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# LR Motor Shop Repairs

### **Job Number 103633**

Prepared for Peco Foods

625 S. Allen Street Batesville AR 72501

### **Table of Contents**

AC Inspection as Found - Shop

AC Inspection - Rev. 2: W20178709-DG

1.0



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

> FolderID: 103633 FormID: 21935845

### **AC Inspection as Found**

Peco Foods

625 S. Allen Street Batesville, AR 72501

AC Inspection - Rev. 2

Location: Shop

Serial Number: W20178709-DG

Description: 40HP RAM

Hi-Speed Job Number:	103633
Manufacturer:	Reliance
Product Number:	M: 3KPXX244PVFHZ-178709
Serial Number:	W20178709-DG
HP/kW:	40 (HP)
RPM:	3565 (RPM)
Frame:	447TDZ
Voltage:	460
Current:	95.4 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	ODP
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	Coupling
Date Received:	10/08/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	Yes
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 1 - High





11 - Good

#### **Overall Condition**

10/14/2024 1. Report Date

#### 2. Nameplate Picture



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





















- 4. Describe the Overall Condition of the Equipment as Received *Dirty*
- 5. Distance from the end of the shaft to the Coupling/Sheave

■ 5.3mm

inches



	_	D				
	6. Report Date [COPY]					
In	Initial Mechanical/Electrical					
	7.	Does Shaft Turn Freely?		(Y) Yes		
	8.	Does the shaft require T.I.R in Lathe t	o identify additional repairs?	(No) No		
	9.	Does Shaft Have Visible Damage?		(No) No		
	10.	Assembled Shaft Runout		Inches		
	11.	Assembled Shaft End Play		inches		
	12.	Air Gap Variation <10%				
	13.	Lead Condition		(P) Pass		
	14.	Lead Length		14 Inches		
	15.	Does it have Lugs?, If so what is the S	Stud Size?			
	-	Yes				
	16.	Lead Numbers		1-6		
	17.	Frame Condition				
	18.	Fan Condition		(N) NA		
	19.	Heater Quantity, Ratings				
		Quantity	Volts/Watts	Pass/Fail		
		1	120V/200W	pass		
	20.	Broken or Missing Components		j-box		
In	itial	Electrical Inspection				
	21.	Insulation Resistance/Megger		10.18 Megohms		





22.	Winding Resistance			
	1-2	1-3	2-3	
23	Perform Surge Test			(P) Pass



24.	Number of Stator Slots	48
25.	Stator Condition	needs cleaned
26.	Stator Thermistors/Ohms	
27.	Stator Overloads/Ohms	
Mecha	nical Inspection	
28.	Drive End Bearing Brand	NTN
29.	Drive End Bearing Number-	6313



30. Drive End Bearing Qty.	1
31. Drive End Bearing Type	(Ball) Ball Bearing
32. Drive End Lubrication Type	(Grease) Grease Lubricated
33. Drive End Bearing Insulation or Grounding Device?	
34. Drive End Wavy Washer/Snap-Ring Other Retention Device?	

#### 35. Drive End Bearing Condition

#### Frosting



36.	Opposite Drive End Bearing Brand	NTN
37.	Opposite Drive End Bearing Number-	6313



38.	Opposite Drive End Bearing Qty.	1
39.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
40.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
41.	Opposite Drive End Bearing Insulation or Grounding Device?	
42.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
43.	Opposite Drive End Bearing Condition	
-	Contamination and frosting	



44.	Drive End Seal	
45.	Opposite Drive End Seal	
Rotor	Inspection	
46.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
47.	Growler Test	(Pass) Pass
48.	Number of Rotor Bars	
49.	Rotor Condition	
-	Needs cleaned	
50.	List the Parts needed for the Repair Below	
	6313 x2 Aegis ring-3.3032 Bearing sleeve for DE end bell bearing fit	
51.	Signature of Technician that Disassembled Motor	Cw

Mech	Mechanical Fits- Rotor					
52	Shaft Runout		inches			
53	Rotor Runout					
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing			
54	Coupling Fit Closest to Bearing House	ing				
	0 Degrees	90 Degrees	120 Degrees			
55	Coupling Fit Closest to the end of the	Shaft				
	0 Degrees	60 Degrees	120 Degrees			
56	Drive End Bearing Shaft Fit					
	0 Degrees	60 Degrees	120 Degrees			
	2.5594	2.5595	2.5594			
57	Drive End Bearing Shaft Fit Condition	ı	(P) Pass			
58	Opposite Drive End Bearing Shaft Fit	t .				
	0 Degrees	60 Degrees	120 Degrees			
	2.5595	2.5595	2.5595			

<b>9</b> 59.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass	
60.	Shaft Air Seal Fits				
	Drive End Air Seal	Opposite Drive End Air Seal			
	echanical Fits- Bearing Housings				
61.	Drive End - Endbell Bearing Fit				
	0 Degrees	60 Degrees	120 Degrees		
	5.5133	5.5129	5.5135		
	Drive End - Endbell Bearing Fit Cond			(F) Fail	
63.	Opposite Drive End - Endbell Bearing	ı Fit			
	0 Degrees	60 Degrees	120 Degrees		
	5.513	5.513	5.5131		
<b>6</b> 4.	Opposite Drive End - Endbell Bearing	Fit Condition		(P) Pass	
<b>6</b> 5.	Bearing Cap Condition				
	Drive End Bearing Cap	Opposite Drive End Bearing Cap			
66.	End Bell Air Seal Fits				
	Drive End Air Seal	Opposite Drive End Air Seal			
67	List Machine Work Needed Below				
07.	DE end bell bearing fit				
68.	Technician			Cw	
00.				0	
	( fortin				
	1/2000				
-	Co sign: TH				
	Cause of Failure				
69.	Failure locations				
	Bearings and DE end bell bearing fit				
70.	Root cause of failure				
	Wear / frosting and contamination				
-	mic Balance Report				
71.	Rotor Weight and Balance Grade				
	Rotor Weight	Balance Grade			

#### 72. Initial Balance Readings

Drive End

Opposite Drive End



#### 73. Final Balance Readings

Drive End

Opposite Drive End



74. Technician Terrence Holland

Mechanical Fits- Bearing Housings - Post Repair

75. Drive End - Endbell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
5.5124	5.5125	5.5124



76.	Opposite Drive End - Endbell Bearing	Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees	
77.	Bearing Cap Condition Post Repair			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
78.	End Bell Air Seal Fits Post Repair			
	Drive End Air Seal	Opposite Drive End Air Seal		
79.	End Bell Repair Sign-off			Gary

#### **Assembly**

80. QC Check All Parts for Cleanliness Prior to Assembly

Terrence Holland

81. Photograph All Major Components prior to assembly























82. Final Insulation Resistance	Test		Megohms
83. Assembled Shaft Endplay			inches
84. Assembled Shaft Runout			inches
85. Test Run Voltage			
Volts	Volts	Volts	



86. Test Run Amperage
Amps Amps Amps

Witnessed by DWM



87.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.0700000000000001	0.03	0.04	
88.	Opposite Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
	0.2	0.03	0.05	
89.	Ambient Temperature - Fahrenheit			
90.	Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
91.	Opposite Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
92.	2. Document Final Condition with Pictures after paint			

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93. Final Pics and QC Review

Cw

Co sign:DWM



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