

## LR Motor Shop Repairs

### **Job Number 102387**

Prepared for Almatis Inc/RCP Bauxite (10014)

4701 Alcoa Road Bauxite AR 72011

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AC Inspection as Found - LR Motor Shop

AC Inspection - Rev. 2: 01941900-10/17-04

1.0





# AC Inspection as Found Almatis Inc/RCP Bauxite (10014)

4701 Alcoa Road Bauxite, AR 72011 FolderID: 102387 FormID: 19136471

#### AC Inspection - Rev. 2

Location:LR Motor ShopSerial Number:01941900-10/17-04Description:75HP1800RPM 365T TEFC

Hi-Speed Job Number:	102387
Product Number:	2VL 365TTFS6536BN
Serial Number:	01941900-10/17-04
HP/kW:	75 (HP)
RPM:	1775 (RPM)
Frame:	365T
Voltage:	460
Current:	86
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 8 - Good

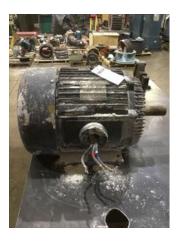
#### **Overall Condition**

1. Report Date 01/26/2024

2. Nameplate Picture



Photos of all six sides of the machine.

































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

#### **Initial Mechanical/Electrical**

5. Does Shaft Turn Freely?

(Yes) Yes

6. Does Shaft Have Visible Damage?

(Yes) Yes

Weld drive output and cut new keyway.



7. Assembled Shaft Runout

Inches

Na

8.	Assembled Shaft End Play Na	inches
9.	Air Gap Variation <10%	na
10.	Lead Condition	(P) Pass
11.	Lead Length	8 Inches
12.	Lead Numbers	1-3
13.	Frame Condition	pass
14.	Fan Condition	(P) Pass



15. Broken or Missing Components

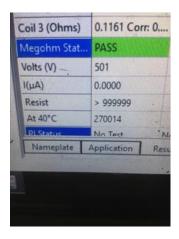
na

#### **Initial Electrical Inspection**

16. Insulation Resistance/Megger

Megohms

In picture





In picture



18. Perform Surge Test
(P) Pass



19.	Number of Stator Slots	48
20.	Stator Condition	dirty
21.	Stator Thermistors/Ohms	na
22.	Stator Overloads/Ohms	na
Mecha	anical Inspection	
23.	Drive End Bearing Brand	koyo



25. Drive End Bearing Qty.	1
26. Drive End Bearing Type	(Ball) Ball Bearing
27. Drive End Lubrication Type	(Grease) Grease Lubricated
28. Drive End Bearing Insulation or Grounding Device?	na
29. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
30. Drive End Bearing Condition	signs of contamination



31.	Opposite Drive End Bearing Brand	koyo
32.	Opposite Drive End Bearing Number-	6312



#### 33. Opposite Drive End Bearing Qty.

1

34. Opposite Drive End Bearing Type	(Ball) Ball Bearing
35. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
36. Opposite Drive End Bearing Insulation or Grounding Device?	na
37. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
38. Opposite Drive End Bearing Condition	
Signs of contamination	





39.	Drive End Seal	na		
40.	Opposite Drive End Seal	na		
Rotor	Rotor Inspection			
41.	Rotor Type/Material	(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast		
42.	Growler Test	(Pass) Pass		
43.	Number of Rotor Bars	40		
44.	Rotor Condition	pass needs cleaning		
45.	List the Parts needed for the Repair Below 6314 6312			
46.	Signature of Technician that Disassembled Motor	Cw		

Ami

Mech	Mechanical Fits- Rotor				
47.	Shaft Runout		0.002 inches		
48.	Rotor Runout				
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing		
-	Na				
49.	Coupling Fit Closest to Bearing House	ng			
	0 Degrees	90 Degrees	120 Degrees		
	Na				

