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— EVERY DAY SINCE 1946 —

LR Motor Shop Repairs

Job Number 104252

Prepared for Arkansas Electric Coop. (11681)

17400 highway 365 south
Little Rock AR 72206

Table of Contents

AC Inspection as Found - *MOTOR SHOP LR*

AC Inspection - Rev. 2: *07H383W361G1*

1.0

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AC Inspection as Found
Arkansas Electric Coop. (11681)
17400 highway 365 south
Little Rock, AR 72206

FolderID: 104252
FormID: 23680105

AC Inspection - Rev. 2

Location: MOTOR SHOP LR

Serial Number: 07H383W361G1

Description: 7 1/2 AMETEK

Hi-Speed Job Number: 104252

Manufacturer: Other

Product Number: 511570

Serial Number: 07H383W361G1

HP/kW: 7.5 (HP)

RPM: 3450 (RPM)

Frame: 215TCZ

Voltage: 208-230/460

Current: 11.1 (Amps)

Phase: Three

Hz: 60 (Hz)

Service Factor: 1.15

Enclosure: TEFC

of Leads: 9

J-box Included: Complete

Coupling/Sheave: Propeller

Date Received: 03/14/2025

Bearing RTDs: No

Stator RTDs: No

Repair Stage: Teardown Inspection

Rewind: No

**Shaft Machined Fit Repairs
Required:** Yes

**Bearing Housing Machined
Fit Repairs Required:** Yes

Heaters: No

Winding Type : Random Wound

Bearing Type: Rolling Element

Priorities Found: 3 - High 9 - Good

Overall Condition

1. Report Date

03/14/2025

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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>Needs bearings, shaft fits repaired and endbell sleeved.</i>	
5. Distance from the end of the shaft to the Coupling/Sheave	inches
<i>Has a shoulder</i>	
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	0.001 Inches
10. Assembled Shaft End Play	0 inches
11. Air Gap Variation <10%	
<i>Na</i>	
12. Lead Condition	(P) Pass
13. Lead Length	8 Inches
14. Does it have Lugs?, If so what is the Stud Size?	(No) No
15. Lead Numbers	1-9
16. Frame Condition	good
17. Fan Condition	(P) Pass
18. Does motor have internal fan?	(No) No
19. Broken or Missing Components	two broken bolts
Initial Electrical Inspection	
20. Insulation Resistance/Megger	2000 Megohms

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21. Winding Resistance

1-2

1-3

2-3

In pic

Test Time	2:25:11 PM	2:16:17 PM
Temp (°C)	23.9	
IR Temp Com...	None	None
Result Status	DELTA R	No Test
Bal L1 (Ohms)		
Bal L2 (Ohms)		
Bal L3 (Ohms)		
L1-L2 (Ohms)	1.464 Corr: 1.4...	
L2-L3 (Ohms)	1.534 Corr: 1.5...	
L3-L1 (Ohms)	1.464 Corr: 1.4...	
Max Delta R %	4.686	
Coil 1 (Ohms)	2.161 Corr: 2.1...	
Coil 2 (Ohms)	2.375 Corr: 2.3...	
Nameplate	Application	Results Summary

22. Perform Surge Test

(P) Pass

Basket wound. Pulls good amps on test panel



23. Number of Stator Slots

36

24. Stator Condition

Good

25. Stator Thermistors/Ohms

Na

26. Stator Overloads/Ohms

Na

Mechanical Inspection

27. Drive End Bearing Brand

koyo

28. Drive End Bearing Number-

6309rd

29. Drive End Bearing Qty.

1

30. Drive End Bearing Type

(Ball) Ball Bearing

31. Drive End Lubrication Type

(Grease) Grease Lubricated

32. Drive End Bearing Insulation or Grounding Device?

No


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

none

34. Drive End Bearing Condition

worn

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35. Opposite Drive End Bearing Brand	nachi	
36. Opposite Drive End Bearing Number-	6206nse	
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?	none	
41. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	no	
42. Opposite Drive End Bearing Condition	worn	
43. Drive End Seal	none	
44. Opposite Drive End Seal		
Na		
Rotor Inspection		
45. Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast	
46. Growler Test	(Pass) Pass	
47. Number of Rotor Bars	28	
48. Rotor Condition	good	
49. List the Parts needed for the Repair Below		
6309 2rsr 6206 2rsr		
50. Signature of Technician that Disassembled Motor	Trevor Hall	
		
Mechanical Fits- Rotor		
51. Shaft Runout	0.001 inches	
52. Rotor Runout		
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
Na		
53. Coupling Fit Closest to Bearing Housing		
0 Degrees	90 Degrees	120 Degrees
1.3746	1.3746	1.3746
54. Coupling Fit Closest to the end of the Shaft		
0 Degrees	60 Degrees	120 Degrees
1.3746	1.3746	1.3746
55. Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
1.7716	1.7717	1.7717
56. Drive End Bearing Shaft Fit Condition		(F) Fail
Undersized		
57. Opposite Drive End Bearing Shaft Fit		
0 Degrees	60 Degrees	120 Degrees
1.1812	1.1812	1.1811
58. Opposite Drive End Bearing Shaft Fit Condition		(F) Fail
Undersized		

