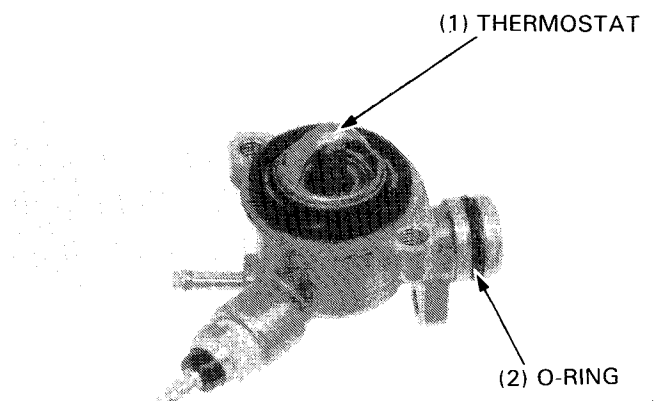
Remove the right rear cover.  
Drain the coolant (Page 12-2).  
Disconnect the thermosensor wire from the sensor.

Disconnect the water hose from the thermostat housing.  
Disconnect the air vent tube from the housing.  
Remove the mounting bolt and thermostat housing from the cylinder head.

Remove the two bolts and separate the thermostat housing halves.



Remove the thermostat and O-ring from the thermostat housing.



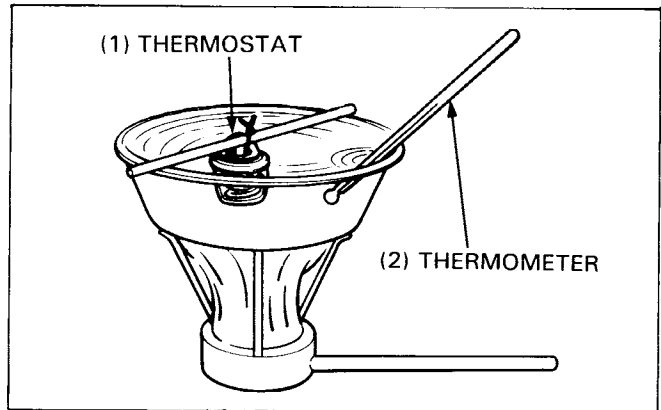
**INSPECTION**

Inspect the thermostat visually for damage.  
Suspend the thermostat in heated water to check its operation.

**NOTE**

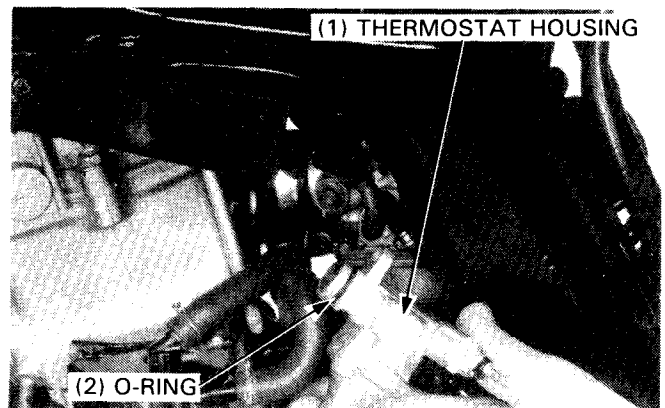
- If the thermostat or thermometer touches the pan, you'll get a false reading.

Replace the thermostat if the valve stays open at room temperature, or if it responds at temperatures other than those specified.



**Technical Data**

Start to open	71° – 80°C (160° – 176°F)
Valve lift	3.5 – 4.5 mm (0.138 – 0.177 in) at 80°C (176°F)



**INSTALLATION**

Install in the reverse order of removal.

**NOTE**

- Replace the O-ring with a new one and apply grease to it.

Fill the cooling system with the specified coolant (Page 12-3).

# FRAME COVERS

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