

LR Motor Shop Repairs

Job Number 103226

Prepared for Arauco-Malvern MDF (10298)

1275 Willamette Rd Malvern AR 72104

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AC Inspection as Found - LR MOTORSHOP

AC Inspection - Rev. 2

1.0





AC Inspection as Found Arauco-Malvern MDF (10298)

1275 Willamette Rd Malvern, AR 72104

FolderID: 103226 FormID: 21019729

AC Inspection - Rev	. 2
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Location: LR MOTORSHOP

Serial Number:

Description: NO NP, INDENTIFY SPECS, QUOTE NEW

Hi-Speed Job Number:	103226
Phase:	Three
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	07/17/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
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: **a 4 - High**

9 - Good

Overall Condition

07/18/2024 Report Date

Nameplate Picture unreadable



Photos of all six sides of the machine.











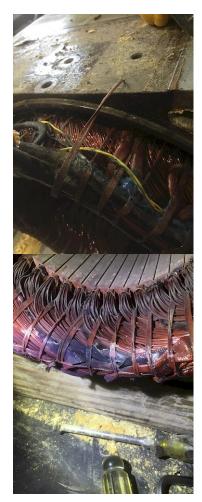
















4. Describe the Overall Condition of the Equipment as Received Dirty

Initial Mechanical/Electrical 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 9. Assembled Shaft End Play inches 10. Air Gap Variation <10% (NA) Not Applicable 11. Lead Condition Rewind 8 Inches 12. Lead Length 13. Does it have Lugs?, If so what is the Stud Size?



14.	Lead Numbers	1-6
15.	Frame Condition	pass
16.	Fan Condition	(P) Pass
17.	Broken or Missing Components	two J-box cover bolts and a fan cover bolt missing
Initial	Electrical Inspection	
18.	Insulation Resistance/Megger	Megohms

	19.	Winding Resistance		
		1-2	1-3	2-3
	20.	Perform Surge Test		(NA) Not Applicable
	-	Rewind turn to turn short		
	21.	Number of Stator Slots		48
	22.	Stator Condition		rewind
	23.	Stator Thermistors/Ohms		
	-	3 in a series 330 ohms 1 by itself 1000 ohms		
	24.	Stator Overloads/Ohms		
N	lecha	anical Inspection		
	25.	Drive End Bearing Brand		NACHI

6313 sealed



26. Drive End Bearing Number-

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?	
31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	
32.	Drive End Bearing Condition	
-	Contamination	



33.	Opposite Drive End Bearing Brand	NACHI
34.	Opposite Drive End Bearing Number-	6212 sealed

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?	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	spacers between bearing and end bell
40.	Opposite Drive End Bearing Condition	contamination



Mechanical Fits- Rotor

0 Degrees

41.	Drive End Seal	labyrinth seal
42.	Opposite Drive End Seal	labyrinth seal
Rotor	Inspection	
43.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
44.	Growler Test	(Pass) Pass
45.	Number of Rotor Bars	40
46.	Rotor Condition	pass
47.	List the Parts needed for the Repair Below	
	6313 sealed 6212 sealed	
48.	Signature of Technician that Disassembled Motor	Cw

49. Shaft Runout 50. Rotor Runout Drive End Bearing Fit Rotor Body Opposite Drive End Bearing 51. Coupling Fit Closest to Bearing Housing 0 Degrees 90 Degrees 120 Degrees 52. Coupling Fit Closest to the end of the Shaft

120 Degrees

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60 Degrees

5	3.	Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		2.5585	2.5587	2.5585	
• 5	4.	Drive End Bearing Shaft Fit Condition			(F) Fail
5		Opposite Drive End Bearing Shaft Fit			. ,
		0 Degrees	60 Degrees	120 Degrees	
		2.3625	2.3625	2.3625	
• 5	6.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass
5	7.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
		nical Fits- Bearing Housings			
5	8.	Drive End - Endbell Bearing Fit			
		0 Degrees	60 Degrees	120 Degrees	
		5.5122	5.5118	5.5119	
		Drive End - Endbell Bearing Fit Condit			(P) Pass
6	0.	Opposite Drive End - Endbell Bearing	Fit		
		0 Degrees	60 Degrees	120 Degrees	
		4.3309	4.3304	4.3304	
_		Opposite Drive End - Endbell Bearing	Fit Condition		(P) Pass
6	2.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		
_		Pass			
-		End Bell Air Seal Fits			
U		Drive End Air Seal	Opposite Drive End Air Seal		
		Dive Elia Ali Geal	Opposite Drive Life All Ocal		
• 6	4.	List Machine Work Needed Below			
		DE shaft bearing fit			
6	5.	Technician			Cw
		///			
	/	In en			
	/	Ww			
	L				
-	T .	Co sign: TRH			
Roc	ot (Cause of Failure			
		Failure locations			
		Windings and DE shaft bearing fit			
6	7.	Root cause of failure			
	-	Turn to turn short and wear			
Dvn	nan	nic Balance Report			

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69. Initial Balance Readir	ngs	
Drive End	Opposite Drive End	
0.75	1.87	
70. Final Balance Readin	ngs	
Drive End	Opposite Drive End	
0.10	0.07	
71. Technician		RW



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-17			ıu

72.	Core Le	st Results	- Watts loss per Pound	
			_	

Pre-Burnout Post Burnout

P A

73. Core Hot Spot Test

Pre-Burnout Post-Burnout

Na

74. Post Rewind Electrical Test- Insulation Resistance

Megohms

■ Na

75. Post Rewind Polarization Index Polarization Index

Na

76. Post Rewind Winding Resistance

1-2 1-3 2-3

Na

77. Post Rewind Surge Test (Pass) Pass

78. Post Rewind Hi-Pot micro-amps

Na

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79.	Technician		
-	Na		
Mecha	anical Fits- Rotor - Post Repair		
80.	Shaft Runout Post Repair		0.001 inches
81.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	0.002	0.002	0.003
82.	Coupling Fit Closest to Bearing Housi	ng Post Repair	
	0 Degrees	90 Degrees	120 Degrees
83.	Coupling Fit Closest to the end of the	Shaft Post Repair	
	0 Degrees	60 Degrees	120 Degrees
84.	Drive End Bearing Shaft Fit Post Repa	air	
	0 Degrees	60 Degrees	120 Degrees
	2.5597	2.5596	2.5596





Installed Agis ring on D.E. Bearing cap

ıft Fit Post Repair		
60 Degrees	120 Degrees	
Opposite Drive End Air Seal		
		Gary
	60 Degrees	60 Degrees 120 Degrees

Assembly

88. QC Check All Parts for Cleanliness Prior to Assembly

RW

89. Photograph All Major Components prior to assembly

(Complete) Complete





90. Final Insulation Resistance Test

32,650 Megohms



91.	Assembled Shaft Endplay Na		inches
92.	Assembled Shaft Runout		0.0004 inches
93.	Test Run Voltage		
	Volts	Volts	Volts
	228	227	227



Co witness gm

94. Test Run Amperage			
Amps	Amps	Amps	
40.3	39.7	38.1	



95.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.05	0.03	0.02
96.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.05	0.02	0.02
97.	Ambient Temperature - Fahrenheit		
-	Na		
98.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	A		
99.	Opposite Drive End Bearing Temps -	Fahrenheit	
	5 Minutes	10 Minutes	15 Minutes
-	Na		
100.	100. Document Final Condition with Pictures after paint		









101. Final Pics and QC Review

RW

Co sign GM



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- 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.
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- 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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