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

AC Inspection as Found

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

FolderID: 101138
FormID: 16308069

AC Inspection - Rev. 2

Location:	LR MOTORSHOP
Serial Number:	525286/01
Description:	2.2KW HAMMELMANN 3600RPM

Hi-Speed Job Number:	101138
Manufacturer:	Other
Product Number:	00.00124.0183-002
Serial Number:	525286/01
HP/kW:	2.2 (kW)
RPM:	2870 (RPM)
Voltage:	460
Current:	4.9
Phase:	Three
Hz:	50 (Hz)
Enclosure:	TENV
J-box Included:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Overall Condition

1. Report Date

2.	Nameplate Picture





3.	Photos of all six sides of the machine.
4.	Describe the Overall Condition of the Equipment as Received
5.	Distance from the end of the shaft to the Coupling/Sheave

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?
7.	Does Shaft Have Visible Damage?
8.	Assembled Shaft Runout
9.	Assembled Shaft End Play
10.	Air Gap Variation <10%
11.	Lead Condition

12.	Lead Length
13.	Frame Condition
14.	Fan Condition
15.	Broken or Missing Components

Initial Electrical Inspection

16.	Insulation Resistance/Megger
17.	Winding Resistance

1-2	1-3	2-3

18.	Perform Surge Test
19.	Number of Stator Slots
20.	Stator Condition

Mechanical Inspection

21.	Drive End Bearing Brand
22.	Drive End Bearing Number-
23.	Drive End Bearing Qty.
24.	Drive End Bearing Type
25.	Drive End Lubrication Type
26.	Drive End Bearing Insulation or Grounding Device?
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?
28.	Drive End Bearing Condition
29.	Opposite Drive End Bearing Brand
30.	Opposite Drive End Bearing Number-
31.	Opposite Drive End Bearing Qty.
32.	Opposite Drive End Bearing Type
33.	Opposite Drive End Lubrication Type
34.	Opposite Drive End Bearing Insulation or Grounding Device?
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?
36.	Opposite Drive End Bearing Condition
37.	Drive End Seal
38.	Opposite Drive End Seal

Rotor Inspection

39.	Rotor Type/Material
40.	Growler Test
41.	Number of Rotor Bars
42.	Rotor Condition
43.	List the Parts needed for the Repair Below
44.	Signature of Technician that Disassembled Motor

Mechanical Fits- Rotor

45.	Shaft Runout
46.	Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

47.	Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

48.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
49.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
50.	Drive End Bearing Shaft Fit Condition		
51.	Opposite Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
52.	Opposite Drive End Bearing Shaft Fit Condition		
53.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	

Mechanical Fits- Bearing Housings

54.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
55.	Drive End - Endbell Bearing Fit Condition		
56.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
57.	Opposite Drive End - Endbell Bearing Fit Condition		
58.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
59.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
60.	List Machine Work Needed Below		
61.	Technician		

Dynamic Balance Report

62.	Rotor Weight and Balance Grade		
	Rotor Weight	Balance Grade	
63.	Initial Balance Readings		
	Drive End	Opposite Drive End	
64.	Final Balance Readings		
	Drive End	Opposite Drive End	
65.	Technician		

Rewind

66.	Core Test Results - Watts loss per Pound		
	Pre-Burnout	Post Burnout	

67.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
68.	Post Rewind Electrical Test- Insulation Resistance		
69.	Post Rewind Polarization Index		
70.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
71.	Post Rewind Surge Test		
72.	Post Rewind Hi-Pot		
73.	Technician		

Root Cause of Failure

74.	Failure locations		
75.	Root cause of failure		

Mechanical Fits- Rotor - Post Repair

76.	Shaft Runout Post Repair		
77.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
78.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
79.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
80.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
81.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
82.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
83.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

84.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
85.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	

87.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
88.	End Bell Repair Sign-off		

Assembly

89.	QC Check All Parts for Cleanliness Prior to Assembly		
90.	Photograph All Major Components prior to assembly		
91.	Final Insulation Resistance Test		
92.	Assembled Shaft Endplay		
93.	Assembled Shaft Runout		
94.	Test Run Voltage		
	Volts	Volts	Volts
95.	Test Run Amperage		
	Amps	Amps	Amps
96.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
97.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
98.	Ambient Temperature - Fahrenheit		
99.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
100.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
101.	Document Final Condition with Pictures after paint		
102.	Final Pics and QC Review	**Terrence Holland**	P102