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: 104183
FormID: 23480703

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	10-0000-0086
Description:	25 HP SCHAEFFLER

Hi-Speed Job Number:	104183
Serial Number:	10-0000-0086
HP/kW:	25 (HP)
RPM:	1775 (RPM)
Frame:	284T
Voltage:	230 / 460
Current:	62/31 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1
Enclosure:	TE
# of Leads:	9
J-box Included:	Half
Coupling/Sheave:	None
Date Received:	02/21/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Shaft Machined Fit Repairs Required:	Yes
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High** **7 - Good**

Overall Condition

1.	Report Date	**02/21/2025**

2. Nameplate Picture P37

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

	4.	Describe the Overall Condition of the Equipment as Received ***Dirty/rusted***	

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	**Inches**	
	9.	Assembled Shaft End Play	**0 inches**	
	10.	Air Gap Variation <10%		
●	11.	Lead Condition	**(P) Pass**	P69

	12.	Lead Length	**12 Inches**	
●	13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
	14.	Lead Numbers	**1-9**	
	15.	Frame Condition	**pass**	
	16.	Fan Condition	**(N) NA**	
●	17.	Does motor have internal fan?	**(No) No**	
	18.	Broken or Missing Components	**ODE housing**	
		Has mount bolt hole broken off		

Initial Electrical Inspection

	19.	Insulation Resistance/Megger	**Megohms**	
	20.	Winding Resistance		

1-2	1-3	2-3

21.	Perform Surge Test	**(NA) Not Applicable**	
22.	Number of Stator Slots	**48**	
23.	Stator Condition	**rewind**	
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms		

Mechanical Inspection

26.	Drive End Bearing Brand	**FAG**	P12

27.	Drive End Bearing Number-	**6311 2Z/C3**	
28.	Drive End Bearing Qty.	**1**	
29.	Drive End Bearing Type	**(Ball) Ball Bearing**	
30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
31.	Drive End Bearing Insulation or Grounding Device?	**Aegis ring**	P64

32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	

33.	Drive End Bearing Condition	**water contaminated grease**	P82

34.	Opposite Drive End Bearing Brand	**unreadable**	
35.	Opposite Drive End Bearing Number-	**6309 2Z/C3**	P99

36.	Opposite Drive End Bearing Qty.	**1**	
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P114

41.	Opposite Drive End Bearing Condition	**water contaminated grease**	
42.	Drive End Seal	**none**	
43.	Opposite Drive End Seal	**none**	

Rotor Inspection

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

45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**40**
47.	Rotor Condition	**pass**
48.	List the Parts needed for the Repair Below	

6309&6311 2Z/C3 bearings.
Replace ODE housing with broken off ear.
Replace aegis ring: shaft measurement is 2.7140
Rewind stator and replace in pro seal on DE housing.

49.	Signature of Technician that Disassembled Motor	**Terrence Holand**

Mechanical Fits- Rotor

50.	Shaft Runout	**0.002 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

54.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
2.1663	**2.1664**	**2.1662**

55.	Drive End Bearing Shaft Fit Condition		**(F) Fail**
	Oversized. Max allowed is 2.6660		

56.	Opposite Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
1.7723	**1.7722**	**1.7722**

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

Bad, lip worn in

60. Drive End - Endbell Bearing Fit Condition **(F) Fail**

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad, lip worn in.

62. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail**

63. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**na**

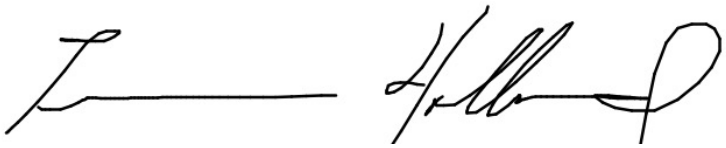
64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below

Machine D.E housing fit.
D.E housing fit is oversized

66. Technician **Terrence Holland**



Root Cause of Failure

67. Failure locations

Windings shorted.

68. Root cause of failure

Excessive water moisture inside stator windings.

Dynamic Balance Report

69. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

70. Initial Balance Readings

Drive End	Opposite Drive End

71. Final Balance Readings

Drive End	Opposite Drive End

72. Technician

Rewind

73.	Core Test Results - Watts loss per Pound		
	Pre-Burnout	Post Burnout	
74.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
75.	Post Rewind Electrical Test- Insulation Resistance		
76.	Post Rewind Polarization Index		
77.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
78.	Post Rewind Surge Test		
79.	Post Rewind Hi-Pot		
80.	Technician		

Mechanical Fits- Rotor - Post Repair

81.	Shaft Runout Post Repair		
82.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
83.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
84.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
85.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
87.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
88.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

89.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
90.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
91.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	

92.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
93.	End Bell Repair Sign-off		
Assembly			
94.	QC Check All Parts for Cleanliness Prior to Assembly		
95.	Photograph All Major Components prior to assembly		
96.	Final Insulation Resistance Test		
97.	Assembled Shaft Endplay		
98.	Assembled Shaft Runout		
99.	Test Run Voltage		
	Volts	Volts	Volts
100.	Test Run Amperage		
	Amps	Amps	Amps
101.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
102.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
103.	Ambient Temperature - Fahrenheit		
104.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
105.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
106.	Document Final Condition with Pictures after paint		
107.	Final Pics and QC Review		