Hi-Speed Industrial Service
7030 Ryburn Dr
Millington, Tn 38053
901-873-5300

AC Recondition Repair Report

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ALCOA REMEDIATION
1401 BAUXITE CUTOFF
BAUXITE, AR 72011

Priorities Found: **4 - High** **12 - Good**

General

1.	Job Number	**98080**
2.	Report Date	**04/08/2021**
3.	Customer	**ALCOA REMEDIATION**

Name Plate Information

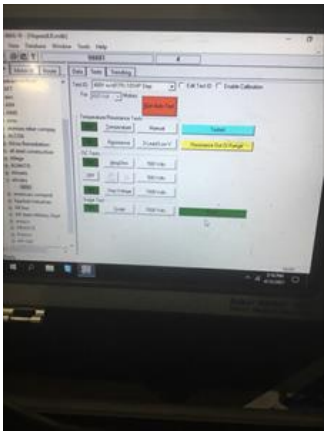
4.	Manufacturer	**U.S. MOTORS**	P5

5.	Model	**TYPE: TC**
6.	Serial Number	
7.	Horsepower	**200**
8.	KW	
9.	Volts	**460**
10.	Amps	**228**
11.	RPM	**1780**
12.	Frame	**447T**
13.	Enclosure	**TEFC**
14.	Cycles	**60**
15.	Phase	**3**

	16.	Service Factor	**1.15**	
	17.	Motor Mount Position		
Initial Inspection				
	18.	Number of Leads	**6**	
	19.	Lead Length	**8 Inches**	
	20.	Lead Size		
🔴	21.	Lead Condition	**(F) Fail**	
		Leads #2&8 need to be re-leaded.		
	22.	Lead Markings	**1,2,3. 7,8,9.**	
	23.	Lug Size, Condition, and Type		
	24.	Winding RTD's		
	25.	Winding Rtd's Condition		
	26.	Shaft Run Out		
	27.	Does Shaft Turn Freely	**yes**	
	28.	Does Shaft Have Visible Damage	**no**	
	29.	Bearing Rtd's		
	30.	Bearing Rtd's Condition		
	31.	Contamination		
		Yes. Grease contaminated.		
🟢	32.	Frame Condition	**(P) Pass**	P106

🔴	33.	Fan Condition	**(F) Fail**	
	34.	Broken or missing components		
Initial Electric Test				
	35.	Resistance to Ground		
	36.	Winding Resistance 1-2		
	37.	Winding Resistance 2-3		
	38.	Winding Resistance 1-3		
	39.	Resistive Imbalance		
	40.	Hi-Pot		

41.	Surge Test	**(P) Pass**	P58



42.	Stator Condition	**good**	P65

43.	Failure Location	**leads 2&8**
Initial Rotor Inspection		
44.	Rotor Type	**squirrel cage**
45.	Air Gap <10% Variation	
46.	Number of Rotor Bars	
47.	Number of Broken Rotor Bars	**0**
48.	Growler Test	**(P) Pass**
49.	Rotor Condition	**(P) Pass**
Mechanical Inspection		
50.	Bearing Manufacture	**FAG**

51.	Bearing DE Size	**6220 C3**	P15

52.	Bearing DE Type	**regular ball bearing**
53.	DE Bearing Qty.	**1**
54.	Bearing ODE Size	**6313 C3** P43

55.	Bearing ODE Type	**regular ball bearing**
56.	ODE Bearing Qty.	**1**
57.	Insulated Bearing	**no**
58.	Lubrication Type	**grease**
59.	Grease Condition	**(F) Fail**
	Dirty and contaminated	
60.	Bearing Retainers	**(Y) Yes**
61.	Shaft Grounding Device	**(N) No**
62.	DE Seal	
63.	DE Seal Type/Size	
64.	ODE Seal	
65.	ODE Seal Type/Size	

Root Cause of Failure

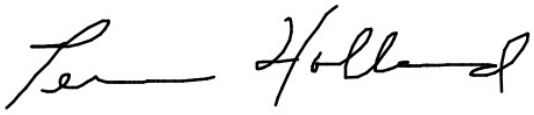
66.	Component Failure	**leads**
67.	Cause of Failure	
	Most probable cause of failure is a loose connection between leads 2&8. Also the fan assembly was cracked and needs to be Replaced.	
68.	Comments	
	Stator windings surge tested good. Machine fits check good.	

