

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

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Submersible Pump Repair Report Jacksonville Waste Water

248 Cloverdale Road Jacksonville, AR 72076

Submersible Pump Repair Report			
Location:	Shop		
Serial Number:	S87944		
Description:5HP PUMP 1800RPM	HYDROMATIC SUBMERSIBLE		

Make:	HYDROMATIC
HP:	5 (HP)
Model:	S4P500M3-4
Serial:	S87944
V:	230 (V)
A:	18.8 (A)
RPM:	1750 (RPM)
Hz:	60 (Hz)
Phase:	3

Priorities Found: 19 - Good

General

- 1. Job Number
- 2. Report Date
- 3. Customer

Initial Pump Inspection

o

Power Cord Wire Size

Р7 **AWG**

















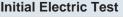


- 5. Power Cord # of Conductors
 - 6. Power Cord Length
- 7. Power Cord Condtion
 (P) Pass
 P37



8.	Sensor Cord Wire Size		
9.	Sensor Cord # of Conductors		
10.	Sensor Cord Length		
11.	Sensor Cord Condition	(P) Pass	
12.	Sensor Cord for Thermal Protection?		
13.	Sensor Cord for Water Protection		
14.	Bowl Condition	(P) Pass	
15.	Impeller Condition	(P) Pass	
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		
22.	Seal Type		
		Mechanical	
23.	Number of Seals	2	
24.	Seal Material on Rotary Face	carbon	
•	Outter: Carbon Inner: Sic		

	25.	Seal Material on Stationary Seat	ceramic
	-	Outer seal: Ceramic Inner seal: Sic	
	26.	Elastic Component Material	
	27.	Seal OD	2.1 mm
	28.	Seal ID	1.5 in
	-	Shaft seal surface.	
	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
In	itial I	nspection	
	34.	Number of Leads	
	35.	Lead Length	
	36.	Lead Size	
	37.	Lead Condition	
	38.	Lead Markings	
	39.	Lead Size for Oil Filled Stator	
	40.	Lug Size, Condition, and Type	
	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: water.	
	50.	Frame Condition	(P) Pass
	51.	Fan Condition	
	52.	Broken or missing components	
		None	
In	itial E	Electric Test	io io





53. Resistance to Ground Mohm





	54.	Winding Resistance 1-2	
	55.	Winding Resistance 2-3	
	56.	Winding Resistance 1-3	
	57.	Resistive Imbalance	
	58.	Hi-Pot	
	59.	Surge Test	
	60.	Stator Condition	pass
	61.	Failure Location	
In	itial F	Rotor Inspection	
	62.	Rotor Type	squirrel cage aluminum
	63.	Air Gap <10% Variation	
	64.	Number of Rotor Bars	
	65.	Number of Broken Rotor Bars	
	66.	Growler Test	(P) Pass
	67.	Rotor Condition	(P) Pass
M	_	nical Inspection	(i.) : uee
	68.	Bearing Manufacturer	
	69.	Bearing DE Size	
	70.	Bearing DE Type	thrust
	71.		1
		DE Bearing Qty.	<u>'</u>
	72.	Bearing ODE Size	hall baseling
	73.	Bearing ODE Type	ball bearing
	74.	ODE Bearing Qty.	1
	75.	Insulated Bearing	no
	76.	Lubrication Type	oil
	77.	Grease Condition	
	78.	Bearing Retainers	
	79.	Shaft Grounding Device	
	80.	DE Seal	
		DE Seal Type/Size	
	82.	ODE Seal	
	83.	ODE Seal Type/Size	
R	oot C	ause of Failure	
	84.	Component Failure	Outter seal
	85.	Cause of Failure	
		Outter seal improperly seated	
	86.	Comments	
		Outter seal was improperly seated.	
	87.	Service Technician	Terrence Holland
	/	L 4M.	
М	achir	ne Fit Inspection Report	
141	88.	Shaft Run Out	
	50.		

