# T-SERIES CAR HEAT SHIELD (VAPOR LOCK)
## by Dave DuBois

Prior to restoring our TD, we never had a vapor locking problem with it. After restoring the TD, we started experiencing a vapor lock problem. Whether it was something I did to increase the heat trapped in the engine compartment or the reformulation of the fuel being sold I didn't know – all I knew, was that after the restoration, I had a vapor lock problem. I finally traced the actual vapor lock to the channel between the float bowls and the carburetors, primarily in the front carburetor. Because the vapor was forming in the channel and below the float, it was trapped there until the engine ran for a while and it cleared. The symptoms were that the car would run fine in any ambient temperature until I parked somewhere and shut the engine off. After 20 to 30 minutes, if the engine was started, it would spit and sputter and required tickling the throttle to keep it running for about 3 to 4 minutes, at which point it would clear the vapor lock and run fine. I found out where the problem was quite by accident, when, with the bonnet open one day, the vapor built up sufficient pressure to cause gas to squirt out past the float tickler pin at the top of the float chamber. In discussing this problem with other people on the MG Cars Enthusiast's Club Bulletin Board Service for T series, TD and TF, I found that a quick way to clear the vapor lock is to get the engine running and then pull the choke knob out (Note: This will cause the engine to race quite a bit, which can be unnerving if you aren't ready for it). I have tried this method and find that it may require repeating a couple of times to completely clear the vapor lock. This is probably due to the residual heat that has soaked into the carburetor bodies. The combination of air being forced through the engine compartment by the fan and fresh fuel coming into the carburetor cooling the carburetor body below the temperature required to boil the fuel.

If you have experienced the same problem you can get a heat shield set made for the 1 1/4 carburetors on the Austin Mini and adapt them to the TD. The heat shield is available from Mini Mania, whose address is: 31 Winsor St., Milpitas, CA 95035. Phone number is 800-946-2642 and their web site is: http://www.minimania.com/T . The part number for the front and rear carburetor heat shield pair is MSSK8 and the price is somewhere around $50.00 for the pair (2008 price). For use on the TD engine, a hole is cut in each heat shield to accommodate the manifold clamps. The heat shield set makes a neat installation that is really unobtrusive - you have to look for it to see it when the bonnet is up.

I made a template for doing a cutout in the shields to accommodate the manifold clamps and have pictures of the installation. The template should print out full scale. To check this, after printing the template, check the reference marks at the bottom right corner of the page. They should measure 1-inch horizontally and vertically. If they don't, you can open the picture in a photo editor and adjust the size of the picture until the reference marks measure exactly 1-inch in each direction when printed. If you are unable to enlarge the template on your photo editor, or do not have a photo editor, send me a self addressed, stamped (long) envelope and I'll send it to you. My address is:

