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

Submersible Pump Repair Report

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

FolderID: 103357
FormID: 21341904

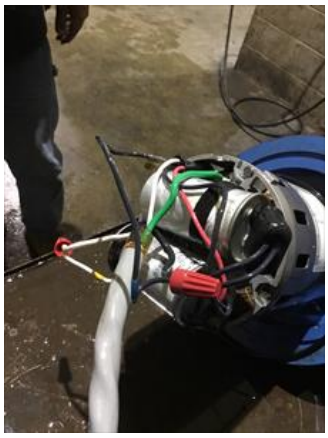
Submersible Pump Repair Report	
Location:	MOTOR SHOP LR
Serial Number:	WS5012D4
Description:	5HP GOULD PUMP

HP:	5 (HP)
Model:	M2344254
Serial:	WS5012D4
V:	230 (V)
RPM:	1725 (RPM)
Hz:	60 (Hz)
Phase:	1

Priorities Found: **1 - High** **26 - Good**

General

1.	Job Number	**103357**
2.	Report Date	**08/20/2024**
3.	Customer	P27



Initial Pump Inspection

4. Power Cord Wire Size

	5.	Power Cord # of Conductors	**3**	P19

	6.	Power Cord Length	**20 ft**	
●	7.	Power Cord Condtion	**(P) Pass**	P37

	8.	Sensor Cord Wire Size	**AWG**	
	9.	Sensor Cord # of Conductors		
	10.	Sensor Cord Length	**ft**	
	11.	Sensor Cord Condition		
●	12.	Sensor Cord for Thermal Protection?	**(N) No**	
	13.	Sensor Cord for Water Protection	**(NA) Not Applicable**	
●	14.	Bowl Condition	**(P) Pass**	P74

●	15.	Impeller Condition	**(P) Pass**	P80

	16.	Number of Wear Rings	**1**	
	17.	Wear Ring Condition		
	18.	Wear Ring Size	**in**	
	19.	Wear Ring Clearance to Impeller	**in**	
	20.	Wear Ring Material		
●	21.	Seal Surfaces Condition	**(F) Fail**	P98

22.	Seal Type	**Mechanical**	
23.	Number of Seals	**2**	
24.	Seal Material on Rotary Face	**tungsten carbon**	
25.	Seal Material on Stationary Seat	**tungsten ceramic**	
26.	Elastic Component Material	**Viton**	
27.	Seal OD	**1.7525 in**	
28.	Seal ID	**1.1498 in**	
29.	Seal Sleeve Material		

30.	Seal Plate Condition	**(P) Pass**	P116

31.	Water Sensor in Seal Cavity?	**(N) No**	
32.	Oil Filled Seal Cavity?	**(Y) Yes**	
33.	Oil Filled Stator?	**(Y) Yes**	

Initial Inspection

34.	Number of Leads	**4**	P16

35.	Lead Length	**8 Inches**	
36.	Lead Size		
37.	Lead Condition	**(P) Pass**	
38.	Lead Markings	**none**	
39.	Lead Size for Oil Filled Stator	**AWG**	
40.	Lug Size, Condition, and Type		
41.	Overload Required?	**(N) No**	
42.	Winding RTD's	**(N) No**	
43.	Winding Rtd's Condition		
44.	Shaft Run Out	**0.002**	
45.	Does Shaft Turn Freely	**yes**	
46.	Does Shaft Have Visible Damage	**yes, seal surface worn**	
47.	Bearing Rtd's	**(N) No**	
48.	Bearing Rtd's Condition		
49.	Contamination		
	None		
50.	Frame Condition	**(P) Pass**	

51.	Fan Condition		
52.	Broken or missing components		
	None		

Initial Electric Test

53.	Resistance to Ground	**2,000 Mohm**	
54.	Winding Resistance 1-2	**Ohm**	
55.	Winding Resistance 2-3	**Ohm's**	
56.	Winding Resistance 1-3	**Ohm's**	
57.	Resistive Imbalance	**%**	
58.	Hi-Pot	**Ua**	
59.	Surge Test		
60.	Stator Condition	**pass**	
61.	Failure Location		
	Impeller was entangled with rag like materials.		

