

EVERY DAY SINCE 1946

LR Motor Shop Repairs

Job Number 103838

Prepared for ALCOA REMEDIATION

1401 BAUXITE CUTOFF BAUXITE AR 72011

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AC Inspection as Found - MOTOR SHOP LR



AC Inspection as Found

ALCOA REMEDIATION **1401 BAUXITE CUTOFF**

BAUXITE, AR 72011

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AC Inspection -	Rev. 2	Hi-Speed Job Number:	103838
Location:	MOTOR SHOP LR	Manufacturer:	Other
Serial Number:	ID: 9602548-819 R077128	Spec/ID #:	9602548-819 R077128
Description:75HF	US ELECTRICAL 1770RPM	HP/kW:	75 (HP)
		RPM:	1770 (RPM)
		Frame:	365T
		Voltage:	230 / 460
		Current:	91 (Amps)
		Phase:	Three
		Hz:	60 (Hz)
		Service Factor:	1.15
		Enclosure:	TEFC
		# of Leads:	3
		J-box Included:	Complete
		Coupling/Sheave:	Coupling
		Date Received:	12/05/2024
		Bearing RTDs:	No
		Stator RTDs:	No
		Repair Stage:	Final
		Rewind:	No
		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: **1 - High**

13 - Good

Overall Condition

1. Report Date

12/13/2024

2. Nameplate Picture



3. Photos of all six sides of the machine.





Missing bar



















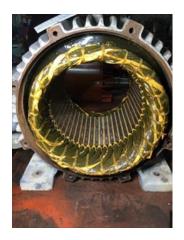












	4.	Describe the Overall Condition of the Equipment as Received Serviceable	
	5.	Distance from the end of the shaft to the Coupling/Sheave	0.625 inches
	•	Shaft out.	
In	itial	Mechanical/Electrical	
	6.	Does Shaft Turn Freely?	(Y) Yes
	7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(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%	
	12.	Lead Condition	(P) Pass
	13.	Lead Length	11 Inches
	14.	Does it have Lugs?, If so what is the Stud Size?	(No) No
	15.	Lead Numbers	1-3
	16.	Frame Condition	pass
	17.	Fan Condition	(P) Pass

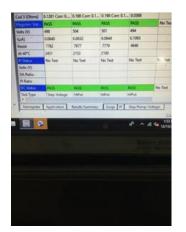


18. Broken or Missing Components

none

Initial Electrical Inspection

19. Insulation Resistance/Megger



20. Winding Resistance

1-2 1-3 2-3

(P) Pass



21. Perform Surge Test



22.	Number of Stator Slots	48	
23.	Stator Condition	pass	
24.	Stator Thermistors/Ohms		
25.	Stator Overloads/Ohms		
Mech	Mechanical Inspection		

26. Drive End Bearing Brand





27. Drive End Bearing Number-	6313 2Z/C3
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?	none
32. Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
33. Drive End Bearing Condition	replace
34. Opposite Drive End Bearing Brand	SKF
35. Opposite Drive End Bearing Number-	6212 2Z/C3





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?	none
40. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	none
41. Opposite Drive End Bearing Condition	rusted



	Drive End Seal		none
43.	Opposite Drive End Seal		none
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 Re	pair Below	
	6312 2Z/C3 & 62122Z/C3 bearings	3	
49.	Signature of Technician that Dis		Terrence Holland
	anical Fits- Rotor		0.000 inches
	Shaft Runout		0.001 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		
	0 Degrees	60 Degrees	120 Degrees
54.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.5598	2.5598	2.56
55.	Drive End Bearing Shaft Fit Cor	ndition	(P) Pass
		- (1);1	
56.	Opposite Drive End Bearing Sh	art Fit	
56.	Opposite Drive End Bearing Shi 0 Degrees	60 Degrees	120 Degrees
56.			120 Degrees 2.3624

58.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
Mech	anical Fits- Bearing Housings			
59.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	5.5133	5.5135	5.513	
6 0.	Drive End - Endbell Bearing Fit Cond	ition		(F) Fail
	Out of tolerance			
61.	Opposite Drive End - Endbell Bearing	ı Fit		
61.	Opposite Drive End - Endbell Bearing 0 Degrees	9 Fit 60 Degrees	120 Degrees	
61.		,	120 Degrees 4.3309	
61. • 62.	0 Degrees 4.331	60 Degrees 4.3307	0	(P) Pass
	0 Degrees 4.331 Opposite Drive End - Endbell Bearing	60 Degrees 4.3307	0	(P) Pass
62.	0 Degrees 4.331 Opposite Drive End - Endbell Bearing	60 Degrees 4.3307	0	(P) Pass



