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

AC Inspection as Found

Tyson Foods (10914)
1238 Market Street
Clarksville, AR 72830

FolderID: 103032
FormID: 20510953

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	M2344254
Description:	5HP GOULDS PUMP

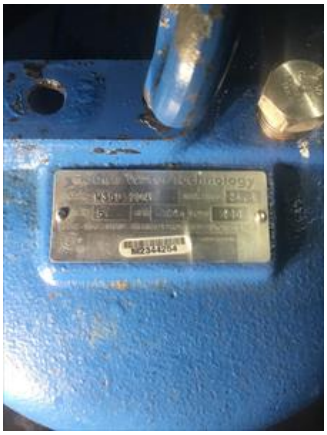
Hi-Speed Job Number:	103032
Manufacturer:	Other
Product Number:	WS501204
Serial Number:	M2344254
HP/kW:	5 (HP)
RPM:	1725 (RPM)
Voltage:	220-240
Current:	26.5A
Phase:	Single
Hz:	60 (Hz)
Service Factor:	1
Enclosure:	Submersible
# of Leads:	2
J-box Included:	None
Coupling/Sheave:	None
Date Received:	05/29/2024
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

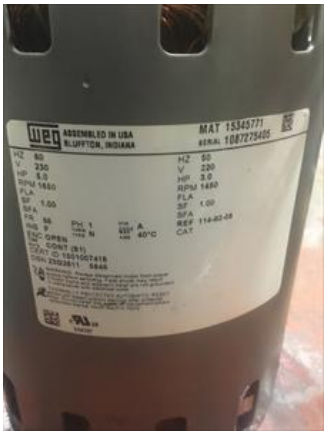
Priorities Found: **1 - High** **8 - Good**

Overall Condition

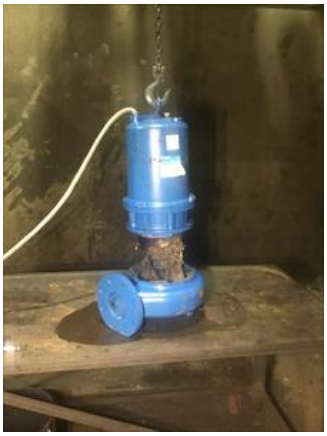
1.	Report Date	**06/11/2024**

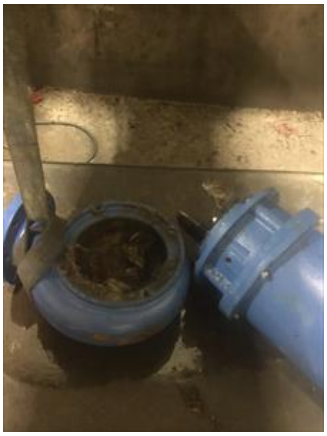
2. Nameplate Picture P37

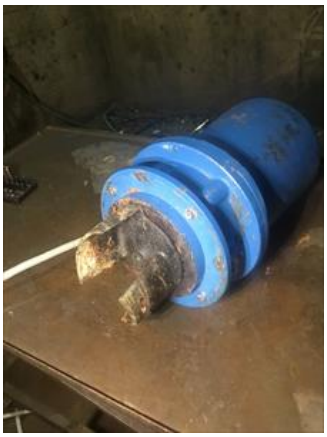


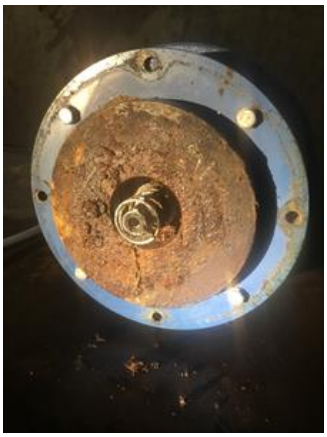


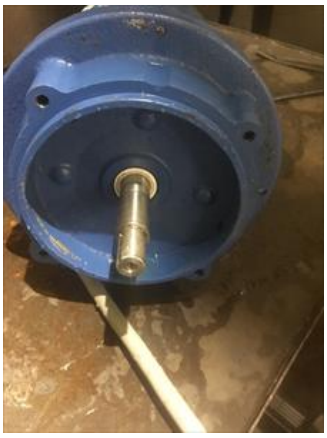
3. Photos of all six sides of the machine. P45

