



Submersible Pump Repair Report

CoorsTek Inc.
3315 Boone Road
Benton, AR 72015

FolderID: 101958
FormID: 18100070

Submersible Pump Repair Report
Location: LR MOTORSHOP
Serial Number: G00117651
Description: 3HP MYERS SUBMERSIBLE PUMP
3600RPM

Make:	MYERS
HP:	3 (HP)
Model:	WG30-43
Serial:	G00117651
V:	460 (V)
A:	8.9 (A)
RPM:	3450 (RPM)
Hz:	60 (Hz)
Phase:	3
Impeller Diameter:	3.75 (in)

Priorities Found: ● 6 - High ● 32 - Good

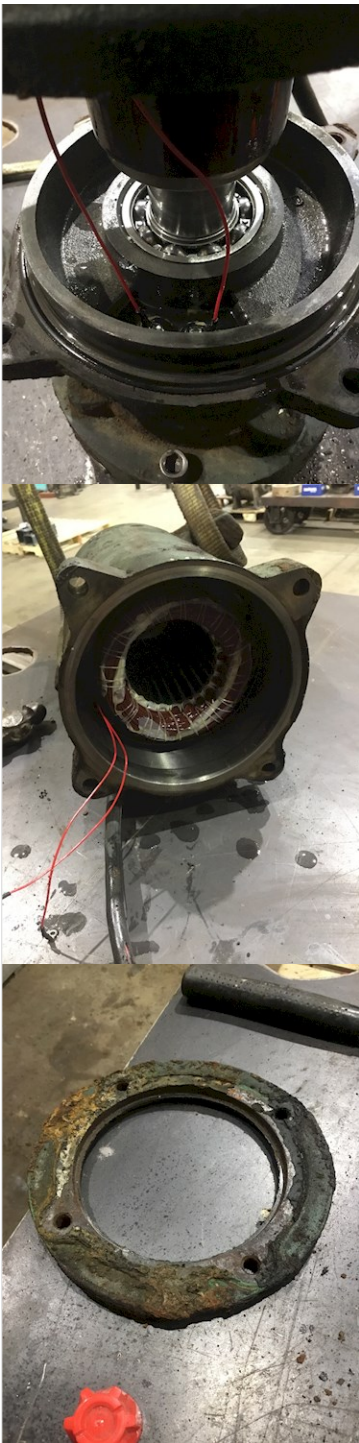
General 101958

- 1. Job Number
- 2. Report Date

P17



Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.



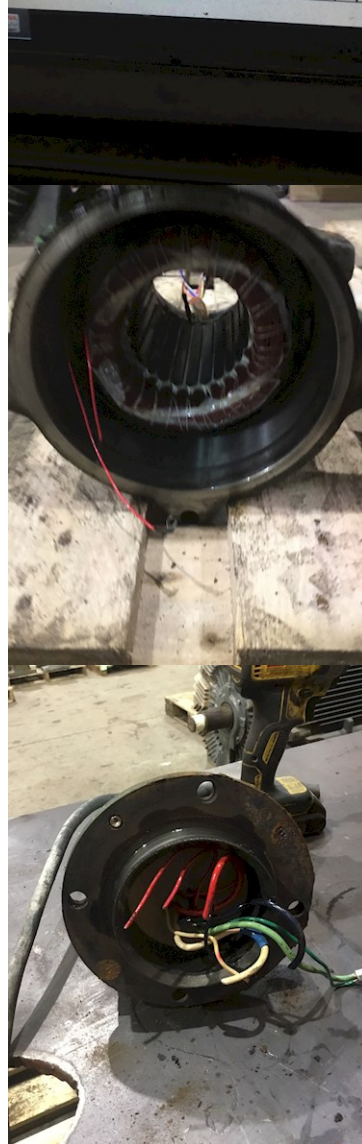




Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1778	
Pol Charting	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI



Test Type			
Volts (V)			
I(μA)			
Resist			
At 40°C			
Surge Status	L-L EAR	L-L EAR	No Test
Peak Volt(V) L1	1590	1580	
Peak Volt(V) L2	1500	1560	
Peak Volt(V) L3	1580	1560	
Max P-P EAR[...	1.6/1.5/1.5	1.6/1.4/1.5	
EAR 1-2/2-3/...	10/38/47	10/38/48	
Nameplate	Application	Results Summary	Surge PI



Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.