	50.	Coupling Fit Closest to the end of the Shaft			
		0 Degrees	60 Degrees	120 Degrees	
	7	Na			
	51.	Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		2.756	2.756	2.756	
	52.	Drive End Bearing Shaft Fit Condition			(P) Pass
	53.	Opposite Drive End Bearing Shaft Fit			
		0 Degrees	60 Degrees	120 Degrees	
		2.3623	2.3623	2.3624	
	54.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass
	55.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
Me	Mechanical Fits- Bearing Housings				
	56.	Drive End - Endbell Bearing Fit			
		0 Degrees	60 Degrees	120 Degrees	
		5.9054	5.9055	5.9055	
	57.	Drive End - Endbell Bearing Fit Condit	iion		(P) Pass
	58.	Opposite Drive End - Endbell Bearing	Fit		
		0 Degrees	60 Degrees	120 Degrees	
		5.1179	5.118	5.118	
	59.	Opposite Drive End - Endbell Bearing	Fit Condition		(P) Pass
	60.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	-	Pass			



61.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
-	Na	
62.	List Machine Work Needed Below	

63. Technician Cw win **Root Cause of Failure** 64. Failure locations Bearings and ODE shaft bearing fit 65. Root cause of failure Wear and contamination **Dynamic Balance Report** 66. Rotor Weight and Balance Grade Balance Grade Rotor Weight 67. Initial Balance Readings Drive End Opposite Drive End 68. Final Balance Readings Drive End Opposite Drive End 69. Technician Rewind 70. Core Test Results - Watts loss per Pound Pre-Burnout Post Burnout 71. Core Hot Spot Test Pre-Burnout Post-Burnout 72. Post Rewind Electrical Test- Insulation Resistance 73. Post Rewind Polarization Index 74. Post Rewind Winding Resistance 1-3 2-3 1-2 75. Post Rewind Surge Test 76. Post Rewind Hi-Pot 77. Technician Mechanical Fits- Rotor - Post Repair 78. Shaft Runout Post Repair 79. Rotor Runout Post Repair Opposite Drive End Bearing Drive End Bearing Fit Rotor Body 80. Coupling Fit Closest to Bearing Housing Post Repair 0 Degrees 90 Degrees 120 Degrees

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60 Degrees

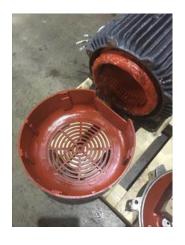
81. Coupling Fit Closest to the end of the Shaft Post Repair

0 Degrees

120 Degrees

82.	Drive End Bearing Shaft Fit Post Rep	air			
	0 Degrees	60 Degrees	120 Degrees		
83.	Opposite Drive End Bearing Shaft Fit	·			
	0 Degrees	60 Degrees	120 Degrees		
9.4	Shaft Air Seal Fits Post Repair				
04.	Drive End Air Seal	Opposite Drive End Air Seel			
	Drive End Air Seal	Opposite Drive End Air Seal			
85.	Shaft Repair Sign-off				
Mech	anical Fits- Bearing Housings - P	Post Repair			
86.	Drive End - Endbell Bearing Fit Post I	Repair			
	0 Degrees	60 Degrees	120 Degrees		
			-		
87.	Opposite Drive End - Endbell Bearing	Fit Post Repair			
	0 Degrees	60 Degrees	120 Degrees		
00	Baaring Can Canditian Baat Barrin				
88.	Bearing Cap Condition Post Repair				
	Drive End Bearing Cap	Opposite Drive End Bearing Cap			
89.	End Bell Air Seal Fits Post Repair				
00.	Drive End Air Seal	Opposite Drive End Air Seal			
	Ziivo Ziid y iii Godi	opposite ziito ziia iii ooa.			
90.	End Bell Repair Sign-off				
Asser	Assembly				
91.	QC Check All Parts for Cleanliness P	•		Cw	

92. Photograph All Major Components prior to assembly





















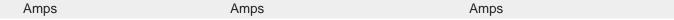




93.	Final Insulation Resistance Test Na		Megohms
94.	Assembled Shaft Endplay Na		inches
95.	Assembled Shaft Runout Na		inches
96.	Test Run Voltage		
	Volts	Volts	Volts



#### 97. Test Run Amperage





98.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.02	0.03	0.03
99.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
	0.02	0.04	0.03
100.	Ambient Temperature - Fahrenheit		
-	Na		
101.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	Na		
102.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
-	Na		

#### 103. Document Final Condition with Pictures after paint





104. Final Pics and QC Review Cw

Co Sign: RRW



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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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