

marathon®

SERVICE PROCEDURE MAGNAPLUS GENERATORS – 280 FRAME SERIES

INSTALLATION OF EXCITER STATOR BOBBIN COIL ASSEMBLY PART NUMBER 789421-0A

General Information

This procedure should be considered in a service shop by qualified electrical service technicians. This procedure involves removal of eight existing pole windings from the exciter stator core, and installing complete preassembled set of eight interconnected pole/bobbin assemblies (part number 789421-0A) onto the exciter stator core. See Figures 1 and 2.

Figure 1 – Exciter Stator Core

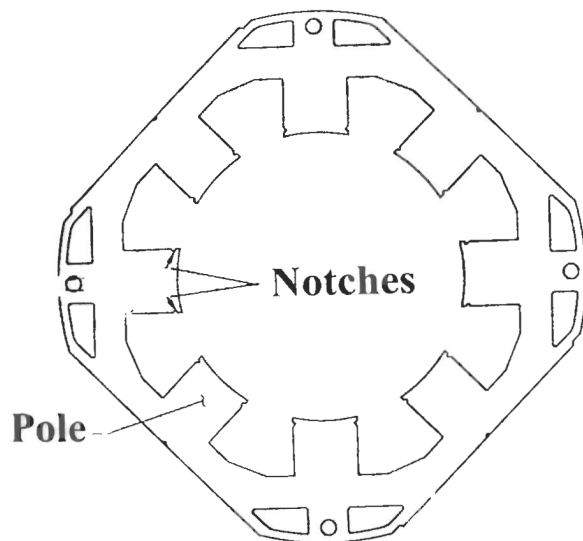
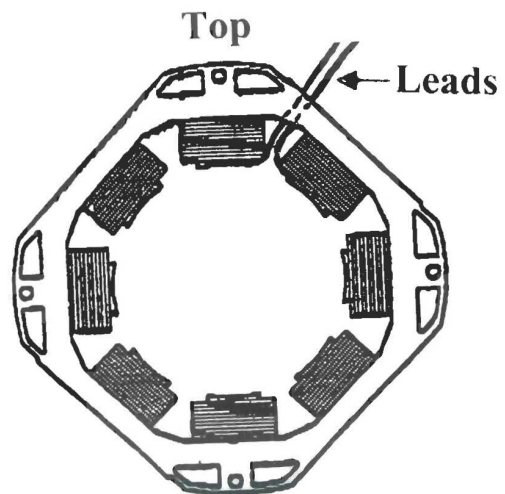


Figure 2 – Exciter Stator Core and Bobbin Assembly



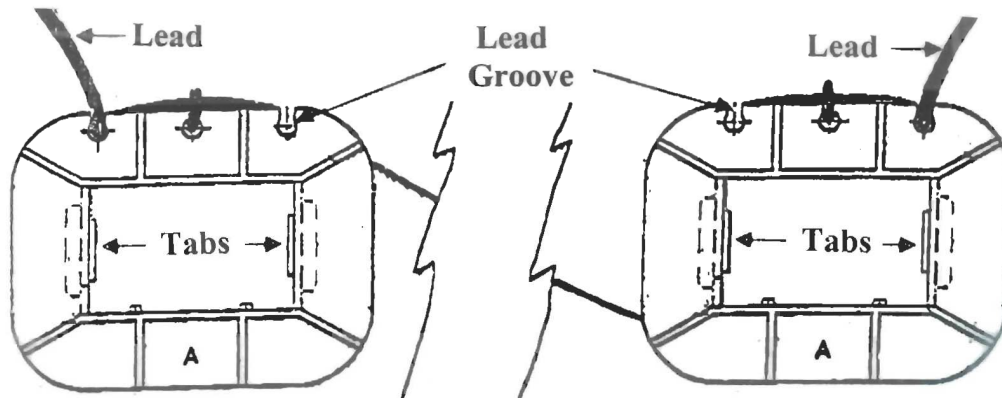
Preparation

1. Remove the rotor assembly, and opposite drive end bracket from the generator. Set the main body assembly on a suitable work surface.
2. Remove the eight existing wound field bobbin coil assemblies from the exciter stator core. The tabs on the coil bobbins may have to be pried with a screw driver to disengage them from the pole tip notches. Clean the core poles removing all old varnish.

Assembly

1. The individual pole bobbins must be mounted on the poles with the lead grooves inboard (toward the drive end), and the letter A towards the O.D. of the stator core facing the opposite drive end bearing bracket. This also will position the two stator leads towards the O.D. of the core. See Figure 3.

Pole Bobbin Assemblies



2. The first coil is placed on the pole at the 10:30 o'clock position. Press the bobbin assembly onto the pole until the bobbin tabs snap into the pole tip notches. The tabs may have to be pushed with the tip of a screw driver to get them properly engaged with the notches.
3. The remaining bobbin assemblies are placed on the poles in clockwise succession. The first and last pole assemblies will have their leads at the lead egress hole in the generator frame. As the bobbin assemblies are placed on the poles, every other bobbin assembly must have the coil to coil wire wrapped around it to take up any slack.
4. Once the assembly of all of the bobbin assemblies onto the poles is completed, inspect the assembly for loose interconnecting wires. Any loose wires should be twisted to take up the slack, and taped to the coil body to prevent wire breakage due to vibration. The taped wires should then be coated with an air dry insulating varnish.
5. Reassemble the generator rotor into the main body assembly, and install the bearing bracket/s. After the reassembly of the generator is complete, flash the exciter field with approximately 12 volts DC. The lead affixed to the positive pole of the flashing DC source should be marked F+, and the lead affixed to the negative pole of the DC exciting source should be marked F-.