

Motor Shop Repairs

Job Number 99878

Prepared for Rhein Chemie (11797)

5701 Murry Street Little Rock AR 72209

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AC Recondition As Found - MOTOR SHOP LR

AC Recondition - Rev. 2: E7183216007

1.0





AC Recondition As Found

Rhein Chemie (11797)

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FolderID: 99878 FormID: 13761821

AC Recondition - Rev. 2

Location: MOTOR SHOP LR Serial Number: E7183216007

Description: 40HP TECO 1200RPM 200LC

Hi-Speed Job Number:	99878
Manufacturer:	TECO Westinghouse
Product Number:	ASFDLD-5W1
Serial Number:	E7183216001
HP/kW:	40 (HP)
RPM:	1200 (RPM)
Frame:	200LC
Voltage:	230 / 460
Current:	97.2/48.6
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	ODP
J-box Included:	None
Coupling/Sheave:	Coupling
Date Received:	06/03/2022
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 3 - High





3 - Good

Overall Condition

- Report Date
- 2. Nameplate Picture
- All DE bolts missing.































17. Perform Surge Test

18. Stator Condition

3.	Describe the Overall Condition of the Missing end bell bolts	Equipment as Received			
4.	Distance from the end of the shaft to	the Coupling/Sheave			
Initial	Mechanical/Electrical				
5.	Does Shaft Turn Freely?				
6.	Does Shaft Have Visible Damage?				
7.	Assembled Shaft Runout				
8.	Assembled Shaft End Play				
9.	Air Gap Variation <10%				
10.	Lead Condition			(P) Pass	
11.	Lead Length			12 Inches	
12.	Frame Condition			good	
13.	Fan Condition			(N) NA	
14.	Broken or Missing Components			de bolts	
Initial	Initial Electrical Inspection				
15.	Insulation Resistance/Megger				
16.	Winding Resistance				
	1-2	1-3	2-3		

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(F) Fail

rewind

N/L - 1	aniaal luanaatian		
	anical Inspection		2010
	Drive End Bearing Number-		6213
20.	Drive End Bearing Qty.		1
21.	3 71		(Ball) Ball Bearing
22.	Drive End Lubrication Type		(Grease) Grease Lubricated
23.	Drive End Bearing Insulation or Groun	•	none
24.	Drive End Wavy Washer/Snap-Ring (Other Retention Device?	labyrinths
25.	Drive End Bearing Condition		bad
26.	Opposite Drive End Bearing Number-		6213
27.	Opposite Drive End Bearing Qty.		1
28.	Opposite Drive End Bearing Type		(Ball) Ball Bearing
29.	Opposite Drive End Lubrication Type		(Grease) Grease Lubricated
30.	Opposite Drive End Bearing Insulation		wavy washer
31.	Opposite Drive End Wavy Washer/Sn		labyrinths
32.	Opposite Drive End Bearing Condition	1	bad
33.	Drive End Seal		none
34.	Opposite Drive End Seal		none
	Inspection		
35.	Rotor Type/Material		(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
36.	Growler Test		(Pass) Pass
37.	Number of Rotor Bars		56
38.	Rotor Condition		good
39.	List the Parts needed for the Repair E	selow	
	Rewind (major iron repair), 6213; 6213;	sleeve ODE, sleeve DE	
40.	Signature of Technician that Disasser	mbled Motor	
Mech	anical Fits- Rotor		
41.	Shaft Runout		
42.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
43.	Coupling Fit Closest to Bearing Housi	ng	
	0 Degrees	90 Degrees	120 Degrees
44.	3		
	0 Degrees	60 Degrees	120 Degrees
ΛE	Drive End Bearing Shaft Fit		
40.	-	60 Dograda	120 Dograda
	0 Degrees	60 Degrees	120 Degrees
40	2.5593	2.5593	2.5593 (P) Page
46.	<u> </u>		(P) Pass
47.	Opposite Drive End Bearing Shaft Fit		400 B
	0 Degrees	60 Degrees	120 Degrees
	2.5593	2.5593	2.5593
48.	3	Condition	(P) Pass
49.			
	Drive End Air Seal	Opposite Drive End Air Seal	

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Mech	anical Fits- Bearing Housings			
50.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
1 51.				(F) Fail
52.	Opposite Drive End - Endbell Bearing	Fit		
	0 Degrees	60 Degrees	120 Degrees	
5 3.	Opposite Drive End - Endbell Bearing	Fit Condition		(F) Fail
54.	5 1			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	First Dall Air Coal Fits			
55.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
56.	List Machine Work Needed Below			
	Both end bells sleeved			
57.	Technician			David Maclin
	1/1/1	/)		
_				
Dynai	mic Balance Report			

Balance Grade



Rotor Weight

58. Rotor Weight and Balance Grade

59. Initial Balance Readings		
Drive End	Opposite Drive End	
60. Final Balance Readings		
Duite Cod	Opposite Drive End	
Drive End	Opposite Drive End	

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61. Technician Rewind 62. Core Test Results - Watts loss per Pound Pre-Burnout Post Burnout 63. Core Hot Spot Test Pre-Burnout Post-Burnout 64. Post Rewind Electrical Test-Insulation Resistance 65. Post Rewind Polarization Index 66. Post Rewind Winding Resistance 1-2 1-3 2-3 67. Post Rewind Surge Test 68. Post Rewind Hi-Pot 69. Technician **Root Cause of Failure** 70. Failure locations Stator bottom 71. Root cause of failure Bearing housing fits down until iron rubbed Mechanical Fits- Rotor - Post Repair 72. Shaft Runout Post Repair 73. Rotor Runout Post Repair Drive End Bearing Fit Rotor Body Opposite Drive End Bearing 74. Coupling Fit Closest to Bearing Housing Post Repair 0 Degrees 90 Degrees 120 Degrees 75. Coupling Fit Closest to the end of the Shaft Post Repair 120 Degrees 0 Degrees 60 Degrees 76. Drive End Bearing Shaft Fit Post Repair 60 Degrees 120 Degrees 0 Degrees 77. Opposite Drive End Bearing Shaft Fit Post Repair 0 Degrees 60 Degrees 120 Degrees 78. Shaft Air Seal Fits Post Repair Drive End Air Seal Opposite Drive End Air Seal 79. Shaft Repair Sign-off

David Maclin

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Mechanical Fits- Bearing Housings - Post Repair

80. Drive End - Endbell	. Drive End - Endbell Bearing Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees		
81. Opposite Drive End	Opposite Drive End - Endbell Bearing Fit Post Repair			
0 Degrees	60 Degrees	120 Degrees		
4.725	4.7249	4.7249		



82.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
83.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
84.	End Bell Repair Sign-off		
Assembly			
85.	85. Photograph All Major Components prior to assembly		
86.	Final Insulation Resistance Test		
87.	Assembled Shaft Endplay		
88.	Assembled Shaft Runout		

89. Test Run Voltage

Volts Volts Volts

454 452 457







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90. Test Run Amperage			
Amps	Amps	Amps	
16.1	15.8	15.7	









91.	Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial	
92.	Opposite Drive End Vibration Reading	s - Inches Per Second		
	Horizontal	Vertical	Axial	
93.	Ambient Temperature - Fahrenheit			
94.	Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
95.	Opposite Drive End Bearing Temps -	Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes	
96.	Final Test Run Sign-off			
97.	Document Final Condition with Picture	es after paint		
98.	Final Pics and QC Review			RW

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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.
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