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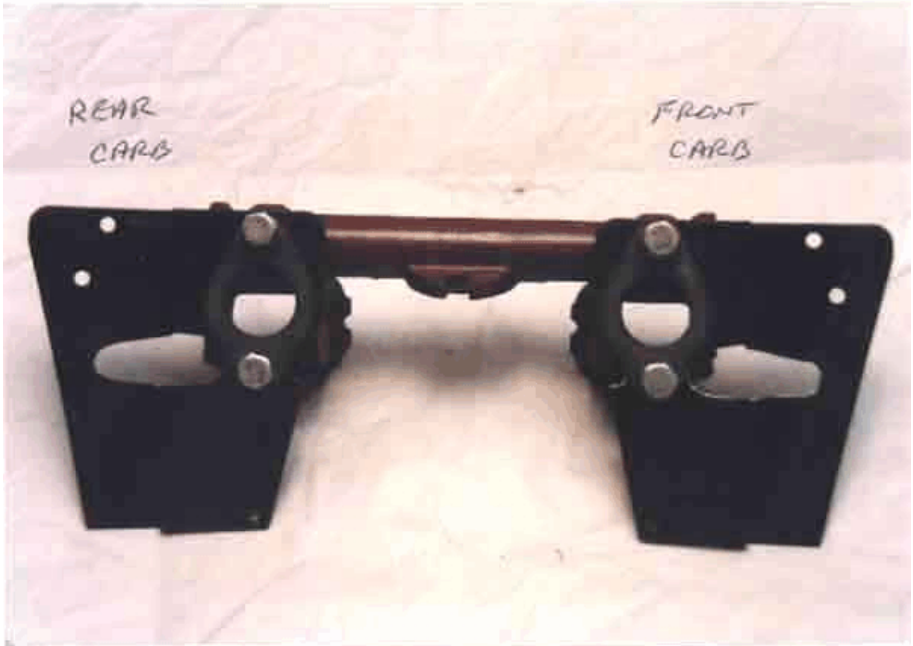
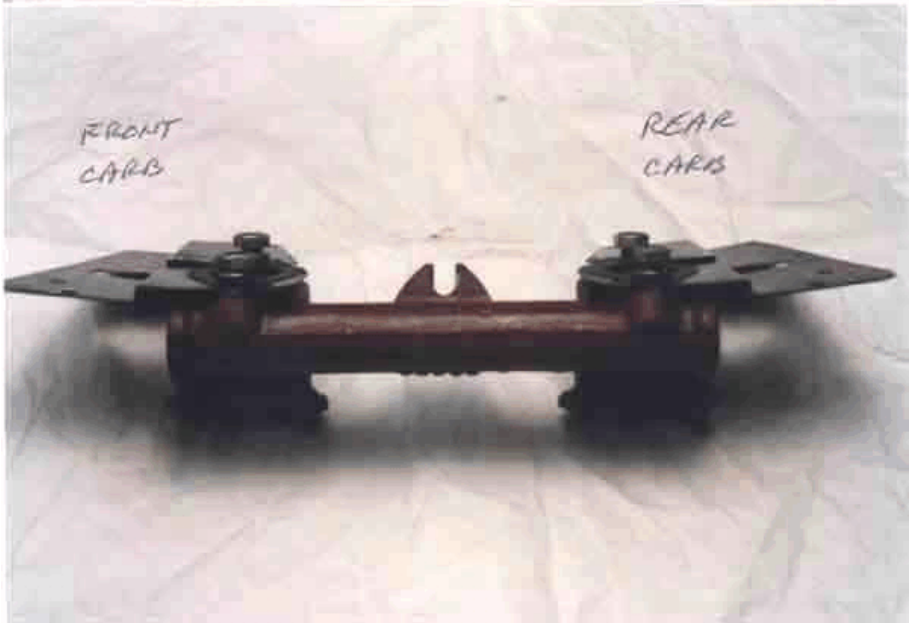
Place the templates down on the shield for the front carburetor (see picture to determine how the shields are oriented) with the printing facing up and mark the areas to be cut out. Turn the templates over so the printing is facing down and place them on the shield for the rear carburetor and mark the areas to be cut out. Make the cuts outs in each shield and install them between the manifold and the carburetors with a gasket on each side of the shield.

Please note that this heat shield will only correct vapor lock that is in the carburetors or float bowls. If the engine is over heating, if there is insufficient air flow through the engine compartment, or the fuel pump is leaking air, this will not help. Those problems will have to be attended to before the heat shield will do any good. Additionally, it is my belief that the reformulation of the fuel that is available at the pumps today, in particular, the use of ethanol in the fuels is contributing to the vapor lock problems that we are facing. If this is true, then the heat shield will only minimize the problem but never really cure it. We may find that during hot weather, we will have to do what MG drivers in the 50s and early 60s did in hot areas like the southwest – remove the side panels of the bonnet and rig a strap to keep the top panels in place (not only will this keep the engine compartment cooler, it will bring back the ambiance of the heydays of the T series MGs).

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