- 88. Shaft Run Out
- 89. Initial Shaft Run Out
- 90. Final Shaft Run Out

	DE Bearing Shaft Fit		
92.	DE Initial Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
93.	DE Final Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
94.	ODE Bearing Shaft Fit		
95.	ODE Initial Shaft Bearing Fit Size		
	Measure 1	Measure 2	Measure 3
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		
50.	Initial	Final	
	Illitial	i iilai	
QQ	ODE Air Seal Shaft Fit		
	ODE Air Seal Shaft Size		
100.	Initial	Final	
	initiai	rinai	
404	DE E. J. J. E.		
	DE Endbell Fit		
102.	DE Initial Endbell Fit Size		M
	Measure 1	Measure 2	Measure 3
103.	DE Final Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
	DE Endbell Fit Insulated		
	DE Endbell Air Seal Fit		
106.	DE Endbell Air Seal Fit Size		
	Initial	Final	
107.	ODE Endbell Fit		
108.	ODE Initial Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
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		
	Foot Condition		

1116. Service Technician Balancing Report 117. Belance Type 118. Balanco Operating Speed 119. Start Left End 120. Start Right End 121. Belancing Specification 122. Finish Left End 123. Finish Right End 124. Service Technician Assembly and Final Test 125. Rotor and Impelier Balanced 127. Stator Pressure Test 128. Start Pressure Test 129. Time Under Pressure 130. Overload Continuity 131. Water Sensor Open? 132. Meggar Testing Reading 133. Surge Test (P) Pass 134. Surge Test (P) Pass 135. Surge Test (P) Pass 136. Start Pressure Test (P) Pass Pass 137. Start Pressure Test (P) Pass Pass 138. Seal Cavity Pressure Test (P) Pass Pass 139. Overload Continuity (Y) Yes Pass Pass 130. Overload Continuity (Y) Yes Pass Pass Pass Pass Pass Pass Pass Pa				
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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 129. Time Under Pressure 130. Overload Continuity 131. Water Sensor Open? 132. Megar Testing Reading 140. Mohm Pour Pressure 151. Megar Testing Reading 152. Megar Testing Reading 163. Mohm Pour Perssure 164. Assembly and Final Test 175. Final Testing Reading 176. Mohm Pour Perssure 177. Stator Pressure 178. Megar Testing Reading 178. Megar Testing Reading 179. Mohm Pour Perssure 189. Mohm Pou	120.	Start Right End		
123. Finish Right End 124. Service Technician Assembly and Final Test 125. Rotor and Impelier 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 134. Meggar Testing Reading 135. Meghan 136. Mohm 137. Petalogous Pet	121.	Balancing Specification		
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129. Time Under Pressure 130. Overload Continuity 131. Water Sensor Open? 132. Meggar Testing Reading Mohm Pe	127.	Stator Pressure Test	(P) Pass	P29
129. Time Under Pressure 130. Overload Continuity 131. Water Sensor Open? 132. Meggar Testing Reading Mohm Pe				
130. Overload Continuity 131. Water Sensor Open? 132. Meggar Testing Reading Mohm Pe	128.	Seal Cavity Pressure Test	(P) Pass	
131. Water Sensor Open? 132. Meggar Testing Reading Mohm Pe	129.	Time Under Pressure	30 min	
132. Meggar Testing Reading Mohm Per Mohm Mohm Mohm Mohm Per Mohm	130.	Overload Continuity		
SIGNATURE MEGONINE MODEL 50			(Y) Yes	
● 133. Surge Test (P) Pass	AEMO:	SIS SON POR STANTANTON	WOIIII	
	133.	Surge Test	(P) Pass	

134. Hi-Pot



136. Test Run (P) Pass P90





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 Ru	ın		
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			
	Temp at 60 minutes			
154.	Motor Paint		(P) Pas	s P141











155. Service Technician

Terrence Holland