	69.	Service Technician	**Terrence Holland**

Machine Fit Inspection Report

	70.	Shaft Run Out	
	71.	Initial Shaft Run Out	
	72.	Final Shaft Run Out	
●	73.	DE Bearing Shaft Fit	**(P) Pass**
	74.	DE Initial Shaft Bearing Fit Size 1	**3.9372 "**
	75.	DE Initial Shaft Bearing Fit Size 2	**3.9372 "**
	76.	DE Initial Shaft Bearing Fit Size 3	**3.9373 "**
	77.	DE Finial Shaft Bearing Fit Size 1	
	78.	DE Finial Shaft Bearing Fit Size 2	
	79.	DE Finial Shaft Bearing Fit Size 3	
●	80.	ODE Bearing Shaft Fit	**(P) Pass**
	81.	ODE Initial Shaft Bearing Fit Size 1	**2.559 "**
	82.	ODE Initial Shaft Bearing Fit Size 2	**2.5589 "**
	83.	ODE Initial Shaft Bearing Fit Size 3	**2.5588 "**
	84.	ODE Finial Shaft Bearing Fit Size 1	
	85.	ODE Finial Shaft Bearing Fit Size 2	
	86.	ODE Finial Shaft Bearing Fit Size 3	
	87.	DE Air Seal Shaft Fit	
	88.	DE Initial Air Seal Shaft Size	
	89.	DE Final Air Seal Shaft Size	
	90.	ODE Air Seal Shaft Fit	
	91.	ODE Initial Air Seal Shaft Size	
	92.	ODE Final Air Seal Shaft Size	
●	93.	DE Endbell Fit	**(P) Pass**
	94.	DE Initial Endbell Fit Size 1	**7.0869 "**
	95.	DE Initial Endbell Fit Size 2	**7.0867 "**
	96.	DE Initial Endbell Fit Size 3	**7.0867 "**
	97.	DE Final Endbell Fit Size 1	
	98.	DE Finial Endbell Fit Size 2	
	99.	DE Final Endbell Fit Size 3	
	100.	DE Endbell Fit Insulated	**(NA) Not Applicable**
	101.	DE Endbell Air Seal Fit	
	102.	Initial Endbell Air Seal Fit Size	
	103.	Finial Endbell Air Seal Fit Size	
●	104.	ODE Endbell Fit	**(P) Pass**
	105.	ODE Initial Endbell Fit Size 1	**5.5123 "**
	106.	ODE Initial Endbell Fit Size 2	**5.5123 "**
	107.	ODE Initial Endbell Fit Size 3	**5.5125 "**
	108.	ODE Final Endbell Fit Size 1	
	109.	ODE Final Endbell Fit Size 2	
	110.	ODE Final Endbell Fit Size 3	

111.	ODE Endbell Fit Insulated	**(NA) Not Applicable**
112.	ODE Endbell Air Seal Fit	
113.	ODE Initial Endbell Seal Fit Size	
114.	ODE Finial Endbell Seal Fit Size	
115.	Foot Flatness	**(P) Pass**
116.	Foot Condition	**(P) Pass**
117.	Flange Condition	**(NA) Not Applicable**
118.	Service Technician	**Terrence. Holland**



Balancing Report

119.	Balance Type	
120.	Balance Operating Speed	
121.	Start Left End	
122.	Start Right End	
123.	Balancing Specification	
124.	Finish Left End	
125.	Finish Right End	
126.	Service Technician	

Assembly and Final Test

127.	Meggar Testing Reading	
128.	Surge Test	
129.	Hi-Pot	
130.	Winding Resistance 1-2	
131.	Winding Resistance 2-3	
132.	Winding Resistance 1-3	
133.	Test Run Voltage Phase A	
134.	Test Run Amps A	
135.	Test Run Voltage Phase B	
136.	Test Run Amps B	
137.	Test Run Voltage Phase C	
138.	Test Run Amps C	
139.	DE Horizontal Vibration Reading	
140.	DE Vertical Vibration Reading	
141.	DE Axial Vibration Reading	
142.	ODE Horizontal Vibration Reading	
143.	ODE Vertical Vibration Reading	
144.	ODE Axial Vibration Reading	
145.	Ambient Temp at start of Test Run	
146.	Temp at 5 minutes	
147.	Temp at 10 minutes	
148.	Temp at 15 minutes	
149.	Temp at 20 minutes	
150.	Temp at 25 minutes	
151.	Temp at 30 minutes	

152.	Temp at 35 minutes
153.	Temp at 40 minutes
154.	Temp at 45 minutes
155.	Temp at 50 minutes
156.	Temp at 55 minutes
157.	Temp at 60 minutes
158.	Motor Paint
159.	Service Technician