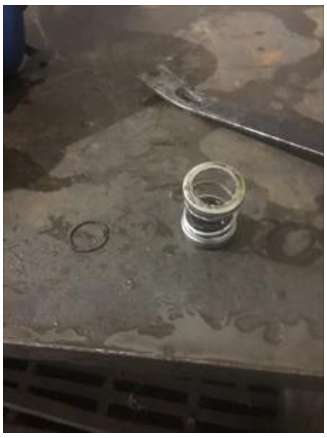


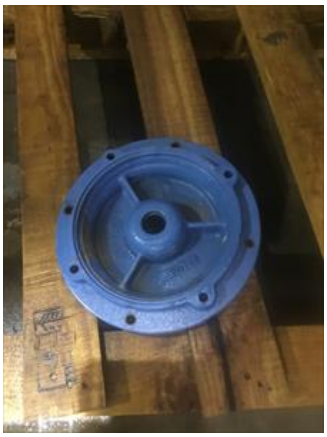


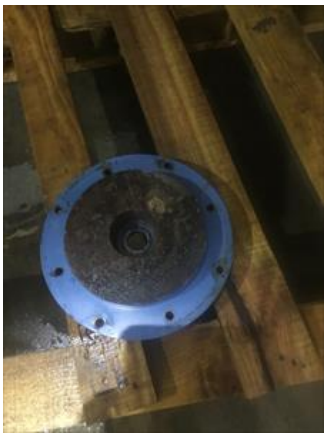


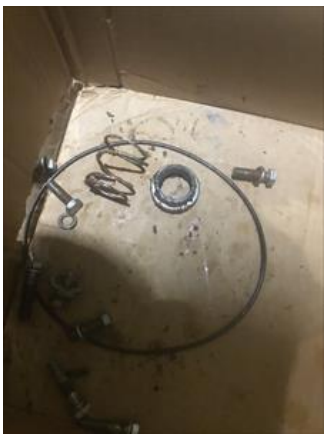


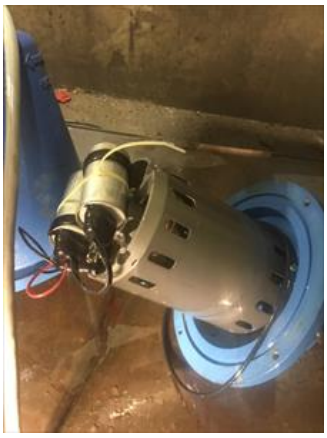


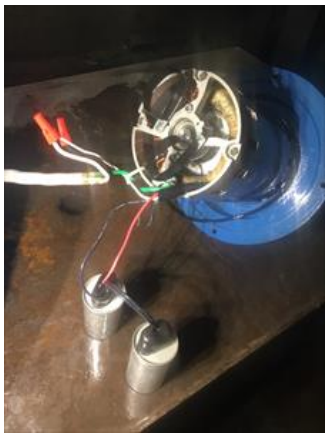


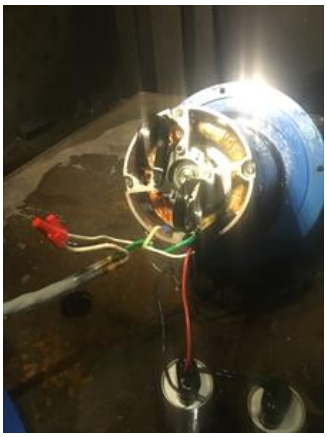


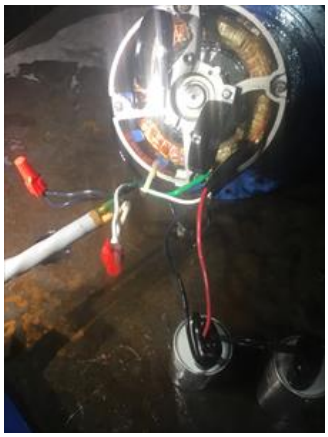


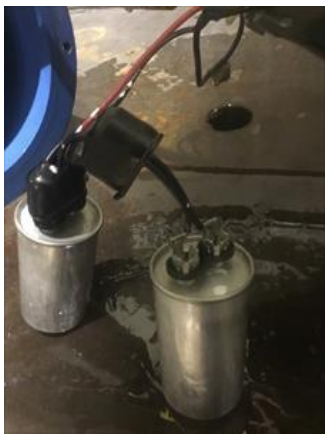


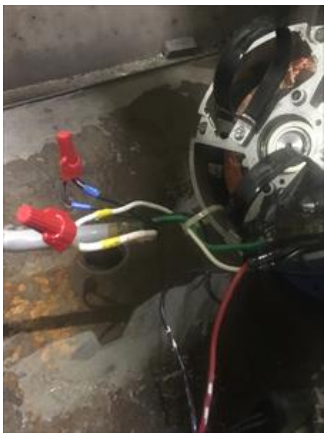


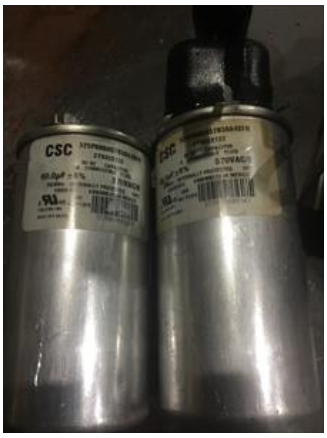


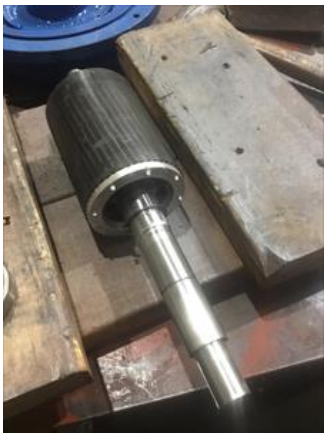


