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

AC Inspection as Found

Almatis Inc/RCP Bauxite (10014)
4701 Alcoa Road
Bauxite, AR 72011

FolderID: 103040
FormID: 20517314

AC Inspection - Rev. 2

Location: LR Motor Shop
Serial Number:
Description: 60HP EMERSON EVAL

Hi-Speed Job Number:	103040
Manufacturer:	Other
Product Number:	8P60P2C
Spec/ID #:	BJ53
HP/kW:	60 (HP)
RPM:	1785 (RPM)
Frame:	364T
Voltage:	460
Current:	69.0 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	3
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	05/29/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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: **3 - High** **8 - Good**

Overall Condition

1.	Report Date	**06/05/2024**

2. Nameplate Picture P37

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

	4.	Describe the Overall Condition of the Equipment as Received ***Good condition. Passed all electrical tests. Requires new bearings and fan to recondition. Bearing cap bolts from opposite drive end were missing. Bearing cap spun on shaft but didn't cause any damage to shaft. Fins on rotor were ground down but not an issue.***	

Initial Mechanical/Electrical

●	5.	Does Shaft Turn Freely?	**(Y) Yes**	
●	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
	7.	Does Shaft Have Visible Damage?	**(No) No**	
●	8.	Assembled Shaft Runout	**0.001 Inches**	
	9.	Assembled Shaft End Play	**0 inches**	
	10.	Air Gap Variation <10%	**No Provisions for measurement**	
●	11.	Lead Condition	**(P) Pass**	P69

	12.	Lead Length	**10 Inches**	
●	13.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
		5/16"		
	14.	Lead Numbers	**1-3**	
	15.	Frame Condition	**Pass**	

16. Fan Condition **(F) Fail** P115

17. Broken or Missing Components **Lifting eye** P122

Drilled and tapped.

Bearing cap bolts missing on ODE.

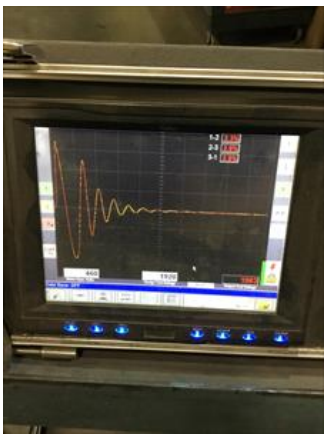
Initial Electrical Inspection

18. Insulation Resistance/Megger **92000 Megohms** P8

19. Winding Resistance P20

1-2	1-3	2-3
.10037	**.10013**	**.10032**

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



21. Number of Stator Slots **48**

22. Stator Condition P84

23.	Stator Thermistors/Ohms	**N/A**	
24.	Stator Overloads/Ohms	**N/A**	

Mechanical Inspection

25.	Drive End Bearing Brand	**MLK**	P12

26.	Drive End Bearing Number-	**6313 C3**	
27.	Drive End Bearing Qty.	**1**	
28.	Drive End Bearing Type	**(Ball) Ball Bearing**	
29.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
30.	Drive End Bearing Insulation or Grounding Device?	**Nine**	
31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**None**	
32.	Drive End Bearing Condition	**Normal wear**	P82

33.	Opposite Drive End Bearing Brand	**MLK**	P92

34.	Opposite Drive End Bearing Number-	**6313 C3**	
35.	Opposite Drive End Bearing Qty.	**1**	
36.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
37.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
38.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	
40.	Opposite Drive End Bearing Condition	**Normal wear**	P118

41.	Drive End Seal	**Labyrinth**	P120

42.	Opposite Drive End Seal	**labyrinth**	P123

Rotor Inspection

43.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
44.	Growler Test	**(Pass) Pass**	
45.	Number of Rotor Bars	**56**	
46.	Rotor Condition		P41

47. List the Parts needed for the Repair Below

6313 C3 x2
3/4 eye bolt
Fan

48. Signature of Technician that Disassembled Motor **Brandon Woodard**

Mechanical Fits- Rotor

49.	Shaft Runout	**0.001 inches**	
50.	Rotor Runout		

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.001**	**0.001**

51. Coupling Fit Closest to Bearing Housing P33

0 Degrees	90 Degrees	120 Degrees
2.375	**2.375**	**2.375**

52. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.375	**2.375**	**2.375**

53. Drive End Bearing Shaft Fit P79

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

Tolerance is 2.5592-2.5597

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

55. Opposite Drive End Bearing Shaft Fit P89

0 Degrees	60 Degrees	120 Degrees
2.5598	**2.5598**	**2.5598**

Tolerance is 2.5592-2.5597

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

57. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit P2

0 Degrees	60 Degrees	120 Degrees
5.1125	**5.1125**	**5.1125**

Tolerance is 5.5118-5.5128

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

60. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
5.1126	**5.1126**	**5.1126**

Tolerance is 5.5118-5.5128

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

62. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
Pass	**Pass**

63. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

64. List Machine Work Needed Below

None

65. Technician **Brandon Woodard**

Root Cause of Failure

66. Failure locations

67. Root cause of failure