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Tip Of The Week

September 25, 2017

Heavy Metal

During post-mortem root cause failure analysis involving a rotor fault zone, we often find visual evidence of a rotor anomaly in an unexpected location. Large amounts of weight added in one area of the rotor for balance is an indication of possible severe porosity. Correcting the mechanical imbalance resulting from the internal porosity will not correct the electrical imbalance that will continue to plague the health of the motor. Intermittent high vibration resulting from non-symmetrical magnetic fields will reduce the life expectancy of the bearings and even the stator winding insulation. If a motor is sent to the shop for an imbalance identified by your vibration team, remember to check the motor repair report for details available on balance improvements. Heavy Metal has its place in a concert, but not in one place at the end of your rotor.

To view a case study showing excessive weight added to a rotor to overcome a rotor anomaly, visit the PdMA YouTube channel at: https://www.youtube.com/watch?v=P4XIYg-695A&list=PLjgXwy4LaY3rMI2MNKer7SxDA50n9LMSa&index=6

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. 166 or lou@pdma.com.