

October 25, 2019

ARKEMA

Subject: October week 4 vibration service report

Weekly Equipment

Agitator, Hydrogenator C 7001-01

No legitimate vibrations were found to be above 0.142"/sec velocity peak overall. Spectrum appears normal for unit. No action required.

A/B Concentrator Vacuum Pump 57

Overall vibrations have dropped significantly for the outboard pump bearing and is at 0.182"/sec velocity peak, at what looks to be mostly vane pass. We must note; however, that the vibration changes constantly as the vacuum breaks, so the overall reading and the data could change significantly during a short period of time. No immediate action is required at this time. **Rated a Class I Defect**.

Flash Vacuum Pump 2130-1

Overall vibrations have jumped for the outboard pump bearing and is at 0.361"/sec velocity peak, at what looks to be mostly vane pass. Process issue. No actions required.

Air Compressor C-201

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 No actions required.

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 No actions required.

Air Compressor NASH 201-08

Vibrations in this unit appear normal. No actions required.

7030 Ryburn Drive Millington, TN 38053 P. 901-873-5300 F. 901-873-5301

D Hydrogenator Agitator 9002-10

Vibration data shows a significant drop in vibrations this survey. Highest amplitude is only 0.183"/sec velocity peak for the gearbox top measurement. Process change is suspected for the drop. **Still rated a Class I Defect Though.**

C Concentrator Vacuum Pump 2130-1 old

Vibrations in this unit appear normal. No actions required.

Monthly Equipment this Survey on report

No monthly equipment are on the 4th week route.

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

Abbreviated Last Measur	ement Summary *****	
Database: Arkema.rbm Station: PEROXIDE		
Route No. 6: ARKEMA WK4		
Report Date: 25-Oct-19 15:0	4	
- MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
7000-01 - AGITATOR, HYDROGENATOR C	(25-Oct-19) OVERALL LEVEL	
01 - DRIVESHAFT BRG-NORTH-SOUTH	.036 In/Sec	
02 - DRIVESHAFT BRG-EAST-WEST	.046 In/Sec	
03 - DRIVESHAFT BRG-VERTICAL	.040 In/Sec	
11 - C Hydro Agitator MOTOR OB HORIZ	.043 In/Sec	
11H - MOTOR OB HORIZ - HI FREQ	.039 In/Sec	
12 - C Hydro Agitator MOTOR OB VERT	.047 In/Sec	
12H - MOTOR OB VERT - HI FREQ	.052 In/Sec	
13 - C Hydro Agitator Motor OB Axial	.091 In/Sec	
13H - MOTOR OB AXIAL - HI FREQ	.053 In/Sec	
21 - C Hydro Agitator MOTOR IB HORIZ	.043 In/Sec	
21H - MOTOR IB HORIZ - HI FREQ	.042 In/Sec	
22 - C Hydro Agitator MOTOR IB VERT	.083 In/Sec	
22H - MOTOR IB VERT - HI FREQ	.063 In/Sec	
23 - C Hydro Agitator Motor IB Axial	.062 In/Sec	
23H - MOTOR IB AXIAL - HI FREQ	.064 In/Sec	
31 - C Hydro Agitator GrBx In Horizon	.074 In/Sec	
32 - C Hydro Agitator GrBx In VERT	.066 In/Sec	
33 - C Hydro Agitator GrBx In Axial	.059 In/Sec	
41 - C Hydro Agitator GrBx Top Horizo	.051 In/Sec	
42 - C Hydro Agitator GrBx Top VERT	.037 In/Sec	
53 - C Hydro Agitator GrBx Top Axial	.142 In/Sec	
53L - C Hydro Agitator GrBx Top Axial	.138 In/Sec	
57 - A/B Concentr Vac Pmp-var RPM	(25-Oct-19)	
11	OVERALL LEVEL	
11 - Motor OB HOR	.061 In/Sec	1 00
11.0	OVERALL LEVEL	1-20 KHz
11H - Motor OB HOR	.058 In/Sec	.251 G-s
12 - Motor OB VERT	.054 In/Sec	
12H - Motor OB VERT	.058 In/Sec	.324 G-s
13 - Motor OB AXIAL	.058 In/Sec	
21 - Motor IB HOR	.064 In/Sec	
23 - Motor IB AXIAL	.051 In/Sec	
71 - Compressor IB HOR	.117 In/Sec	
81 - Compressor OB Horiz	.182 In/Sec	
83 - Compressor OB Axial	.041 In/Sec	
2130-1 - FLASH VAP VAC PUMP-var speed	(25-Oct-19) OVERALL LEVEL	
11 - Motor OB HOR	.121 In/Sec	
12 - Motor OB VERT	.081 In/Sec	
21 - Motor IB HOR	.083 In/Sec	
22 - Motor IB VERT	.091 In/Sec	

