



**KEEPING YOUR FACILITY UP TO SPEED**  
— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

**Job Number 104245**

Prepared for Radius Aerospace

125 Indiana Street  
Hot Springs AR 71901

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AC Inspection as Found - *LR MOTOR SHOP*

AC Inspection - Rev. 2

**1.0**

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

## AC Inspection as Found

Radius Aerospace  
125 Indiana Street  
Hot Springs, AR 71901

FolderID: 104245  
FormID: 23651426

### AC Inspection - Rev. 2

Location: LR MOTOR SHOP

Serial Number:

Description: 200 HP NEWMAN  
RUSH

Hi-Speed Job Number: 104245

Manufacturer: Other

Product Number: H00202

HP/kW: 200 (HP)

RPM: 885 (RPM)

Frame: DC5284BR

Voltage: Other

Current: 248 (Amps)

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: ODP

# of Leads: 6

J-box Included: Complete

Coupling/Sheave: Coupling

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: ● 1 - High ● 10 - Good

### Overall Condition

1. Report Date

03/06/2025

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## 2. Nameplate Picture



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









4.	Describe the Overall Condition of the Equipment as Received	
	<i>Serviceable</i>	
5.	Distance from the end of the shaft to the Coupling/Sheave	inches
	<i>Flush</i>	
<b>Initial Mechanical/Electrical</b>		
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	Inches
	<i>Na</i>	
10.	Assembled Shaft End Play	inches
	<i>Nw</i>	
11.	Air Gap Variation <10%	
	<i>Nw</i>	
12.	Lead Condition	(P) Pass
13.	Lead Length	18 Inches
14.	Does it have Lugs?, If so what is the Stud Size?	(Yes) Yes
15.	Lead Numbers	123-789
16.	Frame Condition	pass but dirty
17.	Fan Condition	(P) Pass
18.	Does motor have internal fan?	(Yes) Yes

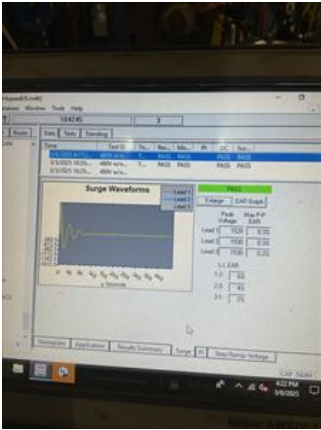


19.	Broken or Missing Components	na
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## Initial Electrical Inspection

20. Insulation Resistance/Megger	7598 Megohms		
21. Winding Resistance			
1-2	1-3	2-3	
0.0269	0.0269	0.0270	
22. Perform Surge Test	(P) Pass		



23. Number of Stator Slots	72
24. Stator Condition	wash and dry



25. Stator Thermistors/Ohms	na
26. Stator Overloads/Ohms	na

## Mechanical Inspection

27. Drive End Bearing Brand	na
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29. Drive End Bearing Qty.	1
30. Drive End Bearing Type	(Roller) Roller Bearing
31. Drive End Lubrication Type	(Grease) Grease Lubricated
32. Drive End Bearing Insulation or Grounding Device?	na
33. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
34. Drive End Bearing Condition	normal wear
35. Opposite Drive End Bearing Brand	NACHI
36. Opposite Drive End Bearing Number-	6319 ZZ C1




37. Opposite Drive End Bearing Qty.	1
38. Opposite Drive End Bearing Type	(Ball) Ball Bearing
39. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
40. Opposite Drive End Bearing Insulation or Grounding Device?	na
41. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	snap ring
42. Opposite Drive End Bearing Condition	normal wear

🗨 *Mixed grease*





43.	Drive End Seal	na
44.	Opposite Drive End Seal	na
Rotor Inspection		
45.	Rotor Type/Material	(Copper Barred) Copper Barred Rotor
46.	Growler Test	(Fail) Fail
	Several broken bars	
47.	Number of Rotor Bars	94
48.	Rotor Condition	
	Needs repair	
49.	List the Parts needed for the Repair Below	
	NU 322 ROLLER BEARING AND 6319 bearing	
50.	Signature of Technician that Disassembled Motor	RW
		
Mechanical Fits- Rotor		
51.	Shaft Runout	0 inches
52.	Rotor Runout	
	Drive End Bearing Fit	Rotor Body
		Opposite Drive End Bearing
53.	Coupling Fit Closest to Bearing Housing	
	0 Degrees	90 Degrees
	4	4
54.	Coupling Fit Closest to the end of the Shaft	
	0 Degrees	60 Degrees
	4	4
55.	Drive End Bearing Shaft Fit	
	0 Degrees	60 Degrees
	4.3326	4.3326

56. Drive End Bearing Shaft Fit Condition

(P) Pass



57. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

3.7413

3.7413

3.7413

58. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass



59. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Pass

**Mechanical Fits- Bearing Housings**

60. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

9.4499

9.4499

9.4499

61. Drive End - Endbell Bearing Fit Condition

(P) Pass



62. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

7.8748

87.87479999999999

7.8748



63. Opposite Drive End - Endbell Bearing Fit Condition

(P) Pass

64. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

Pass

65. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Pass



66. List Machine Work Needed Below

None

67. Technician

RW

Co sign TRH

#### Root Cause of Failure

68. Failure locations

Rotor

69. Root cause of failure

Several broken bars so rotor needs to be rebuilt

#### Dynamic Balance Report

70. Rotor Weight and Balance Grade

Rotor Weight

Balance Grade

71. Initial Balance Readings

Drive End

Opposite Drive End

72. Final Balance Readings

Drive End

Opposite Drive End

73. Technician

#### Assembly

74. QC Check All Parts for Cleanliness Prior to Assembly

75. Photograph All Major Components prior to assembly

76. Final Insulation Resistance Test

77. Assembled Shaft Endplay

78. Assembled Shaft Runout

79. Test Run Voltage			
Volts	Volts	Volts	
80. Test Run Amperage			
Amps	Amps	Amps	
81. Drive End Vibration Readings - Inches Per Second			
Horizontal	Vertical	Axial	
82. Opposite Drive End Vibration Readings - Inches Per Second			
Horizontal	Vertical	Axial	
83. Ambient Temperature - Fahrenheit			
84. Drive End Bearing Temps - Fahrenheit			
5 Minutes	10 Minutes	15 Minutes	
85. Opposite Drive End Bearing Temps - Fahrenheit			
5 Minutes	10 Minutes	15 Minutes	
86. Document Final Condition with Pictures after paint			
87. Final Pics and QC Review			





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