

# LR Motor Shop Repairs

# **Job Number 101938**

Prepared for Arkansas Electric Coop. (11681)

17400 highway 365 south Little Rock AR 72206

# **Table of Contents**

AC Inspection as Found - MOTOR SHOP LR

AC Inspection - Rev. 2: F600

1.0





### **AC Inspection as Found** Arkansas Electric Coop. (11681)

17400 highway 365 south Little Rock, AR 72206

FolderID: 101938 FormID: 18065872

#### AC Inspection - Rev. 2

Location: MOTOR SHOP LR Serial Number: F600

Description: 7.5HP AMETEK BLOWER 3600RPM

215TCZ

Hi-Speed Job Number:	101938
Manufacturer:	Baldor
Product Number:	511570
Spec/ID #:	07H383W361G1
Serial Number:	F600
HP/kW:	7.5 (HP)
RPM:	3450 (RPM)
Frame:	215TCZ
Voltage:	230 / 460
Current:	22.2/11.1
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	Propeller
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 6 - High





6 - Good

# **Overall Condition**

Report Date 10/12/2023

Nameplate Picture



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





























































4. Describe the Overall Condition of the Equipment as Received Some rust

5. Distance from the end of the shaft to the Coupling/Sheave

1

inches

### **Initial Mechanical/Electrical**

6. Does Shaft Turn Freely?
7. Does Shaft Have Visible Damage?
(No) No

8. Assembled Shaft Runout
 0.002 Inches

9.	Assembled Shaft End Play Na	inches
10.	Air Gap Variation <10%	na
11.	Lead Condition	(P) Pass
12.	Lead Length	8 Inches
13.	Lead Numbers	1-9
14.	Frame Condition	pass
15.	Fan Condition	(P) Pass



	16.	Broken or Missing Components			na
Ini	Initial Electrical Inspection				
	17.	Insulation Resistance/Megger			0 Megohms
	18.	Winding Resistance			
		1-2	1-3	2-3	
		2.384	2.161	2.153	
	19.	Perform Surge Test			(P) Pass
	20.	Number of Stator Slots			36





21.	Stator Condition	signs of water contamination
22.	Stator Thermistors/Ohms	na
23.	Stator Overloads/Ohms	na
Mecha	nical Inspection	
24.	Drive End Bearing Brand	koyo





26.	Drive End Bearing Qty.	1
27.	Drive End Bearing Type	(Ball) Ball Bearing
28.	Drive End Lubrication Type	(Grease) Grease Lubricated
29.	Drive End Bearing Insulation or Grounding Device?	na
30.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	spacer
31.	Drive End Bearing Condition	early signs of true brinelling
32.	Opposite Drive End Bearing Brand	koyo
33.	Opposite Drive End Bearing Number-	6206

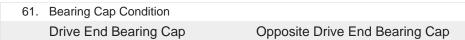




34.	Opposite Drive End Bearing Qty.	1
35.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
36.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
37.	Opposite Drive End Bearing Insulation or Grounding Device?	na
38.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na but has spacers in end bell
39.	Opposite Drive End Bearing Condition	wear
40.	Drive End Seal	na
41.	Opposite Drive End Seal	na
Rotor	Inspection	
42.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
43.	Growler Test	(Pass) Pass
44.	Number of Rotor Bars	28

	45.	Rotor Condition		pass
	46.	List the Parts needed for the Repair B	elow	
		6309		
		6206 A bearing sleeve for ODE end bell		
	47.	Signature of Technician that Disassen	nbled Motor	Cw
	,		1	
	/			
NA	_ _	nnical Fits- Rotor		
		Shaft Runout		0.003 inches
		Rotor Runout		0.003 littles
	43.	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
		Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	-	Na		
	50.	Coupling Fit Closest to Bearing Housi	ng	
		0 Degrees	90 Degrees	120 Degrees
		C	<u> </u>	Ü
-	-	Na		
	51.	Coupling Fit Closest to the end of the	Shaft	
		0 Degrees	60 Degrees	120 Degrees
	_	A.L.		
	<b>-</b>	Na		
	52.	Drive End Bearing Shaft Fit	CO Degrees	420 Degrees
		0 Degrees	60 Degrees 1.7715	120 Degrees
	52	1.7714  Drive End Bearing Shoft Eit Condition		1.7713 (E) Fail
		Drive End Bearing Shaft Fit Condition (F) Fail  Opposite Drive End Bearing Shaft Fit		
	J <del>-1</del> .	0 Degrees	60 Degrees	120 Degrees
		1.1808	1.181	1.1809
	55	Opposite Drive End Bearing Shaft Fit		(F) Fail
		Shaft Air Seal Fits		(1). 4
		Drive End Air Seal	Opposite Drive End Air Seal	
			Epponio Emorni oddi	
		Na		
Me	echanical Fits- Bearing Housings			
	57.	Drive End - Endbell Bearing Fit		
		0 Degrees	60 Degrees	120 Degrees
		3.9374	3.9375	3.9374
	58.	Drive End - Endbell Bearing Fit Condi	tion	(P) Pass
	59.	Opposite Drive End - Endbell Bearing	Fit	
		0 Degrees	60 Degrees	120 Degrees
		2.4426	2.442	2.4417
	60.	Opposite Drive End - Endbell Bearing	Fit Condition	(F) Fail

