



Tip Of The Week

February 28, 2011

Rotor Installation, How Does It Affect Inductance?

Inductance and resistance testing of a stator-only configuration (no rotor) during QA testing is quite common at a motor repair facility. The benefit of stator only testing is that it isolates the stator windings and core from the rotor influence for independent assessment. Very often a near perfect balance in stator phase-to-phase inductance is seen with no rotor installed. After the rotor is installed however, you can certainly expect a change in both the stator's average inductance value and the inductance imbalance. Surprising to many, the average inductance values can experience either an increase or decrease depending on variables such as rotor material and air gap. The inductance imbalance percentage is expected to increase due to the rotor variances in reflected impedance and residual magnetic flux.

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.

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