NC coolant tank failure

Tech Talk

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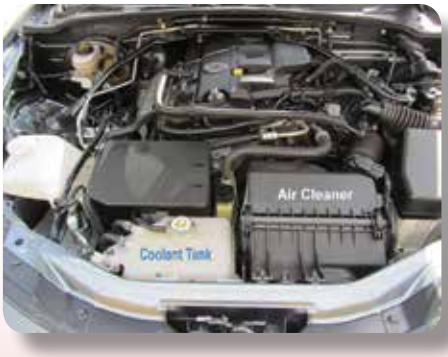
Heads up all you early NC owners!

Over the last couple of years there have been regular reports of coolant tank failures.



If you have an early NC ('06 to '08), consider replacing your original coolant tank before it fails. There is the possibility the tank could fail while driving and the resulting coolant loss, if not noticed quickly, could lead to overheating and expensive engine damage.

It appears that with age the plastic neck that holds the cap in place becomes brittle, allowing coolant to escape as the cap is not retained properly. The problem can be identified by coolant residue (white stain) on the battery case accompanied by an unusual sweet smell.

The issue is not restricted to distance travelled, with a number of low-mileage NCs suffering the problem.

Part number for the replacement tank is LFG1-15-350 and Mazda has revised the tank a number of times. Hopefully the issue is restricted to the early design tanks!

Replacing the tank is a relatively simple task:

- remove the battery cover;
- remove and save the coolant from the tank, you will need it later;
- disconnect the two hoses on the side;
- remove the bolts holding the tank.

Carefully lift the tank and disconnect the hose underneath, then remove the tank.

Caution: Some coolant may drain from the hoses.

Install the new tank in the reverse order, ensuring hoses are attached and clamped correctly.

Replace the coolant removed at the start (don't need to bleed the system)

Go for a short drive until the engine reaches normal operating temperature and check for leaks.

Ensure the coolant level is between the "F" and "L" marks and, if required, top up with distilled water. ●

NC – stuck thermostat

Another issue reportable affecting early NCs is a stuck thermostat.

A stuck thermostat is a lot harder to diagnose and more involved to rectify.

A stuck thermostat can cause the engine to take longer than usual to reach normal operating temperature.

When the engine does reach normal operating temperature, the temperature gauge may fall as speed increases and rise again as you slow down.

If you suspect the thermostat is stuck or sticking, the only sure way to confirm the fault is to monitor the engine temperature using an OBD scanner.

These devices are cheap to obtain and easy to use, alternately ask around, someone should have one you can use.

It only takes a couple of minutes with the scanner attached to confirm if the thermostat is working.

There are a number of guides on how to replace the thermostat available on the internet. ●

■ Please note: All "Tech Talk" information is provided as a guide only. All work is carried out at the owner's risk.