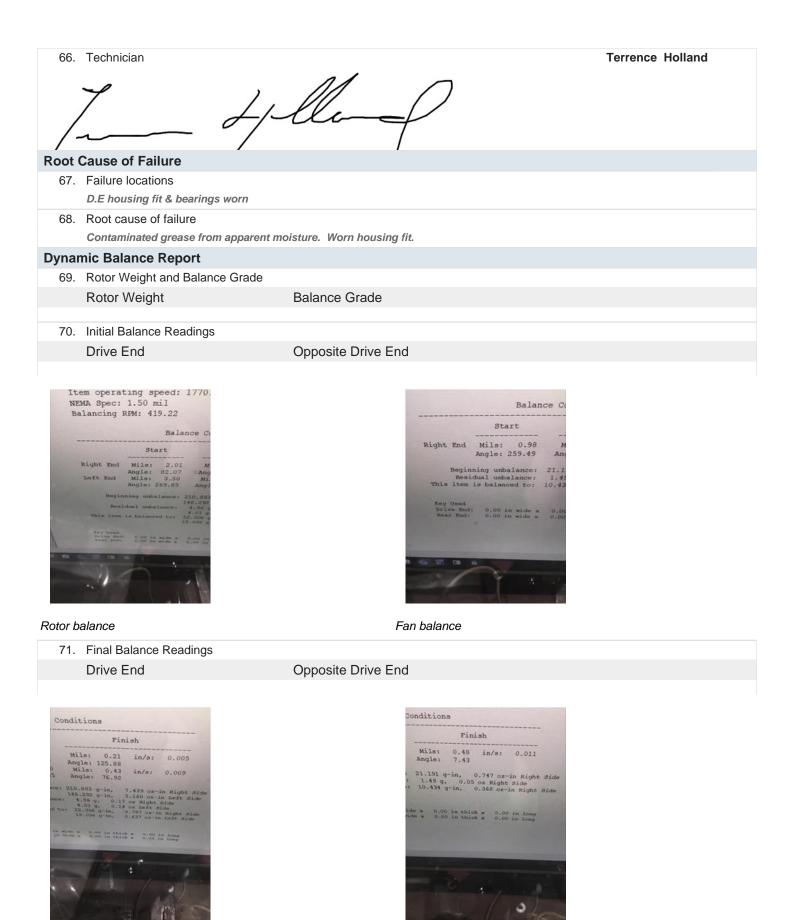




64. End Bell Air Seal Fits Drive End Air Seal

Opposite Drive End Air Seal

65. List Machine Work Needed Below D.E housing fit



Rotor

Fan

vi

Mechanical Fits- Bearing Housings - Post Repair

5,5122	5.5123	5.5123
0 Degrees	60 Degrees	120 Degrees
73. Drive End - Endbell Beari	ing Fit Post Repair	



74.	Opposite Drive End - Endbell Bearing	Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees	
75.	Bearing Cap Condition Post Repair			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
76.	End Bell Air Seal Fits Post Repair			
	Drive End Air Seal	Opposite Drive End Air Seal		
77				0
11.	End Bell Repair Sign-off			Gary
`				
Asse	nbly			
78.	QC Check All Parts for Cleanliness P	rior to Assembly		Cw
	(Inn			
	Ima			
	11.0			

79. Photograph All Major Components prior to assembly













80.	Final Insulation Resistance Test	Megohms
81.	Assembled Shaft Endplay	inches
82.	Assembled Shaft Runout	inches

83.	Test Run Voltage		
	Volts	Volts	Volts
5			
	PHENIX		
	The second second		
048	0 0459 0451		
A 141	B 100 (C 14)		
82	19 0247 0243		
-			
-			
100			
Common State			
84.	Test Run Amperage		
	Amps	Amps	Amps
-	Witnessed by:		
Concerning of the	PHENIX		
1	TECHNOLOGIES		
A/8 (11	6.02 (H) 6.02 (H)		
046			
024	18 0242 C242		
	A4. 157 StrateGor		
Die			
21	Press outrain and the second		
194			
and the second	and the second se		
85.	Drive End Vibration Readings - Inche	s Per Second	
	Horizontal	Vertical	Axial
	Honzontai	Vontoar	
	H-0.03		
	V-0.03		
	A-0.01		
86.	Opposite Drive End Vibration Readin	-	
	Horizontal	Vertical	Axial
-	H-0.03 V-0.03		
	A-0.01		
87.	Ambient Temperature - Fahrenheit		
	Drive End Bearing Temps - Fahrenhe	əit	
	5 Minutes	10 Minutes	15 Minutes