3.	Customer	CoorsTec
Initial Pump Inspection		
4.	Power Cord Wire Size	10 AWG
5.	Power Cord # of Conductors	4
6.	Power Cord Length	36 ft
7.	Power Cord Condition	(F) Fail
8.	Sensor Cord Wire Size	16 AWG
9.	Sensor Cord # of Conductors	5
10.	Sensor Cord Length	38 ft
11.	Sensor Cord Condition	(F) Fail
12.	Sensor Cord for Thermal Protection?	(NA) Not Applicable
13.	Sensor Cord for Water Protection	(NA) Not Applicable
14.	Bowl Condition	(P) Pass
15.	Impeller Condition	(P) Pass
16.	Number of Wear Rings	0
17.	Wear Ring Condition	(N) NA
18.	Wear Ring Size	in
	Na	
19.	Wear Ring Clearance to Impeller	in
	Na	
20.	Wear Ring Material	
	Na	
21.	Seal Surfaces Condition	(P) Pass
22.	Seal Type	
		Mechanical
23.	Number of Seals	2
24.	Seal Material on Rotary Face	carbon and sic
25.	Seal Material on Stationary Seat	sic and ceramic
26.	Elastic Component Material	Buna
27.	Seal OD	48 mm
28.	Seal ID	32 in
29.	Seal Sleeve Material	na
30.	Seal Plate Condition	(N) NA
31.	Water Sensor in Seal Cavity?	(NA) Not Applicable
32.	Oil Filled Seal Cavity?	(Y) Yes

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

33.	Oil Filled Stator?	(Y) Yes
Initial Inspection		
34.	Number of Leads	9
35.	Lead Length	12 Inches
36.	Lead Size	Na
37.	Lead Condition	(NA) Not Applicable
	Rewind	
38.	Lead Markings	T1-T9
39.	Lead Size for Oil Filled Stator	AWG
	Na	
40.	Lug Size, Condition, and Type	Na
41.	Overload Required?	(N) No
42.	Winding RTD's	(NA) Not Applicable
43.	Winding Rtd's Condition	(NA) Not Applicable
44.	Shaft Run Out	0.002
45.	Does Shaft Turn Freely	yes
46.	Does Shaft Have Visible Damage	no
47.	Bearing Rtd's	(NA) Not Applicable
48.	Bearing Rtd's Condition	(NA) Not Applicable
49.	Contamination	Water
50.	Frame Condition	(P) Pass
51.	Fan Condition	(NA) Not Applicable
52.	Broken or missing components	
	Counter sunk allen head screw for impeller	

Initial Electric Test



53. Resistance to Ground 6366 Mohm P5

Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1718	
Winding Temp	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI Step/Rat

54. Winding Resistance 1-2

4.528 Ohm

P14

Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1718	
PI Status	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI Step/Rat

55. Winding Resistance 2-3

4.528 Ohm's

P23

Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1718	
PI Status	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI Step/Rat

56. Winding Resistance 1-3

4.502 Ohm's

P33

Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1718	
PI Status	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI Step/Rat

57. Resistive Imbalance

0.293 %

P43

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

Test Date	10/26/2023	10/26/2023	10/26/2023
Test Time	12:06:07 PM	12:02:50 PM	11:56:43 AM
L1-L2 (Ohms)		3.017 Corr: 3.0...	
L2-L3 (Ohms)		3.017 Corr: 3.0...	
L3-L1 (Ohms)		3.009 Corr: 3.0...	
Max Delta R %		0.293	
Coil 1 (Ohms)		4.528 Corr: 4.5...	
Coil 2 (Ohms)		4.528 Corr: 4.5...	
Coil 3 (Ohms)		4.502 Corr: 4.5...	
Megohm Stat...	No Test	PASS	No Test
Volts (V)		508	
I(μA)		0.0798	
Resist		6366	
At 40°C		1718	
Fl Chart	No Test	No Test	No Test
Nameplate	Application	Results Summary	Surge PI Step/Rat

