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# LR Motor Shop Repairs

# **Job Number 100685**

**Prepared for Asphalt Products** 

711 Delta Dr Little Rock AR 72206

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AC Recondition As Found - MOTOR SHOP LR

AC Recondition - Rev. 2: NO NP

1.0



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MOTOR SHOP LR

# **AC Recondition As Found**

**Asphalt Products** 

711 Delta Dr Little Rock, AR 72206

Location:

AC Recondition - Rev. 2

Serial Number: NO NP

Description: 200HP WEG

Hi-Speed Job Number:	100685
HP/kW:	200 (HP)
Voltage:	460
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 3 - High



6 - Good

### **Overall Condition**

- 1. Report Date
- Nameplate Picture

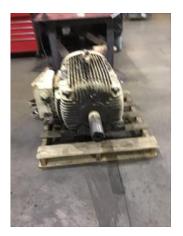


Photos of all six sides of the machine.





























 Describe the Overall Condition of the Equipment as Received Very dirty

## **Initial Mechanical/Electrical**

5. Does Shaft Turn Freely? (Yes) Yes

6. Does Shaft Have Visible Damage? (No) No



7.	Assembled Shaft Runout	0.001 Inches
8.	Assembled Shaft End Play	
9.	Air Gap Variation <10%	
10.	Lead Condition	(P) Pass



11. Lead Length 18 Inches

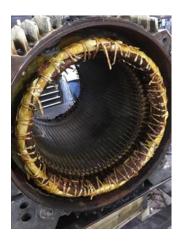
### 12. Frame Condition



● 13. Fan Condition (F) Fail



14.	Broken or Missing Components		fan broken
Initial	Electrical Inspection		
15.	Insulation Resistance/Megger		Megohms
16.	Winding Resistance		
	1-2	1-3	2-3





fail



18. Number of Stator Slots 72 Megohms

19. Stator Condition

Overloaded



# **Mechanical Inspection**





21. Drive End Bearing Qty.	1
22. Drive End Bearing Type	(Roller) Roller Bearing
23. Drive End Lubrication Type	(Grease) Grease Lubricated
24. Drive End Bearing Insulation or Grounding Device?	
25. Drive End Wavy Washer/Snap-Ring Other Retention Device?	
26. Drive End Bearing Condition	worn
27. Opposite Drive End Bearing Number-	6316 c3



28. Opposite Drive End Bearing Qty.	1		
29. Opposite Drive End Bearing Type	(Ball) Ball Bearing		
30. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated		
31. Opposite Drive End Bearing Insulation or Grounding Device?			
32. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring		
33. Opposite Drive End Bearing Condition	worn		
34. Drive End Seal			
35. Opposite Drive End Seal			
Rotor Inspection			

## 36. Rotor Type/Material



37. Growler Test	(Pass) Pass
38. Number of Rotor Bars	58
39. Rotor Condition	
40. List the Parts needed for the Repair Be	ow
Rewind NU319 6316c3	
41. Signature of Technician that Disassem	led Motor Trevor Hall

1-14

Mech	Mechanical Fits- Rotor				
42.	Shaft Runout		0.001 inches		
43.	Rotor Runout				
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing		
44.	Coupling Fit Closest to Bearing Housi	ng			
	0 Degrees	90 Degrees	120 Degrees		
45.	Coupling Fit Closest to the end of the	Shaft			
	0 Degrees	60 Degrees	120 Degrees		
46.	Drive End Bearing Shaft Fit				
	0 Degrees	60 Degrees	120 Degrees		
	3.7413	3.7413	3.7412		
<b>47</b> .	Drive End Bearing Shaft Fit Condition		(P) Pass		
48.	Opposite Drive End Bearing Shaft Fit				
	0 Degrees	60 Degrees	120 Degrees		
	3.1499	3.1499	3.1499		
<b>4</b> 9.	Opposite Drive End Bearing Shaft Fit	Condition	(P) Pass		
50.	Shaft Air Seal Fits				
	Drive End Air Seal	Opposite Drive End Air Seal			

