

LR Motor Shop Repairs

Job Number 104306

Prepared for Arkansas Box

100 William J Clark Drive Conway AR 72032

Table of Contents

AC Inspection as Found - MOTOR SHOP LR

AC Inspection - Rev. 2: GG161650008

1.0





AC Inspection as Found

Arkansas Box

100 William J Clark Drive Conway, AR 72032

FolderID: 104306 FormID: 23775639

AC Inspection - Rev. 2

Location: MOTOR SHOP LR Serial Number: GG161650008

Description: 40 HP BALDOR

Hi-Speed Job Number:	104306
Manufacturer:	Baldor
Product Number:	CAT# 05040R-BV
Spec/ID #:	SPEC# T21T2353
Serial Number:	GG161650008
HP/kW:	40 (HP)
RPM:	1750 (RPM)
Frame:	HC2115ATZ
Voltage:	Other
Service Factor:	1.0
Enclosure:	ODP
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **a** 2 - High



9 - Good

Overall Condition

03/18/2025 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		
		Serviceable		
In	itial	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	0 Inches	
	9.	Assembled Shaft End Play	inches	
	-	Na		
	10.	Air Gap Variation <10%	na	
	11.	Lead Condition	(P) Pass	
	12.	Lead Length	12 Inches	
	13.	Does it have Lugs?, If so what is the Stud Size?	(No) No	
	14.	Lead Numbers	A1A2 F1F2P1P2	
	15.	Frame Condition	pass	
	16.	Fan Condition	(N) NA	
	17.	Does motor have internal fan?	(No) No	
	18.	Broken or Missing Components	none	
In	itial	Electrical Inspection		
	19.	Insulation Resistance/Megger		
	20.	Winding Resistance		
		1-2 1-3	2-3	
	-	Na		



Armature passed the surge test. Fields failed



22. Number of Stator Slots

Na

23. Stator Condition FIELDS NEED REWOUND





Maak	anical Inspection	
25.	Stator Overloads/Ohms	yes
24.	Stator Thermistors/Ohms	na

26. Drive End Bearing Brand NACHI





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?	na
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
33.	Drive End Bearing Condition	
-	Frosting	



34.	Opposite Drive End Bearing Brand	Fag
35.	Opposite Drive End Bearing Number-	6309C3



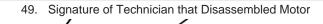
36.	Opposite Drive End Bearing Qty.	1
37.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
38.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
39.	Opposite Drive End Bearing Insulation or Grounding Device?	na
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
41.	Opposite Drive End Bearing Condition	aegis rig shaft size 2.0117
-	Frosting	

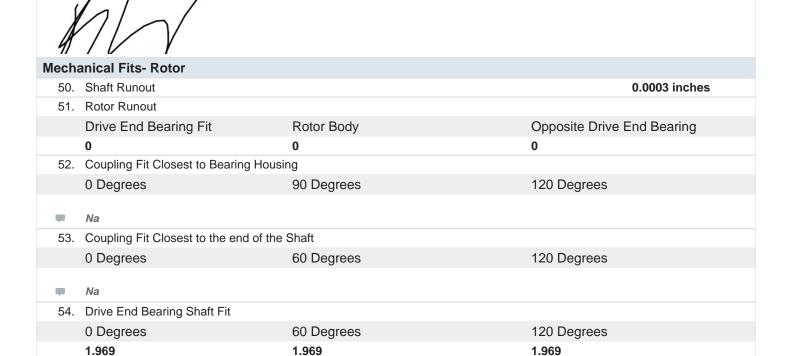


42.	Drive End Seal	na
43.	Opposite Drive End Seal	na
Rotor	Inspection	
44.	Rotor Type/Material	(Copper Barred) Copper Barred Rotor
45.	Growler Test	(Pass) Pass
46.	Number of Rotor Bars	
-	Na	
47.	Rotor Condition	
-	Pass	



48. List the Parts needed for the Repair Below 6310C3 Bearing 6209C3 Bearing





60 Degrees

1.7723

RW

(P) Pass

120 Degrees

1.7723



0 Degrees1.7722

55. Drive End Bearing Shaft Fit Condition

56. Opposite Drive End Bearing Shaft Fit

57.	Opposite Drive End Bearing Shaft Fit Condition			(P) Pass
58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
-	Pass			
Mecha	anical Fits- Bearing Housings			
59.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	4.3316	4.3316	4.3316	



