



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Getting GOOD Commutation in Your DC Motors

DC motors are very ruggedly designed machines. However, they can be pretty fickle sometimes, especially when it comes to brush wear. To get maximum life out of your brushes AND maintain good DC commutation, the following is recommended:

- **Good commutator roundness**
If the commutator is not round, this increases the chances of increased brush wear on the machine, as well as an increase in arcing and sparking of the commutator, thereby destroying the commutator surface.
- **Uniform brush pressure**
Correct brush pressure ensures that the brushes last until their estimated life. This also helps to avoid commutator damage by grooving or slotting of the commutator surface
- **Good seating of the brushes to the commutator surface**
Again, this is to avoid damaging the commutator surface and prevent damage. Also, minimizes the chance of arcing and sparking of the commutator and helps maintain a good commutator film.
- **Proper undercutting of the Mica insulation**
The less Mica undercutting there is, the harder the brush type that you have to use. Harder brushes do not last anywhere near as long as a softer brush in the same system.

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or lou@pdma.com.