

LR Motor Shop Repairs

Job Number 100391

Prepared for Midway Industries

618 Dillard Midway AR 72651

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

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AC Recondition As Found

Midway Industries

618 Dillard Midway, AR 72651

Location:	MOTOR SHOP LR
Serial Number:	NO NP

Hi-Speed Job Number:	100391
RPM:	1200 (RPM)
Frame:	284
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Enclosure:	DP
# of Leads:	9
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Shaft Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High**

4 - Good

Overall Condition

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

Initial Mechanical/Electrical

- 5. Does Shaft Turn Freely?
 - 6. Does Shaft Have Visible Damage? (No) No
 - 7. Assembled Shaft Runout
 - 8. Assembled Shaft End Play
 - 9. Air Gap Variation <10%





11. Lead Length 6 Inches





13.	Fan Condition		(N) NA	
14.	Broken or Missing Components		0	
Initial	Electrical Inspection			
15.	Insulation Resistance/Megger		0 Megohms	
16.	Winding Resistance			
	1-2	1-3	2-3	







rewind

6307

(F) Fail

18. Stator Condition





Mechanical Inspection

19. Drive End Bearing Number-



20. Drive End Bearing Qty.	1
21. Drive End Bearing Type	(Ball) Ball Bearing
22. Drive End Lubrication Type	(Grease) Grease Lubricated
23. Drive End Bearing Insulation or Grounding Device?	no
24. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na

25. Drive End Bearing Condition

Old hard grease



26. Opposite Drive End Bearing Number-





27. Opposite Drive End Bearing Qty.	1
28. Opposite Drive End Bearing Type	(Ball) Ball Bearing
29. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
30. Opposite Drive End Bearing Insulation or Grounding Device?	na
31. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
32. Opposite Drive End Bearing Condition	
Old grease	



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33. Drive End Seal	
34. Opposite Drive End Seal	
Rotor Inspection	
35. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
36. Growler Test	(Pass) Pass
37. Number of Rotor Bars	57
38. Rotor Condition	



39. List the Parts needed for the Repair Below

40. Signature of Technician that Disassembled Motor

RW



Mechanical Fits- Rotor 41. Shaft Runout

42	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
43	Coupling Fit Closest to Bearing Hous	ing	
	0 Degrees	90 Degrees	120 Degrees

44. Coupling Fit Closest to the end of the Shaft0 Degrees60 Degrees120 Degrees

45. Drive End Bearing Shaft Fit

0 Degrees 60 Degrees 120 Degrees 1.3782 1.3782 1.3782

46. Drive End Bearing Shaft Fit Condition



47. Opposite Drive End Bearing Shaft Fit

0 Degrees 60 Degrees 120 Degrees
1.3781 1.3781 1.3781

(P) Pass

(P) Pass

48. Opposite Drive End Bearing Shaft Fit Condition



49. Shaft Air Seal FitsDrive End Air SealOpposite Drive End Air Seal

Mechanical Fits- Bearing Housings





51	1. Drive End - Endbell Bearing Fit Condition			(P) Pass
52	52. Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.1498	3.1498	3.2498	
53	53. Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass	



54. Bearing Cap Condition

Drive End Bearing Cap

pass



55. End Bell Air Seal Fits

Drive End Air Seal Opposite Drive End Air Seal

56. List Machine Work Needed Below

57. Technician RW

Opposite Drive End Bearing Cap



Dynamic Balance Report

58. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

59. Initial Balance Readings

Drive End Opposite Drive End

60. Final Balance Readings

Drive End Opposite Drive End

61. Technician

Rewind

62. Core Test Results - Watts loss per Pound

Pre-Burnout Post Burnout

63. Core Hot Spot Test

Pre-Burnout Post-Burnout

- 64. Post Rewind Electrical Test- Insulation Resistance
- 65. Post Rewind Polarization Index
- 66. Post Rewind Winding Resistance

1-2 1-3 2-3

- 67. Post Rewind Surge Test
- 68. Post Rewind Hi-Pot
- 69. Technician

Root Cause of Failure

70. Failure locations

Winding insulation breakdown



71. Root cause of failure Grease tar and grit



Mechanical Fits- Bearing Housings - Post Repair				
72.	2. Drive End - Endbell Bearing Fit Post Repair			
	0 Degrees	60 Degrees	120 Degrees	
73.	Opposite Drive End - Endbell Bearing	Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees	
74.	Bearing Cap Condition Post Repair			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
75.	End Bell Air Seal Fits Post Repair			
	Drive End Air Seal	Opposite Drive End Air Seal		
76.	End Bell Repair Sign-off			

77.	7. Photograph All Major Components prior to assembly		
78.	3. Final Insulation Resistance Test		
79.	Assembled Shaft Endplay		
80.	Assembled Shaft Runout		
81.	Test Run Voltage		
	Volts	Volts	Volts
	456	455	456



82	Test Run Amperage	est Run Amperage		
	Amps	Amps	Amps	
	3.6	4.1	3.9	



83.	. Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
84.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
85.	Ambient Temperature - Fahrenheit		
86.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
87.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes

89. Document Final Condition with Pictures after paint







90. Final Pics and QC Review

RW





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

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AC Random Coil Rewind Report

Midway Industries 618 Dillard Midway, AR 72651

Priorities Found:

1	- Go	0
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Thomas Touris.		
General		
1. Job Numbe	er 100392	
Report Dat	re 11/10/2022	
3. Customer	Midway Industries	
Stator Winding		
4 Core Lengt	th 4.875 "	





5.	Core ID	7 "
6.	Back Iron Depth	0.25 "
7.	Slot Depth	0.876 "
8.	Tooth Width	0.25 "
9.	Number of Vents	
10.	Vent Width	
11.	Before Burnout Core loss	
12.	Flux Before Burnout	
13.	Watts before burnout	
14.	Watts loss per lb. before burnout	
15.	After Burnout Core Loss	
16.	Flux After burnout	
17.	Watts After Burnout	
18.	Watts loss per lb After Burnout	
19.	Core Iron Condition	
20.	RTD's	
21.	RTD's Reading	
22.	Motor Heaters	

23.	Heater Qty.	
	Heater Voltage	
	Heater Wattage	
	Thermistors	
	Number of Poles	6
	Slots	48
	Number of Coils	48
	Coil Weight	20 Lbs.
	Lead Markings	
	Grouping	
	6 of 2	
	12 of3	
	Multiple Wires	(Y) Yes
34.	Wire Size	
	2 #18	
	Turns per coil	14
	Pitch 1 to:	8
37.	Connection	
	1 &2 Wye	
	Lead Length	12 "
	Lead Size	18
	Number of Leads	9
	Megger Reading After Rewind	
	Coil Machine Slot	
	Coil Machine Tip	
	Coil Machine Pitch	
	Hi Pot Reading After Rewind	
	Surge Pattern After Rewind	
47.	Service Technician	Trent
		_
	/ /	

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