58. Hi-Pot

Ua

Na

59. Surge Test

(F) Fail

P56

Test Type			
Volts (V)			
I(μA)			
Resist			
At 40°C			
Surge Status	L-L EAR	L-L EAR	No Test
Peak Volt(V) L1	1590	1580	
Peak Volt(V) L2	1500	1560	
Peak Volt(V) L3	1580	1560	
Max P-P EAR(...	1.6/1.5/1.5	1.6/1.4/1.5	
EAR 1-2/2-3/...	10/38/47	10/38/48	
Nameplate	Application	Results Summary	Surge PI

60. Stator Condition

pass

61. Failure Location

weak insulation

Initial Rotor Inspection

62. Rotor Type

squirrel cage aluminum

63. Air Gap <10% Variation

(NA) Not Applicable

64. Number of Rotor Bars

34

65. Number of Broken Rotor Bars

0

66. Growler Test

(P) Pass

67. Rotor Condition

(P) Pass

Mechanical Inspection

68. Bearing Manufacturer

Na

69. Bearing DE Size

6207

70. Bearing DE Type

open ball bearing

71. DE Bearing Qty.

1

72. Bearing ODE Size

6204

73. Bearing ODE Type

open ball bearing

74. ODE Bearing Qty.

1


75. Insulated Bearing


na





76. Lubrication Type

oil

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

77.	Grease Condition	(NA) Not Applicable
78.	Bearing Retainers	(NA) Not Applicable
79.	Shaft Grounding Device	(NA) Not Applicable
80.	DE Seal	(Y) Yes
	Bad	
81.	DE Seal Type/Size	mechanical
	32-48-11	
82.	ODE Seal	(Y) Yes
83.	ODE Seal Type/Size	mechanical
	32-48-11	
Root Cause of Failure		
84.	Component Failure	bearings, o'rings, seals, and lead
85.	Cause of Failure	
	Wear and cord is crimped and cut	
86.	Comments	
	Na	
87.	Service Technician	Cw
		
Machine Fit Inspection Report		
88.	Shaft Run Out	(P) Pass
89.	Initial Shaft Run Out	0.002 "
90.	Final Shaft Run Out	"
91.	DE Bearing Shaft Fit	(P) Pass
92.	DE Initial Shaft Bearing Fit Size	
	Measure 1	Measure 2
	1.378	1.3781
	Measure 3	1.378
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
	0.7874	0.7874
	Measure 3	0.7875
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
	Na	
99.	ODE Air Seal Shaft Fit	(NA) Not Applicable

100.	ODE Air Seal Shaft Size		
	Initial	Final	
	Na		
101.	DE Endbell Fit (P) Pass		
102.	DE Initial Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
	2.8353	2.8354	2.8353
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	
	Na		
107.	ODE Endbell Fit (P) Pass		
108.	ODE Initial Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
	1.8511	1.851	1.851
109.	ODE Final Endbell Fit Size		
	Measure 1	Measure 2	Measure 3
110.	ODE Endbell Fit Insulated (NA) Not Applicable		
111.	ODE Endbell Air Seal Fit (NA) Not Applicable		
112.	ODE Endbell Air Seal Fit Size		
	Initial	Final	
	Na		
113.	Foot Flatness (P) Pass		
114.	Foot Condition (P) Pass		
115.	Flange Condition (NA) Not Applicable		
116.	Service Technician Cw		
			
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		(P) Pass	P29
 			
128. Seal Cavity Pressure Test			
129. Time Under Pressure		15 min	
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		(P) Pass	P90
			
137. Test Run Voltage			
	Phase A	Phase B	Phase C
138. Test Run Current			
	Phase A	Phase B	Phase C

Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.

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 (P) Pass P141



Hi-Speed Industrial Service disclaims all warranties, both express and implied, relating to the information, reports, opinions and analysis disclosed to the Customer by Hi-Speed. Hi-Speed shall not be liable for any errors or omissions, or any losses, injury or damages arising from the use of such information, reports, opinions and analysis by the Customer.



Bottom



Top



155. Service Technician

Terrence. Holland

[Handwritten signature of Terrence Holland]