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# LR Motor Shop Repairs

### **Job Number 102302**

Prepared for Delta Plastics (11016)

8801 Frazier Pike Little Rock AR 72206

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FolderID: 102302

FormID: 18969821



### **AC Inspection as Found**

Delta Plastics (11016)

8801 Frazier Pike Little Rock, AR 72206

AC Inspection - Rev. 2

Location: MOTOR SHOP LR

Serial Number: BN 10324402 003 /0917

Description: 16KW GARDNER DENVER BLOWER 3600RPM

Hi-Speed Job Number:	102302
Manufacturer:	Other
Product Number:	G-BH1 2BH1900-6AH37-Z
Serial Number:	BN 10324402 003 /0917
HP/kW:	16 (kW)
RPM:	3535 (RPM)
Voltage:	460
Current:	30
Phase:	Three
Hz:	60 (Hz)
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: **2 - High** 



6 - Good

#### **Overall Condition**

- Report Date
- Nameplate Picture



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	
In	itial	Mechanical/Electrical	
	6.	Does Shaft Turn Freely?	(No) No
	7.	Does Shaft Have Visible Damage?	(No) No
	8.	Assembled Shaft Runout	Inches
	-	Na	
	9.	Assembled Shaft End Play	inches
	-	Na	
	10.	Air Gap Variation <10%	
	-	Na	
	11.	Lead Condition	(P) Pass



12. Lead Length	10 Inches
13. Lead Numbers	1-6
14. Frame Condition	Dirty





16.	Broken or Missing Components		C	onn box cover
Initial Electrical Inspection				
17.	Insulation Resistance/Megger		5	3150 Megohms
18.	Winding Resistance			
	1-2	1-3	2-3	
	0.388	0.343	0.351	
<b>1</b> 9.	Perform Surge Test			(P) Pass



20. Number of Stator Slots 48

21. Stator Condition Wash and bake





<ol><li>Stator Thermistors/Ohms</li></ol>
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193.6 ohms

23. Stator Overloads/Ohms

Na

_	Na		
Mech	Mechanical Inspection		
24.	Drive End Bearing Brand	SKF	
25.	Drive End Bearing Number-	6308	
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?	Na	
31.	Drive End Bearing Condition	no grease and cage came apart	





32. Opposite Drive End Bearing Brand	ORS
33. Opposite Drive End Bearing Number-	6209
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?	Wavy washer

#### 39. Opposite Drive End Bearing Condition





40. Drive End Seal	Na
41. Opposite Drive End Seal	yes
45-52-5	



Rotor Inspection	
42. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
43. Growler Test	(Pass) Pass
44. Number of Rotor Bars	12
45. Rotor Condition	clean



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46. List the Parts needed for the Repair Below 6308 6209 bearing

47. Signature of Technician that Disassembled Motor

RW



Mechanical Fits- Rotor				
48.	Shaft Runout		inches	
-	Na			
49.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
-	Na			
50.	Coupling Fit Closest to Bearing Housi	ing		
	0 Degrees	90 Degrees	120 Degrees	
-	Na			
51.	Coupling Fit Closest to the end of the	Shaft		
	0 Degrees	60 Degrees	120 Degrees	
-	Na			
52.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.575	1.575	1.575	
53.	Drive End Bearing Shaft Fit Condition		(P) Pass	



54.	54. Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.7719	1.7719	1.7719	



56.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
-	Na			
Mecha	Mechanical Fits- Bearing Housings			
57.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.544	3.544	3.544	
58.	Drive End - Endbell Bearing Fit Condi	tion		(P) Pass



59. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
3.357	3.357	3.357



61.	Bearing Cap Condition	
	Drive End Bearing Cap	Opposite Drive End Bearing Cap
-	Na	
62.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
-	Na	
63.	List Machine Work Needed Below	
	Ode end bell bearing fit	
64.	Technician	RW
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	(/ 1	
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#### **Root Cause of Failure**

- 65. Failure locations
- 66. Root cause of failure

#### **Dynamic Balance Report**

67. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

68. Initial Balance Readings

Drive End Opposite Drive End

69. Final Balance Readings

Drive End Opposite Drive End

70. Technician

#### Rewind

71. Core Test Results - Watts loss per Pound

Pre-Burnout Post Burnout

72.	Core Hot Spot Test			
	Pre-Burnout	Post-Burnout		
73.	Post Rewind Electrical Test- Insulation	n Resistance		
	Post Rewind Polarization Index			
75.	Post Rewind Winding Resistance			
	1-2	1-3	2-3	
76	Post Rewind Surge Test			
	Post Rewind Hi-Pot			
	Technician			
_	anical Fits- Rotor - Post Repair			
	Shaft Runout Post Repair			
	Rotor Runout Post Repair			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
			opposite z me z ma z coming	
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	·	100 5	
	0 Degrees	60 Degrees	120 Degrees	
83.	Drive End Bearing Shaft Fit Post Rep	air		
	0 Degrees	60 Degrees	120 Degrees	
		00 1 09.000		
84.	Opposite Drive End Bearing Shaft Fit	Post Repair		
	0 Degrees	60 Degrees	120 Degrees	
85.	Shaft Air Seal Fits Post Repair	0 5 . 5		
	Drive End Air Seal	Opposite Drive End Air Seal		
86.	Shaft Repair Sign-off			
	Mechanical Fits- Bearing Housings - Post Repair			
	Drive End - Endbell Bearing Fit Post F	•		
	0 Degrees	60 Degrees	120 Degrees	
		<u> </u>	ū	

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88.	88. Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
	3.347	3.3471	3.3471



89.	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

An a

#### **Assembly**

92. QC Check All Parts for Cleanliness Prior to Assembly

Cw

93. Photograph All Major Components prior to assembly

(Complete) Complete

















94.	Final Insulation Resistance Test		Megohms	3
-	Na			
95.	Assembled Shaft Endplay		inches	3
-	Na			
96.	Assembled Shaft Runout		inches	;
-	Na			
97.	Test Run Voltage			
	Volts	Volts	Volts	
-	In picture			



98. Test Run Amperage

Amps Amps Amps

In picture



99.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
-	Na		
100.	. Opposite Drive End Vibration Reading	s - Inches Per Second	
	Horizontal	Vertical	Axial
-	Na		
101.	01. Ambient Temperature - Fahrenheit		
-	Na		
102.	2. Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	Na		
103.	3. Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	Na		
104.	104. Document Final Condition with Pictures after paint		







105. Final Pics and QC Review

Cw

CO SIGN: RRW



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