



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

LR Motor Shop Repairs

Job Number 102803

Prepared for BAD BOY

102 INDUSTRIAL DRIVE
BATESVILLE AR 72501

Table of Contents

AC Inspection as Found - *MOTOR SHOP LR*

AC Inspection - Rev. 2: *C1503191212*

1.0

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Printed on 4/29/2024

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

AC Inspection as Found

BAD BOY

102 INDUSTRIAL DRIVE
BATESVILLE, AR 72501

FolderID: 102803
FormID: 20116094

AC Inspection - Rev. 2

Location: MOTOR SHOP LR

Serial Number: C1503191212

Description: 50HP BALDOR 1775 RPM

Hi-Speed Job Number: 102803

Manufacturer: Baldor

Product Number: CAT: EM4115T

Spec/ID #: 12H013Y141G1

Serial Number: C1503191212

HP/kW: 50 (HP)

RPM: 1775 (RPM)

Frame: 326T

Voltage: 208-230/460

Current: 128-116/58 (Amps)

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: TEFC

of Leads: 9

J-box Included: Complete

Coupling/Sheave: None

Date Received: 04/29/2024

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Teardown Inspection

Rewind: No

Shaft Machined Fit Repairs
Required: Yes

Bearing Housing Machined
Fit Repairs Required: No

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: ● 1 - High ● 9 - Good

Overall Condition

1. Report Date

04/26/2024

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1.0

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

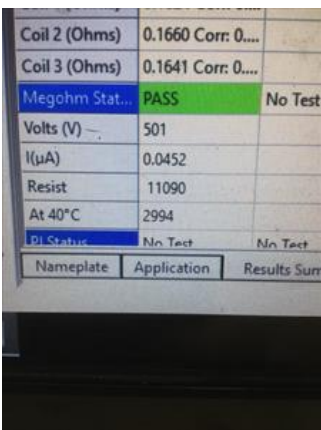
Dirty

Initial Mechanical/Electrical

5. Does Shaft Turn Freely?	(Y) Yes
6. Does the shaft require T.I.R in Lathe to identify additional repairs?	(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	16 Inches
13. Does it have Lugs?, If so what is the Stud Size?	(No) No
14. Lead Numbers	1-9
15. Frame Condition	pass
16. Fan Condition	(P) Pass
17. Broken or Missing Components	na

Initial Electrical Inspection

18. Insulation Resistance/Megger	Megohms
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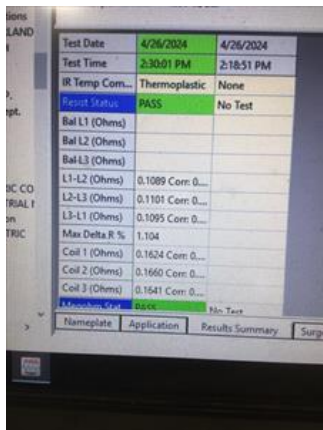
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19. Winding Resistance

1-2

1-3

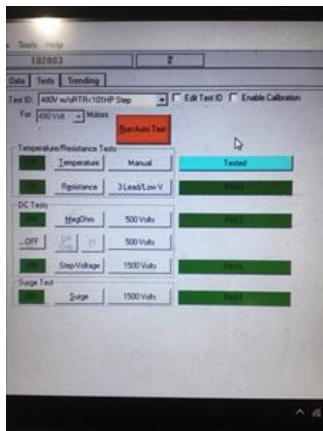
2-3



Test Date	4/26/2024	4/26/2024
Test Time	2:30:01 PM	2:18:51 PM
IR Temp Conn...	Thermoplastic	None
Resist Status	PASS	No Test
Bal L1 (Ohms)		
Bal L2 (Ohms)		
Bal L3 (Ohms)		
L1-L2 (Ohms)	0.1089 Corr: 0...	
L2-L3 (Ohms)	0.1101 Corr: 0...	
L3-L1 (Ohms)	0.1095 Corr: 0...	
Max Delta R %	1.104	
Coil 1 (Ohms)	0.1634 Corr: 0...	
Coil 2 (Ohms)	0.1660 Corr: 0...	
Coil 3 (Ohms)	0.1641 Corr: 0...	
IR Protection	Pass	No Test
Nameplate	Application	Results Summary

