



QualiTest® Diagnostics

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October 7, 2024

Matt Buda
KTG Memphis

Matt,

The following is a summary of findings from the vibration analysis performed on 10/1/24. We collected vibration data on a 1000 HP AC Motor and a 350 HP AC Motor. Below, you will find data plots along with a brief summary of our analysis.

QualiTest® uses a four step rating system for defects.

Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

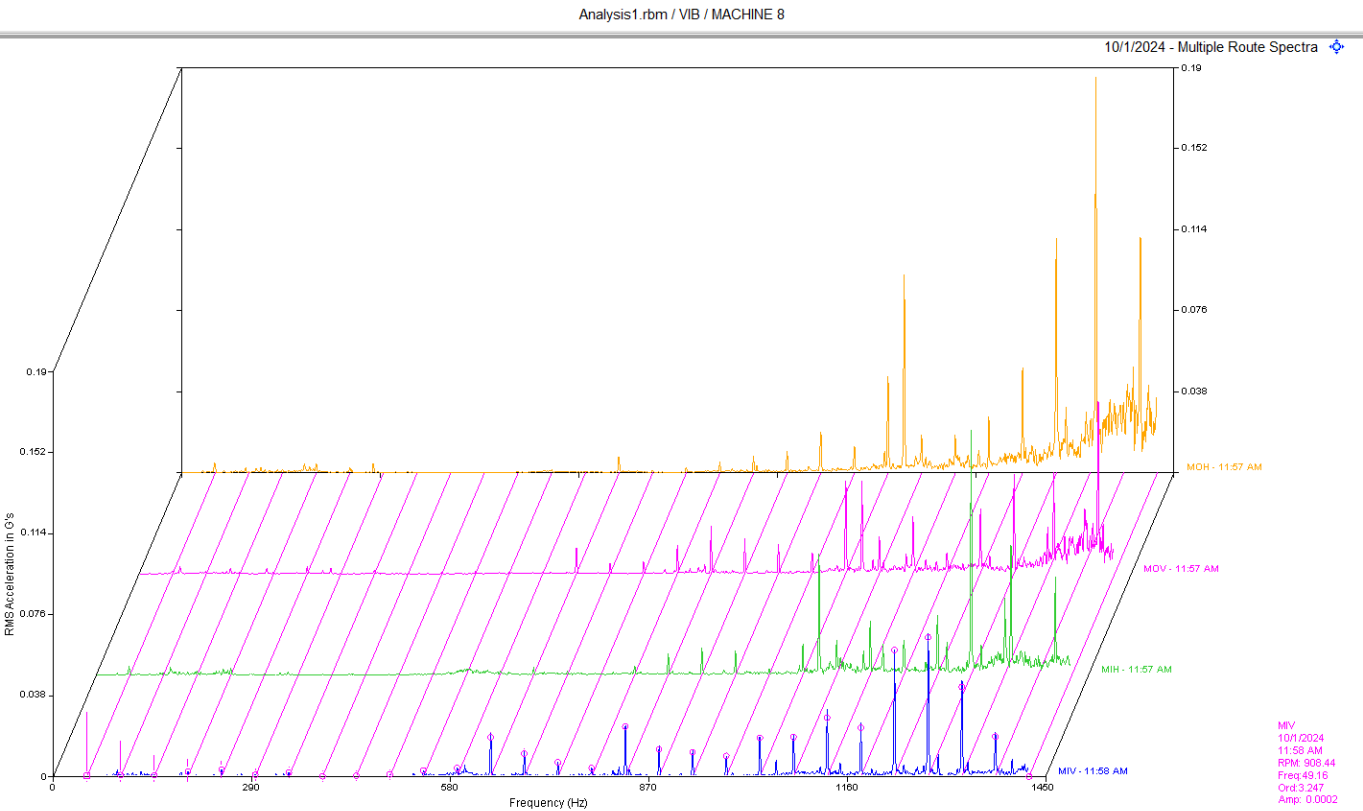
Class II: Defect (s) present that may cause problem in long term (2-6 months). Repair during normal maintenance scheduling. Continue to monitor.

