



THOUGHTS FROM THE MODEL T GARAGE...

By Ed Moran

In our discussion of the Model "T" ignition system, we've talked about the timer or what Ford called the commutator and we've touched briefly on the magneto. Let's spend a little time with a very important part of the Ford ignition... The coils.

Usually, when you hear someone say that the timer/coil system is unreliable, they probably had a problem with the coils. Coils that have a good condenser and good points that are set correctly do work well and do NOT require constant adjustment.

The original condenser in the Ford coil was a sheet of oiled or waxed paper and a sheet of tin-foil rolled together. Time has not been kind to these condensers and it is rare to find an original coil that still has a good condenser.

The purpose of the condenser was to decrease the electrical arcing across the points and to strengthen the voltage to the spark plug. If you test a coil and it buzzes nicely but there is a very weak output across a test gap, a new condenser is probably needed. Most of the "T" suppliers sell a set of four at a small cost. They will be shaped differently than the original but they will work quite well. The replacement condenser should be .47 microfarads capacity and AT LEAST 200 working volts. Why 200 volts when it's a 6 to 27 volt system, you ask? Because the transient voltage surges across the points will be much higher for very brief periods and a condenser with a lower working voltage will quickly be destroyed.

You can buy condensers at your favorite Radio Shack but DON'T DO IT! The ones R.S. sells are made using a micro-thin mylar film and they won't stand the voltage surges present in the "T" coil. Get the ones from your "T" supplier.

Once you have them, getting them into the coil is not a job for the impatient or those who lose their tempers easily! You must chip out the tar to make a space for the new condenser and you must clear the tar at the connections so you solder the new condenser across the points. It's generally a messy job but it can be done.

After replacing the condenser, put on a new set of KW points and you're ready to adjust your rebuilt coil.

When the "T" was general transportation, every Ford dealer had a coil tester that allowed quick and accurate adjustment. Many of those are still around but they bring a fancy price when you can find one. Most of the suppliers offer a small tester that clips to



a 6 or 12 volt battery and allows you to set the amperage the coil draws. While not as good as the original testers, they do allow you to adjust your coils so they all draw a similar amount of current. The correct current flow is 1.3 to 1.5 amps. Higher current causes increased wear of the points and increased load on the coil windings. Too much or too little current will frequently show up in a magneto system as intermittent misfires. I have the coils in the 1912 Touring set at 1.2 amp which seems to work well with the mag.

To adjust the current draw, you place a screw-driver under the lower point where the point assembly is screwed to the box and pry up slightly to LOWER the current draw. To increase the current, tap the end of the lower point assembly lightly with a hammer to bend the assembly up and increase the tension between the two point contacts.

Once set correctly, a set of points should last for thousands of miles without being re-adjusted or replaced.

The "Model T Ford Club of America" sells an excellent book on the "T" electrical system which goes into far more detail on testing and adjusting the Model "T" coils and I recommend it highly! The book is inexpensive and packed with good information on the whole "T" electrical system.

If all this sounds like a lot of work, you might prefer to let an expert rebuild your coils for you. They will come back with the box refinished, a new condenser and points and each coil will be correctly adjusted. Most of the suppliers offer rebuilt coils. There are also several individuals who advertise in "Vintage Ford". They specialize in rebuilding coils. One that I have dealt with personally is Ron Patterson. Ron is located in Medway, Massachusetts and is truly a master at rebuilding "T" coils. He's quite active in the MTFCA user discussion group on their web sight and you can reach him there or you can send him email at "modeltcoils@sprynet.com".

See you down the road...