23	-	Motor IB AXIAL	.120	In/Sec	
71	-	Compressor IB HOR	.286	In/Sec	
72	-	Compressor IB VERT	.150	In/Sec	
81	-	Compressor OB Horiz	.361	In/Sec	
82	-	Compressor OB VERT	.184	In/Sec	
83	-	Compressor OB Axial	.108	In/Sec	
C-20)3	- C-203 Comp (Old Joy)	(25-Oct	-19) I IEVEI	1_20 847
11	_		017		389 C-c
12	_	MOTOR OB NOR	.017	In/Sec	157 C-a
12	_	MOTOR OB VERI	.034	In/Sec	2 996 C-a
21	-	MOTOR OB ANTAL	.090	In/Sec	2.990 G-S
22	_	MOTOR ID HOR	.020	In/Sec	.589 G-S
22	_	MOTOR ID VERI	.021	In/Sec	. 500 G-S
23 71M	-	COND MALE CUREM TO HOD	.020	In/Sec	.445 G-S
72M	_	COMP MALE SHAFT ID NOR	.031	In/Sec	
721	-	COMP MALE SHAFT ID VERI	.039	In/Sec	
/ 3M	-	COMP MALE SHAFT IS AXIAL	.054	In/Sec	
0 OM	-	COMP MALE SHAFT OB HOR	.050	In/Sec	
82M	-	COMP MALE SHAFT OB VERT	.059	In/Sec	
83M	-	COMP MALE SHAFT OB AXIAL	.040	In/Sec	
115.	-	COMP FEMALE SHAFT IB HOR	.044	In/Sec	
725	-	COMP FEMALE SHAFT IB VERT	.059	In/Sec	
73F	-	COMP FEMALE SHAFT IB AXIAL	.094	In/Sec	
81F	-	COMP FEMALE SHAFT OB HOR	.041	In/Sec	
82F	-	COMP FEMALE SHAFT OB VERT	.052	In/Sec	
C-20)1	- C-201 Comp (Old Centac)	(25-0ct	-19)	
		-	OVERAL	T. T.EVET.	1_20 80-
			0 V DIGID		I-ZU KHZ
11	_	MOTOR OB HOR	.073	In/Sec	.716 G-s
11 12	-	MOTOR OB HOR MOTOR OB VERT	.073	In/Sec In/Sec	.716 G-s 1.666 G-s
11 12 13		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL	.073 .089 .037	In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s
11 12 13 21	- - -	MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR	.073 .089 .037 .085	In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s
11 12 13 21 22	- - - -	MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT	.073 .089 .037 .085 .044	In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s
11 12 13 21 22 23	- - - -	MOTOROBHORMOTOROBVERTMOTOROBAXIALMOTORIBHORMOTORIBVERTMOTORIBAXIAL	.073 .089 .037 .085 .044 .082	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s .316 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR	.073 .089 .037 .085 .044 .082 .038	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s .666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT	.073 .089 .037 .085 .044 .082 .038 .047	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL	.073 .089 .037 .085 .044 .082 .038 .047 .070	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s .666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M 83M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB XIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP MALE SHAFT OB AXIAL	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M 83M 71F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP MALE SHAFT OB AXIAL COMP FEMALE SHAFT IB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 72M 81M 82M 83M 71F 72F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M 83M 71F 72F 73F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT OB AXIAL COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M 83M 71F 72F 73F 81F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT OB AXIAL COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT OB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 82M 83M 71F 72F 73F 81F 82F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB XIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP MALE SHAFT OB VERT COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 72F 73F 81F 82F		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	.716 G-s 1.666 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s
