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

AC Recondition Repair Report

FolderID: 100634
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Phelps Fan Manufacturing Co.
10701 Interstate 30
Little Rock, AR 72209

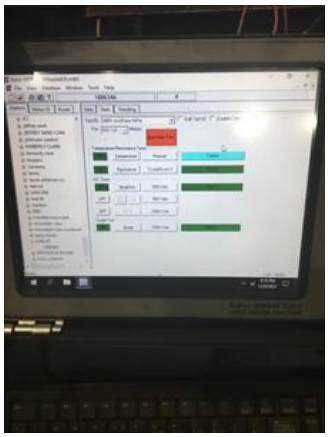
Priorities Found: **2 - High** **15 - Good**

General

1.	Job Number	**100634**
2.	Report Date	**12/08/2022**
3.	Customer	**PHELPS FAN**

Name Plate Information

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



5.	Model	
6.	Serial Number	**A06-A2830476-6T**
7.	Horsepower	**125**
8.	KW	
9.	Volts	**460**
10.	Amps	**148**
11.	RPM	**1780**
12.	Frame	**444T**
13.	Enclosure	**TE**
14.	Cycles	**60**
15.	Phase	**3**
16.	Service Factor	**1.15**
17.	Motor Mount Position	

Initial Inspection

18.	Number of Leads	**6**	P13
	1,2,3 & 7,8,9		

19.	Lead Length	**6 Inches**	
20.	Lead Size		
21.	Lead Condition	**(P) Pass**	
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	**0.002**	
27.	Does Shaft Turn Freely	**yes**	
28.	Does Shaft Have Visible Damage	**no**	P94

29.	Bearing Rtd's		
30.	Bearing Rtd's Condition		
31.	Contamination		P104

32. Frame Condition **(P) Pass** P106

33. Fan Condition **(F) Fail** P109

Destroyed! Fan # 375880

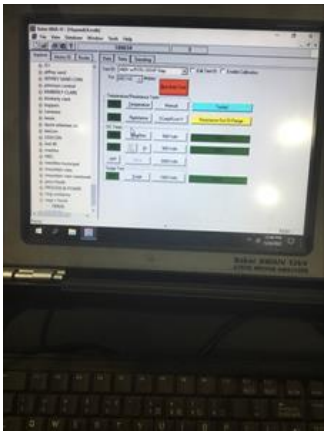
34. Broken or missing components P113

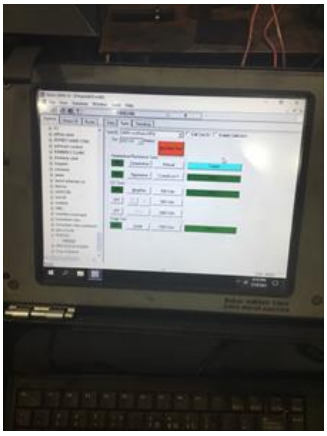
Fan

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	P58





	42.	Stator Condition	**pass**
	43.	Failure Location	P68

Initial Rotor Inspection			
	44.	Rotor Type	**squirrel cage laminate**
	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	**NTN**
	51.	Bearing DE Size	**6220**

52.	Bearing DE Type	**regular ball bearing**	P23

53.	DE Bearing Qty.	**1**	
54.	Bearing ODE Size	**6313**	
55.	Bearing ODE Type	**regular ball bearing**	P53

56.	ODE Bearing Qty.	**1**	
57.	Insulated Bearing	**none**	
58.	Lubrication Type	**grease**	
59.	Grease Condition	**(F) Fail**	P74

Dirty and contaminated.

60. Bearing Retainers **(Y) Yes** P80

61. Shaft Grounding Device **(NA) Not Applicable**

62. DE Seal **(Y) Yes**

Replace lip seal

63. DE Seal Type/Size **lip seal** P90

64. ODE Seal **(Y) Yes**

65.	ODE Seal Type/Size	**lip seal**	P102

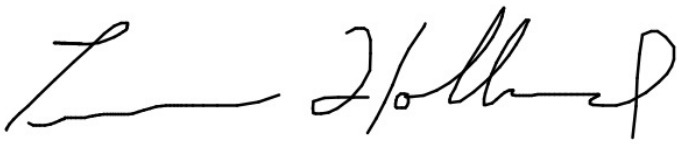
Root Cause of Failure

66.	Component Failure	**Fan blade destroyed. Bearing grease contaminated.**
67.	Cause of Failure	
68.	Comments	
69.	Service Technician	**Terrence Holland**

Machine Fit Inspection Report

70.	Shaft Run Out	**(P) Pass**
71.	Initial Shaft Run Out	**0.002 "**
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	**2.5593 "**
82.	ODE Initial Shaft Bearing Fit Size 2	**2.5593 "**
83.	ODE Initial Shaft Bearing Fit Size 3	**2.5592 "**
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	**7.0866 "**
	95.	DE Initial Endbell Fit Size 2	**7.0865 "**
	96.	DE Initial Endbell Fit Size 3	**7.0866 "**
	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	
	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	**5.5118 "**
	106.	ODE Initial Endbell Fit Size 2	**5.512 "**
	107.	ODE Initial Endbell Fit Size 3	**5.5126 "**
		Needs to be buffed out.	
	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	
	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