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

AC Inspection as Found

Sage V Foods
5901 SLOAN DRIVE
LITTLE ROCK, AR 72206

FolderID: 103385
FormID: 21312427

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	EF5T46663H-F4-8-8/20
Description:	0.5HO SWECO MOTOR EVAL

Hi-Speed Job Number:	103385
Manufacturer:	Other
Serial Number:	EF5T46663H-F4-8-8/20
HP/kW:	0.5 (HP)
RPM:	1160 (RPM)
Frame:	143TZX
Voltage:	460
Current:	1.45
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	TENV
# of Leads:	3
J-box Included:	None
Coupling/Sheave:	None
Date Received:	08/15/2024
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: **5 - High** **8 - Good**

Overall Condition

1.	Report Date	**08/21/2024**

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2. Nameplate Picture P37

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

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4.	Describe the Overall Condition of the Equipment as Received ***Dirty and locked up***	
5.	Report Date [COPY]	
Initial Mechanical/Electrical		
6.	Does Shaft Turn Freely?	**(N) No**
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
8.	Does Shaft Have Visible Damage?	**(No) No**
9.	Assembled Shaft Runout	**Inches**
10.	Assembled Shaft End Play	**inches**
11.	Air Gap Variation <10%	

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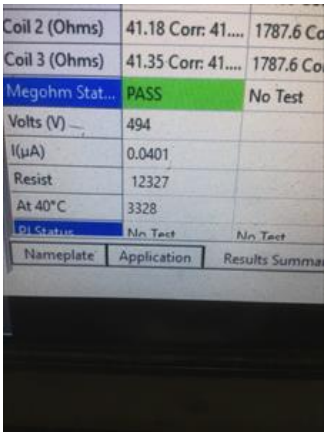
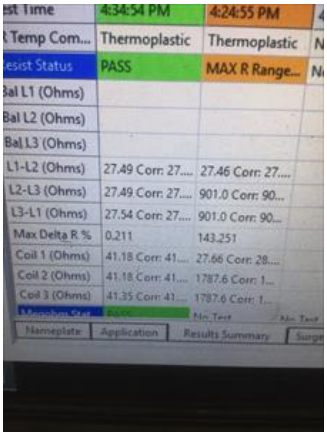
12.	Lead Condition	**(F) Fail**	
	Leads were cut showing bare wires and one was blown in half		
13.	Lead Length	**24 Inches**	
14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
15.	Lead Numbers	**1-3**	
16.	Frame Condition	**pass**	
17.	Fan Condition	**(N) NA**	
18.	Broken or Missing Components	**1 j-box cover bolt**	

Initial Electrical Inspection

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



20.	Winding Resistance			P20
	1-2	1-3	2-3	



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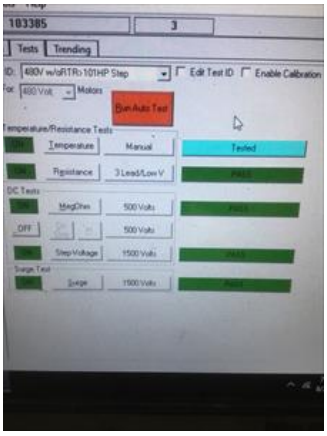
21.	Perform Surge Test	**(P) Pass**	P57



22.	Number of Stator Slots	**36**
23.	Stator Condition	**pass**
24.	Stator Thermistors/Ohms	
25.	Stator Overloads/Ohms	

Mechanical Inspection

26.	Drive End Bearing Brand	**FAG**
27.	Drive End Bearing Number-	**22308**
28.	Drive End Bearing Qty.	**1**
29.	Drive End Bearing Type	**(Tapered) Tapered Roller Bearing**
30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
31.	Drive End Bearing Insulation or Grounding Device?	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**
33.	Drive End Bearing Condition	P83

Contamination and wear

34.	Opposite Drive End Bearing Brand	**FAG**
35.	Opposite Drive End Bearing Number-	**NU307**
36.	Opposite Drive End Bearing Qty.	**1**
37.	Opposite Drive End Bearing Type	**(Roller) Roller Bearing**
38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
39.	Opposite Drive End Bearing Insulation or Grounding Device?	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**

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41. Opposite Drive End Bearing Condition

Contamination

42. Drive End Seal — **national**

340853

43. Opposite Drive End Seal — **national**

340853

Rotor Inspection

44. Rotor Type/Material — **(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**

45. Growler Test — **(Pass) Pass**

46. Number of Rotor Bars

47. Rotor Condition — **pass**

48. List the Parts needed for the Repair Below

22308-E1-XL-T41A
NU307
SEAL- National 340853x2
New cord 4/c 12awg
New snap rings

49. Signature of Technician that Disassembled Motor — **Cw**

Mechanical Fits- Rotor

50. Shaft Runout — **inches**

51. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

52. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

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54.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.5782	**1.5782**	**1.5781**	
55.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
56.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.3785	**1.3784**	**1.3785**	
57.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

59.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.5415	**3.5415**	**3.5415**	
60.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**
61.	Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.1493	**3.1493**	**3.1493**	
62.	Opposite Drive End - Endbell Bearing Fit Condition			**(P) Pass**
63.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		

Pass

64.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
65.	List Machine Work Needed Below			
66.	Technician			**Cw**

Co sign: RRW

Root Cause of Failure

67. Failure locations

Bearings and cord

68. Root cause of failure

Cord was cut and bearings have contaminants

Dynamic Balance Report

69.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
70.	Initial Balance Readings		
	Drive End	Opposite Drive End	

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71.	Final Balance Readings	
	Drive End	Opposite Drive End
72.	Technician	

Assembly

73.	QC Check All Parts for Cleanliness Prior to Assembly	
74.	Photograph All Major Components prior to assembly	P17

75.	Final Insulation Resistance Test	**Megohms**
76.	Assembled Shaft Endplay	
77.	Assembled Shaft Runout	

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78.	Test Run Voltage			P56
	Volts	Volts	Volts	
	457	**456**	**459**	

79.	Test Run Amperage			
	Amps	Amps	Amps	
	1	**1.1**	**1.1**	
80.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
81.	Opposite Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
82.	Ambient Temperature - Fahrenheit			
83.	Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
84.	Opposite Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
85.	Document Final Condition with Pictures after paint		**see below**	
86.	Final Pics and QC Review		**Terrence Holland**	P132

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