20. Perform Surge Test

(P) Pass



21. Number of Stator Slots

48

22. Stator Condition

needs washed

23. Stator Thermistors/Ohms

Na

24. Stator Overloads/Ohms

Na

Mechanical Inspection

25. Drive End Bearing Brand

FAG



26. Drive End Bearing Number- 6312

27. Drive End Bearing Qty. 1

28. Drive End Bearing Type (Ball) Ball Bearing

29. Drive End Lubrication Type (Grease) Grease Lubricated

30. Drive End Bearing Insulation or Grounding Device?

Na

31. Drive End Wavy Washer/Snap-Ring Other Retention Device? spanner nut

32. Drive End Bearing Condition

Signs of contamination



33. Opposite Drive End Bearing Brand

FAG



34. Opposite Drive End Bearing Number-	6311
35. Opposite Drive End Bearing Qty.	1
36. Opposite Drive End Bearing Type	(Ball) Ball Bearing
37. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
38. Opposite Drive End Bearing Insulation or Grounding Device?	
<i>Na</i>	
39. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
40. Opposite Drive End Bearing Condition	
<i>Signs of contamination</i>	



41. Drive End Seal	na
42. Opposite Drive End Seal	
<i>Na</i>	
Rotor Inspection	
43. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
44. Growler Test	(Pass) Pass
45. Number of Rotor Bars	46
46. Rotor Condition	needs cleaned
47. List the Parts needed for the Repair Below	
6312	
6311	

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48. Signature of Technician that Disassembled Motor

Cw



Mechanical Fits- Rotor

49. Shaft Runout 0.003 inches

50. Rotor Runout

Drive End Bearing Fit

Rotor Body

Opposite Drive End Bearing

Na

51. Coupling Fit Closest to Bearing Housing

0 Degrees

90 Degrees

120 Degrees

Na

52. Coupling Fit Closest to the end of the Shaft

0 Degrees

60 Degrees

120 Degrees

Na

53. Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

Failed
Bearing spun on shaft



54. Drive End Bearing Shaft Fit Condition (F) Fail

55. Opposite Drive End Bearing Shaft Fit

0 Degrees

60 Degrees

120 Degrees

2.1656

2.1657

2.1656

56. Opposite Drive End Bearing Shaft Fit Condition (P) Pass

57. Shaft Air Seal Fits


Drive End Air Seal

Opposite Drive End Air Seal

Na

Mechanical Fits- Bearing Housings

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58. Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
5.1185	5.1184	5.1185
59. Drive End - Endbell Bearing Fit Condition		(P) Pass
60. Opposite Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
4.7247	4.7248	4.7247
61. Opposite Drive End - Endbell Bearing Fit Condition		(P) Pass
62. Bearing Cap Condition		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	
<div> <div></div> <div>Pass</div> </div>		
63. End Bell Air Seal Fits		
Drive End Air Seal	Opposite Drive End Air Seal	
<div> <div></div> <div>Na</div> </div>		
64. List Machine Work Needed Below <i>DE shaft bearing fit</i>		
65. Technician		Cw
		
<div> <div></div> <div>Witness: TRH</div> </div>		
Root Cause of Failure		
66. Failure locations <i>Bearings and DE shaft bearing fit</i>		
67. Root cause of failure <i>Wear and contamination and mixed grease</i>		



