

February 1, 2021

Bio Energy

Subject: February vibration service

Most of the machines surveyed were found to be in good condition with the exception of the following:
Supporting data included.

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.

This completes our assessment of your equipment for this survey. Thank you for your business and don't hesitate to call if you have any comments or questions.

Sincerely,

David W Shook

David W. Shook
Senior Reliability Specialists

Hi-Speed Industrial Service
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Detailed Defects

PC 7215B

This motor has either an air gap imbalance between the rotor and stator or possibly an electrical imbalance due to the strong 2X line frequency vibration. Air gap issues can be caused by poor motor foot shimming, base defects, or end bell bearing bore issues. Inspect for soft foot and electrical problems that would cause phase to phase imbalance. **Rated a Class II Defect.**

PC 3110A

Time waveform is asymmetrical, and data seems to indicate a 3x RPM dominant vibration. Perform an inspection of the drivetrain components as well as all fasteners. Check the alignment if possible. **Rated a Class II Defect.**

PC 7225B

Data shows sharp impacting in the time waveform and possible bearing cage defect frequencies marked in the spectrum for the inboard pump bearing. There is a slight possibility of cavitation. We will watch this closely for changes. Ensure the bearing are lubricated. Expect to change out in the future. **Rated a Class II Defect.**

Observations

DAF Pumps

Inspect the unit fasteners and bases as time allows. **Rated a Class I Defect.**