

The 'How To' for changing the thermostat on the OM648 Straight 6 320CDI engine.

You will need:

1 - 2 hours of your time.

Rags or other mop-up materials.

Thermostat kit - part number A6462000015.

Various tools - screwdrivers, pliers, etc.

Torx wrenches - male and female.

Replacement anti-freeze.

Procedure:

1. Remove engine covers.
2. Remove bracket holding fuel lines to thermostat body (immediately above oil filter housing).
3. Unscrew and remove the oil filter cover and withdraw the filter assembly.
4. Cover the oil filter hole with a suitable article (I used a latex glove).
5. Undo the two jubilee clips on the top hose and the small bleed hose next to it. I also unclipped the bleed hose from the header tank for safe keeping).
6. Get loads of rag/mop material and place under the hose connections.
7. Remove top hose and bleed hose and move out of the way.
8. Very important: Undo the sender wiring connector and move the plug safely out of the way.
9. Undo the three torx bolts holding the thermostat housing to the cylinder head. The top one is a little tricky to access as the wiring loom obscures it to some degree.
10. Also remove the single bolt at the front of the thermostat housing from the bracket on the front of the cylinder head. (I didn't see this one at first and wondered why the housing would not come away from the head!)
11. Withdraw the housing from the head with a bit of careful manipulation.
12. You will lose some more coolant from the head, but I just let it go - the undertray has enough holes/gaps in it to drain onto the floor.
13. Ensure that the mating face on the head is clean and ready to accept the new 'stat.
14. The new 'stat comes from MB with a new sender already in place. All you need to do is carefully place the silicon rubber gasket in the channel around the housing. Offer up the new housing to the head, taking care to ensure the gasket is in place.
15. Refit the three torx bolts to the side of the head and nip up when you are happy it is square and placed correctly.
16. The new 'stat housing has a hole for the front bolt, but in my case at least, it was not tapped for the bolt. It does not matter as the aluminium is soft enough for the bolt to make its own thread if you are careful when you screw it back in. Just be careful!
17. Replace the top hose and small bleed hose and tighten the jubilee clips.
18. Remove your cover from the oil filter housing and replace the filter. Make sure it is screwed down fully.
19. Replace the fuel hose bracket on the side of the new 'stat housing. Again, the bolt hole on the new housing was not tapped, but careful work again meant that the bolt cut its own thread on the way in.
20. Add fresh antifreeze as appropriate and start engine.
21. Check for leaks!
22. When happy there are no leaks or any other problems, replace the engine covers.
23. Job done!

Photographs:

1. Covers off.



2. New bits at the ready.



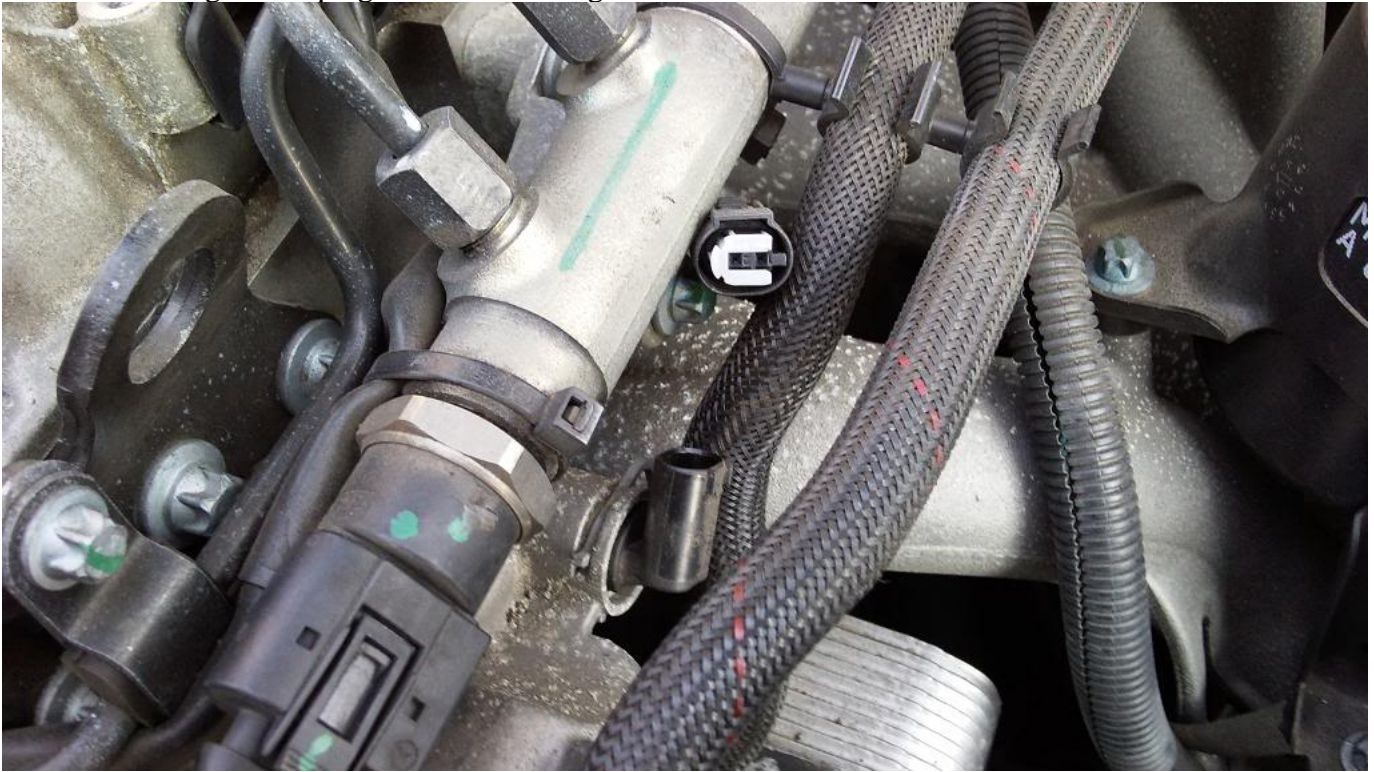
3. The oil filter housing was a bugger to release. These are the tools I had to use to free it...



4. Don't let anything get down the oil filter housing!!



5. And don't forget to unplug the sender wiring connector either!



6. Loads of rags at the ready.



7. It's off!



8. Don't forget this little bolt at the front.



9. New one in place.



10. Test run, checking for leaks.



11. By far the most valuable tool in my toolbox - this has saved me from all sorts of hassles over the 30 years I have had it. Surgical instruments are a life-saver in more ways than one! 🇺🇸



12. And so to bed...

