



## Submersible Pump Repair Report

Jacksonville Waste Water

248 Cloverdale Road  
Jacksonville, AR 72076

FolderID: 101828  
FormID: 17832903

### Submersible Pump Repair Report

Location: Shop

Serial Number: G95415

Description: 5HP HYDROMATIC PUMP

Make: HYDROMATIC

HP: 5 (HP)

Model: HRGF500M3-4

Serial: G95415

V: 230 (V)

A: 15.6 (A)

Hz: 60 (Hz)

Phase: 3

Impeller Diameter: 9.25 (in)

Priorities Found: ● 28 - Good

### General

- |                |                          |
|----------------|--------------------------|
| 1. Job Number  | 101828                   |
| 2. Report Date |                          |
| 3. Customer    | Jacksonville Waste Water |

### Initial Pump Inspection



- |                         |        |    |
|-------------------------|--------|----|
| 4. Power Cord Wire Size | 12 AWG | P7 |
|-------------------------|--------|----|














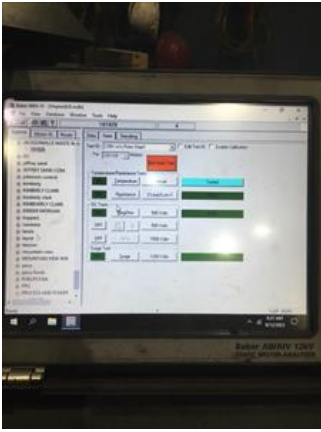


5.	Power Cord # of Conductors	4
6.	Power Cord Length	19.1 ft
7.	Power Cord Condition	(P) Pass
8.	Sensor Cord Wire Size	16 AWG
9.	Sensor Cord # of Conductors	4
10.	Sensor Cord Length	19.1 ft
11.	Sensor Cord Condition	(P) Pass
12.	Sensor Cord for Thermal Protection?	(Y) Yes
13.	Sensor Cord for Water Protection	(Y) Yes
14.	Bowl Condition	(P) Pass
15.	Impeller Condition	(P) Pass

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16.	Number of Wear Rings	
	17. Wear Ring Condition	(P) Pass
18.	Wear Ring Size	
19.	Wear Ring Clearance to Impeller	
20.	Wear Ring Material	
	21. Seal Surfaces Condition	(P) Pass
22.	Seal Type	
23.	Number of Seals	2
24.	Seal Material on Rotary Face	
25.	Seal Material on Stationary Seat	
26.	Elastic Component Material	
27.	Seal OD	1.8 in
28.	Seal ID	1.25 in
29.	Seal Sleeve Material	
	30. Seal Plate Condition	(P) Pass
	31. Water Sensor in Seal Cavity?	(Y) Yes
	32. Oil Filled Seal Cavity?	(Y) Yes
	33. Oil Filled Stator?	(Y) Yes
<b>Initial Inspection</b>		
34.	Number of Leads	3
35.	Lead Length	8 Inches
36.	Lead Size	
	37. Lead Condition	(P) Pass
38.	Lead Markings	1-3
39.	Lead Size for Oil Filled Stator	AWG
40.	Lug Size, Condition, and Type	N/a
41.	Overload Required?	
42.	Winding RTD's	
43.	Winding Rtd's Condition	
44.	Shaft Run Out	
45.	Does Shaft Turn Freely	yes
46.	Does Shaft Have Visible Damage	no
47.	Bearing Rtd's	
48.	Bearing Rtd's Condition	
49.	Contamination	Yes
	50. Frame Condition	(P) Pass
	51. Fan Condition	(NA) Not Applicable
52.	Broken or missing components	
<b>Initial Electric Test</b>		
53.	Resistance to Ground	
54.	Winding Resistance 1-2	
55.	Winding Resistance 2-3	
56.	Winding Resistance 1-3	
57.	Resistive Imbalance	
58.	Hi-Pot	

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60. Stator Condition **good**

61. Failure Location **seals**

### Initial Rotor Inspection



62. Rotor Type **squirrel cage aluminum**

P2



63. Air Gap <10% Variation

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 **FAG**



70. Bearing DE Type	regular ball bearing
71. DE Bearing Qty.	1
72. Bearing ODE Size	6303 Z
73. Bearing ODE Type	regular ball bearing
74. ODE Bearing Qty.	1
75. Insulated Bearing	no
76. Lubrication Type	oil
77. Grease Condition	(NA) Not Applicable
78. Bearing Retainers	(Y) Yes
<i>Snap rings</i>	
79. Shaft Grounding Device	(NA) Not Applicable
80. DE Seal	(Y) Yes
81. DE Seal Type/Size	od 1.8858 id 1.2575
82. ODE Seal	(Y) Yes
83. ODE Seal Type/Size	od 1.8858 id 1.2575
<b>Root Cause of Failure</b>	
84. Component Failure	seals
85. Cause of Failure	<i>Excessive wear</i>
86. Comments	<i>Seals failed due to contamination.</i>
87. Service Technician	Terrence Holland
	
<b>Machine Fit Inspection Report</b>	
88. Shaft Run Out	(P) Pass
89. Initial Shaft Run Out	0.001 "
90. Final Shaft Run Out	
91. DE Bearing Shaft Fit	(P) Pass

92.	DE Initial Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
	<b>1.3783</b>	<b>1.3783</b>	<b>1.3782</b>
93.	DE Final Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
94.	ODE Bearing Shaft Fit		<b>(P) Pass</b>
95.	ODE Initial Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
	<b>0.6694</b>	<b>0.06691999999999999</b>	<b>0.6693</b>
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		<b>(P) Pass</b>
102.	DE Initial Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
	<b>3.1497</b>	<b>3.1459</b>	<b>3.1458</b>
103.	DE Final Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
104.	DE Endbell Fit Insulated		<b>(NA) Not Applicable</b>
105.	DE Endbell Air Seal Fit		
106.	DE Endbell Air Seal Fit Size		
	Initial	Final	
107.	ODE Endbell Fit		<b>(P) Pass</b>
108.	ODE Initial Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
	<b>1.8507</b>	<b>1.8506</b>	<b>1.8508</b>
109.	ODE Final Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
110.	ODE Endbell Fit Insulated		<b>(NA) Not Applicable</b>
111.	ODE Endbell Air Seal Fit		
112.	ODE Endbell Air Seal Fit Size		
	Initial	Final	
113.	Foot Flatness		<b>(NA) Not Applicable</b>
114.	Foot Condition		
115.	Flange Condition		

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### 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

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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