Hi-Speed Industrial Service
7030 Ryburn Dr
Millington, Tn 38053
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Submersible Pump Repair Report

MOUNTAIN VIEW WASTE WATER
340 WESTWOOD
MOUNTAIN VIEW, AR 72560

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Submersible Pump Repair Report

Location:	MOTOR SHOP LR
Serial Number:	G32737
Description:	5HP HYDROMATIC 1800RPM SUBMERSIBLE PUMP

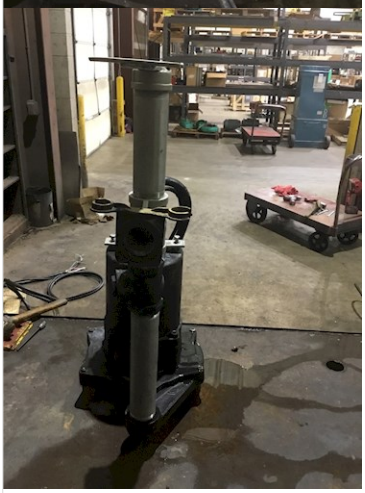
Make:	HYDROMATIC
HP:	5 (HP)
Model:	HPGF500M2-4
Serial:	G32737
V:	230 (V)
A:	29.5 (A)
RPM:	1750 (RPM)
Hz:	60 (Hz)
Phase:	1

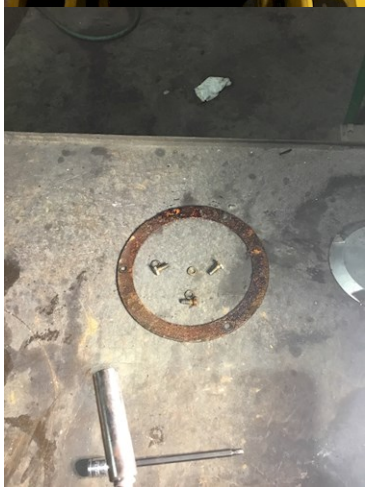
Priorities Found: **2 - High** **31 - Good**

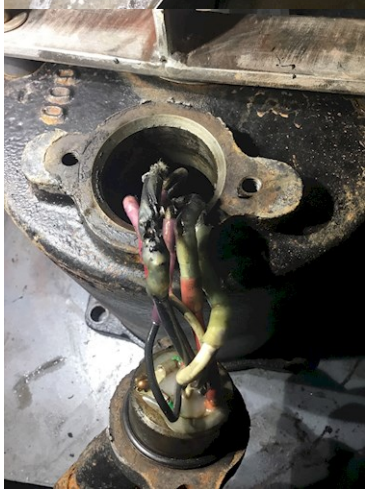
General

1. Job Number
2. Report Date
3. Customer **Mountain View WW** P27







Initial Pump Inspection

	4.	Power Cord Wire Size	**8 AWG**	P7
		8AWG /4C power cord ***16 AWG /4C sensor cord***		

	5.	Power Cord # of Conductors	**4**	
		White power- # 1&5 ***Black power - #4*** ***Red power - #8***		
	6.	Power Cord Length	**25 ft**	
	7.	Power Cord Condtion	**(P) Pass**	
	8.	Sensor Cord Wire Size	**16 AWG**	
		Black - #P1 ***White - P2*** ***Red - sensor***		
	9.	Sensor Cord # of Conductors	**4**	
	10.	Sensor Cord Length	**25 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**	P80

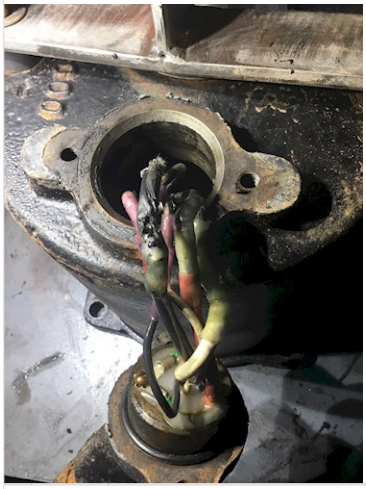
16.	Number of Wear Rings	**1**	
17.	Wear Ring Condition	**(P) Pass**	
18.	Wear Ring Size		
19.	Wear Ring Clearance to Impeller	**in**	
	Pass		
20.	Wear Ring Material		
21.	Seal Surfaces Condition	**(P) Pass**	
22.	Seal Type	**Mechanical**	P102

