



QualiTest® Diagnostics

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July 31, 2019

Cascades Tissue
Memphis, TN

The following is a summary of findings from the July 2019 monthly vibration survey of the Paper Machine area. The Paper Machine was operating at around **3700 FPM** during this month's survey.

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

Defects

Reel Drum

There are still some rpm harmonics present in both bearings which indicates some looseness is present. We will monitor this closely. Rated as a **CLASS II** defect.

Felt Roll 8

Drive side roll bearing is loose in the clamp. This issue needs attention soon. Rated as a **CLASS II** defect.

W2 Wire Roll

Vibration data is still showing some bearing defects with both bearings especially the tending side bearing. There is also a high axial vibration. The high axial vibration could be due to misalignment from bearing to bearing, bent shaft of the roll, or loose or flexible mounts. Inspect bearings, all mounts and fasteners and alignment of the roll as scheduling allows. Rated as a **CLASS II** defect.

W4 Wire Roll

Tending side bearing has a dominant vibration at outer race defect fundamental. This suggests defects in the outer race of the bearing. Bearing may need attention in the near future. Rated as a **CLASS II** defect.

Roto Jet Pump (Basement)

Motor and pump both appear to have increased vibration at around 2 x rpm. This may be belt/sheave related, bit could also be structural. Ensure sheaves are aligned properly with minimal angularity and offset and check belt for wear/defects. Ensure base is secure and that there are no cracks or other looseness. If all checks good, then the pump may have restricted flow. Ensure that the pump has proper suction and discharge pressures. Rated as a **CLASS II** defect.

Primary Screen #2

Gearbox is showing signs of a gear issue such wear or excessive backlash. Drive end motor bearing has excessively high temperature. Motor may also have some misalignment. We will monitor this closely. Rated as a **CLASS II** defect.

Uhle Box Vacuum Pump

Pump sheave bushing should be inspected. Bushing may be cracked or loose. Rated as a **CLASS II** defect.

Suction Press Vacuum Pump #1

Vibration data of the motor drive end bearing is suggesting a lubrication issue and also signs of bearing wear/defects. For now ensure that the drive end motor bearing had adequate grease SOON. We will monitor this closely. Rated as a **CLASS II** defect for now.

Fresh Water Booster Pump

4 x rpm vibration remains higher than normal. Data still shows signs of misalignment or coupling issue. Ensure couplings are in good order and offset and angularity is less than .003" and motor does not have a soft foot condition. Rated as a **CLASS II** defect.

Couch Helper Pump B

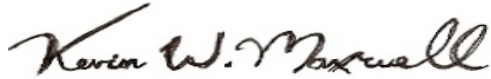
This pump rarely runs which is most likely the reason why the motor data is showing defects in the motor bearings. Ambient vibration can cause false brinelling in bearings that do not rotate for a long period of time. Motor needs attention in the near future. We will monitor this closely. Rated as a **CLASS II** defect.

Hood Exhaust Fan

Drive end fan bearing is showing signs of distress. Ensure belts are not too tight and that the bearing has clean adequate amounts of grease. Bearing temp seems high. Rated as a **CLASS II** defect.

As always, it has been a pleasure to serve the Cascades Tissue Memphis, TN Plant. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



ISO Certified Vibration Analyst, Category III



QualiTest® Diagnostics

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