11 12 23 71M 72M 73M 81M 83M 71F 72F 73F 81F 82F C-20		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB VERT COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP MALE SHAFT OB AXIAL COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1-20 KHz .716 G-s 1.666 G-s .316 G-s .564 G-s 2.084 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 72F 73F 81F 82F C-20		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB VERT COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location)	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .316 G-s .564 G-s 2.084 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 72F 73F 81F 82F C-20 11		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB VERT COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB AXIAL COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT IB AXIAL COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .121	In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 73F 81F 82F C-20 11 12		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT OB AXIAL COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB HOR MOTOR OB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 1-20 KHz 1.933 G-s 3.161 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 73F 81F 82F C-20 11 12 13 21		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT OB AXIAL COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB HOR MOTOR OB AXIAL MOTOR OB AXIAL	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131 .080	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 1-20 KHz 1.933 G-s 3.161 G-s 2.972 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 73F 81F 82F C-20 11 12 13 21 22		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT OB AXIAL COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB KERT MOTOR OB AXIAL MOTOR IB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131 .080 .067	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 1-20 KHz 1.933 G-s 3.161 G-s 2.972 G-s 1.333 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 73F 81F 82F C-20 11 12 13 21 22 23		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP MALE SHAFT OB AXIAL COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB HOR MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131 .080 .067 .045	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 1.933 G-s 3.161 G-s 2.972 G-s 1.333 G-s .144 G-s
11 12 13 21 22 23 71M 72M 73M 81M 83M 71F 73F 81F 82F C-20 11 12 13 21 22 23 71		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP MALE SHAFT OB AXIAL COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB HOR MOTOR OB AXIAL MOTOR IB HOR MOTOR IB HOR MOTOR IB AXIAL COMP MALE SHAFT LE VOD	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131 .080 .067 .045 .038	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 2.084 G-s 1.933 G-s 3.161 G-s 2.972 G-s 1.333 G-s .144 G-s .919 G-s
11 12 13 21 22 23 71M 72M 72M 73M 81M 82M 83M 71F 72F 73F 81F 82F C-20 11 12 13 21 22 23 71M		MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB VERT COMP MALE SHAFT IB VERT COMP MALE SHAFT OB HOR COMP MALE SHAFT OB VERT COMP FEMALE SHAFT IB HOR COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT IB VERT COMP FEMALE SHAFT OB HOR COMP FEMALE SHAFT OB VERT - C-202 Comp (New Location) MOTOR OB HOR MOTOR OB HOR MOTOR OB VERT MOTOR OB AXIAL MOTOR IB HOR MOTOR IB VERT MOTOR IB VERT MOTOR IB VERT MOTOR IB AXIAL COMP MALE SHAFT IB HOR COMP MALE SHAFT IB HOR COMP MALE SHAFT IB HOR	.073 .089 .037 .085 .044 .082 .038 .047 .070 .038 .055 .072 .046 .044 .053 .043 .051 (25-Oct OVERAL .053 .131 .080 .067 .045 .038 .047	In/Sec In/Sec	1-20 KHz .716 G-s .316 G-s .564 G-s .465 G-s 2.084 G-s 2.084 G-s 2.084 G-s 1.933 G-s 3.161 G-s 2.972 G-s 1.333 G-s .144 G-s .919 G-s

```
