

A-1 Inspections

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Hot Water Heater Problems: A Broad Survey



Hot water heater problems can prove disastrous if overlooked or left unattended. Since most water heaters last for one or two decades, most homeowners will never face the intimidating task of fixing or replacing a hot water heater. However, it is still important to be aware of complications that can occur. Common problems include:

A Lack of or Inadequate Hot Water

If your water often runs cold, it might be due to a greater demand for hot water than the water heater can supply. A water heater should generally hold 75% of its capacity as hot water. For example, if you have a demand for 40 gallons of hot water based on your family size, your water heater should hold 50 gallons. If your family demands more hot water than your current water heater provides, you might consider replacing your water heater to one with a larger tank.

Another possible cause of inadequate hot water is a broken or damaged dip tube, which can allow hot and cold water to mix in the tank. One fix is to replace the dip tube.

However, if this does not seem to be the cause, the problem can be a consequence of cross connections. Hot water heaters are generally connected to the same water supply as washer, dryers, dishwashers and other common household appliances. To test for this problem, turn off the water supply to your water heater and open the hot water tap at a faucet. If you notice water flow, this could mean a cold water connection is crossing with your water heater's hot connection and causing inadequate hot water.

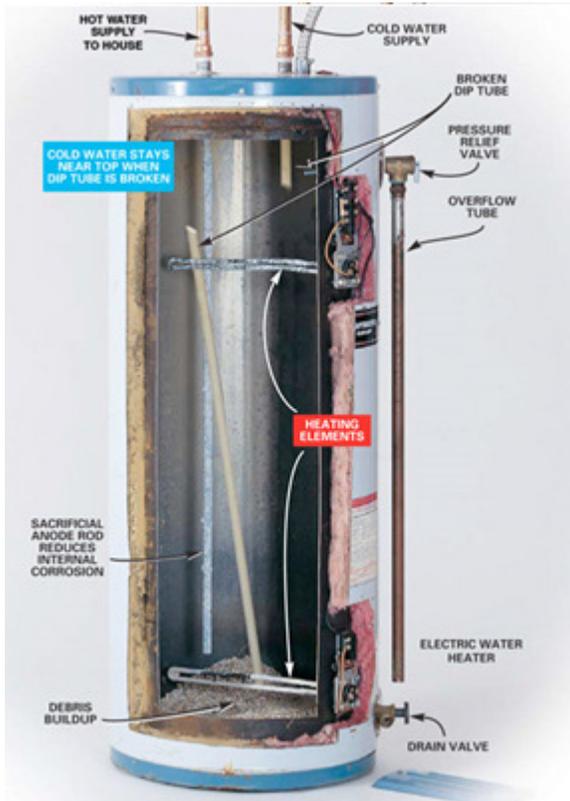
When your water heater fails to produce hot water at all, it is generally due to a faulty gas pilot or thermocouple (the electronic device that ensures the safe heating of your hot water heater via the pilot flame). If this is the case, the pilot or thermocouple needs to be replaced.

Discolored Water

If your water is rust colored, the inside of your glass-lined tank is corroding. This is often the result of an already eroded sacrificial anode rod. These rods are placed inside your hot water heater to slowly dissolve and eliminate the erosion of your hot water heater lining. Since a decaying sacrificial anode rod is one of the most common hot water heater problems, they are relatively inexpensive to replace. These can be purchased at your local hardware store for under \$50. Thus, careful monitoring of this device every 4-6 months is recommended.

Odor

Sometimes hot water heaters emit a smell similar to rotten eggs or sulfur. This is often caused by an eroding sacrificial anode rod. If there is too much corrosion, bacteria can form in the tank. Replacing the sacrificial anode rod and flushing your water heater with an outside water source (such as a hose) will often eliminate the problem. However, note that this can be dangerous because of high heat exposure. Likewise, if the sediment buildup is profound, flushing your water heater can prove to be messy. If you are unsure, contract a licensed plumber to avoid injury and stress.



Noise

Buildup is usually the culprit for loud hot water heaters. If your heater is emitting a high pitched whine, a buildup of minerals on electrical heating elements could be the source. Similarly, sediment buildup can cause the bottom of your tank to overheat. When this happens, water begins to boil, resulting in a low rumbling or popping noise. Flushing your water heater should eliminate these problems.

Leaks

A pool of water at the base of your hot water heater doesn't always necessarily mean a leak. It could simply be the result of condensation or a defective plumbing connection. For example, if the pool appears during cold weather, when the incoming water flow is colder, but then disappears during warmer weather, condensation is most likely the reason.

If, however, your water heater is leaking, it is usually due to a faulty T&P (temperature and pressure) valve or corrosion. Check the valve by opening it and flushing out debris. If leaking persists, replace the valve. If a valve does not seem to be the issue, check for a leak from the water tank by looking through the combustion chamber. If there is rusting or water pooling at the combustion chamber bottom, the tank most likely needs to be replaced.

Noticing hot water heater problems early is the key to avoiding further damage. Water heater replacement can be expensive, time consuming and stressful, so resolving issues early is essential. If problems persist and you are uncomfortable with the prospect of replacing your own water heater, contact a certified plumber to evaluate the status of your unit.