

# EVERY DAY SINCE 1946

LR Motor Shop Repairs

## Job Number 103825

Prepared for ARKANSAS INDUSTRIAL MACHINERY

3804 N. NONA ST NORTH LITTLE ROCK AR 72118

### Table of Contents

AC Inspection as Found - Shop



AC Inspection as Found

#### **ARKANSAS INDUSTRIAL MACHINERY**

3804 N. NONA ST NORTH LITTLE ROCK, AR 72118

#### AC Inspection - Rev. 2

Location:	Shop	
Serial Number:	A1702172084	

Description:250HP BALDOR 1785RPM

Hi-Speed Job Number:	103825
Manufacturer:	Baldor
Product Number:	TYPE: P
Spec/ID #:	A44-8935-0152
Serial Number:	A1702172084
HP/kW:	250 (HP)
RPM:	1785 (RPM)
Frame:	449TDZ
Voltage:	460
Current:	278 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	Gear
Date Received:	12/03/2024
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: **12 - Good**

#### **Overall Condition**

1. Report Date

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

> FolderID: 103825 FormID: 22442108

#### 2. Nameplate Picture







3. Photos of all six sides of the machine.



































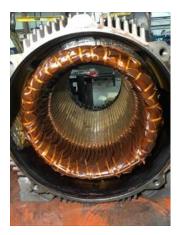






















4. Describe the Overall Condition of the Equipment as Received



	5.	Distance from the end of the shaft to the Coupling/Sheave	inches
Init	tial	Mechanical/Electrical	
	6.	Does Shaft Turn Freely?	(Y) Yes
	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	0.003 Inches
	10.	Assembled Shaft End Play	0 inches
	11.	Air Gap Variation <10%	
•	12.	Lead Condition	(P) Pass
	13.	Lead Length	75.09999999999999 Inches



15. Lead Numbers



- 16. Frame Condition
- 17. Fan Condition



**Initial Electrical Inspection** 

18. Broken or Missing Components

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1-6

serviceable (P) Pass

(, ) = ===

ODE housing has broken off fan cover bolt

(P) Pass



20. Winding Resistance

1-2

1-3



est.Data	13/6/2014	15/15/2024	TIMUMUM	10/16/2023	NVNA/2011	10/
att Tana	20540114	BOLTS AM	ATT JUST AND	VE S2: NO. AMA	ID MIC AM	
lerry 200a	Texted	No.Text	No Test	Tested	Tested -	No.3
ampCO:	23.1			21.1	21.1	
It Temp Com.	Thermoplastic		None	Thermophetic	Thermoplastic	Mone
Bassel School	46.11	PASS	Pacits	4655	DELTA #	No Te
Baill (Ohms)						
Bal 12 (Chend						
Rel LS (Chemi						
U U Children			1.040	0.1000 Care E		
URLINSON			0.0054	8.1114 Case 0		
Max Cutta B		1.94	1400	U.M.Com S		
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(*)				S MARLIN S		100
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1 22 3	1.0			-	210.04	
and the second s				A. 5.44	• (0400) C	

21. Perform Surge Test





22.	Number of Stator Slots	72
23.	Stator Condition	pass
24.	Stator Thermistors/Ohms	
25.	Stator Overloads/Ohms	
Mech	anical Inspection	

#### 26. Drive End Bearing Brand



27. Drive End Bearing Number-



NU222-E-XL-MIA-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?	none
32. Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring



33. Drive End Bearing Condition	replace
34. Opposite Drive End Bearing Brand	SKF





35.	Opposite Drive End Bearing Number-	6318 2Z/C3
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?	
Ψ.	Snap ring.	
41.	Opposite Drive End Bearing Condition	replace
42.	Drive End Seal	VA 110





04160234-3264833 (89292445)

#### 43. Opposite Drive End Seal



Rotor	Inspection		
44.	Rotor Type/Material		(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
45.	Growler Test		(Pass) Pass
46.	Number of Rotor Bars		56
47.	Rotor Condition		pass
48.	List the Parts needed for the Repair B	elow	
	Bearings: NU 222-E-XL-M1A-C3 & 6318- VA 110 & VA 090 seals.	2Z/C3	
49.	Signature of Technician that Disassen	nbled Motor	Terrence Holland
Maaba	anical Fits- Rotor		
	Shaft Runout		0.002 inches
51.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
52.	Coupling Fit Closest to Bearing Housi	22	
52.		•	
	0 Degrees	90 Degrees	120 Degrees
53.	Coupling Fit Closest to the end of the	Shaft	
	0 Degrees	60 Degrees	120 Degrees
	3.4986	3.4986	3.4987
54.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	4.3319	4.332	4.3318
55.	Drive End Bearing Shaft Fit Condition		(P) Pass

55. Drive End Bearing Shaft Fit Condition
56. Opposite Drive End Bearing Shaft Fit
0 Degrees
60 Degrees
120 Degrees
3.544
3.544
3.544
(P) Pass

58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
Mech	anical Fits- Bearing Housings			
59.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	7.8743	7.8741	7.874	
60.	Drive End - Endbell Bearing Fit Condi	tion		(P) Pass
61.	Opposite Drive End - Endbell Bearing	Fit		
	0 Degrees	60 Degrees	120 Degrees	
	7.481	7.4809	7.481	
62.	Opposite Drive End - Endbell Bearing	Fit Condition		(P) Pass
63.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	pass	pass		



ODE



DE

64. End Bell Air Seal Fits Drive End Air Seal

Opposite Drive End Air Seal

65. List Machine Work Needed Below

Fan cover has broken bolt.

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ODR



DE

66. Technician	flad	Terrence Holland			
67. Failure locations <i>Bearings.</i>					
68. Root cause of failure DE seal and bearings failed due	to contaminated grease.				
Dynamic Balance Report					
69. Rotor Weight and Balance Gra	de				
Rotor Weight	Balance Grade				



70.	Initial Balance Readings		
	Drive End	Opposite Drive End	
	.39	.47	
71.	Final Balance Readings		
	Drive End	Opposite Drive End	
	.12	.10	
72.	Technician	RW	
Asser	nbly		
73.	QC Check All Parts for Cleanliness Pr	rior to Assembly RW	
74.	Photograph All Major Components pri	ior to assembly (Complete) Complete	





























#### Co sign TRH





80.	80. Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.02	0.02	0.01
81.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.03	0.02	0.01
82.	Ambient Temperature - Fahrenheit		
-	Na		
83.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	Na		
84.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
	Na		
85.	Document Final Condition with Pictures after paint		







86. Final Pics and QC Review Co sign TRH Ψ.

RW



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- 2. PRICE. All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
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