73M- COMPMALE SHAFT IB AXIAL.086In/Sec81M- COMPMALE SHAFT OB HOR.040In/Sec82M- COMPMALE SHAFT OB VERT.051In/Sec83M- COMPMALE SHAFT OB AXIAL.070In/Sec71F- COMPFEMALE SHAFT IB HOR.032In/Sec72F- COMPFEMALE SHAFT IB VERT.043In/Sec73F- COMPFEMALE SHAFT IB AXIAL.059In/Sec81F- COMPFEMALE SHAFT OB HOR.034In/Sec82F- COMPFEMALE SHAFT OB VERT.057In/Sec
                                      - COMPRESSOR, NASH A 201-08A (25-Oct-19)
201-08A- COMPRESSOR, NASH A 201-08A(25-060-15)<br/>OVERALL LEVEL11- Nash Compr A Motor OB Horiz.053 In/Sec12- Nash Compr A Motor OB Vertical.070 In/Sec12H - Nash Compr A Motor OB Vertical.062 In/Sec13- Nash Compr A Motor OB Axial.119 In/Sec21- Nash Compr A Motor IB Horiz.066 In/Sec22- Nash Compr A Motor IB VERT.098 In/Sec23- Nash Compr A Motor IB VERT.098 In/Sec23- Nash Compr A COMP IB HORIZ.130 In/Sec71- Nash Compr A COMP IB HORIZ.132 In/Sec72- Nash Compr A COMP IB Vertical.190 In/Sec73- Nash Compr A COMP IB Vertical.102 In/Sec81- Nash Compr A COMP OB HORIZ.139 In/Sec82H- Nash Compr A COMP OB Vertical.238 In/Sec83H- Nash Compr A COMP OB AXIAL.108 In/Sec
  201-08A
  83H - Nash Compr A COMP OB AXIAL
                                                                                                                                                  .108 In/Sec
  9002-10 - D-HYDROGENATOR AGITATOR
                                                                                                                                           (25-Oct-19)
                                                                                                                                              OVERALL LEVEL
                                                                                                                                             .079 In/Sec
  11 - MOTOR OUTBOARD HORIZONTAL
11- MOTOR OUTBOARD HORIZONTAL.079 In/Sec21- MOTOR INBOARD HORIZONTAL.073 In/Sec23- motor inboard axial.046 In/Sec31- GEARBOX INPUT SHAFT -HORIZONTAL.153 In/Sec31H - GEARBOX INPUT SHAFT -HORIZONTAL.119 In/Sec31L - GEARBOX INPUT SHAFT -N-S-LOW FRQ.135 In/Sec51- GEARBOX TOP PLATE- E-W.164 In/Sec51L - GEARBOX OUTPUT SHAFT-E-W-LOW FRQ.126 In/Sec52 - GEARBOX OUTPUT SHAFT-E-W-LOW FRQ.126 In/Sec53 - GEARBOX OUTPUT SHAFT -VERTICAL.052 In/Sec61 - GEARBOX OUTPUT SHAFT -VERTICAL.052 In/Sec61L - GEARBOX OUTPUT SHAFT-E-W-LOW FRQ.125 In/Sec81 - AGIT INTERMED BRG @ SEAL- N-S.054 In/Sec82 - AGIT INTERMED BRG @ SEAL- E-W.048 In/Sec83 - AGIT INTERMED BRG @ SEAL- VERT.034 In/Sec
  2130-101d - C Concentrator Vacuum Pump
                                                                                                                                             (25-Oct-19)
                                                                                                                                                  OVERALL LEVEL
  11 - Motor OB HOR
                                                                                                                                                     .049 In/Sec
                                                                                                                                                     .053 In/Sec
  21 - Motor IB HOR
  23 - Motor IB AXIAL
                                                                                                                                                    .150 In/Sec
  71 - Compressor IB HOR
                                                                                                                                                  .121 In/Sec
                                                                                                                                           .176 In/Sec
  81 - Compressor OB Horiz
```

.082 In/Sec

83 - Compressor OB Axial

Clarification Of Vibration Units: Acc --> G-s PK Vel --> In/Sec PK
