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

AC Inspection as Found

Georges Inc
1810 S. St. Louis Street
Batesville, AR 72501

FolderID: 101925
FormID: 18054438

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	A280622201
Description:	75HP BALDOR 1800RPM 365TS

Hi-Speed Job Number:	101925
Manufacturer:	Baldor
Product Number:	EM4316TS
Spec/ID #:	A36-0005-4148
Serial Number:	A280622201
HP/kW:	75 (HP)
RPM:	1780 (RPM)
Frame:	365TS
Voltage:	230 / 460
Current:	174/87
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **9 - Good**

Overall Condition

1. Report Date

2. Nameplate Picture P37

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

	4.	Describe the Overall Condition of the Equipment as Received	
Initial Mechanical/Electrical			
	5.	Does Shaft Turn Freely?	**(Yes) Yes**
	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	**(P) Pass**	P55

11.	Lead Length	**15 Inches**
12.	Lead Numbers	**1-9**
13.	Bearing Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed

Na

14.	Frame Condition	**dirty**
15.	Fan Condition	**(P) Pass** P96

16.	Broken or Missing Components	**0**

Initial Electrical Inspection

17.	Insulation Resistance/Megger	**64021 Megohms**
18.	Winding Resistance	

1-2	1-3	2-3
.093	**.0926**	**.0925**

19.	Perform Surge Test	**(P) Pass**	P57

20.	Number of Stator Slots	**60**	
21.	Stator Condition	**wash and bake**	P78

22.	Stator Thermistors/Ohms	**Na**	
23.	Stator Overloads/Ohms	**Na**	

Mechanical Inspection

24.	Drive End Bearing Brand	**Nachi**	
25.	Drive End Bearing Number-	**6313**	P29

26.	Drive End Bearing Qty.	**1**	
27.	Drive End Bearing Type	**(Ball) Ball Bearing**	
28.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	

29.	Drive End Bearing Insulation or Grounding Device?	**na**	
30.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**na**	
31.	Drive End Bearing Condition		
32.	Opposite Drive End Bearing Brand	**Nachi**	
33.	Opposite Drive End Bearing Number-	**6313**	P89

34.	Opposite Drive End Bearing Qty.	**1**
35.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
36.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
37.	Opposite Drive End Bearing Insulation or Grounding Device?	**Na**
38.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**
39.	Opposite Drive End Bearing Condition	
40.	Drive End Seal	**na**
41.	Opposite Drive End Seal	

Rotor Inspection

42.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
43.	Growler Test	**(Pass) Pass**
44.	Number of Rotor Bars	**47**
45.	Rotor Condition	**pass**
46.	List the Parts needed for the Repair Below ***2 -6313 Bearings***	
47.	Signature of Technician that Disassembled Motor	**RW**

Mechanical Fits- Rotor

48.	Shaft Runout		
49.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
50.	Coupling Fit Closest to Bearing Housing		
	0 Degrees	90 Degrees	120 Degrees

51. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

52. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5595	**2.5595**	**2.5595**

53. Drive End Bearing Shaft Fit Condition **(P) Pass**

54. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5593	**2.5593**	**2.5593**

55. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

56. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

57. Drive End - Endbell Bearing Fit

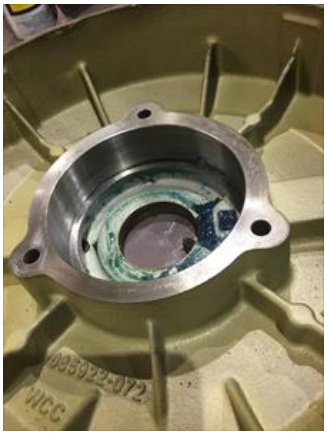
0 Degrees	60 Degrees	120 Degrees
5.5125	**5.5124**	**5.5123**

58. Drive End - Endbell Bearing Fit Condition **(P) Pass** P15

59. Opposite Drive End - Endbell Bearing Fit P31

0 Degrees	60 Degrees	120 Degrees
5.5126	**5.5126**	**5.5126**

60. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass** P41



61. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**pass**

62. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

63. List Machine Work Needed Below

64. Technician **RW**

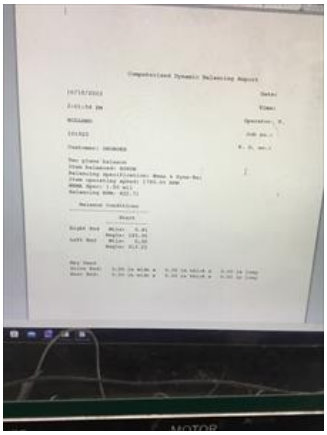
Dynamic Balance Report

65. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

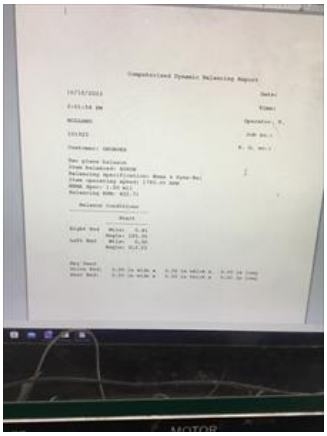
66. Initial Balance Readings P11

Drive End	Opposite Drive End



67. Final Balance Readings

Drive End	Opposite Drive End



68. Technician **Terrence Holland**

Rewind

69. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

70. Core Hot Spot Test

Pre-Burnout	Post-Burnout

71. Post Rewind Electrical Test- Insulation Resistance

72. Post Rewind Polarization Index

73. Post Rewind Winding Resistance

1-2	1-3	2-3

74. Post Rewind Surge Test

75. Post Rewind Hi-Pot

76. Technician

Root Cause of Failure

77. Failure locations

78. Root cause of failure

Mechanical Fits- Rotor - Post Repair

79. Shaft Runout Post Repair

80. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

81. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

82.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
83.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
84.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
85.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
86.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

87.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
88.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
89.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
90.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
91.	End Bell Repair Sign-off		

Assembly

92. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland** P4






93. Photograph All Major Components prior to assembly **(Complete) Complete** P19

94.	Final Insulation Resistance Test	**Megohms**	P32

95.	Assembled Shaft Endplay	**0 inches**
96.	Assembled Shaft Runout	**0.001 inches**

97. Test Run Voltage P54

Volts	Volts	Volts
462	**460**	**461**

Witness by RHR

98. Test Run Amperage

Amps	Amps	Amps
28.5	**28.3**	**27.4**

99. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

100. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

101. Ambient Temperature - Fahrenheit

102. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

103. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

104. Document Final Condition with Pictures after paint

105. Final Pics and QC Review **Terrence Holland** P105

Co sign: CW