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

AC Recondition As Found

Arauco-Malvern MDF (10298)
1275 Willamette Rd
Malvern, AR 72104

FolderID: 99704
FormID: 13408573

AC Recondition - Rev. 2

Location:	LR MOTORSHOP
Serial Number:	QC E9173012001
Description:	100HP Teco 1200RPM 444T

Hi-Speed Job Number:	99704
Manufacturer:	TECO Westinghouse
Product Number:	DHP1006
Serial Number:	E9173012001
HP/kW:	100 (HP)
RPM:	1181 (RPM)
Frame:	444T
Voltage:	230 / 460
Current:	240/120
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	ODP
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	04/22/2022
Repair Stage:	Final

Priorities Found: **7 - Good**

Overall Condition

1.	Report Date	**04/26/2022**

2. Nameplate Picture













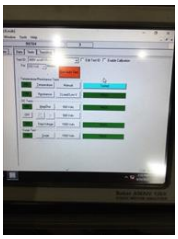

3. Describe the Overall Condition of the Equipment as Received

Filthy

Initial Mechanical/Electrical

4.	Does Shaft Turn Freely?		**(Yes) Yes**
5.	Does Shaft Have Visible Damage?		**(No) No**
6.	Assembled Shaft Runout		**Inches**
7.	Assembled Shaft End Play		
8.	Air Gap Variation <10%		
9.	Lead Condition		**(P) Pass**
10.	Lead Length		**12 Inches**

11. Stator Temperature Detector Rating and Function

Quantity	Rating	Quantity Passed

12. Bearing Temperature Detector Rating and Function

Quantity	Rating	Quantity Passed

13.	Frame Condition	**good**
14.	Fan Condition	**(N) NA**

15.	Heater Quantity, Ratings				
	Quantity	Volts/Watts	Pass/Fail		
16.	Broken or Missing Components				
Initial Electrical Inspection					
17.	Insulation Resistance/Megger			**2000 Megohms**	
18.	Winding Resistance				
	1-2	1-3	2-3		
19.	Perform Surge Test			**(P) Pass**	
20.	Stator Condition			**good**	
Mechanical Inspection					
21.	Drive End Bearing Number-			**6318**	P21

22.	Drive End Bearing Qty.	**1**
23.	Drive End Bearing Type	**(Ball) Ball Bearing**
24.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
25.	Drive End Bearing Insulation or Grounding Device?	
26.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**labryrinth**
27.	Drive End Bearing Condition	**good**
28.	Opposite Drive End Bearing Number-	**6316**
29.	Opposite Drive End Bearing Qty.	**1**
30.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
31.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
32.	Opposite Drive End Bearing Insulation or Grounding Device?	
33.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**labyrinth**
34.	Opposite Drive End Bearing Condition	**good**
35.	Drive End Seal	**non**
36.	Opposite Drive End Seal	**none**

37.	DE Sleeve Bearing Inside ID			
	Measure 1	Measure 2	Measure 3	
38.	DE Sleeve Bearing Outside ID			
	Measure 1	Measure 2	Measure 3	
39.	DE Sleeve Bearing Inside OD			
	Measure 1	Measure 2	Measure 3	
40.	DE Sleeve Bearing Outside OD			
	Measure 1	Measure 2	Measure 3	

41.	ODE Sleeve Bearing Inside ID			
	Measure 1	Measure 2	Measure 3	
42.	ODE Sleeve Bearing Outside ID			
	Measure 1	Measure 2	Measure 3	
43.	ODE Sleeve Bearing Outside OD			
	Measure 1	Measure 2	Measure 3	
44.	ODE Sleeve Bearing Inside OD			
	Measure 1	Measure 2	Measure 3	

Rotor Inspection

45.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**84**
48.	Rotor Condition	**good**
49.	List the Parts needed for the Repair Below ***6318, 6316***	
50.	Signature of Technician that Disassembled Motor	

Mechanical Fits- Rotor

51.	Shaft Runout			
52.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
53.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
54.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
55.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.544	**3.544**	**3.544**	
56.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
57.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.1502	**3.1502**	**3.1502**	
58.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
59.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

60.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	7.481	**7.4811**	**7.481**	
61.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
6.6935	**6.6935**	**6.6936**

63. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

65. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

66. List Machine Work Needed Below

67. Technician **David Maclin**

Dynamic Balance Report

68. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

69. Initial Balance Readings

Drive End	Opposite Drive End

70. Final Balance Readings

Drive End	Opposite Drive End

71. Technician

Rewind

72. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

73. Core Hot Spot Test

Pre-Burnout	Post-Burnout

74. Post Rewind Electrical Test- Insulation Resistance

75. Post Rewind Polarization Index

76. Post Rewind Winding Resistance

1-2	1-3	2-3

77. Post Rewind Surge Test

78. Post Rewind Hi-Pot

79. Technician

Root Cause of Failure

80. Failure locations

Drive end bearing

81. Root cause of failure

Frosting

Mechanical Fits- Rotor - Post Repair

82. Shaft Runout Post Repair

83. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

84. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

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

0 Degrees	60 Degrees	120 Degrees

86. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

87. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

88. Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

89. Shaft Repair Sign-off

Mechanical Fits- Bearing Housings - Post Repair

90. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

91. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

92. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

93. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

94. DE Sleeve Bearing Inside ID Post Repair

Measure 1	Measure 2	Measure 3

95. DE Sleeve Bearing Outside ID Post Repair

Measure 1	Measure 2	Measure 3

96. DE Sleeve Bearing Inside OD Post Repair

Measure 1	Measure 2	Measure 3

97. DE Sleeve Bearing Outside OD Post Repair

Measure 1	Measure 2	Measure 3

98. End Bell Repair Sign-off

99. ODE Sleeve Bearing Inside ID Post Repair

Measure 1	Measure 2	Measure 3

100. ODE Sleeve Bearing Outside ID Post Repair

Measure 1	Measure 2	Measure 3

101. ODE Sleeve Bearing Inside OD Post Repair

Measure 1	Measure 2	Measure 3

102. ODE Sleeve Bearing Outside OD Post Repair

Measure 1	Measure 2	Measure 3

Assembly

103. Photograph All Major Components prior to assembly P0















104. Final Insulation Resistance Test

105.	Assembled Shaft Endplay		
106.	Assembled Shaft Runout		
107.	Test Run Voltage		
	Volts	Volts	Volts
108.	Test Run Amperage		
	Amps	Amps	Amps
109.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
110.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
111.	Ambient Temperature - Fahrenheit		
112.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
113.	Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
114.	Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
115.	Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
116.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
117.	Opposite Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
118.	Opposite Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
119.	Opposite Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
120.	Stator Temperatures- Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
121.	Stator Temperatures- Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes

122.	Stator Temperatures- Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
123.	Stator Temperatures- Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
124.	Final Test Run Sign-off		
125.	Document Final Condition with Pictures after paint		
126.	Final Pics and QC Review	**Terrence. Holland**	P2300