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

AC Inspection as Found

Riceland Foods
1200 N Park Ave
Stuttgart, AR 72160

FolderID: 104217
FormID: 23563750

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	A1204132126
Description:	200 HP BALDOR

Hi-Speed Job Number:	104217
Manufacturer:	Baldor
Product Number:	1DVSH4407T-4
Serial Number:	A1204132126
HP/kW:	200 (HP)
RPM:	1790 (RPM)
Frame:	447T
Voltage:	460
Current:	226 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	TEFC
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	None
Date Received:	03/12/2025
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** **9 - Good**

Overall Condition

1.	Report Date	**03/11/2025**

2. Nameplate Picture P37

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

Small crack in fan cover mount bolt hole

ODE bearing cap bolts loose. (All of them.)

	4.	Describe the Overall Condition of the Equipment as Received ***Dirty but serviceable***	
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** P26

●	8.	Assembled Shaft Runout	**0.002 Inches**
	9.	Assembled Shaft End Play	**0 inches**
	10.	Air Gap Variation <10%	**no**

11.	Lead Condition	**(P) Pass**	P69

12.	Lead Length	**11.5 Inches**	
13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
14.	Lead Numbers	**T1-T3**	
15.	Frame Condition	**pass**	
16.	Fan Condition	**(P) Pass**	P115

Some wear from loose bearing cap bolts

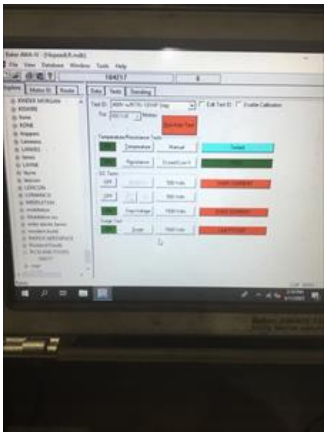
17.	Does motor have internal fan?	**(No) No**	
18.	Broken or Missing Components	**DE bearing cir clip (snap ring)**	

Initial Electrical Inspection

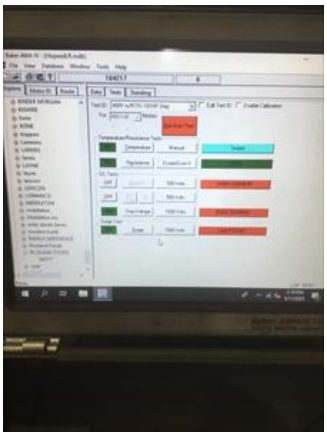
19.	Insulation Resistance/Megger	**Megohms**	

See below

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



21.	Perform Surge Test	**(F) Fail**	P57



22.	Number of Stator Slots	**72**	
23.	Stator Condition	**rewind**	
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms	**0.3**	P96

Mechanical Inspection

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

27.	Drive End Bearing Number-	**6318 C3**	P32

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?	**none**
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**cir clip ring** P77

Needs replacing

33.	Drive End Bearing Condition	**replace**	
	Contaminated grease		
34.	Opposite Drive End Bearing Brand	**SKF**	P92

35.	Opposite Drive End Bearing Number-	**6318/C3 VL0241**

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?	**none**
41.	Opposite Drive End Bearing Condition	**replace**
	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	**58**	
47.	Rotor Condition	**pass**	P41

48. List the Parts needed for the Repair Below

D.E bearing #6318 C3 & ODE #6318/C3 VL0241 (ceramic)
Sleeve both housing fits.
Repair ODE air gap shaft surface.
Recommend Aegis grounding ring on DE

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

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
3.5434	**3.5433**	**3.5434**

55. Drive End Bearing Shaft Fit Condition **(P) Pass** P81

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.544	**3.5439**	**3.544**

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

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
	.070

Limit is .030

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

See below

60. Drive End - Endbell Bearing Fit Condition **(F) Fail** P15

Lip worn in

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

See below

62. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail** P39

Lip worn in

63. Bearing Cap Condition

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

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below

Both end bell housing fits bad.
DE shaft bearing journal bad

66. Technician **Terrence Holland**

Co sign RRW

Root Cause of Failure

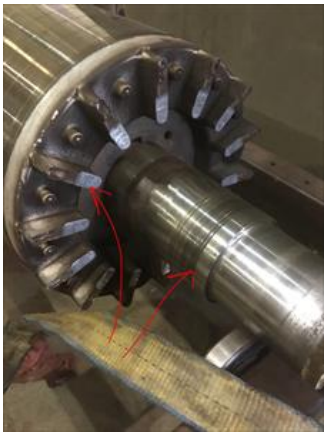
67. Failure locations

ODE bearing cap bolts. Both bearings have dirty grease.

68. Root cause of failure

All ODE bearing cap bolts were completely backed out of the bolt hole threads.

After fan removal, the bolts pulled out by hand without being unscrewed.



Bearing cap was free floating inside because of the mount bolts being backed off.

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		