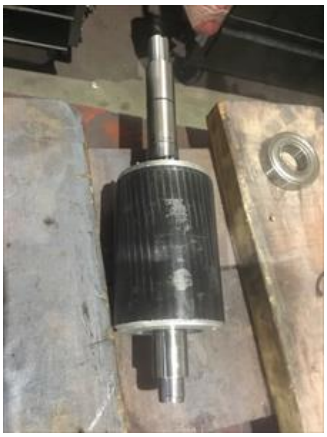








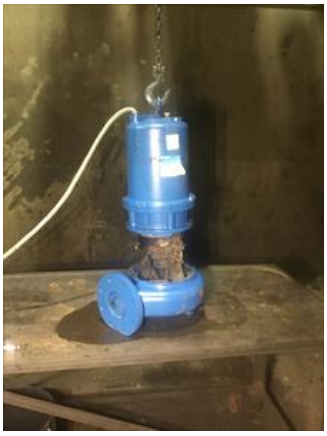




	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	

Initial Mechanical/Electrical

🔴	5.	Does Shaft Turn Freely?	**(N) No**	P1

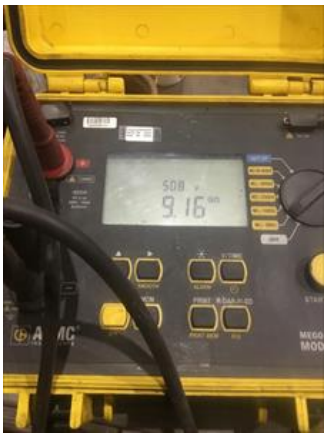


🟢	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	7.	Does Shaft Have Visible Damage?	**(No) No**
🟢	8.	Assembled Shaft Runout	**0.001 Inches**
	9.	Assembled Shaft End Play	**inches**
	10.	Air Gap Variation <10%	**none**
🟢	11.	Lead Condition	**(P) Pass**
	12.	Lead Length	**12 Inches**

