



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

AC Recondition Repair Report

FolderID: 98063
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**ARKANSAS INDUSTRIAL
MACHINERY**
3804 N. NONA ST
NORTH LITTLE ROCK, AR 72118

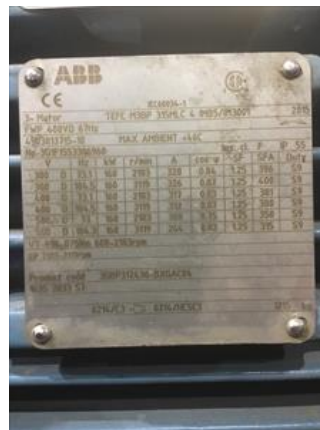
Priorities Found: ● 3 - High ● 11 - Good

General

- | | |
|----------------|------------|
| 1. Job Number | 98063 |
| 2. Report Date | 04/06/2021 |
| 3. Customer | |

Name Plate Information

- | | | |
|-----------------|-----|----|
| 4. Manufacturer | ABB | P5 |
|-----------------|-----|----|



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5. Model	M3BP315MLC41MB5/IM3001
6. Serial Number	3GF1F1553306960
7. Horsepower	
8. KW	160
9. Volts	400
10. Amps	317
11. RPM	2183
12. Frame	315MLC
13. Enclosure	TEFC
14. Cycles	73.1
15. Phase	3
16. Service Factor	1.25
17. Motor Mount Position	
Initial Inspection 	
18. Number of Leads	6
19. Lead Length	
20. Lead Size	
21. Lead Condition	(P) Pass
22. Lead Markings	
23. Lug Size, Condition, and Type	
24. Winding RTD's	
25. Winding Rtd's Condition	
26. Shaft Run Out	
27. Does Shaft Turn Freely	no

28. Does Shaft Have Visible Damage

yes

P94



29. Bearing Rtd's

30. Bearing Rtd's Condition

31. Contamination

P104

Grease contaminated.



32. Frame Condition

(P) Pass

33. Fan Condition

(P) Pass

34. Broken or missing components

P113




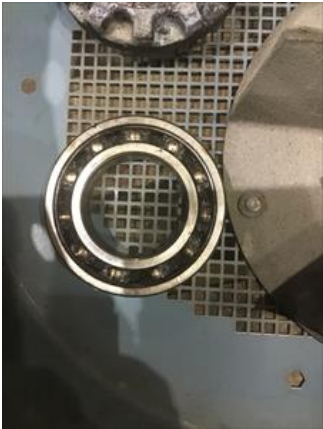
D.E. Bearing cap



Initial Electric Test

35. Resistance to Ground

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36.	Winding Resistance 1-2		
37.	Winding Resistance 2-3		
38.	Winding Resistance 1-3		
39.	Resistive Imbalance		
40.	Hi-Pot		
41.	Surge Test	(F) Fail	
42.	Stator Condition	good	
43.	Failure Location	windings on the drive end.	
Initial Rotor Inspection			
44.	Rotor Type	squirrel cage	P4
			
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	SKF	
51.	Bearing DE Size	6214 2Z	
52.	Bearing DE Type	regular ball bearing	
53.	DE Bearing Qty.	1	
54.	Bearing ODE Size	6214 2Z	P43
			
55.	Bearing ODE Type	regular ball bearing	
56.	ODE Bearing Qty.	1	

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57.	Insulated Bearing	no
58.	Lubrication Type	grease
<div><div></div></div> 59.	Grease Condition	(F) Fail
<div><div></div></div>	Contaminated	
<div><div></div></div> 60.	Bearing Retainers	(Y) Yes
61.	Shaft Grounding Device	(NA) Not Applicable
62.	DE Seal	(NA) Not Applicable
63.	DE Seal Type/Size	
64.	ODE Seal	
65.	ODE Seal Type/Size	
Root Cause of Failure		
66.	Component Failure	D.E bearing caused rotor to drop.
67.	Cause of Failure	D.E.bearing failed.
68.	Comments	D.E. bearing suffered catastrophic cage failure causing the rotor, to drop onto the stator iron core. This caused the destruction of the motor windings, the bearing cap, both housing fits and the drive end shaft. The excessive damage caused by this incident makes it impossible to determine exact root cause of failure.
69.	Service Technician	Terrence Holland
<div><div></div></div>		
Machine Fit Inspection Report		
70.	Shaft Run Out	
71.	Initial Shaft Run Out	
72.	Final Shaft Run Out	
<div><div></div></div> 73.	DE Bearing Shaft Fit	(F) Fail
74.	DE Initial Shaft Bearing Fit Size 1	
75.	DE Initial Shaft Bearing Fit Size 2	
76.	DE Initial Shaft Bearing Fit Size 3	
77.	DE Finial Shaft Bearing Fit Size 1	
78.	DE Finial Shaft Bearing Fit Size 2	
79.	DE Finial Shaft Bearing Fit Size 3	
<div><div></div></div> 80.	ODE Bearing Shaft Fit	(P) Pass
81.	ODE Initial Shaft Bearing Fit Size 1	2.7654 "
82.	ODE Initial Shaft Bearing Fit Size 2	2.7655 "
83.	ODE Initial Shaft Bearing Fit Size 3	2.7655 "
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	

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93.	DE Endbell Fit	(P) Pass
94.	DE Initial Endbell Fit Size 1	4.9222 "
95.	DE Initial Endbell Fit Size 2	4.922 "
96.	DE Initial Endbell Fit Size 3	4.9221 "
97.	DE Final Endbell Fit Size 1	
98.	DE Final 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.	Final Endbell Air Seal Fit Size	
104.	ODE Endbell Fit	
105.	ODE Initial Endbell Fit Size 1	"
106.	ODE Initial Endbell Fit Size 2	
107.	ODE Initial Endbell Fit Size 3	
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 Final Endbell Seal Fit Size	
115.	Foot Flatness	(NA) Not Applicable
116.	Foot Condition	(NA) Not Applicable
117.	Flange Condition	(P) Pass
118.	Service Technician	Terrence Holland



Replace broken d.e. bearing cap. Rewind stator and minor core repair. Repair d.e. shaft bearing journal and shoulder.

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. | Megger Testing Reading |
| 128. | Surge Test |
| 129. | Hi-Pot |
| 130. | Winding Resistance 1-2 |
| 131. | Winding Resistance 2-3 |

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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