



KEEPING YOUR FACILITY UP TO SPEED
— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 102916

Prepared for Sage V Foods

5901 SLOAN DRIVE
LITTLE ROCK AR 72206

Table of Contents



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: 102916
FormID: 20363517

AC Inspection - Rev. 2

Location: MOTOR SHOP LR

Serial Number:

Description: 50HP BALDOR 326TDZ FOR EVAL

Hi-Speed Job Number: 102916

Manufacturer: Baldor

Spec/ID #: 12F654W829G1R

HP/kW: 50 (HP)

RPM: 1775 (RPM)

Frame: 326TDZ

Voltage: 230 / 460

Current: 57 (Amps)

Phase: Three

Hz: 60 (Hz)

Enclosure: TEFC

of Leads: 9

J-box Included: None

Coupling/Sheave: None

Date Received: 05/13/2024

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: ● 1 - High ● 11 - Good

Overall Condition

1. Report Date

05/28/2024

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Printed on 7/18/2024

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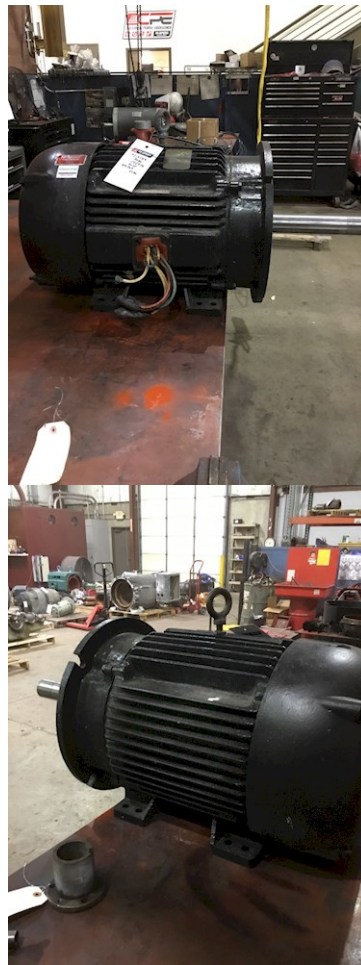
1.0

BALDOR-RELANCE
INDUSTRIAL MOTOR

MODEL NO. 70869
 1/2 HP
 115V
 1725 RPM
 355T
 115V 1PH 60Hz 1.1kW
 1.1kW
 1.1kW
 1.1kW



The image consists of two photographs of a large industrial motor. The top photograph shows the motor from a front-facing perspective, resting on a wooden workbench. The motor's stator is painted a vibrant red, and a large, silver-colored metal shaft protrudes from the center. A lifting eye is visible at the top. The background shows a workshop environment with various tools and equipment. The bottom photograph shows the same motor from a rear-facing perspective. The stator is painted black, and a large, black cooling fan is visible at the back. The motor is positioned on a concrete floor in a well-lit industrial setting.



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1.2



4. Describe the Overall Condition of the Equipment as Received

Ok

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	0.03 Inches
9.	Assembled Shaft End Play	0 inches
10.	Air Gap Variation <10%	none
11.	Lead Condition	(P) Pass
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.	Stator Temperature Detector Rating and Function	
	Quantity	Rating
	0	Quantity Passed
16.	Bearing Temperature Detector Rating and Function	
	Quantity	Rating
	0	Quantity Passed
17.	Frame Condition	good
18.	Fan Condition	(P) Pass
19.	Broken or Missing Components	none

Initial Electrical Inspection

20.	Insulation Resistance/Megger	200 Megohms
21.	Winding Resistance	
	1-2	1-3
	.649	.649
22.	Perform Surge Test	(P) Pass
23.	Number of Stator Slots	48
24.	Stator Condition	good
25.	Stator Thermistors/Ohms	none
26.	Stator Overloads/Ohms	0

Mechanical Inspection

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27. Drive End Bearing Brand

Peer



28. Drive End Bearing Number-	6312 2RS
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?	no
33. Drive End Wavy Washer/Snap-Ring Other Retention Device?	spanner nut and locking ring
34. Drive End Bearing Condition	normal
35. Opposite Drive End Bearing Brand	Peer
36. Opposite Drive End Bearing Number-	6311 2RS
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?	wavy
42. Opposite Drive End Bearing Condition	frosting
43. Drive End Seal	ok
44. Opposite Drive End Seal	ok

