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LR Motor Shop Repairs

Job Number 100540

Prepared for MEC (011337)

P.O. Box 1680
Heber Springs AR 72543

Table of Contents



Hi-Speed Industrial Service
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AC Recondition As Found

MEC (011337)

P.O. Box 1680

Heber Springs, AR 72543

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AC Recondition - Rev. 2

Location: Shop

Serial Number: 1829355

Description: 10KW 15ton Hoist Motor 3600/450

Hi-Speed Job Number: 99600

Product Number: MF11X-106N166P85006E

Spec/ID #: 52292491

Serial Number: 1829355

HP/kW: 10 (kW)

RPM: 3250 (RPM)

Voltage: 480

Current: 20

Phase: Three

Hz: 60 (Hz)

Enclosure: TEFC

J-box Included: None


Date Received: 04/04/2022

Repair Stage: Teardown Inspection

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found:  7 - Good

Overall Condition

1. Report Date
2. Nameplate Picture



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1.0





3. 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

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	(Yes) Yes
7.	Does Shaft Have Visible Damage?	(No) No
8.	Assembled Shaft Runout	
9.	Assembled Shaft End Play	
10.	Air Gap Variation <10%	
11.	Lead Condition	(P) Pass
12.	Lead Length	24 Inches
13.	Stator Temperature Detector Rating and Function	
	Quantity	Rating
		Quantity Passed
14.	Bearing Temperature Detector Rating and Function	
	Quantity	Rating
		Quantity Passed
15.	Frame Condition	pass
16.	Fan Condition	(P) Pass



17. Broken or Missing Components

Initial Electrical Inspection

18. Insulation Resistance/Megger

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19. Winding Resistance		
1-2	1-3	2-3
20. Perform Surge Test		
21. Stator Condition		rewind



Mechanical Inspection

22. Drive End Bearing Number-	6206 2RS
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23. Drive End Bearing Qty.	1
24. Drive End Bearing Type	(Ball) Ball Bearing
25. Drive End Lubrication Type	(Grease) Grease Lubricated
26. Drive End Bearing Insulation or Grounding Device?	na
27. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
28. Drive End Bearing Condition	

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



35. Opposite Drive End Bearing Condition	
36. Drive End Seal	
37. Opposite Drive End Seal	
Rotor Inspection	
38. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
39. Growler Test	(Pass) Pass
40. Number of Rotor Bars	44



42. List the Parts needed for the Repair Below

43. Signature of Technician that Disassembled Motor

RW

Mechanical Fits- Rotor

44. Shaft Runout

45. Rotor Runout

Drive End Bearing Fit

Rotor Body

Opposite Drive End Bearing

46. Coupling Fit Closest to Bearing Housing

0 Degrees

90 Degrees

120 Degrees

47. Coupling Fit Closest to the end of the Shaft

0 Degrees

60 Degrees

120 Degrees

48. Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

1.1814

1.1814

1.1814

49. Drive End Bearing Shaft Fit Condition

(P) Pass



50. Opposite Drive End Bearing Shaft Fit			
0 Degrees	60 Degrees	120 Degrees	
1.3873	1.3873	1.3873	
51. Opposite Drive End Bearing Shaft Fit Condition			(P) Pass



52. Shaft Air Seal Fits			
Drive End Air Seal	Opposite Drive End Air Seal		
Mechanical Fits- Bearing Housings			
53. Drive End - Endbell Bearing Fit			
0 Degrees	60 Degrees	120 Degrees	
2.4413	2.4413	2.4413	



54. Drive End - Endbell Bearing Fit Condition			(P) Pass
55. Opposite Drive End - Endbell Bearing Fit			
0 Degrees	60 Degrees	120 Degrees	
2.4415	2.4415	2.4415	



57. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

na

na

58. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

59. List Machine Work Needed Below

60. Technician

RW

Root Cause of Failure

61. Failure locations

Brake pad needs replaced brake gear also needs replaced

62. Root cause of failure

Factory balance weight came off and shorted high speed winding



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