23.	Number of Seals	**2**	P105
	Both seals identical		

	24.	Seal Material on Rotary Face	**sic**	
	25.	Seal Material on Stationary Seat	**sic**	
	26.	Elastic Component Material	**Viton**	
	27.	Seal OD	**1.8625 in**	
		Both seals identical		
	28.	Seal ID	**1.285 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**	

Initial Inspection

	34.	Number of Leads	**4**	
	35.	Lead Length	**8 Inches**	
	36.	Lead Size		
●	37.	Lead Condition	**(F) Fail**	P45



	38.	Lead Markings		
	39.	Lead Size for Oil Filled Stator		
	40.	Lug Size, Condition, and Type		
●	41.	Overload Required?	**(Y) Yes**	
	42.	Winding RTD's	**(NA) Not Applicable**	
●	43.	Winding Rtd's Condition	**(NA) Not Applicable**	
	44.	Shaft Run Out	**0.001**	
	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		

Initial Electric Test

	53.	Resistance to Ground		
	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	**(NA) Not Applicable**
	60.	Stator Condition	**pass**
	61.	Failure Location	**cord cap**
Initial Rotor Inspection			
	62.	Rotor Type	**squirrel cage** 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/Koyo**
	69.	Bearing DE Size	**6307**
	70.	Bearing DE Type	**ball bearing**
	71.	DE Bearing Qty.	**1**
	72.	Bearing ODE Size	**6303**
	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	**(NA) Not Applicable**
	81.	DE Seal Type/Size	
	82.	ODE Seal	
	83.	ODE Seal Type/Size	
Root Cause of Failure			
	84.	Component Failure	**Cord failure**
	85.	Cause of Failure	

Insulation on lead in cord cap worn, and grounded against the frame.

	86.	Comments	

87.	Service Technician	**Terrence Holland**

Machine Fit Inspection Report

	88.	Shaft Run Out			
	89.	Initial Shaft Run Out			
	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	
		1.3782	**1.3783**	**1.3782**	
	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	
		0.6693	**0.6693**	**0.6693**	
	96.	ODE Final Shaft Bearing Fit Size			
		Measure 1	Measure 2	Measure 3	
●	97.	DE Air Seal Shaft Fit			**(NA) Not Applicable**
	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			
	102.	DE Initial Endbell Fit Size			
		Measure 1	Measure 2	Measure 3	
	103.	DE Final Endbell Fit Size			
		Measure 1	Measure 2	Measure 3	
	104.	DE Endbell Fit Insulated			
	105.	DE Endbell Air Seal Fit			
	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	
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		**(NA) Not Applicable**	
114.	Foot Condition		**(NA) Not Applicable**	
115.	Flange Condition		**(P) Pass**	
116.	Service Technician		**Terrence Holland**	

Balancing Report

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

Assembly and Final Test

125.	Rotor and Impeller Balanced		
126.	Stator Housing Refilled with Oil (if required)	**(Y) Yes**	
127.	Stator Pressure Test	**(P) Pass**	
	15 psi		
128.	Seal Cavity Pressure Test	**(P) Pass**	P35

	129.	Time Under Pressure			**20 min**
●	130.	Overload Continuity			**(P) Pass**
●	131.	Water Sensor Open?			**(Y) Yes**
	132.	Meggar Testing Reading			**600 Mohm**
	133.	Surge Test			
	134.	Hi-Pot			**Ua**
	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			**Degrees F.**
	142.	Temp at 5 minutes			**Degrees F.**
	143.	Temp at 10 minutes			**Degrees F.**
	144.	Temp at 15 minutes			**Degrees F.**
	145.	Temp at 20 minutes			**Degrees F.**
	146.	Temp at 25 minutes			**Degrees F.**
	147.	Temp at 30 minutes			**Degrees F.**
	148.	Temp at 35 minutes			**Degrees F.**
	149.	Temp at 40 minutes			**Degrees F.**
	150.	Temp at 45 minutes			**Degrees F.**
	151.	Temp at 50 minutes			**Degrees F.**
	152.	Temp at 55 minutes			**Degrees F.**
	153.	Temp at 60 minutes			**Degrees F.**
●	154.	Motor Paint			**(P) Pass**
	155.	Service Technician			**Terrence Holland**

P142