59.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
	good	good	
Mechanical Fits- Bearing Housings			
60.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	3.9376	3.9375	3.9376
<div></div>	61.	Drive End - Endbell Bearing Fit Condition	(P) Pass
	62.	Opposite Drive End - Endbell Bearing Fit	
		0 Degrees	60 Degrees120 Degrees
		2.4418	2.44192.4422
<div></div>	63.	Opposite Drive End - Endbell Bearing Fit Condition	(F) Fail
<div></div>		Oversized	
	64.	Bearing Cap Condition	
		Drive End Bearing Cap	Opposite Drive End Bearing Cap
		good	
	65.	End Bell Air Seal Fits	
		Drive End Air Seal	Opposite Drive End Air Seal
		good	good
	66.	List Machine Work Needed Below	
		Both shaft fits, opposite drive endbell	
	67.	Technician	Trevor Hall
<div></div>			
Root Cause of Failure			
	68.	Failure locations	
		Shaft fits, bearings and opposite drive endbell	
	69.	Root cause of failure	
		Normal wear	



STANDARD TERMS AND CONDITIONS FOR PURCHASE OF GOOD AND/OR SERVICES

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.
2. **PRICE.** All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
3. **SCOPE OF GOODS AND/OR SERVICES.** The goods and/or services provided by Hi-Speed pursuant to any quotation shall be limited exclusively to those goods and/or services expressly identified therein. Hi-Speed does not assume any responsibility and/or liability for the failure to provide any other goods and/or services not identified in any quotation. Modifications, additions or deletions to or from the scope referenced in any quotation shall only be effective if evidenced in writing and signed by Hi-Speed. The sale of any of all goods and/or services affected by such modification, addition or deletion shall be subject to these same Standard Terms and Conditions whether or not referenced therein.
4. **BILLING AND PAYMENT TERMS.** Hi-Speed shall invoice Buyer for all goods and/or services as same are rendered at the address listed on the quotation. Payments for all goods and/or services shall be due thirty (30) days from the date of the current invoice or as otherwise set forth in the quotation. Late payments are subject to a late fee of 5% of the total invoice amount. Recurring late payments may lead to a deposit requirement on future services or sale of goods. Buyer shall be liable to Hi-Speed for any and all fees and expenses incurred by Hi-Speed to collect any invoices or to enforce these Standard Terms and Conditions, including but not limited to, attorney's fees.
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.
7. **INSPECTION/ACCEPTANCE.** All goods and services ordered pursuant to any quotation shall be subject to inspection by Buyer after delivery or performance to determine conformity with the quotation and/or purchase order and Hi-Speed's advertised or published specifications. Buyer shall have a period of thirty (30) days from shipment of goods at the delivery destination specified in the quotation within which to inspect the goods for conformity with the quotation, order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. Buyer shall have a period of thirty (30) days following completion of any services within which to inspect the services for conformity with the quotation, purchase order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. If the goods delivered or services performed do not so conform, upon delivery of notice to Hi-Speed of any discrepancy, nonconformance or rejection, Hi-Speed shall have sixty (60) days to cure the alleged discrepancy and/or nonconformance. If Hi-Speed fails to cure in this time period, Buyer shall have the right to reject such goods or services. After the cure period, goods that have been delivered and rejected, in whole or in part, shall be returned to Hi-Speed. Buyer shall notify Hi-Speed and arrange for the return of the goods as required. Should such non-conforming services be rejected Hi-Speed shall, at its sole cost, re-perform the non-conforming services. Inspection or failure to inspect on any occasion shall not affect Buyer's rights under the warranty provisions herein.
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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10. **SEVERABILITY.** The partial or complete invalidity of any provision of these Standard Terms and Conditions shall not affect the enforceability of the remainder of these Standard Terms and Conditions. If any provision is found to be invalid or unenforceable, that portion shall be modified to make it enforceable or shall be stricken and the remainder of these Standard Terms and Conditions shall enforced.
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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15. **ASSIGNMENT.** The rights and obligations of the parties shall neither be assigned nor delegated without the prior written consent of the other party. However, any party may assign or delegate its respective rights and obligations, in whole or in part, (i) to any subsidiary, (ii) pursuant to other financing, merger or reorganization or (iii) pursuant to any sale or transfer of substantially all of the assets of the assigning party. These Standard Terms and Conditions shall bind the heirs, successors and assigns of the parties hereto.
16. **NO INDIVIDUAL LIABILITY.** Notwithstanding any other agreement to the contrary, the Buyer agrees that in no event will the Buyer hold and Hi-Speed owner, director, officer or employee personally liable for unintentional tortious conduct or conduct that constitutes the breach of any contract between Hi-Speed and the Buyer, even if the Hi-Speed owner, director, officer or employee is or could be construed to be a party to such contract.