

FIELD CHECK OF ARMATURES
Small Air Cooled and Tractor Drive

1. Instrument required - Volt-Ohm Meter
Set on Ohm x 1 scale
2. Check Ohm Meter by touching leads together
Reading should be zero
3. Lift all brushes from armature that is to be checked
4. First Check to find out if armature windings are grounded (most probable)
 - A. Connect one lead of Ohm Meter to ground
 - B. Touch other lead to each ring, meter should stay at infinite (not move)
 - C. If reading is indicated armature is grounded and should be replaced.
 - D. If armature has commutator, it should not indicate ground
5. Second Check to find out if armature windings are open.
(Symptom when generator was running no voltage on one line to neutral).
(Or on 115V unit no voltage)
(Lift all brushes)
 - A. Armature 3 Rings 1Ø or 3Ø 3 wire
Connect one ohm meter lead to Ring 1. Touch other lead to Ring 2. Meter should read Zero or very low. Then touch lead to Ring 3. Meter should read Zero or est. 30 ohm if checking small high speed rotor. Winding is open if reading is inf.
 - B. Armature 4 Rings 3 Phase
Connect one ohm-meter lead to Ring 1
Touch other lead to Ring 2 Reading should be Zero
Touch other lead to Ring 3 Reading should be Zero
Touch other lead to Ring 4 Reading should be Zero
 - C. Armature 4 Rings 1 Phase
This armature has two windings
One starting on Ring 1 Ending on Ring 2
One starting on Ring 3 Ending on Ring 4
Connect ohm-meter one lead to Ring 1
Other lead to Ring 2 Meter should read Zero
Other lead to Ring 3 Meter should read Inf.
Other lead to Ring 4 Meter should read Inf.
Connect one lead to Ring 3
Other lead to Ring 4 Meter should read Zero
Other lead to Ring 1 Meter should read Inf.
Other lead to Ring 2 Meter should read Inf.
 - D. Armature 4 Ring 3 Phase
Connect ohm-meter lead to Ring 1
Other lead to Ring 2 Meter should read Zero
Other lead to Ring 3 Meter should read Zero
Other lead to Ring 4 Meter should read Zero



WINPOWER CORPORATION

BULLETIN NO. 56

SUBJECT: Collector ring designation
on armature and revolving
field rotor.

DATE: December 18, 1978

ENGINEERING TECHNICAL BULLETIN

On all Winpower revolving armature and revolving field assembly collector rings are designated as shown in the figure below.

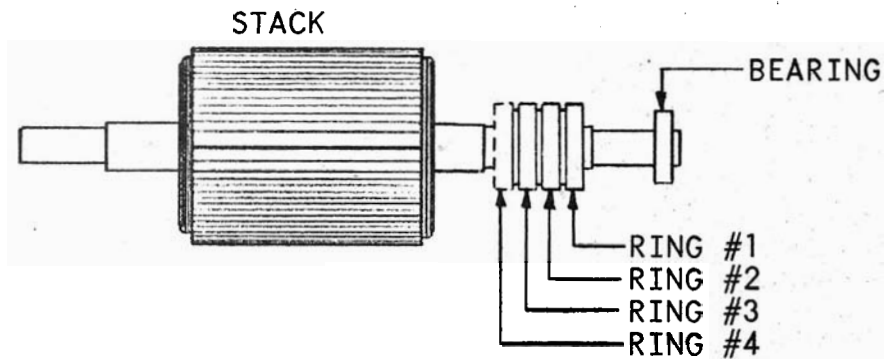


FIGURE #1 REVOLVING ARMATURE ASSEMBLY

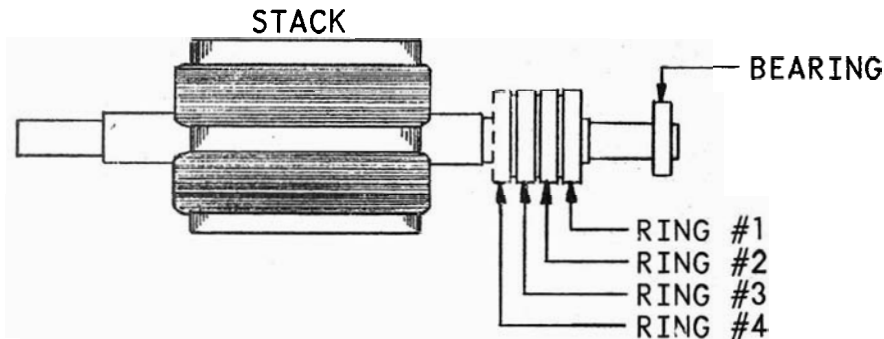


FIGURE #2 REVOLVING FIELD ASSEMBLY

Note that ring closest to the stack is designated with the highest number. In other words, the number to rings are assigned starting from the ring that is farthest from the stack.