

the thermostat

Describe the part.

How does the part work/operate? What does it do?

The thermostat can be described as a special kind of _____ that is controlled by _____

The thermostat has _____ major functions. It helps the engine to _____ .

and also controls/regulates _____ .

When coolant is cold the thermostat is _____ .

When the coolant warms to a set temperature, the thermostat _____ .

There is also a bypass near the thermostat. When the engine is colds, and the thermostat is _____ , the bypass allows coolant to _____ to the water pump and back to the water jackets so that all of the engine parts _____ evenly.

The thermostat valve spring closes the thermostat, and a wax motor or pellet _____ it.

If a thermostat fails it will be stuck in either a/an _____ or a/an _____ position.

If it is stuck _____ , the engine will take a long time to warm up and the heater won't heat up very quickly. If the thermostat is stuck _____ , the engine will overheat.

the water pump

Describe the part.

How does the part work/operate? What does it do?

The water pump is a nonpositive displacement
_____ pump.

The water pump can be operated by the accessory drive
_____ or in some engines might be
driven by a _____ .

Coolant enters the pump at the _____
and is spun out to the outlet. Coolant moves through the
lower water jackets and around the engine's _____.
Then it flows to the _____ of the engine and
then to an outlet located at the front of the head or intake
manifold.

the radiator

Describe the part.

How does the part work/operate? What does it do?

The radiator's job is to get rid of excessive _____ from the engine. It is a heat _____. Most have _____ and tubes. The fins attach to the _____ to produce the _____ contact area. This fin and tube area is called the _____ that joins the header and tank.

Some vehicles use a _____ design, and the direction of the flow is from _____ to _____. _____ water drops, and _____ water rises.

Most vehicles have a _____ design. This type of design flows from one _____ to the other _____.

Older radiators were constructed using _____ or _____. Newer radiators are made using _____.