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

AC Inspection as Found

ALCOA REMEDIATION
1401 BAUXITE CUTOFF
BAUXITE, AR 72011

FolderID: 104397
FormID: 23969420

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	TYPE-CJ4B
Description:	75 HP PACEMAKER

Hi-Speed Job Number:	104397
Manufacturer:	Other
Product Number:	19325J1M37
Serial Number:	TYPE-CJ4B
HP/kW:	75 (HP)
RPM:	1775 (RPM)
Frame:	365T
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	TEFC
# of Leads:	3
J-box Included:	Complete
Coupling/Sheave:	Coupling
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

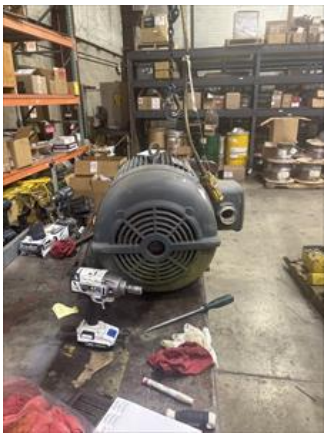
Priorities Found: **15 - Good**

Overall Condition

1.	Report Date	**04/04/2025**

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P45



	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
	5.	Distance from the end of the shaft to the Coupling/Sheave	**0.375 inches** P76

	6.	Is this a UL Listed Motor	**(No) No**
	7.	Is the motor water cooled or can be pressure checked before teardown	**(No) No**
Initial Mechanical/Electrical			
	8.	Does Shaft Turn Freely?	**(Y) Yes**
	9.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	10.	Does Shaft Have Visible Damage?	**(No) No**
	11.	Assembled Shaft Runout	**0.001 Inches**
	12.	Assembled Shaft End Play	**inches**
	13.	Air Gap Variation <10%	

14.	Lead Condition	**(P) Pass**	P69
	Short		

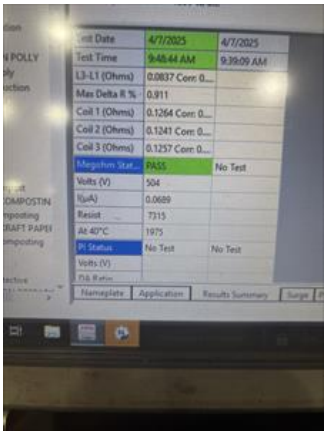
15.	Lead Length	**7.5 Inches**
16.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**
17.	Lead Numbers	**no numbers 3 lead**
18.	Are the Leads insulated with Chico or other material	**(No) No**
19.	Frame Condition	**good** P113

20.	Fan Condition	P115
	Fan has been cracked and welded previous repair.had shim between fan bore and shaft.	

21.	Does motor have internal fan?	**(No) No**
22.	Broken or Missing Components	**fan cracked welded**

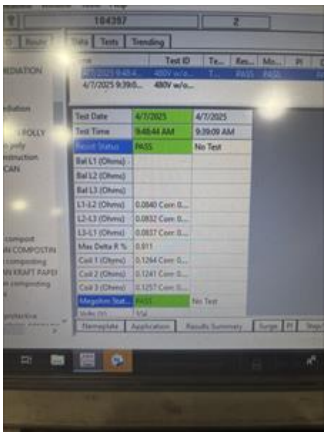
Initial Electrical Inspection

23. Insulation Resistance/Megger **Megohms** P8

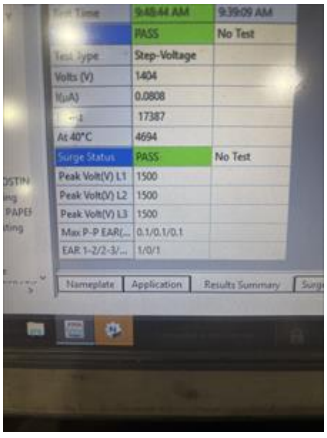


24. Winding Resistance P20

1-2	1-3	2-3



25. Perform Surge Test **(P) Pass** P57



26. Number of Stator Slots **36** P75

27.	Stator Condition	P84

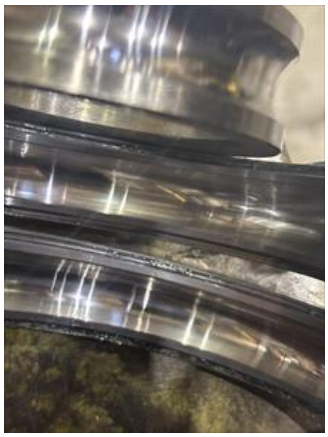
28.	Stator Thermistors/Ohms	**na**
29.	Stator Overloads/Ohms	**na**