61. Opposite Drive End - Endbell Bearing Fit				
	0 Degrees	60 Degrees	120 Degrees	
	3.3481	3.3481	3.3481	
62.	Opposite Drive End - Endbell Bearing	Fit Condition		(F) Fail
-	Resleeve			



63.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
-	Pass		
64.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
-	Pass		
65.	List Machine Work Needed Below		
	Ode end bell bearing fit bad		
66.	Technician		RW
	Co sign: TRH		

Root	Cause of Failure		
67.	Failure locations		
	Field coil ode end bell bearing fit		
68.	Root cause of failure		
	Dirty bad brushes ode end bell bearing	fit bad also fields need rewound	
-	mic Balance Report		
69.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
70	Initial Balance Readings		
70.	Drive End	Opposite Drive End	
	Drive Eria	Opposite Drive End	
71.	Final Balance Readings		
	Drive End	Opposite Drive End	
		· ·	
72.	Technician		
Rewir	nd		
73.	Core Test Results - Watts loss per Po	ound	
	Pre-Burnout	Post Burnout	
7.4	Constitution of Tool		
74.	Core Hot Spot Test	Doot Duranut	
	Pre-Burnout	Post-Burnout	
75.	Post Rewind Electrical Test- Insulatio	n Resistance	
76.	Post Rewind Polarization Index		
77.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
78.	Post Rewind Surge Test		
79.	Post Rewind Hi-Pot		
80.	Technician		
Mech	anical Fits- Bearing Housings - P	ost Repair	
81.	Drive End - Endbell Bearing Fit Post I	·	
	0 Degrees	60 Degrees	120 Degrees
02	Opposite Drive End Endhall Bearing	Eit Poet Popair	
82.	11		120 Dograps
	0 Degrees	60 Degrees	120 Degrees
83.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	3 1	,, , , , , , , , , , , , , , , , , , , ,	
84.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
	End Bell Repair Sign-off		
Asser			
86.	QC Check All Parts for Cleanliness P	rior to Assembly	

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87.	Photograph All Major Components pri	or to assembly	
88.	Final Insulation Resistance Test		
89.	Assembled Shaft Endplay		
90.	Assembled Shaft Runout		
91.	Test Run Voltage		
	Volts	Volts	Volts
92.	Test Run Amperage		
	Amps	Amps	Amps
93.	Drive End Vibration Readings - Inches		
	Horizontal	Vertical	Axial
0.4	Opposite Drive End Vibration Reading	is - Inches Per Second	
34.			Avial
	Horizontal	Vertical	Axial
95.	Ambient Temperature - Fahrenheit		
96.	•	it	
	5 Minutes	10 Minutes	15 Minutes
97.	Opposite Drive End Bearing Temps -	Fahrenheit	
	5 Minutes	10 Minutes	15 Minutes
98.	Document Final Condition with Picture	es after paint	
99.	Final Pics and QC Review		

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- 4. <u>BILLING AND PAYMENT TERMS.</u> 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. <u>DELIVERY OF GOODS AND/OR SERVICES.</u> 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.
- **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buver 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. <u>WARRANTIES.</u> 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.
- 12. ABANDONED EQUIPMENT. Hi-Speed requires that Buyer promptly pick up or provide shipment instructions for Buyer equipment or other Buyer property in Hi-Speed's possession. If equipment or other Buyer property is left with Hi-Speed and not picked up within six (6) months after Hi-Speed's final action related to the applicable property (e.g. evaluation, teardown, estimate, completion of services), Hi-Speed will consider such property abandoned and may dispose of it in accordance with applicable law. Buyer agrees to hold Hi-Speed harmless for any damage or claim for such abandoned property and acknowledges that Hi-Speed may discard or recycle it at Hi-Speed's sole and absolute discretion. Specifically, Hi-Speed may sell Buyer's abandoned property at a private or public sale and retain the proceeds to offset Hi-Speed's storage, inspection and servicing costs. For the avoidance of doubt, Hi-Speed reserves its statutory and other lawful liens for unpaid charges related to abandoned property.
- 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, earth quake, 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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- 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.