

March 30, 2021

Plaskolite

Subject: March vibration report

Most of the machines surveyed were found to be in good condition, with exception of the following:

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
Senior Reliability Specialist

Hi-Speed Industrial Service
dshook@gohispeed.com

Data

Blower Slow Cooling (Lower)

The acceleration overall has dropped to 4.2 g's RMS respectively for the drive end bearing. Speed affects vibrations. It appears fluting is still the issue. We believe the bearing damage needs to be addressed in the near future. Replace the bearings or complete motor as time allows. Take steps to reduce bearing fluting going forward. **Rated a Class II Defect.**

Blower Slow Cooling (Upper)

The acceleration overall shows 2.7 g's RMS for the drive end bearing. Fluting is suspected. Speed affects vibration amplitude. No Immediate action required. **Rated a Class I Defect.**

Blower rapid Cooling (Lower)

The acceleration overall shows over 3 g's RMS for the drive end bearing. Fluting is suspected. Make sure these motor bearings are lubricated on a schedule they are equipped with grease fittings. Speed affects vibration amplitude. No Immediate action required. **Rated a Class II Defect.**

Blower rapid Cooling (Upper)

The acceleration overall shows 2.2 g's RMS for the drive end bearing. Fluting is suspected. Speed affects vibration amplitude. No Immediate action required. **Rated a Class I Defect.**

Vertical Hot water pump 4

Pump 4 has overall vibrations at almost 0.5 "/sec velocity peak. Vibrations seem to be a combination of mostly resonance and some shaft 1xRPM. Check flow and fasteners. **Rated Class I Defects.**

West Syrup Pump

Data seems to indicate gear mesh vibrations are elevation the overall pump vibrations. Make sure the coupling is in good working order. **Rated a Class I Defect.**

Overall vibrations follow:

Abbreviated Last Measurement Summary

Database: mmaold.rbm
Station: PLASKOLITE MEMPHIS
Route No. 3: PLASKOLITE NEW
Report Date: 30-Mar-21 15:11

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
5285-12 - FAN, COOLING TWR EAST		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
E1	.011 In/Sec	.0059 G-s	430.0 RPM
	OVERALL LEVEL	HFD (>5 kHz)	
E2	.010 In/Sec	.0008 G-s	
5285-21 - RETURN AIR FAN 100 AREA		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.055 In/Sec	.081 G-s	1745.0 FPM
21	.073 In/Sec	.035 G-s	
23	.077 In/Sec	.013 G-s	
71	.074 In/Sec	.033 G-s	
81	.074 In/Sec	.018 G-s	
S1100 - FLARE BLOWER		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.012 In/Sec	.018 G-s	3450.0 FPM
12	.012 In/Sec	.018 G-s	
5214-04 - EAST SYRUP COOL PUMP		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.037 In/Sec	.071 G-s	1180.0 RPM
21	.028 In/Sec	.101 G-s	
23	.018 In/Sec	.124 G-s	
31	.034 In/Sec		
61	.044 In/Sec		
71	.052 In/Sec	.018 G-s	
81	.041 In/Sec	.073 G-s	
5214-03 - MIDDLE SYRUP COOL PUMP		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.058 In/Sec	.023 G-s	1180.0 RPM
21	.054 In/Sec	.092 G-s	
23	.075 In/Sec	.060 G-s	
31	.195 In/Sec		
61	.166 In/Sec		
71	.086 In/Sec	.061 G-s	
81	.093 In/Sec	.048 G-s	
5214-01 - WEST SYRUP COOL PUMP		(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.095 In/Sec	.139 G-s	1180.0 RPM
21	.108 In/Sec	.118 G-s	
23	.133 In/Sec	.047 G-s	
31	.117 In/Sec		

61	.130 In/Sec		
71	.288 In/Sec	.500 G-s	
81	.166 In/Sec	.137 G-s	
5282-02	- PUMP #1 HOT WATER 5282-02	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.094 In/Sec	1.116 G-s	1800.0 RPM
12	.133 In/Sec	.665 G-s	
5282-05	- PUMP #4 HOT WATER 5282-05	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.495 In/Sec	.519 G-s	1800.0 RPM
12	.161 In/Sec	.703 G-s	
5282-06	- PUMP #5 HOT WATER 5282-06	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.164 In/Sec	.598 G-s	1800.0 RPM
12	.204 In/Sec	.504 G-s	
5283-01	- BLOWER, EDGE WATER REMOVAL	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.121 In/Sec	.084 G-s	3600.0 RPM
21	.112 In/Sec	.085 G-s	
23	.077 In/Sec	.206 G-s	
71	.061 In/Sec	1.619 G-s	
81	.120 In/Sec	.553 G-s	
5281-12	- BLOWER, SLOW COOLING (UPPER)	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.062 In/Sec	.847 G-s	1770.0 RPM
21	.065 In/Sec	2.769 G-s	
23	.072 In/Sec	1.384 G-s	
71	.053 In/Sec	.325 G-s	
81	.059 In/Sec	.217 G-s	
5281-13	- BLOWER, SLOW COOLING (LOWER)	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.075 In/Sec	1.279 G-s	1770.0 RPM
21	.117 In/Sec	4.260 G-s	
21H	.181 In/Sec		
23	.092 In/Sec	.868 G-s	
71	.033 In/Sec	.119 G-s	
81	.025 In/Sec	.097 G-s	
5281-14	- BLOWER, RAPID COOLING (UPPER)	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.056 In/Sec	.893 G-s	1770.0 RPM
21	.105 In/Sec	2.270 G-s	
23	.064 In/Sec	.648 G-s	
71	.032 In/Sec	.187 G-s	900.0 RPM
81	.028 In/Sec	.189 G-s	
5281-08	- BLOWER, RAPID COOLING (LOWER)	(30-Mar-21)	
	OVERALL LEVEL	1-20 KHz	
11	.036 In/Sec	1.205 G-s	1770.0 RPM
21	.081 In/Sec	3.588 G-s	
23	.060 In/Sec	.752 G-s	

71	.022 In/Sec	.177 G-s	900.0 RPM
81	.017 In/Sec	.188 G-s	
5281-10 - 200 BELT DRIVE, POLYMERIZER (30-Mar-21)			
	OVERALL LEVEL	1-20 KHz	
11	.034 In/Sec	.449 G-s	1800.0 FPM
21	.048 In/Sec	.309 G-s	
33	.0091 In/Sec	.043 G-s	
31	.015 In/Sec	.122 G-s	
61	.017 In/Sec	.024 G-s	
71	.0031 In/Sec	.0018 G-s	
81	.0029 In/Sec	.0014 G-s	

Clarification Of Vibration Units:

Acc	-->	G-s	PK
Vel	-->	In/Sec	PK
HFD	-->	G-s	PK