Rotor Inspection

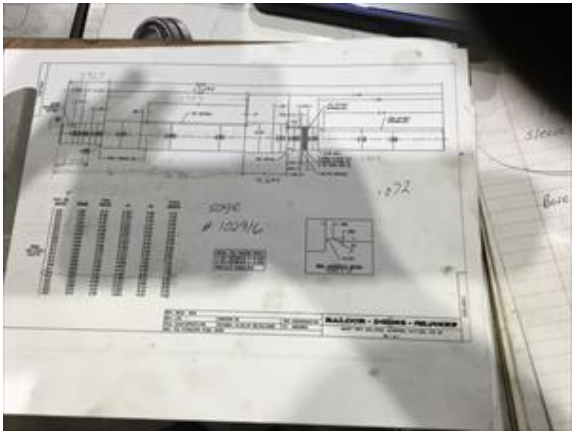
45. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
46. Growler Test	(Pass) Pass
47. Number of Rotor Bars	44
48. Rotor Condition	good
49. List the Parts needed for the Repair Below 6312 2RS, 6311 2RS	
50. Signature of Technician that Disassembled Motor	David Maclin

Mechanical Fits- Rotor

51. Shaft Runout	0.03 inches
------------------	-------------

52. Rotor Runout		
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0	0	0
53. Coupling Fit Closest to Bearing Housing		
0 Degrees	90 Degrees	120 Degrees
0		
54. Coupling Fit Closest to the end of the Shaft		
0 Degrees	60 Degrees	120 Degrees
0		
55. Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
2.3625	2.3625	2.3625
56. Drive End Bearing Shaft Fit Condition		(P) Pass
57. Opposite Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
2.1655	2.1655	2.1655
58. Opposite Drive End Bearing Shaft Fit Condition		(P) Pass
59. Shaft Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
ok	ok	
Mechanical Fits- Bearing Housings		
60. Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
5.1185	5.1185	5.1185
61. Drive End - Endbell Bearing Fit Condition		(P) Pass
62. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
4.7248	4.7248	4.7248
63. Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass
64. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
ok	na	
65. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
ok	ok	

66. List Machine Work Needed Below
New shaft (.030" runout)



Machined new shaft.
Gary

67. Technician

David Maclin



Root Cause of Failure

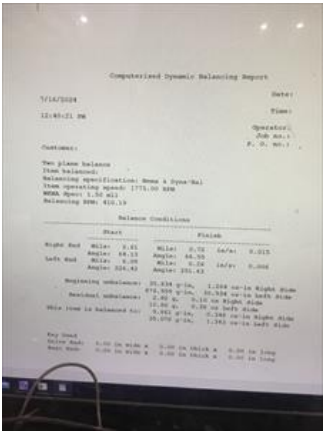
68. Failure locations
Shaft bent

69. Root cause of failure
Fan ice likely.

Dynamic Balance Report

70. Rotor Weight and Balance Grade



Rotor Weight	Balance Grade
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71. Initial Balance Readings

Drive End	Opposite Drive End
6.09	2.61

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72. Final Balance Readings	
Drive End	Opposite Drive End
.26	.72
73. Technician	
	
David Maclin	
Assembly	
74. QC Check All Parts for Cleanliness Prior to Assembly	
	
David Maclin	

75. Photograph All Major Components prior to assembly



76. Final Insulation Resistance Test	2000 Megohms
77. Assembled Shaft Endplay	0 inches
78. Assembled Shaft Runout	0.001 inches

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79. Test Run Voltage

Volts

Volts

Volts



80. Test Run Amperage

Amps

Amps

Amps

459

460

460

81. Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

0.0359

0.0212

0.0153

82. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

0.0265

0.0248

0.0112

83. Ambient Temperature - Fahrenheit

7

84. Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

0

0

0

85. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

0

0

0

86. Document Final Condition with Pictures after paint

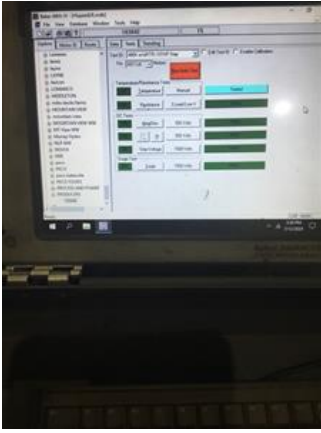
looks new

87. Final Pics and QC Review

David Maclin



Witnessed by Chris wiley





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