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

AC Inspection as Found

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

FolderID: 101655
FormID: 17433827

AC Inspection - Rev. 2

Location:	LR MOTORSHOP
Serial Number:	603T0652TE 1
Description:	150HP SIEMENS 900RPM 447T

Hi-Speed Job Number:	101655
Manufacturer:	Siemens
Product Number:	1LA04478HE41
Serial Number:	603T0652TE 1
HP/kW:	150 (HP)
RPM:	885 (RPM)
Frame:	447T
Voltage:	460
Current:	186
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **9 - Good**

Overall Condition

1. Report Date

2. Nameplate Picture P34

3. Photos of all six sides of the machine. P45

	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
Initial Mechanical/Electrical			
●	5.	Does Shaft Turn Freely?	**(Yes) Yes**
	6.	Does Shaft Have Visible Damage?	**(No) No**
●	7.	Assembled Shaft Runout	**0.001 Inches**
	8.	Assembled Shaft End Play	
	9.	Air Gap Variation <10%	
●	10.	Lead Condition	**(P) Pass**
	11.	Lead Length	**13 Inches**
	12.	Lead Numbers	**1-3**
	13.	Frame Condition	**pass**

14.	Fan Condition	**(P) Pass**	P106

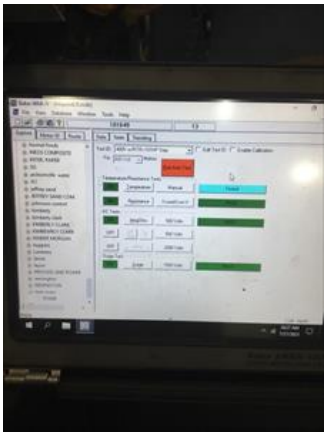
15.	Broken or Missing Components	**connection box top cover**

Initial Electrical Inspection

16.	Insulation Resistance/Megger	
17.	Winding Resistance	

1-2	1-3	2-3

18.	Perform Surge Test	**(P) Pass**	P59



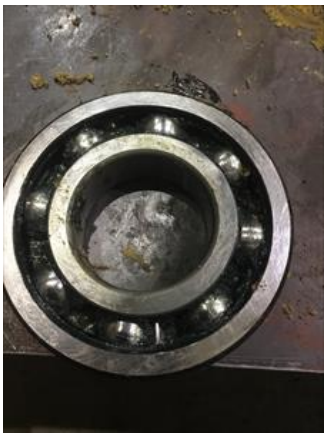
19.	Number of Stator Slots	**72 Megohms**
20.	Stator Condition	**pass**
21.	Stator Thermistors/Ohms	
22.	Stator Overloads/Ohms	

Mechanical Inspection

23.	Drive End Bearing Brand	**NTN**	P15

24.	Drive End Bearing Number-	**6320**	
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?	**none**	
29.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
30.	Drive End Bearing Condition	**replace**	
31.	Opposite Drive End Bearing Brand	**NTN**	
32.	Opposite Drive End Bearing Number-	**6316 C3**	P97

33.	Opposite Drive End Bearing Qty.	**1**	
34.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	P102



35.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
36.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
37.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**
38.	Opposite Drive End Bearing Condition	**replace**
39.	Drive End Seal	
40.	Opposite Drive End Seal	

Rotor Inspection

41.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
42.	Growler Test	**(Pass) Pass**
43.	Number of Rotor Bars	
44.	Rotor Condition	
45.	List the Parts needed for the Repair Below	
46.	Signature of Technician that Disassembled Motor	**Terrence Holland**

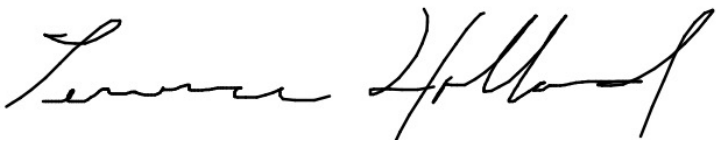
Mechanical Fits- Rotor

47.	Shaft Runout	**0.001 inches**

48.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
49.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
50.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
51.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.9376	**3.9375**	**3.9374**	
52.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
53.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.15	**3.15**	**3.15**	
54.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
55.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

56.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	8.464700000000001	**8.464600000000001**	**8.464700000000001**	
57.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**
58.	Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	6.6934	**6.6932**	**6.6934**	
59.	Opposite Drive End - Endbell Bearing Fit Condition			**(P) Pass**
60.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	pass	**pass**		
61.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
62.	List Machine Work Needed Below			
	None			
63.	Technician			**Terrence Holland**



Dynamic Balance Report

64.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	

65. Initial Balance Readings

Drive End	Opposite Drive End

66. Final Balance Readings

Drive End	Opposite Drive End

67. Technician

Root Cause of Failure

68. Failure locations

69. Root cause of failure

Mechanical Fits- Bearing Housings - Post Repair

70. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

71. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

72. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

73. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

74. End Bell Repair Sign-off

Assembly

75. QC Check All Parts for Cleanliness Prior to Assembly

76. Photograph All Major Components prior to assembly

77. Final Insulation Resistance Test

78. Assembled Shaft Endplay

79. Assembled Shaft Runout

80. Test Run Voltage

Volts	Volts	Volts

81. Test Run Amperage

Amps	Amps	Amps

82. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

83. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

84. Ambient Temperature - Fahrenheit

85. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

86.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
87.	Document Final Condition with Pictures after paint		
88.	Final Pics and QC Review		