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

AC Inspection as Found

Hill's Service
4940 Covington Way
Memphis, TN 38128

FolderID: 152740
FormID: 20324073

AC Inspection - Rev. 2

Location: Hi Speed

Serial Number:

Description: 3HP W/Pump

Hi-Speed Job Number:	152740
Manufacturer:	Baldor
Product Number:	VEM3561
Spec/ID #:	36J035S266G3
Serial Number:	F2002111485
HP/kW:	3 (HP)
RPM:	1760 (RPM)
Frame:	56C
Voltage:	230 / 460
Current:	8.4/4.2 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	Propeller
Date Received:	05/06/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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: **1 - High** **10 - Good**

Overall Condition

1.	Report Date	**05/08/2024**

2. Nameplate Picture

P2

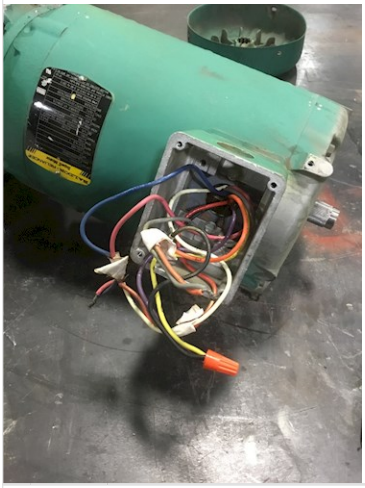
3. Photos of all six sides of the machine.

P3

	4.	Describe the Overall Condition of the Equipment as Received ***Motor and pump in great condition. Passed all tests. Needs new Mechanical seal and bearings to recondition.***	
	5.	Distance from the end of the shaft to the Coupling/Sheave ***Bottomed out.***	**0 inches** P5

Initial Mechanical/Electrical			
	6.	Does Shaft Turn Freely?	**(Y) Yes**
	7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	8.	Does Shaft Have Visible Damage?	**(No) No**
	9.	Assembled Shaft Runout	**0.0005 Inches**
	10.	Assembled Shaft End Play	**0.001 inches**
	11.	Air Gap Variation <10%	**No Provisions for measurement**

12.	Lead Condition	**(P) Pass**	P12



13.	Lead Length	**10 Inches**
14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**
15.	Lead Numbers	**1-9**

Wired for low voltage

16.	Frame Condition	**Pas**
17.	Fan Condition	**(P) Pass** P17

18.	Broken or Missing Components	P18

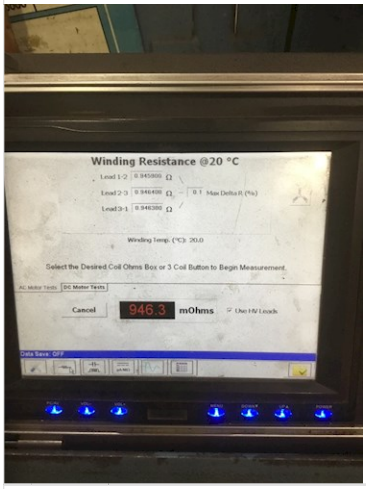
Missing O ring

Initial Electrical Inspection

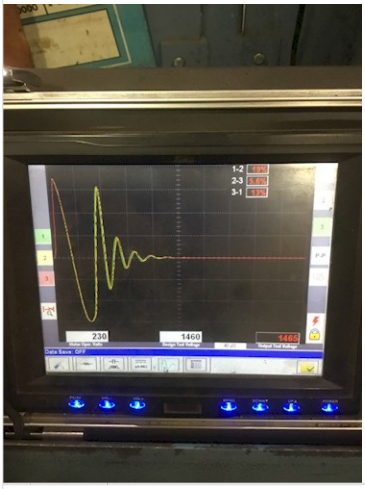
19.	Insulation Resistance/Megger	**92000 Megohms**	P19

