2008 Tech Tips Errata Sheet

As with any publication that deals with technical information, some technical inaccuracies or misinformation will creep into the text. This Errata sheet will correct the technical inaccuracies or misinformation found in the original text. Subsequent publications will correct the original text as well as add new information.

As pointed out in the text, current updates, technical inaccuracies or misinformation corrections can be found on the Internet at WWW.CTCI.ORG.

If you see any technical inaccuracies or misinformation in the text, please contact us at the CTCI Office and we will log the information for the next technical update.

CURRENT ERRATA UPDATES

Page 38 Converting to Disc Brakes
Change the third paragraph to read:

A dual master cylinder is installed to separate the front and rear brakes. A longer master cylinder push rod is required (normally supplied with the kits). The original rod is too short for the dual Master Cylinder. A longer rod that requires NO modifications to the car is available through several of the Thunderbird parts dealers.

Cover Change

Add: by George Barlow and Gil Baumgartner

Page 31 After Thermostats Section
Add: Section on "Overheating"

The function of a radiator is to "Radiate heat" (disperse it). It does this by absorbing the heat from the engine coolant and transferring it to the surrounding air. No matter how good the radiator is, if it cannot radiate the heated air away from the engine, it is worthless. The basic problem with the T-Bird is that the engine compartment is too small and confined to allow for the efficient escape of hot air.

This marginal heat transfer was OK when the car was new because all the stock components worked at best efficiency and there were no extra heat producing accessories like Air conditioning, 100 amp alternators and the like. There is not much one can do to re-engineer the T-Bird engine compartment without doing major design changes to the car. It is interesting to note that when Ford was designing the 2002 Retro-Bird, they had to overcome a similar overheating problem.

So, what to do? The basic fix for chronic overheating starts and ends with engine block itself. Most of the other "Fixes" are just band-aids to overcome the problems with the block. The number one cause of a "Hot" block is in the water jacket. This is the area where the heat from the hot combustion process is transferred to the engine coolant. Any condition that impedes the efficiency of this transfer will cause the engine to run hot. This includes any rust deposits, sludge, thin cylinder walls, clogged passages, worn gasket surfaces, incorrect gasket installation, high performance cam, incorrect spark timing etc.

The major problem that I have seen in most "Hot Blocks" is the water passages are totally clogged with very hard rust deposits. The clogged passages occur toward the rear of the block around the number 4 and 8 cylinders. This situation is usually caused by the slow water flow inherent to the T'Bird. These deposits must be chiseled out and flushed out completely. Use a flashlight and look through the core holes and the connection passages to the heads to be sure the passages are clear. Any rust deposits act as an insulator and impede the combustion heat flow to the coolant.

This process can be done with the engine in the car, but it is much easier with the engine out on a stand.

The following list of "Fixes" for overheating all help, but will not cure a "Hot" block.

- The radiator should be clean and free of all obstructions.
- The complete fan shroud should be in place.
- An electric fan will help remove the hot air from the engine compartment especially when driving slowly or stopped. (As in a parade)
- A modified water pump will move the water faster through the radiator. This is a double edged sword, because if it moves too fast, there isn't enough time to transfer the heat from the water to the passing air.
- A larger radiator will provide more heat exchange surface, but there must be more airflow to accommodate this larger surface.
- A lower temperature thermostat (or none at all) only serves to mask the problem.
- Always check the lower radiator hose for the anti-collapse spring. This device prevents the lower hose from collapsing under load, thereby restricting water flow under heavy loads.
- Special coolants will work but mostly serve to mask the problems.
- Head gasket alignment—Check for the exposed "Tab" at the top front of the gasket.
- Check spark timing and advance as per the shop manual.