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

AC Inspection as Found

UNITED SOLUTIONS
1052 INDUSTRIAL PARK RD
SARDIS, MS 38666

FolderID: 154620
FormID: 23267099

AC Inspection - Rev. 2

Location:	Motor Shop
Serial Number:	

Hi-Speed Job Number:	154620
Manufacturer:	Other
HP/kW:	115 (kW)
RPM:	2500 (RPM)
Voltage:	Other
Current:	205 (Amps)
Phase:	Three
Hz:	125 (Hz)
# of Leads:	3
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	02/03/2025
Bearing RTDs:	No
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High** **8 - Good**

Overall Condition

1. Report Date **02/03/2025**
2. Nameplate Picture P2

3. Photos of all six sides of the machine. P3

	4.	Describe the Overall Condition of the Equipment as Received ***Motor was full of water and megged zero before initial tear down, bake and retest to determine if motor needs to be rewound or not*** ***After baking motor it is in need of a rewind***	

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	**0.001 inches**
	10.	Air Gap Variation <10%	**no provisions for measures**
🟢	11.	Lead Condition	**(P) Pass**
	12.	Lead Length	**6 Inches**
🔴	13.	Does it have Lugs?, If so what is the Stud Size? ***1/2"***	**(Yes) Yes**
	14.	Lead Numbers	**U,V,W**

15.	Stator Temperature Detector Rating and Function		P1200

Quantity	Rating	Quantity Passed
2		

16.	Frame Condition	**Good**
17.	Fan Condition	**(N) NA**
18.	Does motor have internal fan?	**(No) No**
19.	Broken or Missing Components	**none**

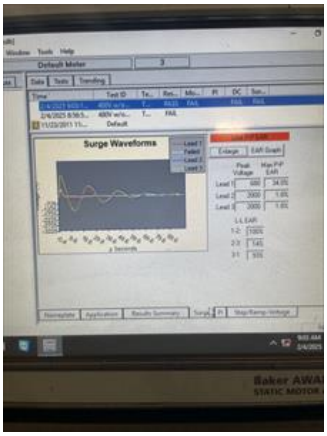
Initial Electrical Inspection

20.	Insulation Resistance/Megger	**0 Megohms**
21.	Winding Resistance	

1-2	1-3	2-3
0	**0**	**0**

Winding resistance tripped out due to current overload

22.	Perform Surge Test	**(F) Fail**	P25



23.	Number of Stator Slots	**36**
24.	Stator Condition	**acceptable**
25.	Stator Thermistors/Ohms	**na**
26.	Stator Overloads/Ohms	**na**

Mechanical Inspection

27.	Drive End Bearing Brand	**Fag**

28.	Drive End Bearing Number-	**6313-2RSR-C3**	P31
	Sealed bearing		

29.	Drive End Bearing Qty.	**1**
30.	Drive End Bearing Type	**(Ball) Ball Bearing**
31.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
32.	Drive End Bearing Insulation or Grounding Device?	**none**
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washers** P36

34.	Drive End Bearing Condition	**good**
35.	Opposite Drive End Bearing Brand	**Fag**
36.	Opposite Drive End Bearing Number-	**6311-2RSR-C3** P39
	Sealed bearing	

37.	Opposite Drive End Bearing Qty.	**1**	
38.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
39.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
40.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**	P44

42.	Opposite Drive End Bearing Condition	**good**	
43.	Drive End Seal	**none**	
44.	Opposite Drive End Seal	**none**	

Rotor Inspection

45.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**	

46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**48**
48.	Rotor Condition	**acceptable**
49.	List the Parts needed for the Repair Below ***6313-2RSR-C3 (sealed)*** ***6311-2RSR-C3(sealed)***	
50.	Signature of Technician that Disassembled Motor	**Joe Shurtz**

Mechanical Fits- Rotor

51.	Shaft Runout			
52.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
53.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
54.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
55.	Drive End Bearing Shaft Fit			P66
	0 Degrees	60 Degrees	120 Degrees	
	2.5592	**2.5592**	**2.5592**	
	Tolerance is 2.5592-2.5597			

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

57. Opposite Drive End Bearing Shaft Fit P68

0 Degrees	60 Degrees	120 Degrees
2.1654	**2.1654**	**2.1654**

Tolerance is 2.1655-2.1660

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

59. Shaft Air Seal Fits

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

Mechanical Fits- Bearing Housings

60. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.5123	**5.5123**	**5.5123**

Tolerance is 5.5118.5.5128

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

62. Opposite Drive End - Endbell Bearing Fit P73

0 Degrees	60 Degrees	120 Degrees
4.7255	**4.7255**	**4.7255**

Tolerance is 4.7244-4.7253. .0002 over tolerance recommend no machine work

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

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
N/A	**Pass**

65.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
	Pass	**Pass**
66.	List Machine Work Needed Below	
	None	
67.	Technician	**Brandon Woodard**

Root Cause of Failure

68.	Failure locations	
	Motor is grounded	
69.	Root cause of failure	
	Motor is grounded	