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

AC Inspection as Found

Riceland Foods (11100-RLF)
Hwy 79 & N. Park Ave.
Stuttgart, AR 72160

FolderID: 104790
FormID: 24885368

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	CAT# X100E3B
Description:	100 HP EMERSON

Hi-Speed Job Number:	104790
Manufacturer:	Emerson
Product Number:	AC19
Spec/ID #:	K06-AC19-M
Serial Number:	CAT# X100E3B
HP/kW:	100 (HP)
RPM:	1185 (RPM)
Frame:	444T
Voltage:	460
Current:	128 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.00
Enclosure:	TE
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
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

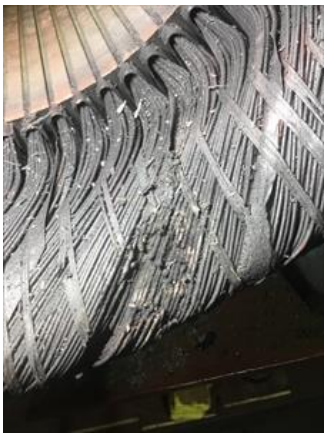
Priorities Found: **4 - High** **8 - Good**

Overall Condition

1.	Report Date	**07/07/2025**

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P44



4. Describe the Overall Condition of the Equipment as Received

   Serviceable

5. Is this a UL Listed Motor **(YES) YES** P83

6. Is the motor water cooled or can be pressure checked before teardown **(NO) NO**

Initial Mechanical/Electrical

7. Does Shaft Turn Freely? **(N) No**
8. Does the shaft require T.I.R in Lathe to identify additional repairs? **(YES) YES**

9.	Does Shaft Have Visible Damage?	**(Yes) Yes**	P26

10.	Assembled Shaft Runout	**Inches**	
	Unable to perform due to locked shaft.		
11.	Assembled Shaft End Play	**0 inches**	
12.	Air Gap Variation <10%		
13.	Lead Condition		P70

14.	Lead Length	**9.5 Inches**	
15.	Does it have Lugs?, If so what is the Stud Size?	**(YES) YES**	
16.	Lead Numbers	**1-6**	
	Delta connection		
17.	Are the Leads insulated with Chico or other material	**(YES) YES**	
18.	Frame Condition	**pass**	
19.	Fan Condition	**(P) Pass**	P120

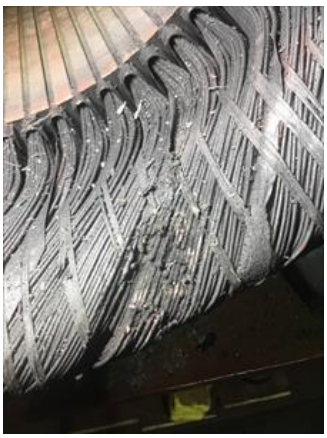
20.	Does motor have internal fan?	**(NO) NO**	
21.	Broken or Missing Components	**DE bearing cap broken**	P128

Initial Electrical Inspection

22.	Insulation Resistance/Megger	**Megohms**	
23.	Winding Resistance		

1-2	1-3	2-3

24.	Perform Surge Test	**(NA) Not Applicable**	P59



25.	Number of Stator Slots	**72**
26.	Stator Condition	**rewind**
27.	Stator Thermistors/Ohms	

28.	Stator Overloads/Ohms	**1.4**	P94

Mechanical Inspection

29.	Drive End Bearing Brand	**unreadable**	
30.	Drive End Bearing Number-	**6220-J/C3**	
31.	Drive End Bearing Qty.	**1**	P34

32.	Drive End Bearing Type	**(Ball) Ball Bearing**	
33.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
34.	Drive End Bearing Insulation or Grounding Device?	**none**	
35.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**	
36.	Drive End Bearing Condition	**excessive wear**	P82

37.	Opposite Drive End Bearing Brand	**unreadable**	

38.	Opposite Drive End Bearing Number-	**6313-J/C3**	
39.	Opposite Drive End Bearing Qty.	**1**	P106

40.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
41.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
42.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		
44.	Opposite Drive End Bearing Condition	**worn**	
45.	Drive End Seal		
46.	Opposite Drive End Seal		

Rotor Inspection

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

48.	Growler Test	**(Pass) Pass**	
49.	Number of Rotor Bars	**57**	
50.	Rotor Condition	**pass**	
51.	List the Parts needed for the Repair Below		

Possible new shaft and new DE bearing cap.
Machine shaft opening on DE housing
Both end bell housing fits bad.

52. Signature of Technician that Disassembled Motor — **Terrence Holland**

Mechanical Fits- Rotor

53. Shaft Runout — **0.003 inches**

54. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

55. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

56. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

57. Drive End Bearing Shaft Fit — P79

0 Degrees	60 Degrees	120 Degrees

58. Drive End Bearing Shaft Fit Condition — **(F) Fail**

59. Opposite Drive End Bearing Shaft Fit

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

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

61. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

62. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Excessive wear

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

64. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Excessive wear.

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

66. Bearing Cap Condition

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

67. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
excessive wear	

68. List Machine Work Needed Below

New bearing cap
Repair both housing fits
Repair shaft opening air seal fit
Machine new snap ring groove.

69. Technician **Terrence Holland**

Co sign: RRW

Root Cause of Failure

70. Failure locations

Windings shorted on coil head.
Both housing fits bad
D.E cap broken.

71. Root cause of failure

Bearing cap fragments impacted the windings causing a short circuit.

Dynamic Balance Report

72. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

73. Initial Balance Readings

Drive End	Opposite Drive End

74. Final Balance Readings

Drive End	Opposite Drive End

75. Technician

Rewind

76. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

77. Core Hot Spot Test

Pre-Burnout	Post-Burnout

78. Post Rewind Electrical Test- Insulation Resistance

79.	Post Rewind Polarization Index		
80.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
81.	Post Rewind Surge Test		
82.	THERMAL DETECTION EQUIPMENT FINAL TESTING - RTD'S/KLIXONS/THERMISTORS		
83.	Post Rewind Hi-Pot		
84.	Technician		

Mechanical Fits- Rotor - Post Repair

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

Mechanical Fits- Bearing Housings - Post Repair

93.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
94.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
95.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
96.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
97.	End Bell Repair Sign-off		

Assembly

98.	QC Check All Parts for Cleanliness Prior to Assembly
99.	Photograph All Major Components prior to assembly
100.	Was a Insulated bearing or end bell tested?

101.	Final Insulation Resistance Test		
102.	Assembled Shaft Endplay		
103.	Assembled Shaft Runout		
104.	Test Run Voltage		
	Volts	Volts	Volts
105.	Test Run Amperage		
	Amps	Amps	Amps
106.	Motor RPM		
107.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
108.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
109.	Ambient Temperature - Fahrenheit		
110.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
111.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
112.	Document Final Condition with Pictures after paint		
113.	Final Pics and QC Review		