

# Overheating TR7

I would be glad to share my hard won knowledge because I know that it would help many TR7 owners. In order to stop the head gasket from blowing, the following solution works.

1. Install a V8 type - 3 core radiator.
2. Modify the thermostat housing so that a pipe goes straight up from its top to a small hose.
3. This hose then connects to a "SWIRL" TANK that is mounted above the cam shaft cover.
4. The swirl tank then has an outlet which goes to the right hand side of the top of the radiator.
5. Place a restrictor inside the outlet pipe of approx. 5mm.
6. Install an electrode in the tank to sense water level.
7. Connect this electrode via one electrical wire to a low water level indicator. This indicator must use AC to stop electrolysis - such indicators are available from electronics parts suppliers -like Dick Smith.
8. When installing the Head Gasket buy the thick type - don't use the standard one.
9. Use Blue Hylomar gasket compound on all surfaces prior to fitting.
10. Use plenty of Penrite Copper Eze on all the head studs. Cover the whole stud & threads.
11. Tighten the head with an accurate torque wrench to greater than the recommended 55 lbs. I went to 65 lbs in about 4 gradual steps (in of course the recommended sequence.)
12. Drive the car about 100 k/m - carefully - wait for it to cool down overnight then check the torque settings. You'll find that some will have lost about 10 to 15 lbs. Retorque the stud nuts again to 65 lbs.
13. Check the studs again after 500 k/m. You'll find them still wrong. Retorque as in (12).
14. Check the studs again at 2000 k/m. You should find that the settings have stabilized. If not they shouldn't be far out - retorque them.
15. You should now leave the head alone as it will have stabilized.
16. Don't use the recommended amount of anti-freeze in the cooling system. Use only one litre of pure anti-freeze & put in one container of Wynns stop leak.

That's it - The explanation for all of the above would probably take a book to precisely detail. It will suffice to say that the swirl tank pumps any air bubbles out of the cooling system so that they don't sit inside the head. It also allows a water level alarm to be fitted to let you know if there's a loss of water in the system. (If you ever lost water & the car overheated then the head gasket would be blown in less than 20 k/m).

The Blue Hylomar & the Wynns stop leak give that extra bit of security. The Copper Eze stops the studs from corroding on to the head so that accurate torques can be maintained & allow you to remove the head when one day you have to. The 3 core radiator gives that extra over heating protection on those 40 degree summer days!

Unless you are prepared to do all of the above don't even bother with the TR7 engine. Go straight for the 3.5 litre Rover V8. It's a detuned, low power V8 that will just chug along for ever – that's why they use it in motor boats & 4WD vehicles – i.e. when you're out at sea or in the wilderness you can't afford a breakdown! That fact alone should convince people who want reliability to go for the V8.

NOTE: A water level indicator cannot be fitted to the standard system because the header tank is not at the highest point - hence the need for a swirl tank mounted higher than any other part of the cooling system.

I realise that many a TR7 owner will probably have a heart attack if they read this but it's up to them if they decide wether to take action or not.

***Sent in by Allan Greiner, of Victoria.***