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: 102984
FormID: 20453347

AC Inspection - Rev. 2

Location:	LR MOTORSHOP
Serial Number:	21108
Description:	12.5HP AJAY EVAL

Hi-Speed Job Number:	102984
Manufacturer:	Other
Spec/ID #:	TYPE:325PH125
Serial Number:	21108
HP/kW:	12.5 (HP)
RPM:	3450 (RPM)
Voltage:	480
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	05/21/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **11 - Good**

Overall Condition

1.	Report Date	**06/05/2024**	
2.	Nameplate Picture		P37

3. Photos of all six sides of the machine.

Disassembled by customer.

	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***		
Initial Mechanical/Electrical				
●	5.	Does Shaft Turn Freely?	**(Y) Yes**	
●	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
	7.	Does Shaft Have Visible Damage?	**(No) No**	
●	8.	Assembled Shaft Runout	**0.002 Inches**	
	9.	Assembled Shaft End Play	**0 inches**	
	10.	Air Gap Variation <10%		
●	11.	Lead Condition	**(P) Pass**	
	12.	Lead Length	**8 Inches**	P87

●	13.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
	14.	Lead Numbers ***W1-W6 Delta.***		
	15.	Frame Condition	**pass**	

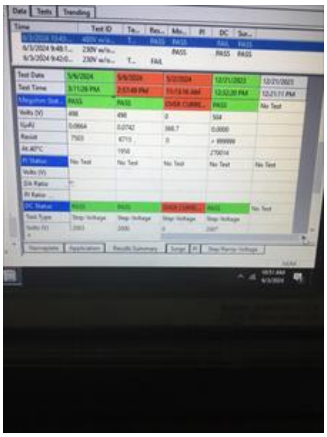
16. Fan Condition **(P) Pass** P115

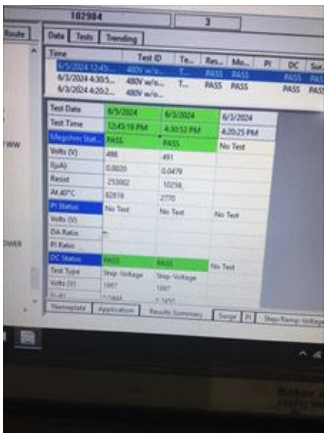
17. Broken or Missing Components

Various pump hardware missing. Pump was disassembled by customer, and the associated hardware was not shipped with it.

Initial Electrical Inspection

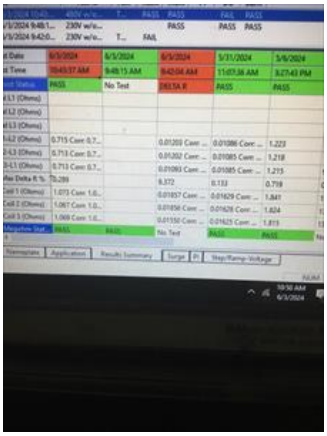
18. Insulation Resistance/Megger **Megohms** P8