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Pass



72. Post Rewind Polarization Index

62.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
-	Na	
63.	List Machine Work Needed Below	
	Both shaft bearing fits and ODE end be	ell bearing fit
64.	Technician	-

Dynar	Dynamic Balance Report		
65.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
66.	Initial Balance Readings		
	Drive End	Opposite Drive End	
67.	Final Balance Readings		
	Drive End	Opposite Drive End	
68.	Technician		
Rewin	nd		
69.	Core Test Results - Watts loss per Po	und	
	Pre-Burnout	Post Burnout	
70.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
71.	Post Rewind Electrical Test- Insulation	n Resistance	

73.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
74.	Post Rewind Surge Test		
75.	Post Rewind Hi-Pot		
76.	Technician		
Root	Cause of Failure		
77.	Failure locations		
	Bearings		
78.	Root cause of failure		
	True brinelling and wear		
Mecha	anical Fits- Rotor - Post Repair		
79.	Shaft Runout Post Repair		
80.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
81.	Coupling Fit Closest to Bearing Housi	ng Post Repair	
	0 Degrees	90 Degrees	120 Degrees
82.	Coupling Fit Closest to the end of the	·	
	0 Degrees	60 Degrees	120 Degrees
0.0	D: E ID : 01 (15) 5		
83.	Drive End Bearing Shaft Fit Post Repa		
	0 Degrees	60 Degrees	120 Degrees
	1.7722	1.7722	1.7722







85. Shaft Air Seal Fit	ts Post Repair	
Drive End Air S	Seal Opposite Drive End Air Seal	
86. Shaft Repair Sigr	n-off	Gary
1	/	
Mechanical Fits- Bea	ring Housings - Post Repair	
0= D: E   E	" D . E" D . D .	

87. Drive End - Endbell Bearing	g Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees	
88. Opposite Drive End - Endbe	ell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees	
2.4413	2.4414	2.4413	



89. E	Bearing Cap Condition Post Repair	
[	Drive End Bearing Cap	Opposite Drive End Bearing Cap

90. End Bell Air Seal Fits Post Repair			
Drive End Air Seal	Opposite Drive End Air Seal		
91. End Bell Repair Sign-off		Gary	

1 m

## **Assembly**

92. QC Check All Parts for Cleanliness Prior to Assembly Trevor Hall

O2. Photograph All Major Company to prior to congraphly

93.	Photograph All Major Components prior to assembly		(Complete) Complete	
94.	Final Insulation Resistance Test		Megohms	
-	Na			
95.	Assembled Shaft Endplay		inches	
-	Na			
96.	Assembled Shaft Runout		0.002 inches	
97.	Test Run Voltage			
	Volts	Volts	Volts	
-	In picture			



98.	3. Test Run Amperage				
	Amps	Amps	Amps		
	3	3.2	3.2		
99. Drive End Vibration Readings - Inches Per Second					
	Horizontal	Vertical	Axial		
	0.002	0.003	0.002		
100.	). Opposite Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
	0.001	0.001	0.002		

101. Ambient Temperature - Fahrenheit
Na
102. Drive End Bearing Temps - Fahrenheit
5 Minutes
10 Minutes
15 Minutes

Na

103. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes 10 Minutes 15 Minutes

Na

104. Document Final Condition with Pictures after paint









105. Final Pics and QC Review

Crw

Co sign: David Maclin















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