



# TClinic

## TC COOLING SYSTEM IMPROVEMENTS

by David Edgar, TCMG

For the most part, the TC cooling system does OK, but if your engine is out of tune, has a dirty cooling system, or has other defects you need to fix the problem before spending tons of money boosting the cooling and masking the core of the problem.

If you drive in temperatures where 100° is common the most common upgrade is to install a radiator with an extra row of cooling tubes. You can get one from Moss or any radiator shop can add a better core to your existing radiator tanks.

If you spend hours and hours in rush hour traffic where the going is slow, if at all, then a 7 bladed MGB cooling fan might help your TC. It bolts right on to the TC water pump but watch your clearance to the radiator as some manufactured fans stick out further than others.

OK, lets assume you have a sweet running engine, you drive on open country roads and have a super duty radiator. You really shouldn't have any overheating problems. But maybe you see coolant dripping from your radiator overflow tube. Now if you don't overfill your upper radiator tank there should be no overflow but alas, most of us never get it the level right and put a tad too much in (I maintain about 1/4" of coolant above the cooling tubes). To help prevent overflow and eliminate dripping coolant you could very easily add a coolant recovery system. All you need is a recovery tank and a piece of rubber tubing from the end of your overflow tube to the bottom of the recovery tank. Coolant will now run from

the radiator overflow and into the recovery tank. As the coolant cools, the coolant will draw back into the radiator. Depending on the size of your recovery tank, you are now able to keep more water in your radiator. You can buy cheap plastic recover tanks from most automotive parts suppliers. You just have to decide where to mount it. If you go to a specialty shop for hot rods you can buy a nice chrome or polished aluminum cylinder that is easily mounted behind and off to the side of the radiator right next to the radiator overflow tube. It is then very easy to run a short rubber tube to the tank.

If you really want to tinker around you can also pressurize the cooling system. Pressurizing the system allows the coolant to get hotter before it boils. There are several advantages. First, with a sealed system, the coolant is contained and doesn't drop in level with time and repeated heating cycles. Secondly, and of more importance, the local boiling that occurs at the back of an XPAG engine when the engine runs at, or above 90C, is minimized. When this happens, the bubbles that are generated cause the water contact area to drop and that in turn causes more heat that makes the system avalanche. A pressurized TC cooling system will run about 6-8 degrees cooler than a non-pressurized system. A remote pressure relief valve can be easily constructed as shown below.

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