

## COOLING SYSTEM

The Model A cooling system is something that is often ignored and the only time it is looked at is when the engine continues to overheat or the owner finds a big puddle under the car. When our Model A's were new, owners would often just add water to the radiator when needed and there was very little concern to keeping the system clean or preventing rust to accumulate.

It is not uncommon to find that a Model A that has mostly just been sitting in a garage and not regularly driven and properly maintained to have a large accumulation of rust built up in the cooling system. This usually results in flakes of rust clogging up the tubes in the radiator and plugging up the water passages in the block. The owner will often complain that the radiator is no good and the car just sits.

In order for the Model A cooling system to perform as designed there are a few things that must be in good order. First, there must not be any combustion gas getting into the coolant. Combustion gas leakage is almost always caused by a leaking head gasket or a crack in the head or the block. A leaking head gasket sometimes can be corrected by re-tightening the head nuts but most often the head gasket will have to be replaced. A cracked head should always be replaced. A crack in the block usually requires major engine work but in some cases, block sealer can be used to seal a crack.

Rust can be removed from the cooling system by using a rust dissolving solution such as Evaporust or Rust911. The cooling system must be free of oil or grease or the rust dissolving solutions will not work. Simple Green will work well to remove any accumulated grease or oil. Drain the system and re-fill with a strong solution of Simple Green and water. Run the engine for 30 minutes or so, drain and flush. You are now ready to add the rust dissolving solution. Allow the rust dissolving solution to stay in the system for at least one day or as many as several days if necessary. You can even drive the car while the solution is working. Once the solution turns black, drain, flush and refill with new rust dissolving solution. Repeat until the cooling system is clean. Evaporust or Rust 911 will not harm the radiator, hoses, block or gaskets. If the system is badly rusted, it may require several applications of the rust dissolving solution to completely clean out the cooling system. Once the system is clean and flushed, fill the radiator with distilled water and a coolant additive such as Water Wetter or Purple Ice. Both are available from your local parts store. Always use distilled water when adding coolant to the radiator. It will greatly help to reduce the formation of rust.

Evaporust is available from most hardware and auto parts stores but it is expensive. Rust911 comes in concreted form and is a fraction of the cost of Evaporust. Rust911 can be purchased on line directly from the manufacturer, just search "Rust911".

A clean, rust free radiator, block and cylinder head will allow the Model A cooling system to perform as designed and keep your engine cool.



## TECH TIP

If you are using antifreeze in the cooling system of your Model A, be sure the head gasket is well sealed and there is no leakage of coolant into the crank case. Antifreeze in the oil will degrade the engine bearings. Antifreeze is especially harmful to babbitt bearings. In southern California, where we do not encounter freezing weather, we can use distilled water with a coolant additive such as Water Wetter or Purple Ice.