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1. **APPLICABILITY.** The sale of any and all goods and/or services by Mock, Inc. d/b/a Hi-Speed Industrial Service ("Hi-Speed") shall be specifically conditioned upon and subject to the following terms and conditions which are incorporated by reference into any contracts and purchase orders with Hi-Speed, and which shall form and become a part of any agreement related thereto. Buyer's acceptance of any offer or quotation made by Hi-Speed for sale of any goods or services is expressly made subject to the terms and conditions set forth herein and to be so effective, Buyer need not sign or approve these Terms and Conditions to be bound hereunder provided a copy of same is provided to Buyer through any means. None of the terms and conditions contained herein may be added to, expanded, changed, modified, superseded or otherwise altered except as revised in writing and duly executed by Hi-Speed, and all orders received by Hi-Speed shall be governed only by the terms and conditions contained herein, notwithstanding any terms, conditions or provisions of any purchase order, release order, authorization or any other form issued by the Buyer. Hi-Speed hereby objects to any additional, modified, changed, deleted, altered or other terms and conditions not contained herein and notifies Buyer that any such terms or provisions are expressly rejected by Hi-Speed.
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5. **DELIVERY OF GOODS AND/OR SERVICES.** Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
6. **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buyer agree that time is of the essence for the purchase order and that Buyer shall fully cooperate with Hi-Speed in order to allow Hi-Speed full access to prosecute its work diligently and in an orderly manner. Buyer shall assist Hi-Speed in every way possible to avoid delaying, disrupting or interfering with the progress of Hi-Speed's work at the project site. In the event Hi-Speed's work is delayed, hindered, suspended, disrupted, re-sequenced or interfered with or rendered less efficient or more costly or adversely affected in any way as a result of acts or omissions of Buyer or other contractors or employees of Buyer or by any other reason beyond Hi-Speed's control and without the fault of Hi-Speed, then, in such event, Buyer shall be liable to Hi-Speed for any damages, additional costs, expenses, labor, materials, man hours, acceleration costs, overtime, additional jobsite overhead, extended home office overhead, and any and all other direct and indirect expenses of whatsoever nature or kind, caused in whole or in part, as a result of any of the above-referenced occurrences. Hi-Speed's project records will be the basis for computing the additional costs and damages of Hi-Speed's labor, materials, expenses and overhead related to such changes. BUYER WARRANTS THAT THE SITE FOR DELIVERY OR INSTALLATION OF ANY GOODS AND/OR FOR THE PERFORMANCE OF ANY SERVICES SHALL BE READY AND ADEQUATE FOR HI-SPEED'S DELIVERY OF GOODS AND/OR PERFORMANCE OF SERVICES AND THAT HI-SPEED SHALL HAVE FULL ACCESS THERETO, FREE OF ALL OBSTRUCTIONS. BUYER SHALL ASSUME ALL EXTRA COSTS ASSOCIATED WITH HI-SPEED'S INABILITY TO INSTALL ANY GOODS OR PERFORM ANY SERVICES AS A RESULT OF BUYER'S FAILURE TO COMPLY WITH THIS PROVISION. HI-SPEED MAY NOT INSPECT THE SITE PRIOR TO DELIVERY AND/OR INSTALLATION OF GOODS AND/OR PERFORMANCE OF SERVICES AND MAKES NO WARRANTY AS TO THE SUFFICIENCY OF THE SITE FOR THE DELIVERY AND/OR INSTALLATION OF GOODS AND/OR THE PERFORMANCE OF SERVICES AT SUCH SITE.
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8. **WARRANTIES.** Hi-Speed warrants that all goods shall conform in all material aspects to the goods identified in the quotation to Buyer and/or purchase order, and Hi-Speed makes to Buyer the manufacturer's express warranty for any goods sold to Buyer, which is offered by the manufacturer at the time of acceptance of any quotation by Buyer. This warranty is conditioned upon the installation, operation, and maintenance of the goods in accordance with the manufacturer's recommendations and/or standard industry practice and the goods at all times being operated or used under normal operating conditions for which they were designed. Hi-Speed, at its sole option, will repair or

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11. **GOVERNING LAW AND JURISDICTION.** Any controversy arising out of any quotation, the purchase order, the goods sold or delivered, repair or replacement thereof, or any services provided pursuant to any quotation or any purchase order, or these Standard Terms and Conditions shall be governed by the laws of the state of Tennessee without regard to any choice of law provisions and any cause of action related in any manner thereto shall be brought only in the state or federal courts of Shelby County, Tennessee.
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13. **FORCE MAJEURE.** Neither party shall be responsible for any delay or failure in performance of any party of the quotation, purchase order or these Standard Terms and Conditions to the extent that such delays or failures are caused by fire, flood, earthquake, explosion, war, embargo, government requirement, civil or military authority, acts of God, or any other circumstances beyond its reasonable control and not involving any fault or negligence on the party affected ("Condition"). If any such Condition occurs, the party delayed or unable to perform shall promptly give written notice to the other party and, if such Condition remains at the end of thirty (30) days, the party affected by the other party's delay and inability to perform may elect to (i) terminate such order or part thereof, or (ii) suspend the order for the duration of the Condition, if the Buyer is the suspending party, buy elsewhere comparable material to be sold under the order and apply to any commitment the purchase price of such purchase, and resume performance of the order once the Condition ceases, with an option in the affected party to extend the period of this order up to the length of the time the Condition endures.
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