Overheating

By Harry MacLean

After reading Rick Astley's article (last month) on fans I thought I would delve just a bit farther into this subject. As Rick has covered there are many reasons for overheating with age being one of the largest factors. That means specifically the radiator as this is the main component to cool your engine. When a radiator ages it does things like the cooling fins fall off and get corroded causing that. The tubes leak due to age as well and sometimes solder on top tanks (if they have it due to newer cars having crimped plastic tanks) starts to leak.

One of the very best things you can do to keep your car healthy is to change anti freeze with the proper mix. What is the proper mix? For your MGB, MGA, or Tcar the mix is 50/50,anti freeze to water, Not 70/30" cause it will protect more "and all the other mixes that people use. That goes for new cars as well not only our LBC's. The best way to drain the anti freeze is to pull the bottom hose off and let everything drain out. Why? Because if you have aluminum products like t-stat housings and radiators, anti freeze breaks the aluminum down and clogs the radiator. It doesn't matter which type whether it's ethylene glycol –the green stuff or polyethylene glycol- the red stuff or DEXCOOL as it is known in some circles.

All anti freeze has silicone in it which is basically sand. Over time it eats away at iron and aluminum but at a little faster rate for aluminum. That is why when you see the powder around your nuts holding the thermostat-tstat housing in place is because the anti freeze has etched or eaten away the housing by the stud allowing the antifreeze seep up to the nuts. So if you have this problem you need to replace your tstat housing. This is also true for what mg's like to do is blow head gaskets. As well as the newer cars, it's because of age , antifreeze not being changed and has eaten away the gasket until the compression in the cylinder blows the gasket. Rick mentioned the mechanical fan one of the reasons this doesn't work very well on an MGB is because there is no shroud around the fan so it doesn't suck enough air through the radiator. If you look at older American cars not only is the fan close to the radiator, but there is a shroud around it so the fan can draw more air in. Then we get to other things that help overheating not so much on an MGB but on later model cars. The condenser for the ac unit sits in front of radiator. That cooling thing for ac stops 15% of the air flow going to the radiator, and of course you add power steering coolers and oil coolers (for towing) and it stops even more.

How to tell if your radiator is not in good shape? This is fairly easy you can use one of the thermometers that Rick talked about in his article or use your hand. If you car is overheating open hood unless you see steam coming from under hood or that boiling popping sound simply feel radiator in different areas like sides or middle for cold spots. What I mean by that is it should feel the same temp all over if you feel cold or colder spots you can bet the radiator is not in good shape and could be the cause of your overheating if no leaks are found. Also as what Rick said a bad radiator cap not holding pressure or too low for what it was designed is also another cause and very often overlooked. To truly test a radiator cap you need a pressure tester that is designed for that. Auto parts have them but not sure if they use them.

Danger signs and what NOT to do:

Boiling ,popping sounds-do not open hood until cooled down under no circumstances should you even ATTEMPT to open radiator cap You will get seriously burned up to a 3rd degree burn. I have seen this happen.

Steam- do not open hood at all same thing as above in this case you have probably broken a hose or one is cracked etc and fluid has leaked out.
With the case of later MGB's you also have an expansion tank. That can leak as well as another cause.

There are silicone hoses on the market but they are expensive. They will last longer but is it really worth it to you? I'll end the article with a personal experience. I was going to a club meeting in summer and once got off the expressway, car started to overheat. So I took off from the light and it cooled down and when I got to the parking lot I opened the hood because I could hear only one fan running. It seems I had used a rag for something and forgot about it. The fan blade caught it and wrapped it into the header and stopped the fan. That was an easy fix.