Hi-Speed Industrial Service
7030 Ryburn Dr
Millington, Tn 38053
901-873-5300

AC Recondition As Found

Lexicon (10257)
8900 Fouche Dam Pike
Little Rock, AR

FolderID: 100065
FormID: 14105415

AC Recondition - Rev. 2

Location:	SHOP
Serial Number:	823471B-2
Description:	4HP REULAND 1800/53RPM WEO-215/H400

Hi-Speed Job Number:	100065
Manufacturer:	Other
Product Number:	13273
Serial Number:	823471B-2
HP/kW:	4 (HP)
RPM:	1800 (RPM)
Frame:	WEO-215/H400
Voltage:	230 / 460
Current:	10.6/5.3
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TENV
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **1 - High** **3 - Good**

Overall Condition

1. Report Date
2. Nameplate Picture P21

3.	Photos of all six sides of the machine.	
4.	Describe the Overall Condition of the Equipment as Received	
Initial Mechanical/Electrical		
5.	Does Shaft Turn Freely?	
6.	Does Shaft Have Visible Damage?	**(No) No**
7.	Assembled Shaft Runout	
8.	Assembled Shaft End Play	
9.	Air Gap Variation <10%	
10.	Lead Condition	
11.	Lead Length	
12.	Frame Condition	

13.	Fan Condition	**(N) NA**
14.	Broken or Missing Components	

Initial Electrical Inspection

15.	Insulation Resistance/Megger	
16.	Winding Resistance	

1-2	1-3	2-3

17.	Perform Surge Test	**(F) Fail**
	Rewind stator and rotor.	
18.	Stator Condition	**windings blown**

Mechanical Inspection

19.	Drive End Bearing Number-	**6306**
20.	Drive End Bearing Qty.	**1**
21.	Drive End Bearing Type	**(Ball) Ball Bearing**
22.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
23.	Drive End Bearing Insulation or Grounding Device?	**none**
24.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**yes**
25.	Drive End Bearing Condition	**worn**
26.	Opposite Drive End Bearing Number-	**6306**
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 or Grounding Device?	**none**
31.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	
32.	Opposite Drive End Bearing Condition	
33.	Drive End Seal	
34.	Opposite Drive End Seal	

Rotor Inspection

35.	Rotor Type/Material	
	Wound rotor	
36.	Growler Test	
37.	Number of Rotor Bars	
38.	Rotor Condition	**rewind**
39.	List the Parts needed for the Repair Below	
40.	Signature of Technician that Disassembled Motor	**Terrence. Holland**

Mechanical Fits- Rotor

41.	Shaft Runout	
42.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

43.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

44.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
45.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	1.181	**1.181**	**1.1808**
46.	Drive End Bearing Shaft Fit Condition		**(P) Pass**
47.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	1.1811	**1.1812**	**1.1811**
48.	Opposite Drive End Bearing Shaft Fit Condition		**(P) Pass**
49.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	

Mechanical Fits- Bearing Housings

50.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.8347	**2.8348**	**2.8348**
51.	Drive End - Endbell Bearing Fit Condition		
52.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.8347	**2.835**	**2.8348**
53.	Opposite Drive End - Endbell Bearing Fit Condition		**(P) Pass**
54.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
55.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
56.	List Machine Work Needed Below		
	Turn rings on rotor.		
57.	Technician		**Terrence. Holland**

Dynamic Balance Report

58.	Rotor Weight and Balance Grade	
	Rotor Weight	Balance Grade
59.	Initial Balance Readings	
	Drive End	Opposite Drive End
60.	Final Balance Readings	
	Drive End	Opposite Drive End

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

Windings on rotor and stator housing.

71. Root cause of failure

Windings blown

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

0 Degrees	60 Degrees	120 Degrees

76. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 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	**Gary Moore**	P700

Turned rings

Mechanical Fits- Bearing Housings - Post Repair

80. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

81. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

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. 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

90. Test Run Amperage

Amps	Amps	Amps

91. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

92. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

93. Ambient Temperature - Fahrenheit

94. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

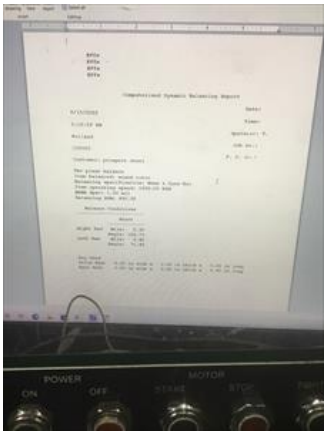
95. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

96. Final Test Run Sign-off **Terrence. Holland**

97. Document Final Condition with Pictures after paint P2200

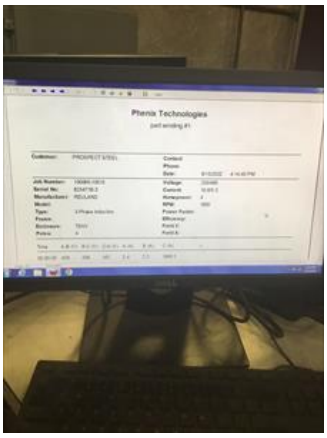
Slip ring test. 110v input, and 38v output on each leg.



Slip ring

Stator

Stator



98. Final Pics and QC Review **Terrence. Holland**