Henry's Way

by Tom Endy

Modern Model A hobbyist are confronted by a number of ways to alter Henry's ignition system design. There are "modern" upper and lower distributor plates, there are high performance coils and there is even an electronic ignition system available. Each is touted to be better than Henry's way because they are modern.

My experience has been that none of these modern modifications out perform Henry's way. In fact many of these modifications come with a number of side affects. And none make the car run any better.

In the early days of the Model A the condenser in the distributor was prone to failure. Since then folklore has come down to us that they are still prone to failure. Whenever a Model A exhibits an ignition fault there is sure to be someone in the crowd who says, "change the condenser". Electronics has come a long way in the past eighty years and good quality Model A condensers are available from most suppliers. In all my years of touring I have seen only one condenser failure, but I have seen countless numbers replaced to no avail.

There are some poor quality condensers on the market. The condenser itself is not at fault; it is the way the ground strap is attached. Those that are merely soldered onto the body of the condenser will come loose when the solder melts because of an overheated engine. The good quality condensers have a stake weld holding the ground strap on. They can be identified by the three "dots" on the strap.

Quality condenser with the three "dots"

The modern upper plates have the condenser mounted directly onto it. The problem here is that the absence of the original condenser in place allows the attachment tab on the lower plate to be unsupported and it can easily short out against the distributor housing. The longer wires on top of the modern plate can also hang up when the spark handle is moved.

Modern upper plate with longer wires

The modern lower plate does not have the wire that connects from the lower plate to the upper plate. Instead it has a slider arrangement. This is not a positive connection and each time the spark handle is moved the slider connection moves and causes sparks and eventually creates a burn trail and in time it will lose the connection.

The modern lower plate. Note the witness marks on the plate and on the end of the acorn nut. This arrangement was cleaned up after it actually failed.

Henry's original wire was multi-stranded and very flexible. Too often this wire has been replaced by an incorrect type of wire. The correct flexible multi-stranded wire is available from Bratton's Antique Auto. If installed correctly it will serve you well.

Correct flexible multi-stranded distributor wire

High performance coils are touted to provide 40,000 volts from the secondary winding instead of Henry's 20,000 volts. The problem with these is that if you are in an extremely high ambient temperature environment, like out in the desert where it is over 100 degrees, the coil will internally expand and can short out the secondary winding. The problem will be intermittent and when the car cools down the problem will go away until it shorts out completely. I had two such coils fail on two different cars under similar circumstances. Henry's 6-volt coil with a 1.5-ohm primary winding, or the replacement 12-volt coil with a 3-ohm primary winding will provide all the high voltage you need to properly run the car.

If you plan to drive your Model A a lot it is a good idea to be prepared for an unexpected failure of even Henry's way. Carry a spare distributor with you that has the points set correctly and the timing set for your car and then run it for a few miles to be sure it is working correctly.

Along with the spare distributor carry a by-pass cable with you that is used to by-pass a possible open or shorted pop-out cable. With both a spare distributor and a by-pass cable you can easily swap out the distributor with the spare and install the by-pass cable as well. Within a short time you should be able to have the car running again with this arrangement. It will get you to your destination where you can determine exactly where the fault occurred.

A spare distributor with a by-pass cable attached

The by pass cable screws into the distributor in place of the pop-out cable. The clip on the end of the cable is attached to the primary terminal of the coil where a red wire in normally attached. The red wire must first be removed before the clip is attached. In order to stop the engine once it is running, the clip has to be removed, as the ignition key has been by-passed.

A spare distributor that has had the timing set for a particular car does not have to be re-timed, as long as the large screw holding the point cam in place is not disturbed.

Henry's way is really the best way to go. His design is simple and it worked well in the old days and will work well for the modern hobbyist. Quality original type ignition parts are available from select suppliers such as Bratton's Antique Auto.

It is also a good idea to not have the pop-out cable bolted to the #8 head bolt. In order to replace the distributor you would have to unbolt the #8 head bolt and it would disturb the torque on the head and possibly warp the head and cause water leakage.

The #8 head bolt is longer than the others to accommodate the pop-out cable clamp. When discarding the clamp replace it with the same thickness of spacer so that the nut does not bottom out on the threads and offer a false torque. ☺