Mechanical Inspection

30.	Drive End Bearing Brand		P12

31.	Drive End Bearing Number-	**6313**	
32.	Drive End Bearing Qty.	**1**	
33.	Drive End Bearing Type	**(Ball) Ball Bearing**	
34.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
35.	Drive End Bearing Insulation or Grounding Device?	**na**	
36.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**no**	
37.	Drive End Bearing Condition	**normal wear**	P82

38.	Opposite Drive End Bearing Brand		
39.	Opposite Drive End Bearing Number-	**6213**	
40.	Opposite Drive End Bearing Qty.	**1**	
41.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
42.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
43.	Opposite Drive End Bearing Insulation or Grounding Device?	**na**	
44.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**na**	
45.	Opposite Drive End Bearing Condition	**normal wear**	P117



46.	Drive End Seal		
47.	Opposite Drive End Seal		

Rotor Inspection

48.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3

49.	Growler Test	**(Pass) Pass**	
50.	Number of Rotor Bars	**28**	
51.	Rotor Condition	**iron rust**	P41

52.	List the Parts needed for the Repair Below ***1-6313*** ***1-6213***	
53.	Signature of Technician that Disassembled Motor	**Shon Jones**

Mechanical Fits- Rotor

54.	Shaft Runout	**inches**
55.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

56. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

57. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

58. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5596	**2.5595**	**2.5595**

59.	Drive End Bearing Shaft Fit Condition	**(P) Pass**

60. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5592	**2.5591**	**2.5591**

61. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

62. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

63. Drive End - Endbell Bearing Fit P2

0 Degrees	60 Degrees	120 Degrees
5.5127	**5.5124**	**5.5125**

64. Drive End - Endbell Bearing Fit Condition **(P) Pass** P15

65. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.7251	**4.7249**	**4.7252**

66. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

67. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
good	**good**

68. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

69. List Machine Work Needed Below

70.	Technician	**Shon**

Root Cause of Failure

71. Failure locations

72. Root cause of failure

Normal bearing wear and dirty.

Dynamic Balance Report

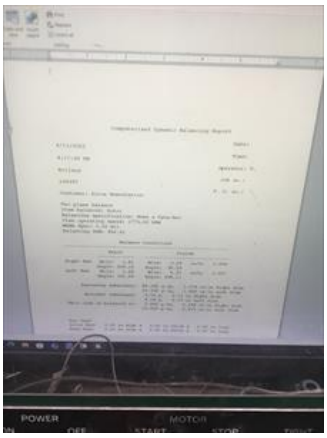
73. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

See below

74. Initial Balance Readings P11

Drive End	Opposite Drive End
1.41	**1.28**

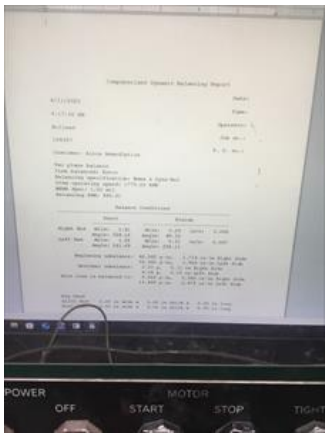


75. Final Balance Readings P27

Drive End	Opposite Drive End
.29	**.31**

After fan balanced to. 0.29

Rotor and fan combo.



Rotor.

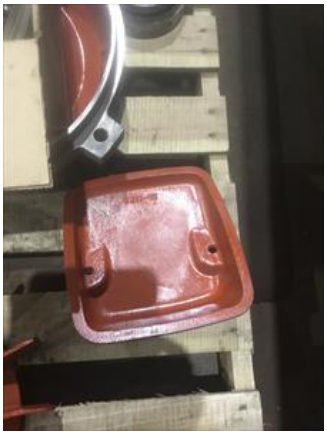
76. Technician **Terrence Holland**

Assembly

77. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland**

78. Photograph All Major Components prior to assembly P17



79.	Final Insulation Resistance Test	**Megohms**	P31

80.	Assembled Shaft Endplay	**0 inches**	
81.	Assembled Shaft Runout	**0.002 inches**	
82.	Test Run Voltage		P55

Volts	Volts	Volts
458	**456**	**460**

83.	Test Run Amperage		P65

Amps	Amps	Amps
30.8	**29.4**	**28.6**

84.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.04	**0.04**	**0.02**	
85.	Opposite Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.02	**0.03**	**0.05**	
86.	Ambient Temperature - Fahrenheit			
87.	Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
88.	Opposite Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
89.	Document Final Condition with Pictures after paint			**see below**

Co sign: RRW