Initial Rotor Inspection

62.	Rotor Type	**squirrel cage**	
63.	Air Gap <10% Variation	**(P) Pass**	
64.	Number of Rotor Bars	**48**	
65.	Number of Broken Rotor Bars	**0**	
66.	Growler Test	**(P) Pass**	
67.	Rotor Condition	**(P) Pass**	

Mechanical Inspection

68.	Bearing Manufacturer	**koyo**	
69.	Bearing DE Size	**6206**	P18

70.	Bearing DE Type	**ball bearing.**	
71.	DE Bearing Qty.	**1**	
72.	Bearing ODE Size	**6204**	

	73.	Bearing ODE Type	**ball bearing**

	74.	ODE Bearing Qty.	**1**
	75.	Insulated Bearing	**no**
	76.	Lubrication Type	**oil**
●	77.	Grease Condition	**(NA) Not Applicable**
	78.	Bearing Retainers	**(NA) Not Applicable**
	79.	Shaft Grounding Device	**(NA) Not Applicable**
●	80.	DE Seal	**(Y) Yes**
	81.	DE Seal Type/Size	**viton sic, sic**
●	82.	ODE Seal	**(Y) Yes**
	83.	ODE Seal Type/Size	**carbon ceramic**

Root Cause of Failure

	84.	Component Failure	**impeller**
	85.	Cause of Failure ***Excessive amounts of rag like material entangled around the impeller***	
	86.	Comments ***Motor test ran good.***	
	87.	Service Technician	**Terrence Holland**

Machine Fit Inspection Report

●	88.	Shaft Run Out	**(P) Pass**
	89.	Initial Shaft Run Out	**0.002 "**
	90.	Final Shaft Run Out	**0 "**
●	91.	DE Bearing Shaft Fit	**(P) Pass**
	92.	DE Initial Shaft Bearing Fit Size	

Measure 1	Measure 2	Measure 3
1.1813	**1.1812**	**1.1813**

	93.	DE Final Shaft Bearing Fit Size	

Measure 1	Measure 2	Measure 3

●	94.	ODE Bearing Shaft Fit	**(P) Pass**

95.	ODE Initial Shaft Bearing Fit Size			
	Measure 1	Measure 2	Measure 3	
	0.7877	**0.7875**	**0.7875**	
96.	ODE Final Shaft Bearing Fit Size			
	Measure 1	Measure 2	Measure 3	
97.	DE Air Seal Shaft Fit			
98.	DE Air Seal Shaft Size			
	Initial	Final		
99.	ODE Air Seal Shaft Fit			
100.	ODE Air Seal Shaft Size			
	Initial	Final		
101.	DE Endbell Fit			**(P) Pass**
102.	DE Initial Endbell Fit Size			
	Measure 1	Measure 2	Measure 3	
	2.4412	**2.441**	**2.4412**	
103.	DE Final Endbell Fit Size			
	Measure 1	Measure 2	Measure 3	
104.	DE Endbell Fit Insulated			**(NA) Not Applicable**
105.	DE Endbell Air Seal Fit			**(NA) Not Applicable**
106.	DE Endbell Air Seal Fit Size			
	Initial	Final		
107.	ODE Endbell Fit			**(P) Pass**
108.	ODE Initial Endbell Fit Size			
	Measure 1	Measure 2	Measure 3	
	1.8508	**1.8507**	**1.8507**	
109.	ODE Final Endbell Fit Size			
	Measure 1	Measure 2	Measure 3	
110.	ODE Endbell Fit Insulated			
111.	ODE Endbell Air Seal Fit			
112.	ODE Endbell Air Seal Fit Size			
	Initial	Final		
113.	Foot Flatness			
114.	Foot Condition			
115.	Flange Condition			**(P) Pass**
116.	Service Technician			**Terrence Holland**

Witness: DWM

Balancing Report

117.	Balance Type
118.	Balance Operating Speed
119.	Start Left End
120.	Start Right End
121.	Balancing Specification
122.	Finish Left End
123.	Finish Right End
124.	Service Technician

Assembly and Final Test

125.	Rotor and Impeller Balanced
126.	Stator Housing Refilled with Oil (if required)
127.	Stator Pressure Test
128.	Seal Cavity Pressure Test
129.	Time Under Pressure
130.	Overload Continuity
131.	Water Sensor Open?
132.	Meggar Testing Reading
133.	Surge Test
134.	Hi-Pot

135. Winding Resistance

1-2	2-3	3-1

136. Test Run

137. Test Run Voltage

Phase A	Phase B	Phase C

138. Test Run Current

Phase A	Phase B	Phase C

139. DE Vibration Reading

Horizontal	Vertical	Axial

140. ODE Vibration Reading

Horizontal	Vertical	Axial

141.	Ambient Temp at start of Test Run
142.	Temp at 5 minutes
143.	Temp at 10 minutes
144.	Temp at 15 minutes
145.	Temp at 20 minutes
146.	Temp at 25 minutes
147.	Temp at 30 minutes
148.	Temp at 35 minutes
149.	Temp at 40 minutes
150.	Temp at 45 minutes
151.	Temp at 50 minutes

152.	Temp at 55 minutes
153.	Temp at 60 minutes
154.	Motor Paint
155.	Service Technician