13.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
14.	Lead Numbers	**1-3**	
15.	Frame Condition	**pass**	
16.	Fan Condition	**(N) NA**	
17.	Broken or Missing Components		
	None		

Initial Electrical Inspection

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

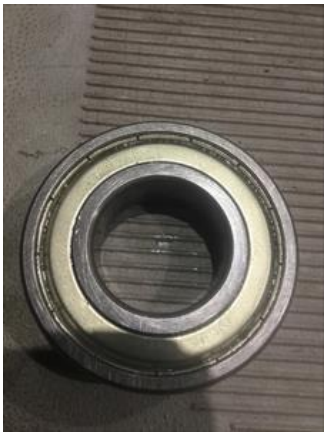


19.	Winding Resistance			
	1-2	1-3	2-3	

20.	Perform Surge Test	
21.	Number of Stator Slots	**36**
22.	Stator Condition	**pass**
23.	Stator Thermistors/Ohms	
24.	Stator Overloads/Ohms	

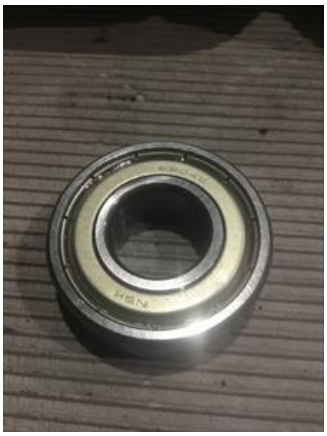
Mechanical Inspection

25.	Drive End Bearing Brand	**NSK**	
26.	Drive End Bearing Number-	**6206**	P32



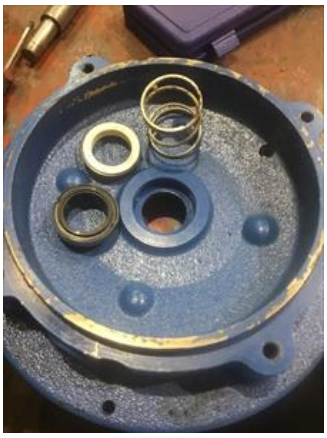
27.	Drive End Bearing Qty.	**1**
28.	Drive End Bearing Type	**(Ball) Ball Bearing**
29.	Drive End Lubrication Type	**(Oil) Oil Lubricated**
30.	Drive End Bearing Insulation or Grounding Device?	**none**

31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
32.	Drive End Bearing Condition	**replace**	
33.	Opposite Drive End Bearing Brand	**NSK**	
34.	Opposite Drive End Bearing Number-	**6204**	P99



35.	Opposite Drive End Bearing Qty.	**1**	
36.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
37.	Opposite Drive End Lubrication Type	**(Oil) Oil Lubricated**	
38.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer & snap ring**	
40.	Opposite Drive End Bearing Condition	**replace**	
41.	Drive End Seal	**sic,sic**	P120

42.	Opposite Drive End Seal	**carbon ceramic**	P123



Rotor Inspection

43.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
44.	Growler Test	**(Pass) Pass**
45.	Number of Rotor Bars	**48**
46.	Rotor Condition	**pass**
47.	List the Parts needed for the Repair Below ***Bearings, & seals***	
48.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

49.	Shaft Runout			**0.003 inches**
50.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
	0			
51.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
	0			
52.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
	0.8745000000000001	**0.8745000000000001**	**0.8745000000000001**	
53.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.1814	**1.1814**	**1.1814**	
54.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
55.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	0.7875	**0.7874**	**0.7875**	
56.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**

57. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
ok	**ok**

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
2.441	**2.4411**	**2.4409**

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

60. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.8502	**1.85**	**1.8503**