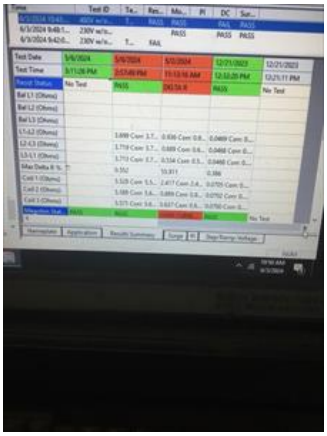


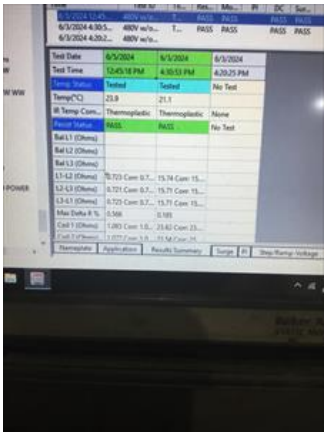


19. Winding Resistance P20

1-2	1-3	2-3

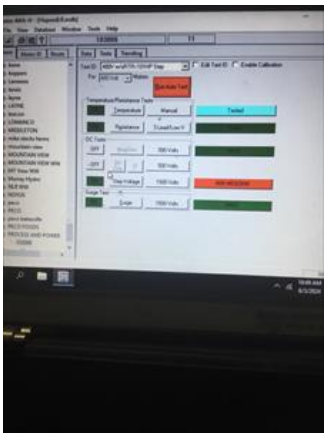


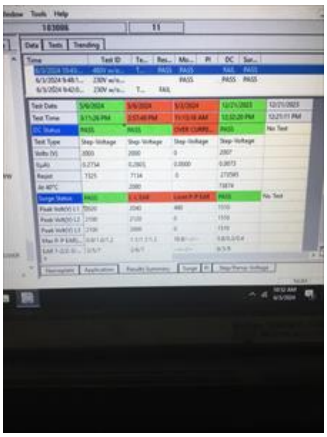


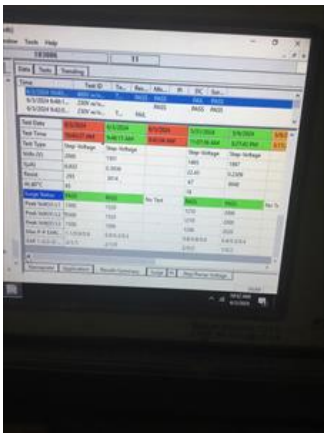


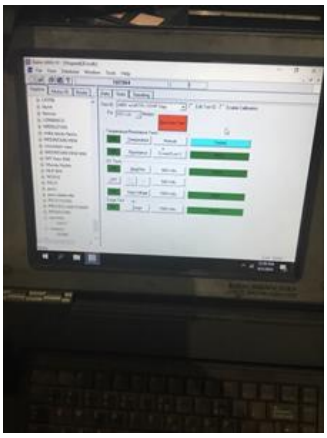
20. Perform Surge Test **(F) Fail** P57

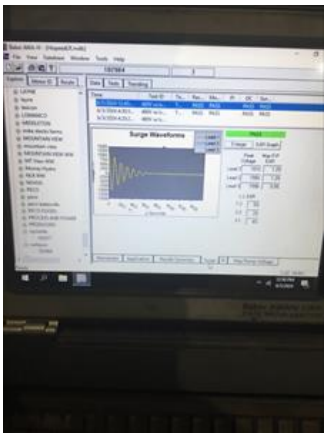
Failed step voltage test. Will wash and baker stator and retest. Stator passed after wash and bake.

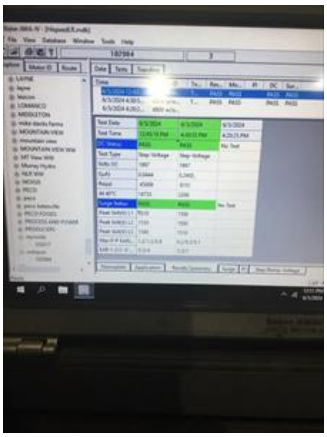












21.	Number of Stator Slots	**24**	
22.	Stator Condition	**pass**	
23.	Stator Thermistors/Ohms		
24.	Stator Overloads/Ohms		

Mechanical Inspection

25.	Drive End Bearing Brand	**FAG**	P12

26.	Drive End Bearing Number-	**6308 RSR**
27.	Drive End Bearing Qty.	**1**
28.	Drive End Bearing Type	**(Ball) Ball Bearing**
29.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
30.	Drive End Bearing Insulation or Grounding Device?	**none**

31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
32.	Drive End Bearing Condition	**replace**	
33.	Opposite Drive End Bearing Brand	**FAG**	P92

34.	Opposite Drive End Bearing Number-	**6306 RSR**	
35.	Opposite Drive End Bearing Qty.	**1**	
36.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
37.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
38.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
40.	Opposite Drive End Bearing Condition	**replace**	
41.	Drive End Seal	**40*55*8**	P120

42.	Opposite Drive End Seal	**30*42*8**	P123

Rotor Inspection

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

44.	Growler Test	**(Pass) Pass**
45.	Number of Rotor Bars	**20**
46.	Rotor Condition	**pass**
47.	List the Parts needed for the Repair Below ***Bearings & seals & various pump attachment hardware.***	
48.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

49.	Shaft Runout	**0.002 inches**
50.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

51.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

52. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

53. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.575	**1.575**	**1.575**

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

55. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.1812	**1.1812**	**1.1812**

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

57. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
3.5436	**3.5435**	**3.5437**

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

60. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
2.835	**2.8351**	**2.8349**

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

62. Bearing Cap Condition P52

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

63. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

64. List Machine Work Needed Below

None

65. Technician **Terrence Holland**

Witness:

Root Cause of Failure

66. Failure locations

Unknown

67. Root cause of failure

Unable to determine due to pump seals and various hardware missing and not shipped by customer.

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

Assembly

72. QC Check All Parts for Cleanliness Prior to Assembly
73. Photograph All Major Components prior to assembly
74. Final Insulation Resistance Test
75. Assembled Shaft Endplay
76. Assembled Shaft Runout
77. Test Run Voltage

Volts	Volts	Volts

78. Test Run Amperage

Amps	Amps	Amps

79. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

80. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial

81. Ambient Temperature - Fahrenheit
82. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

83.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
84.	Document Final Condition with Pictures after paint		
85.	Final Pics and QC Review		