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

AC Recondition As Found

Welspun Tubular (11685)
9301 Frazier Pike
Little Rock, AR 72206

FolderID: 101176
FormID: 16380885

AC Recondition - Rev. 2

Location:	LR MOTORSHOP
Serial Number:	C0701130125
Description:	150HP BALDOR 1800RPM 445T

Hi-Speed Job Number:	101176
Manufacturer:	Baldor
Product Number:	M4406T-4
Spec/ID #:	18J037X515H1
Serial Number:	C0701130125
HP/kW:	150 (HP)
RPM:	1780 (RPM)
Frame:	445T
Voltage:	460
Current:	168
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

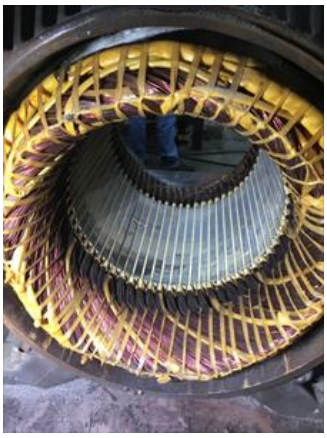
Priorities Found: **3 - High** **5 - Good**

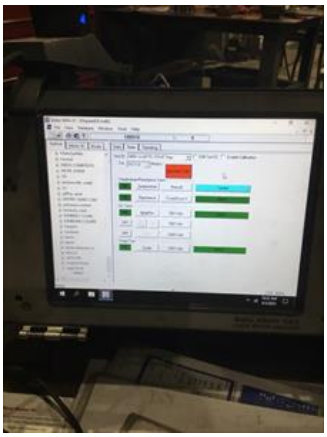
Overall Condition

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 ***Dirty but 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 ***Insulation cracked &***	**(F) Fail**
	11.	Lead Length	

12.	Frame Condition		
13.	Fan Condition	**(P) Pass**	P91

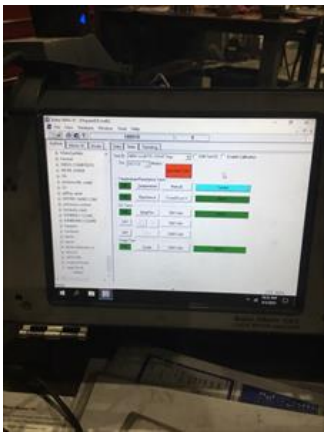
14.	Broken or Missing Components		

Initial Electrical Inspection

15.	Insulation Resistance/Megger		
16.	Winding Resistance		

1-2	1-3	2-3

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



18.	Number of Stator Slots	
19.	Stator Condition	**passed surge test but several leads need replacing**
20.	Stator Thermistors/Ohms	
21.	Stator Overloads/Ohms	

Mechanical Inspection

22.	Drive End Bearing Brand	**fag**
23.	Drive End Bearing Number-	**6319**
24.	Drive End Bearing Qty.	**1**
25.	Drive End Bearing Type	**(Ball) Ball Bearing**
26.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
27.	Drive End Bearing Insulation or Grounding Device?	**none**

28.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**star washer and gland nut**	P73

29.	Drive End Bearing Condition	**replace**
30.	Opposite Drive End Bearing Brand	**fag**
31.	Opposite Drive End Bearing Number-	**6314**
32.	Opposite Drive End Bearing Qty.	**1**
33.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
34.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
35.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
36.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**
37.	Opposite Drive End Bearing Condition	**replace**
38.	Drive End Seal	
39.	Opposite Drive End Seal	

Rotor Inspection

40.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3

41.	Growler Test	**(Pass) Pass**
42.	Number of Rotor Bars	
43.	Rotor Condition	**good**
44.	List the Parts needed for the Repair Below	

45. Signature of Technician that Disassembled Motor — **Terrence Holland**

Mechanical Fits- Rotor

46. Shaft Runout — **0.001 inches**

47. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

48. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

49. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

50. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.741	**3.741**	**3.7409**

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

52. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.756	**2.7561**	**2.7561**

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

54. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

55. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

56. Drive End - Endbell Bearing Fit Condition

57. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.9048	**5.9047**	**5.9046**

58. Opposite Drive End - Endbell Bearing Fit Condition — **(F) Fail**

Measures too small.

59. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

60. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

61. List Machine Work Needed Below

Machine ODE housing fit

62. Technician **Terrence Holland**

Dynamic Balance Report

63. Rotor Weight and Balance Grade

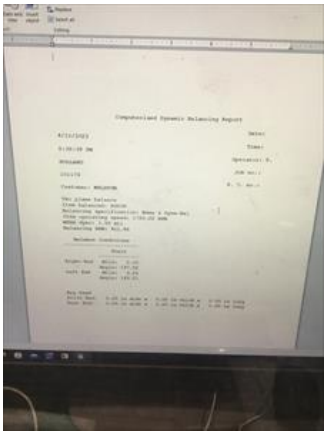
Rotor Weight	Balance Grade

64. Initial Balance Readings

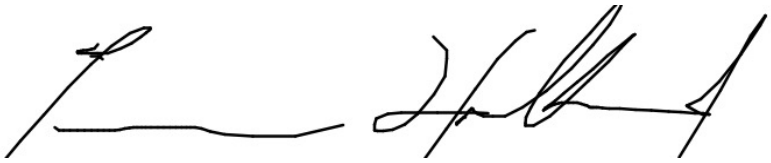
Drive End	Opposite Drive End

65. Final Balance Readings P27

Drive End	Opposite Drive End
.10	**.26**



66. Technician **Terrence Holland**



Rewind

67. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

68. Core Hot Spot Test

Pre-Burnout	Post-Burnout

69. Post Rewind Electrical Test- Insulation Resistance

70. Post Rewind Polarization Index

71. Post Rewind Winding Resistance

1-2	1-3	2-3

72. Post Rewind Surge Test

73.	Post Rewind Hi-Pot
74.	Technician

Root Cause of Failure

75.	Failure locations
76.	Root cause of failure

Mechanical Fits- Rotor - Post Repair

77.	Shaft Runout Post Repair
78.	Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

79.	Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

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

0 Degrees	60 Degrees	120 Degrees

81.	Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

82.	Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

83.	Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

84.	Shaft Repair Sign-off

Mechanical Fits- Bearing Housings - Post Repair

85.	Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

86.	Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

87.	Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

88.	End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

89.	End Bell Repair Sign-off

Assembly

90.	QC Check All Parts for Cleanliness Prior to Assembly
91.	Photograph All Major Components prior to assembly
92.	Final Insulation Resistance Test
93.	Assembled Shaft Endplay
94.	Assembled Shaft Runout

95.	Test Run Voltage		
	Volts	Volts	Volts
96.	Test Run Amperage		
	Amps	Amps	Amps
97.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
98.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
99.	Ambient Temperature - Fahrenheit		
100.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
101.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
102.	Document Final Condition with Pictures after paint		
103.	Final Pics and QC Review		