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

62. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
ok	**ok**

63. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
ok	**ok**

64. List Machine Work Needed Below

None

65. Technician **Terrence. Holland**

Witnessed by DWM

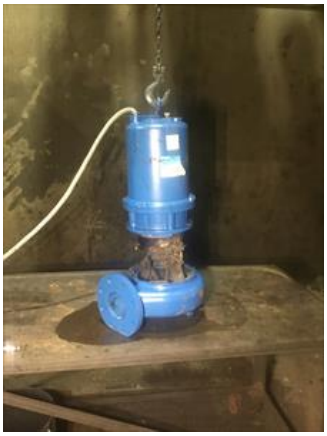
Root Cause of Failure

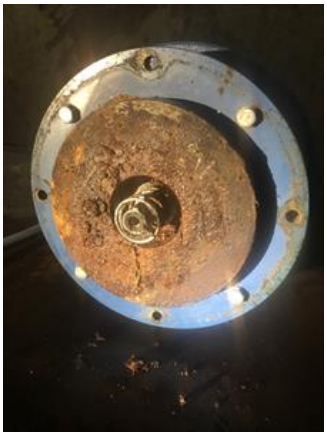
66. Failure locations

Impeller, and stator housings.

67. Root cause of failure P18

Impeller was completely wrapped around with rags and cloth material. This contributed to the shaft being completely locked up and also caused premature seal failure.



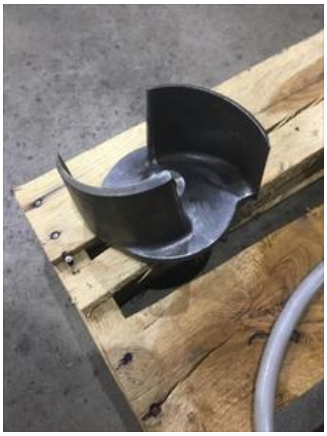


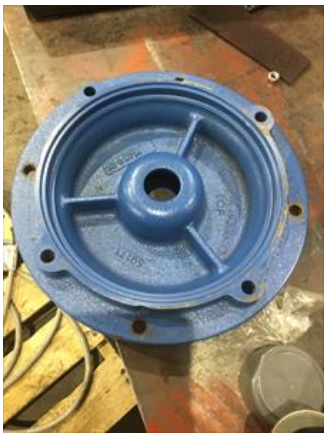
Dynamic Balance Report

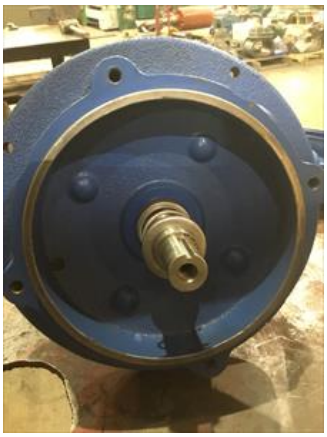
68.	Rotor Weight and Balance Grade	
	Rotor Weight	Balance Grade
69.	Initial Balance Readings	
	Drive End	Opposite Drive End
70.	Final Balance Readings	
	Drive End	Opposite Drive End
71.	Technician	

Assembly

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

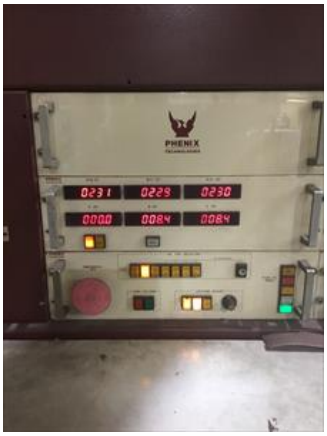




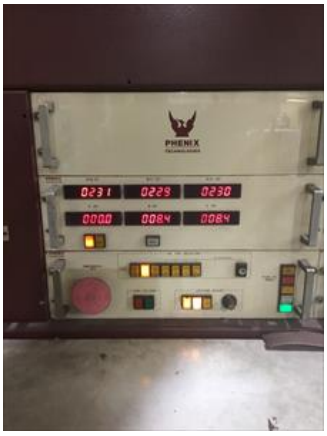


73.	Photograph All Major Components prior to assembly	**(Complete) Complete**
74.	Final Insulation Resistance Test	
75.	Assembled Shaft Endplay	
76.	Assembled Shaft Runout	

77.	Test Run Voltage			P56
	Volts	Volts	Volts	



78.	Test Run Amperage			P65
	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		**Terrence Holland**	P131

Witness: DWM