89. Opposite Drive End Bearing Temps - Fahrenheit 5 Minutes 10 Minutes

15 Minutes

90. Document Final Condition with Pictures after paint







91. Final Pics and QC Review

hi

Co sign:TLH

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- 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. <u>SCOPE OF GOODS AND/OR SERVICES.</u> 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. <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. 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 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 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

TermsAndConditions

replace any defective or non-conforming goods in accordance with the applicable manufacturer's warranty. Warranty for any defective or incorrect parts is limited to the repair or replacement of those parts. Hi-Speed warrants that all services will conform in all material respects to the description of services identified in the quotation and will be performed in a good and workmanlike manner in accordance with industry practices and standards. Should the services be reasonably rejected or not conform with the foregoing warranties, Hi-Speed shall, at its sole cost, re-perform the defective or nonconforming services. Notwithstanding the foregoing, these warranties do not extend to goods or services to the extent that such goods have been subject to misuse, neglect or abuse not caused by Hi-Speed or have been used in violation of the approved written instructions furnished to Buyer. THE FOREGOING REPRESENTS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY HI-SPEED WITH RESPECT TO ALL GOODS SOLD AND IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. HI-SPEED EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICLAR USE OR PURPOSE. BUYER WAIVES ANY CLAIM THAT THESE EXCLUSIONS OR LIMITATIONS DEPRIVE IT OF AN ADEQUATE REMEDY AT EQUITY OR LAW OR CAUSE THIS AGREEMENT TO FAIL IN ITS ESSENTIAL PURPOSE. BUYER SHALL BE ENTITLED TO NO OTHER REMEDY OTHER THAN AS SET FORTH HEREIN, REGARDLESS OF THE CLAIM OR CAUSE OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, GOODS LIABILITY, STRICT LIABILITY OR OTHERWISE.

- 9. LIMITATION OF DAMAGES. HI-SPEED SHALL HAVE NO LIABILITY TO BUYER WITH RESPECT TO THE SALE OR DELIVERY OF ANY GOODS OR THE REPAIR THEREOF OR WITH RESPECT TO THE SALE OR PERFORMANCE OF ANY SERVICES, FOR LOST PROFITS, SPECIAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES OF ANY KIND OR NATURE WHETHER ARISING IN CONTRACT, TORT, GOODS LIABILITY OR OTHERWISE, EVEN IF HI-SPEED WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES. HI-SPEED SHALL NOT BE LIABLE FOR ANY DAMAGES OR DELAYS CAUSED BY ANY FAILURE TO MAKE ANY DELIVERY OF GOODS BY ANY EXPECTED TIME OR DATE OR THE FAILURE TO PROVIDE OR COMPLETE ANY SERVICES BY ANY EXPECTED DATE OR TIME. IN NO EVENT SHALL HI-SPEED BE LIABLE TO BUYER FOR ANY DAMAGES WHATSOEVER IN EXCESS OF THE TOTAL PRICE PAID FOR ALL GOODS AND/OR SERVICES HEREUNDER OR REFERENCED IN ANY QUOTATION OR THE PURCHASE ORDER.
- 10. <u>SEVERABILITY</u>. 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. <u>GOVERNING LAW AND JURISDICTION.</u> 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. <u>ABANDONED EQUIPMENT.</u> 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.
- 14. <u>NONWAIVER</u>. No course of dealing or failure of either party to strictly enforce any term, right, or condition of these Standard Terms and Conditions will be construed as a waiver of such term, right or condition. Any waiver by Hi-Speed will only be in writing and will waive no succeeding breach of a term, right or condition.
- 15. <u>ASSIGNMENT.</u> 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. <u>NO INDIVIDUAL LIABILITY</u>. 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.