

August 12, 2019

ARKEMA

Subject: August week 2 vibration service report

Weekly Equipment**Agitator, Hydrogenator C 7001-01**

No legitimate vibrations were found to be above 0.17"/sec velocity peak. Spectrum appears normal for unit. No action required.

A/B Concentrator Vacuum Pump 57

Vane pass peak in the spectrum still dominates the data for the outboard pump bearing. The vibration moves with unit speed. Overall trend for the outboard pump bearing has dropped to 0.13"/sec velocity peak. External water cooling could affect the amplitudes. Non-rated.

Flash Vacuum Pump 2130-1

Vibrations in this unit appear normal. No actions required.

Air Compressor C-201

Rotor defect frequencies have decreased this survey. We will watch these units closely for change in vibrations. No immediate actions are required at this time. **Rated a Class I Defect.**

Air Compressor C-202

Vibrations in this unit appear normal. No actions required.

Air Compressor C-203

Vibrations appear normal this week. The trend clearly shows that the vibrations vary considerably over time. We still believe these motors have possible weak rotor bar end connections that cause the vibrations to fluctuate higher due to loading. We will continue to monitor this unit for changes. **Rated a Class I Defect.**

Air Compressor NASH 201-08

Vibrations in this unit appear normal. No actions required.

D Hydrogenator Agitator 9002-10

Data sets for the gearbox output top bearing show overall vibrations are just below 0.26"/sec velocity peak. Vibrations of interest were still around 11 and 278 HZ. Check the unit fasteners for tightness. **Rated a Class I Defect.**

Instrument Air Compressor new

Vibrations in this unit appear normal. No actions required.

C Concentrator Vacuum Pump 2130-1 old

Vibrations in this unit appear normal. No actions required.

Monthly Equipment this Survey on report**Middle Mixed Bed Water Pump**

The unit appears to have a strong vane pass vibration. We assume there are 5 vanes on the impeller. We recommend ensuring the pump is being operated at near the best operating point and that the pump internals are not worn. Inspect in the near future. **Rated a Class II Defect.**

An Abbreviated Last Measurement Summary follows below:

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
dshook@gohispeed.com
Hi-Speed Industrial Service

Last Monitored Machine List

Database: Arkema.rbm
Station: PEROXIDE
Route No. 4: ARK WK 2
Report Date: 12-Aug-19 11:51
Report Interval: 13-Jul-19 To 12-Aug-19

PERIODIC VIBRATION TECHNOLOGY

Collected Machine...

MACHINE ID	DESCRIPTION	NUMBER OF POINTS	LATEST DATE
-----	-----	-----	-----
7000-01	AGITATOR, HYDROGENATOR C	22 OUT OF 22	09-Aug-19
57	A/B Concentr Vac Pmp-var RPM	10 OUT OF 10	09-Aug-19
236-26	HYDRO FD PUMP S 236-26-2FLR	5 OUT OF 5	09-Aug-19
2130-1	FLASH VAP VAC PUMP-var speed	10 OUT OF 10	09-Aug-19
C-203	C-203 Comp (Old Joy)	18 OUT OF 20	09-Aug-19
C-201	C-201 Comp (Old Centac)	18 OUT OF 20	09-Aug-19
C-202	C-202 Comp (New Location)	18 OUT OF 20	09-Aug-19
new AC	INSTRUMENT AIR COMPRESSOR	18 OUT OF 18	09-Aug-19
201-08A	COMPRESSOR, NASH A 201-08A	16 OUT OF 16	09-Aug-19
9002-10	D-HYDROGENATOR AGITATOR	16 OUT OF 16	09-Aug-19
9003-01	D-HYDRO PRIMARY FILT FD PUMP	5 OUT OF 5	09-Aug-19
9001-01	D-HYDRO SECOND. FILT FD PUMP	5 OUT OF 5	09-Aug-19
192-03	Two Stage Water Pump A-WEST	5 OUT OF 5	09-Aug-19
191-07	M MIX BED WATER PUMP 191-07	5 OUT OF 5	09-Aug-19
2130-1old	C Concentrator Vacuum Pump	6 OUT OF 6	09-Aug-19

Missed Machine...

MACHINE ID	DESCRIPTION		
-----	-----		
9003-02	D-HYDRO RECYCLE PUMP	0 OUT OF	5
9002-01	D-HYDRO SPARE PUMP	0 OUT OF	5
191-13	E MIXED BED WATER PMP 191-13	0 OUT OF	5
191-14	W MIX BED WATER PUMP 191-14	0 OUT OF	5
7007-20	ABC PRIMARY FILT FD PMP-EAST	0 OUT OF	5
2130-4	ABC PRIMARY FILT FD PMP-WEST	0 OUT OF	5

Monitored Point Total = 177 OUT OF 213
Monitored Machine Total = 15 OUT OF 21