Class III: Defect (s) present that may cause failure in short term (less than 2 months). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

Hi-Speed Industrial Service tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

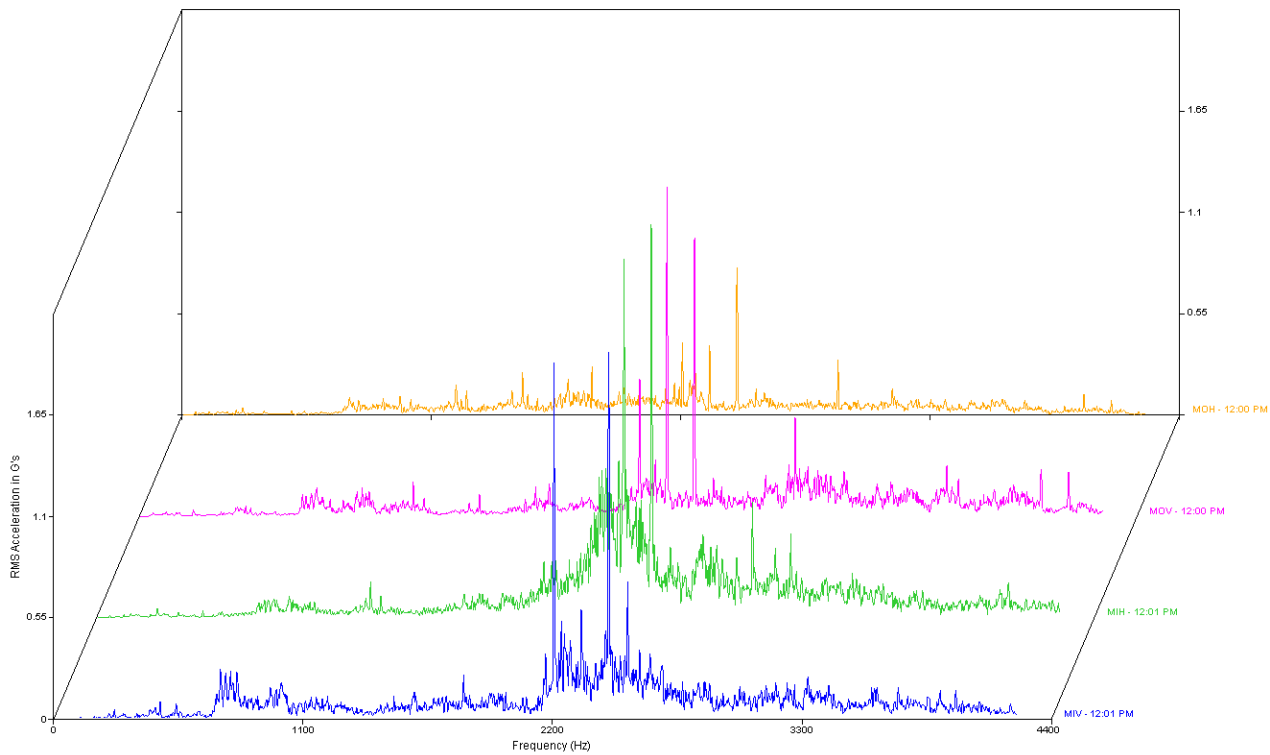
Summary



1000 HP AC Motor

Motor data shows non-synchronous peaks in motor spectra that indicate bearing defects are present in the motor bearings. Amplitudes do not appear to be at alarm levels; however, the presence of these peaks is concerning. The peaks at 3.24 orders of rpm in the higher frequency range are possible signs of electrical fluting. It is recommend that the motor be inspected for bearing issues as scheduling allows. Rated as a **CLASS II** defect.

	OVERALL LEVEL	1K-20KHz
MOH	.029 In/Sec	.760 G-s
MOV	.017 In/Sec	1.231 G-s
MIH	.019 In/Sec	2.827 G-s
MIV	.014 In/Sec	2.099 G-s



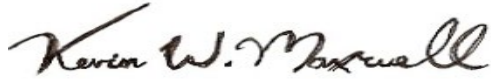
350 HP Motor

Spectral data of the motor show random noise floor with elevated acceleration amplitude. Data indicates lubrication issue and/or bearing wear. It is recommended that the motor be inspected for these types of issues as scheduling allows. Because of the high frequency amplitude, this is rated as a **CLASS III** defect.

	OVERALL LEVEL	1K-20KHz
MOH	.115 In/Sec	2.105 G-s
MOV	.171 In/Sec	3.853 G-s
MIH	.255 In/Sec	7.199 G-s
MIV	.230 In/Sec	4.986 G-s

As always, it has been a pleasure to serve KTG-Memphis. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads "Kevin W. Maxwell". The signature is fluid and cursive, with the first name "Kevin" and last name "Maxwell" clearly legible.

ISO Certified Vibration Analyst, Category III



QualiTest® Diagnostics

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