Mechanical Fits- Bearing Housings				
51. Drive End - Endbell Bearing I	Fit			
0 Degrees	60 Degrees	120 Degrees		
7.875	7.875	7.8751		

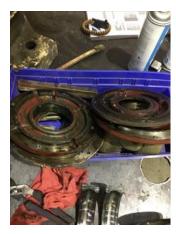


52.	52. Drive End - Endbell Bearing Fit Condition			(P) Pass
53.	Opposite Drive End - Endbell Bearing	Fit		
	0 Degrees	60 Degrees	120 Degrees	
	6.6938	6.6938	6.6939	



54. Opposite Drive End - Endbell Bearing Fit Condition
 (P) Pass

# 55. Bearing Cap Condition Drive End Bearing Cap Opposite Drive End Bearing Cap pass pass



56.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
57.	List Machine Work Needed Below		
58.	Technician	Trevo	or Hall

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Dynar	nic Balance Report					
59.	Rotor Weight and Balance Grade					
	Rotor Weight	Balance Grade				
60.	Initial Balance Readings					
	Drive End	Opposite Drive End				
61.	Final Balance Readings					
	Drive End	Opposite Drive End				
62.	Technician					
Rewin	ıd					
63.	Core Test Results - Watts loss per Po	und				
	Pre-Burnout	Post Burnout				
64.	Core Hot Spot Test					
	Pre-Burnout	Post-Burnout				
65.	Post Rewind Electrical Test- Insulation	n Resistance 7786 Megohms				

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67. Post Rewind Winding Resi	istance		
1-2	1-3	2-3	
0.0311	0.0310	0.0314	
68. Post Rewind Surge Test		(Pass) Pas	S





70. Technician RW



### **Root Cause of Failure**

- 71. Failure locations
- 72. Root cause of failure

# Mechanical Fits- Rotor - Post Repair

- 73. Shaft Runout Post Repair
- 74. Rotor Runout Post Repair

Drive End Bearing Fit Rotor Body Opposite Drive End Bearing

75. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees 90 Degrees 120 Degrees

76.	Coupling Fit Closest to the end of the Shaft Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
77.	Drive End Bearing Shaft Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
78.	Opposite Drive End Bearing Shaft Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
	ū	· ·	o and a second		
79.	Shaft Air Seal Fits Post Repair				
	Drive End Air Seal	Opposite Drive End Air Seal			
00	Chaff Danais Cian off				
	). Shaft Repair Sign-off				
	Mechanical Fits- Bearing Housings - Post Repair				
81.	Drive End - Endbell Bearing Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
82.	Opposite Drive End - Endbell Bearing Fit Post Repair				
	0 Degrees	60 Degrees	120 Degrees		
			-		
83.	Bearing Cap Condition Post Repair				
	Drive End Bearing Cap	Opposite Drive End Bearing Cap			
	E 15    A: 0   15"   5   15				
84.	End Bell Air Seal Fits Post Repair				
	Drive End Air Seal	Opposite Drive End Air Seal			
85.	End Bell Repair Sign-off				
Assen	Assembly				
	•				

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## 86. Photograph All Major Components prior to assembly













- 87. Final Insulation Resistance Test
- 88. Assembled Shaft Endplay
- 89. Assembled Shaft Runout

90. Test Run Voltage	Test Run Voltage			
Volts	Volts	Volts		
456	455	457		



91. Test Run Amperage	Test Run Amperage				
Amps	Amps	Amps			
96	104	93			



92.	Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
93.	Opposite Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
94.	Ambient Temperature - Fahrenheit				
95.	Drive End Bearing Temps - Fahrenheit				
	5 Minutes	10 Minutes	15 Minutes		
96.	Opposite Drive End Bearing Temps -	Opposite Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes		
97.	Final Test Run Sign-off				
98.	. Document Final Condition with Pictures after paint				





99. Final Pics and QC Review RW

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