20.	Winding Resistance		P20

1-2	1-3	2-3
.9459	**..9463**	**.9464**



21.	Perform Surge Test	**(P) Pass**	P21



22.	Number of Stator Slots	**36**
23.	Stator Condition	**Pass**
24.	Stator Thermistors/Ohms	**N/A**
25.	Stator Overloads/Ohms	**N/A**

Mechanical Inspection

26.	Drive End Bearing Brand	**FAG**	P26

27.	Drive End Bearing Number-	**6206 ZZ C3**	
28.	Drive End Bearing Qty.	**1**	
29.	Drive End Bearing Type	**(Ball) Ball Bearing**	
30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
31.	Drive End Bearing Insulation or Grounding Device?	**None**	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Sleave outside bearing**	P32

33.	Drive End Bearing Condition	**Normal Wear**	P33

34.	Opposite Drive End Bearing Brand	**PPL**	P34

35.	Opposite Drive End Bearing Number-	**6205 ZZ C3**	
36.	Opposite Drive End Bearing Qty.	**1**	
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		P40

41.	Opposite Drive End Bearing Condition	**Normal wear**	P41

42.	Drive End Seal	**None**	
43.	Opposite Drive End Seal	**None**	

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
45.	Growler Test	**(Pass) Pass**	
46.	Number of Rotor Bars	**28**	
47.	Rotor Condition	**Pass**	P47

48. List the Parts needed for the Repair Below

6206 C3
6205 C3
Mechanical seal

49.	Signature of Technician that Disassembled Motor	**Brandon Woodard**	

Mechanical Fits- Rotor

50.	Shaft Runout	**0.0005 inches**	
51.	Rotor Runout		

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.001**	**0.001**

52.	Coupling Fit Closest to Bearing Housing		P52

0 Degrees	90 Degrees	120 Degrees
0.625	**0.625**	**0.625**

53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
0.625	**0.625**	**0.625**

54. Drive End Bearing Shaft Fit P54

0 Degrees	60 Degrees	120 Degrees
1.1814	**1.1814**	**1.1814**

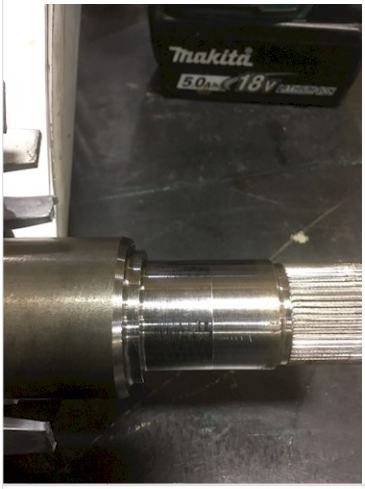
Tolerance is 1.1812-1.1815

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

56. Opposite Drive End Bearing Shaft Fit P56

0 Degrees	60 Degrees	120 Degrees
0.9843	**0.9843**	**0.9843**

Tolerance is.9844-.9847. .0001 under tolerance still press fit. Add loc tire during assembly.



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

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

Mechanical Fits- Bearing Housings

59.	Drive End - Endbell Bearing Fit			P59
	0 Degrees	60 Degrees	120 Degrees	
	2.4415	**2.4415**	**2.4415**	
	Tolerance is 2.4409-2.4416			

60.	Drive End - Endbell Bearing Fit Condition		**(P) Pass**
61.	Opposite Drive End - Endbell Bearing Fit		P61
	0 Degrees	60 Degrees	120 Degrees
	2.0473	**2.0473**	**2.0473**
	Tolerance is 2.0472-2.0479		

62.	Opposite Drive End - Endbell Bearing Fit Condition		**(P) Pass**
63.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	Pass	**N/A**	
64.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
	Pass	**Pass**	
65.	List Machine Work Needed Below		
	None		
66.	Technician		**Brandon Woodard**

Root Cause of Failure

67. Failure locations
68. Root cause of failure