

Problem: Hoist motor brake not releasing.

Once you have determined the hoist brake is not releasing, follow these steps to determine the cause.

Loosen four screws holding motor cover and rotate Cover counterclockwise slightly to remove. 8mm



Locate manual release handle and remove from holder clips.





Screw into threaded port of brake coil housing.

Sliding a short piece of pipe over handle for leverage will help.





Roll back rubber seal to observe the 2 metal magnetic brake rings.



To insure brake motor is good, pull release handle and spin motor fan blade at same time. If fan spins, motor is ok, if does not spin, motor is bad and would need to be replaced.



After confirming motor is mechanically ok, the next check is electrical.

Begin by removing cover to brake motor junction box. (4) 8mm bolts.

You will need to have a multimeter to Perform these checks.





Move selector to measure AC Voltage.

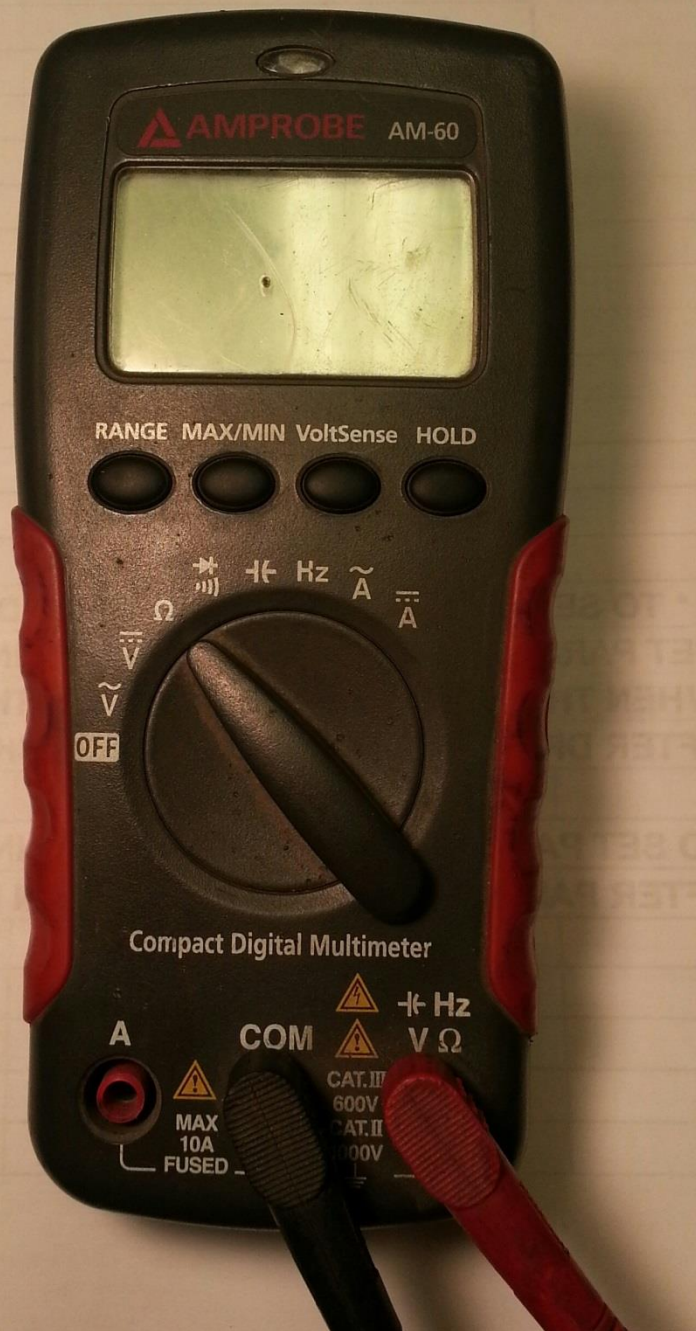


First, check main incoming power. The black and white wires, position 2 and 3. This should read 460v +/- a few volts. You do not need to loosen the wires, simply hold multimeter on the appropriate posts.

If there is not 460v coming in, the problem is therefore somewhere between the main panelbox and the brake motor. This would result in further trouble shooting in the panelbox , wiring harness , plugs etc.

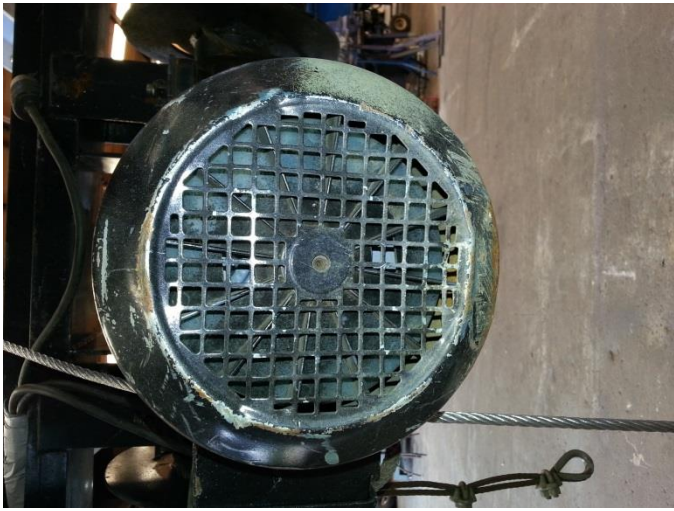


If there is 460v coming into the brake motor, the next check would be of the brake coil.



Again you will need to use your multimeter.
Set selector to measure ohms

Additionally, you will need to determine if you
Have the “older” DT motor or the “newer”
DRE motor.



The simplest way to identify is by the motor fan guard. The “older” DT motor fan guard is round. The “newer” DRE motor fan guard is hexagonal.

Also, on the motor tag, the “DT” or “DRE” is noted in the TYPE number on the motor Tag.



You first must loosen the 3 small wires from the rectifier. White from position 1, red from position 3 and blue from position 5.



Using your multimeter, hold one contactor on the small red wire and the other contactor on the small white wire.

You should get a reading of +/- 173 Ohms for the “older” DT motor or +/- 138 Ohms for the “newer” DRE motor.



Next, check the small white and small blue wires using the multimeter.

You should get a reading of +/- 518 Ohms for the "older" DT motor OR a reading of +/- 660 Ohms for the "newer" DRE motor.

If both readings check out fine, the brake **coil is good** and the rectifier **is faulty**.
Call RBW for replacement part.

If one or both of the readings do not check out, the **brake coil is faulty**.

******* In this case, we recommend that you replace both the coil and rectifier.
Call RBW for replacement parts.