



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

LR Motor Shop Repairs

Job Number 103413

Prepared for Almatris Inc/RCP Bauxite (10014)

4701 Alcoa Road
Bauxite AR 72011

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AC Inspection as Found - *LR Motor Shop*

AC Inspection - Rev. 2: *HD75P2E*

1.0

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Printed on 8/26/2024

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AC Inspection as Found
Almatis Inc/RCP Bauxite (10014)
4701 Alcoa Road
Bauxite, AR 72011

FolderID: 103413
FormID: 21358452

AC Inspection - Rev. 2

Location: LR Motor Shop

Serial Number: HD75P2E

Description: 75HP NIDEC

Hi-Speed Job Number:	103413
Manufacturer:	US Motors/Nidec
Product Number:	GD05
Spec/ID #:	F037849976-0001M0005
Serial Number:	HD75P2E
HP/kW:	75 (HP)
RPM:	1785 (RPM)
Frame:	365T
Voltage:	230 / 460
Current:	170.0/85.0
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	12
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	08/20/2024
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: 2 - High 10 - Good

Overall Condition

1. Report Date

08/22/2024

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2. Nameplate Picture



3. Photos of all six sides of the machine.





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4.	Describe the Overall Condition of the Equipment as Received	
	<i>Dirty</i>	
5.	Report Date [COPY]	
Initial Mechanical/Electrical		
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
10.	Assembled Shaft End Play	inches
11.	Air Gap Variation <10%	



13. Lead Length	18 Inches
14. Does it have Lugs?, If so what is the Stud Size?	(No) No
15. Lead Numbers	1-12
16. Frame Condition	pass
17. Fan Condition	(P) Pass
18. Broken or Missing Components	
Initial Electrical Inspection	
19. Insulation Resistance/Megger	Megohms

Coil 2 (Ohms)	0.1260 Corr: 0....
Coil 3 (Ohms)	0.1260 Corr: 0....
Megohm Stat...	PASS
Volts (V)	504
I(μA)	0.0087
Resist	58081
At 40°C	15682
DI Status	No Test
Nameplate	Application
	Res

20. Winding Resistance

1-2

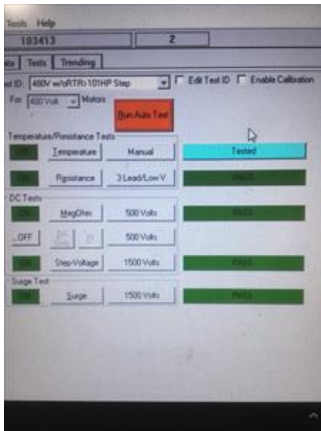
1-3

2-3

Test Time	3:44:02 PM	3:32:07 PM
IR Temp Com...	Thermoplastic	None
Presort Status	PASS	No Test
Bal L1 (Ohms)		
Bal L2 (Ohms)		
Bal L3 (Ohms)		
L1-L2 (Ohms)	0.0838 Corr: 0....	
L2-L3 (Ohms)	0.0840 Corr: 0....	
L3-L1 (Ohms)	0.0840 Corr: 0....	
Max Delta R %	0.217	
Coil 1 (Ohms)	0.1255 Corr: 0....	
Coil 2 (Ohms)	0.1260 Corr: 0....	
Coil 3 (Ohms)	0.1260 Corr: 0....	
Overtemp Stat	OK	No Test
Nameplate	Application	Results Summary

21. Perform Surge Test

(P) Pass



22. Number of Stator Slots

48

23. Stator Condition

pass

24. Stator Thermistors/Ohms

25. Stator Overloads/Ohms

Mechanical Inspection

26. Drive End Bearing Brand

KBC

27. Drive End Bearing Number-

6313

28. Drive End Bearing Qty.

1

29. Drive End Bearing Type

(Ball) Ball Bearing

30. Drive End Lubrication Type

(Grease) Grease Lubricated

31. Drive End Bearing Insulation or Grounding Device?

32. Drive End Wavy Washer/Snap-Ring Other Retention Device?

na

33. Drive End Bearing Condition

Signs of frosting



34. Opposite Drive End Bearing Brand	SKF
35. Opposite Drive End Bearing Number-	6213
36. Opposite Drive End Bearing Qty.	1
37. Opposite Drive End Bearing Type	(Ball) Ball Bearing
38. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
39. Opposite Drive End Bearing Insulation or Grounding Device?	
40. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
41. Opposite Drive End Bearing Condition	
Signs of frosting	



42. Drive End Seal	
43. Opposite Drive End Seal	
Rotor Inspection	
44. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
45. Growler Test	(Pass) Pass
46. Number of Rotor Bars	56
47. Rotor Condition	pass
48. List the Parts needed for the Repair Below	
6313 6213 Aegis ring- 3.2341	

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49. Signature of Technician that Disassembled Motor

Cw



Mechanical Fits- Rotor

50. Shaft Runout inches

51. Rotor Runout

Drive End Bearing Fit

Rotor Body

Opposite Drive End Bearing

52. Coupling Fit Closest to Bearing Housing

0 Degrees

90 Degrees

120 Degrees

53. Coupling Fit Closest to the end of the Shaft

0 Degrees

60 Degrees

120 Degrees

54. Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

2.5593

2.5593

2.5593

55. Drive End Bearing Shaft Fit Condition

(P) Pass

56. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

2.559

2.559

2.559

57. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass

58. Shaft Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

5.5122

5.5122

5.5123

60. Drive End - Endbell Bearing Fit Condition

(P) Pass

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees

60 Degrees

120 Degrees

4.7255

4.7251

4.7251

62. Opposite Drive End - Endbell Bearing Fit Condition

(P) Pass

63. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

64. End Bell Air Seal Fits

Drive End Air Seal

Opposite Drive End Air Seal

65. List Machine Work Needed Below

66. Technician

Cw


 Co sign: TRH
Root Cause of Failure

67. Failure locations

Bearings

68. Root cause of failure

*Contamination and frosting***Dynamic Balance Report**

69. Rotor Weight and Balance Grade

Rotor Weight

Balance Grade

70. Initial Balance Readings

Drive End

Opposite Drive End

71. Final Balance Readings

Drive End

Opposite Drive End

72. Technician

Assembly

73. QC Check All Parts for Cleanliness Prior to Assembly

74. Photograph All Major Components prior to assembly

75. Final Insulation Resistance Test

76. Assembled Shaft Endplay

77. Assembled Shaft Runout

78. Test Run Voltage

Volts

Volts

Volts

79. Test Run Amperage

Amps

Amps

Amps

80. Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

81. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal

Vertical

Axial

82. Ambient Temperature - Fahrenheit

83. Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

84. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes

10 Minutes

15 Minutes

85. Document Final Condition with Pictures after paint

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