453-980 (BHA4283Z) Radiator , MG TC-TD

The radiator we have sent you is a very accurate reproduction of the original part, although we did opt for a heavy duty core to improve the cooling capability.

Neck Height

The radiator has an overall neck height (top tank to lip of filler neck) of about 0.900-0.950". We have had sample radiators installed by various T-Series restoration specialists and all have confirmed that the radiator fit fine and the cap fit properly and sealed.

Once the radiator has been installed in the shell and installed in the car, you should see about 4-5 threads of the filler neck exposed. If your false nose is loose, you may not see that many. Note: the apparent angle of the neck is the result of a tilted camera; it is not relevant.



With the 280-020 O-ring fitted, install the radiator cap. Note that the o-ring in the picture above has been given a light coating of grease.



Fine Tuning the Fit of the Cap

A properly fitting cap will actually slightly compress the top face of the false nose and snug up any gap between shell and false nose. The cap should provide for a leak free fit when the car is driven under normal operating temperatures. However, we know the actual thread depth on both original and reproduction caps vary to a certain extent. We have found original examples where the depth ranges from 0.425 -0.437". Reproduction radiator shells which were available for some years may also affect the fit. If the cap does not seal properly, you may correct the problem by fitting a solid plastic disc (cut from a coffee can lid, for example) to the inside of the radiator cap. This will effectively reduce the depth of the thread on the cap, and the rubber o-ring seal will contact the inside of the cap, eliminating the leak.

Anti-Freeze

Use a premium brand of anti-freeze and water. It will raise the boiling point, lower the freezing point and provide corrosion protection. A 25 to 50% mixture is generally recommended. Anti-freeze is not as efficient at transferring heat and any mixture over 60-70% anti-freeze is actually retaining heat. Because the TC & TD have a non pressurized system, some owners run water and an anti-corrosion agent in the summer and they go to an anti-freeze mixture in the fall, switching back to water and a corrosion inhibitor in the spring.

Please note that over- filling of the radiator will cause coolant to escape out the overflow pipe and result in an apparent leak when the car is stopped and engine shut down. The normal coolant level is about 3" down from the top of the neck. If this problem is experienced, simply allow the radiator to find it's own correct level at which point it, coolant should not overflow through the tube.

Boiling Point

In a non-pressurized system, with a 25% mix of anti-freeze, the boiling point will be around 218°F or 104°C. With a 50% mixture, boiling point will be 226°F or 108°C. When the car is running and the water is circulating, the coolant will not boil. If you stop and let the car sit, you may hear some boiling or bubbles in the cooling system. This is not all that unusual.

Water Temperature Gauge

If you are not sure if your gauge is accurate, remove the radiator cap and stick a candy thermometer in the top tank. Record the measurements and relate that to the gauge. If it's way off you may want to have it reconditioned. This is a job for a specialist.

Where Can I Get a Gauge Rebuilt?

There are several companies that can do the work. If you belong to a local club ask the members if they can make a recommendation. We hear good things about Mo Ma Instruments in New Mexico 505-766-6661

How Hot Should it Get?

If its 90°F outside, you should see an operating temperature of 88 to 91°C on your temp gauge (assuming it is accurate). This corresponds to 190 to 195°F. If you hit 210°F or more, there is something wrong somewhere and you need to sort it out.

If you have any comments about the radiator, please contact Our Technical Services Department at 805-681-3411.

