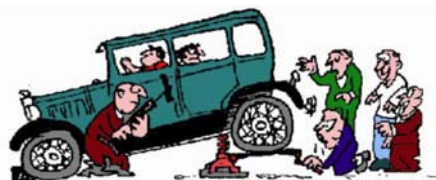




From the Garage -

by Paul Hunter



MODEL "A" GARAGE CORNER

Or, stuff you already knew, and probably forgot!

Editors note:

The information presented here is based on procedures I have done using manuals from experts in the hobby, quoting their written instructions and inserting my own additions and photographs.

The Model A starter

Disassembly

Remove the starter drive by uncrimping the locking tabs and removing the two bolts holding it to the armature shaft. Be sure to save the woodruff key.

Remove the starter switch by removing the four screws holding it to the starter. The length of these screws is critical so don't mix them up with any other screws.

Remove the brush access cover band.

Remove the two main starter assembly bolts located on the brush end plate.

Tap off the front end plate. The armature will sometimes come off with the end plate.

Slide the front end plate off the armature shaft. If the armature stayed in the housing remove it, being careful not to damage it or the field coils.

If there are thrust washers on the shaft remove them. They could be on either end or both.

Using a long drift, gently tap the brush end plate off the housing. Don't let the drift damage the brush assemblies.

Remove the four brushes from their holders by prying up the brush springs and

setting them on one side of the holder.

This will release the brushes which also releases the end plate from the housing.

Remove the two grounded brushes that are mounted to the case with screws



Armature, Case and end plates

At this point, the field coils should be checked to see if they need to be repaired or replaced. Using a test meter and making sure that the leads are not touching the case, read between one of the leads or brushes and one of the pole shoe screws. There should not be any continuity. Move the test probe to the other coil lead or brush and the pole shoe for that set. There must be no continuity.



There should not be any contact anywhere, between the field leads and the housing.

If the field coils are in excellent shape, they do not have to be removed unless you want to thoroughly clean the case.

If they are to be removed, first remove the starter terminal post. This requires a **very large** soldering iron to unsolder the fields from the terminal post. You have to apply a lot of heat, quick enough to melt the solder but not burn the fiber washers on the post. The wires are very stiff and require a lot of pressure to pry them away from the post.

Remove the terminal post and the four insulating washers.

Place the housing in a vise and remove the four field coil pole shoe screws. They may come out using a hammer and drift punch.

If not, it is easy to chamfer the slot with a chisel and drill out the screw head with a 3/8 bit. This loosens the screw allowing easier removal.



Drilled-out screw reinserted in field coil pole shoe

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Remove the field coils and pole shoes and unsolder the field coil brushes from the coils if they are to be replaced. The brush and wire insulator must be in good shape.

At this time the housing can be cleaned and repainted. Although not original, the inside can be painted with insulating enamel.



Check the armature commutator for wear or scoring. If the commutator shows little or no wear, it can be lightly sanded with 220 sand paper until smooth and shiny, however if it is burned or dished,

it may require turning to true up the plate segments.



Hillbilly Lathe!

DO NOT UNDERCUT THE MICA ON A STARTER ARMATURE. This will cause the commutator to arc between segments and damage the starter.

The armature can be short-tested with a test meter. Put one probe on the shaft and move the other probe around all commutator segments. There should be no continuity.



The armature should also be "growler" tested if possible. If you can't find a shop that has one, Smokey does! Happy to oblige.



This photo is of a generator armature but the procedure is the same.
(just checking to see if anybody was awake)



This prepares the armature for installation and the reassembly of the starter.
NEXT MONTH: Reassembly

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