

Have You Lost Your Cool?

Perhaps you were en route to Palm Springs in 1972 or Las Vegas in '73. Maybe it was San Jose, 1976. Could be, though, that you were driving your Classic T-Bird in any condition of 90° or above temperature. Usually the first indication of trouble, in case you have not noticed your temperature gauge rising toward the peg, is cutting out of the engine as you accelerate, or as you climb a grade. You have now entered the realm of vapor lock. Accurately described, the base of the carburetor is so hot the raw gas percolates, or vaporizes on contact with the carburetor. Thus the fuel-to-air ratio required for proper combustion is highly disrupted. Result, the engine quits. If you are lucky you may get started after a waiting period of thirty minutes to an hour, during which time the metal has cooled. Don't get cocky, though, perhaps you are only started up a long grade, or have endless miles of 110° or higher desert to negotiate. If you are fortunate you finally make it in.

If less fortunate lots of nasties can occur. Like blown gaskets, blown radiator, blown hoses, and even cracked heads or blocks. In the event you have not experienced one or all of these horrors your imagination can readily supply details. You are in the midst of a desert nowhere. No telephone for 100 miles. Traffic sparse and whizzes by, including traffic officers. Then, when you do get towed in, the local garage specializes in tractors; not Early Birds, and the local motel is a flea bag, with no cooling.

In 1962 the writer, in a fit of wild spending, purchased a 1957 T-Bird for the outrageous sum of \$600.00, to the great delight of the seller. That was in early spring. By mid-June it was evident the vehicle was an overheater when the desert temperatures warmed up to about 110°. A check with other Bird owners indicated common difficulties. At the time I was still active in flying, and had done work on overheating liquid cooled aircraft engines with some success. I made arrangements with one of my aircraft buddies to get access to a good sized wind tunnel, into which the Bird was placed. Upon introduction of smoke to the increased velocity air flow it became immediately evident that at about 45 m.p.h. the front license plate of the 1957 Bird was deflecting air flow up and over the hood. On removal of the license plate the air flow in AND OUT of the engine compartment was uniform and balanced until a simulated speed of about 65 m.p.h. was reached. From 65m.p.h. and up it became evident the OUTFLOW did not equal the INFLOW of air. A static condition had been reached and a back pressure existed. Flow of cooling air through the engine compartment and out of the engine compartment was not in balance.

To cut short a description of the long period of yack-yacking and head scratching it was proven that removal of the lower splashguards, R and L from the lower rear of the engine compartment, bolted to the inner fender housing, and by installing the block-off plate to the air scoop—the one that has the decal "Remove for Summer Driving", a decidedly better air flow balance could be achieved. Not perfect; but improved.

Now I could get to work.

Again, to cut through the years, and reams of verbal foliage, I recap the many steps taken to result in a Bird that can be driven without overheating in Arizona desert summer temperatures, yes, even in paradises, and with air conditioning, yet. Rotary type.

Get rid of all deposits in engine and head water jackets. The best method is to remove the engine and thoroughly boil out at a time you are doing an engine overhaul. Install all new gaskets, with head gaskets installed CORRECTLY. Have your radiator man install at least a four row radiator core, and preferably a five row. Install a 5 or 6 bladed steel fan blade. Do not use a flex fan nor a plastic-fibreglass fan blade. Now, with new hoses and freeze plugs, and with everything snug and tight, you are getting there.

Fill radiator with a 50/50 Prestone mix, with a pint of high grade rust inhibitor and water pump lubricant. Change at least once a year.

Install a finned type, asbestos and aluminum carburetor-to-manifold spacer. Auto specialty parts houses usually stock them.

For summer driving tie the exhaust heat riser butterfly in the open position.

Install a pusher type electric fuel pump, Stewart-Warner, or Pasco, in the fuel supply line, close to the fuel tank, as instructed. Run through the regular fuel pump. I install an under the dash toggle switch to actuate the fuel pump when needed for starting and for extremely hot running conditions. The electric fuel pump is an added bonus for starting, particularly in the 1955 and 1956 Birds. Just flip the switch on before you hit the starter. When the audible clicking ceases it means you have gas to the carburetor and a well tuned engine will kick right off.

Remember, raw gas is a coolant. Set your carburetor to a rich mix for all summer driving.

You will be interested to know that some Birds, **EVEN WHEN ALL STEPS HAVE BEEN TAKEN, STILL ARE OVERHEATERS!!!**

Encouraging, ain't it?

—Jack Jordan #1185
Arizona Classic Thunderbird Club