

HWH Motor Repair (Part # RAP 90311)
Foretravel 2003 U320

Purpose: Motor drives the hydraulic pump that moves the slides in and out.

Problem: Motor quit

Diagnosis: Test light between positive lug and ground should indicate 12 volts when slide Extend/Retract button on the key pad is pressed (assumes seal is deflated and all is ready). In our case there was 12 volts, but the motor would not run.

Cause of failure: High resistance open on internal ground lug.

Motor: 12 volt, CCW rotation, 4,000 RPM, 1/4" slotted shaft, grounded through housing, cost about \$150.



There are four brushes mounted on two brackets. Two brushes for + 12 volts and two for ground. Both of the brackets have nonconductive spacers next to the motor housing. The spacer under the ground side melted in such a way that it no longer provided continuity to the housing, creating an open circuit. So even though the housing was grounded through its mounting, the motor would not run. We scraped off all the burned phenolic and replaced it with brass washers for spacing and through bolted with brass fasteners. See photos.

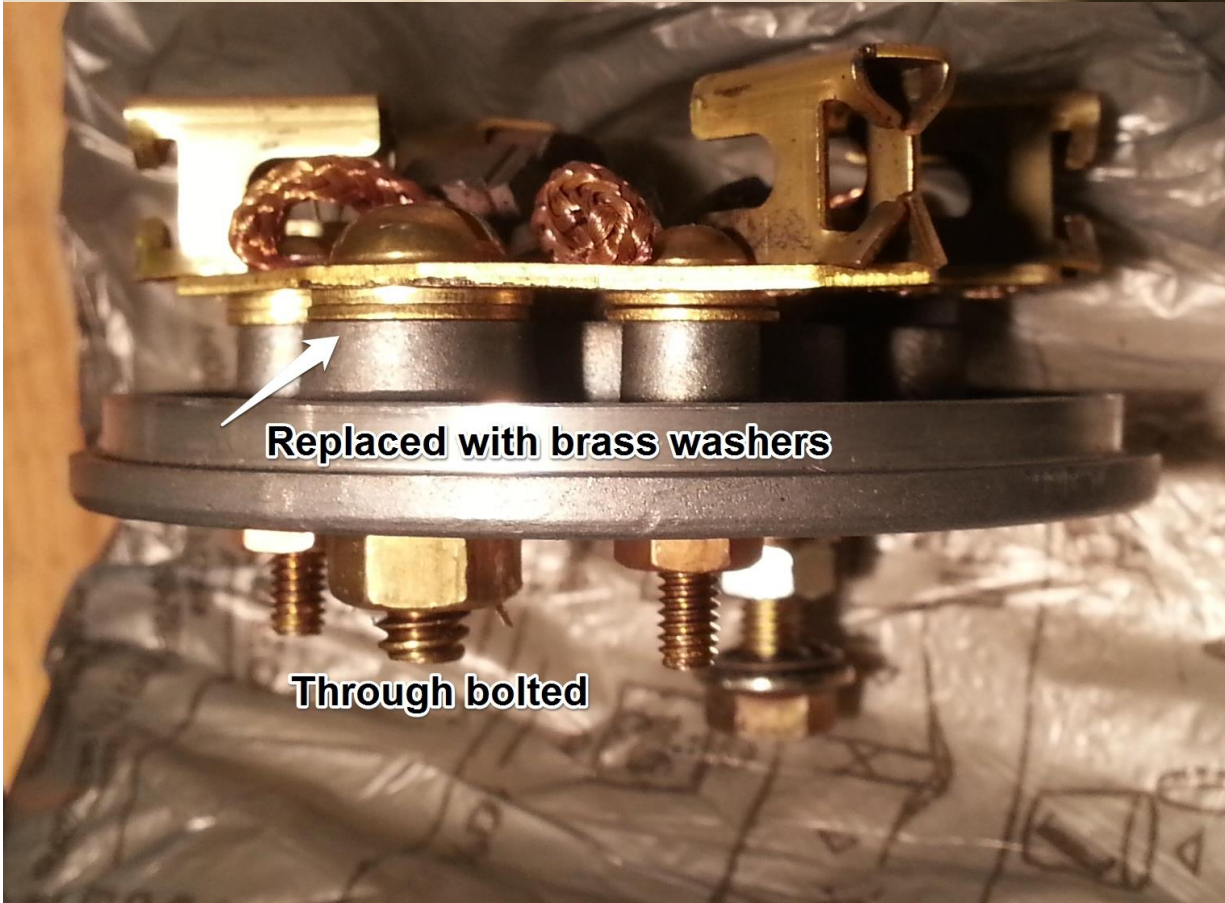


It is necessary to pull both end caps off to reassemble the brushes and commutator.





This is what melted on the Ground side.



Replaced with brass washers

Through bolted

The through bolts look a little less finished, but they won't be in the way and they will definitely insure a good ground connection.



Look for these alignment marks.

