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

AC Recondition As Found

SLOAN VALVE (11763)
2719 Business Hwy 33
Augusta, Arkansas

FolderID: 101125
FormID: 16279364

AC Recondition - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	Z1302140327
Description:	15HP BALDOR 3600RPM 254TCZ

Hi-Speed Job Number:	101125
Manufacturer:	Baldor
Product Number:	39L051W816G1
Spec/ID #:	39L051W816G1
Serial Number:	Z1302140327
HP/kW:	15 (HP)
RPM:	3525 (RPM)
Frame:	254TCZ
Voltage:	230 / 460
Current:	37/18.5
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	Propeller
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **4 - High** **5 - Good**

Overall Condition

1. Report Date

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P45

	4.	Describe the Overall Condition of the Equipment as Received	
	5.	Distance from the end of the shaft to the Coupling/Sheave	
Initial Mechanical/Electrical			
●	6.	Does Shaft Turn Freely?	**(Yes) Yes**
	7.	Does Shaft Have Visible Damage?	**(No) No**
●	8.	Assembled Shaft Runout	**0.002 Inches**
	9.	Assembled Shaft End Play	
	10.	Air Gap Variation <10%	

11.	Lead Condition		**(P) Pass**	P54

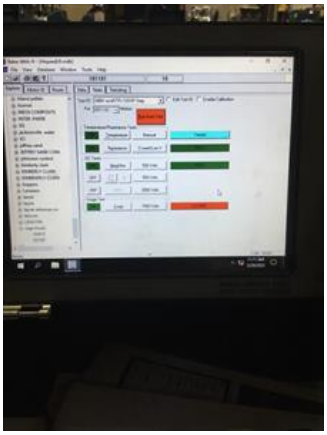
12.	Lead Length	**14 Inches**	
13.	Frame Condition	**pass**	
14.	Fan Condition	**(P) Pass**	
15.	Broken or Missing Components		

Initial Electrical Inspection

16.	Insulation Resistance/Megger	**Megohms**	
17.	Winding Resistance		

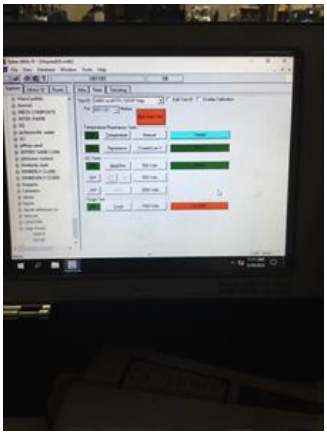
1-2	1-3	2-3

18.	Perform Surge Test	**(F) Fail**	P57



19.	Number of Stator Slots	

20.	Stator Condition	**rewind**	P68



Mechanical Inspection

21.	Drive End Bearing Brand	**FAG**	P14

22.	Drive End Bearing Number-	**6309**
23.	Drive End Bearing Qty.	**1**
24.	Drive End Bearing Type	**(Ball) Ball Bearing**
25.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
26.	Drive End Bearing Insulation or Grounding Device?	**none**
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**
28.	Drive End Bearing Condition	**replace**
29.	Opposite Drive End Bearing Brand	**FAG**
30.	Opposite Drive End Bearing Number-	**6208**
31.	Opposite Drive End Bearing Qty.	**1**
32.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
33.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
34.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**
36.	Opposite Drive End Bearing Condition	**replace**
37.	Drive End Seal	
38.	Opposite Drive End Seal	**none**

Rotor Inspection

39.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**

40.	Growler Test	**(Pass) Pass**
41.	Number of Rotor Bars	
42.	Rotor Condition	**pass**
43.	List the Parts needed for the Repair Below	
	Re-sleeve both housing fits. Replace pump seal and make new seal sleeve. Rewind stator.	
44.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

45.	Shaft Runout	**0.002 inches**
46.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

47.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

48.	Coupling Fit Closest to the end of the Shaft	

0 Degrees	60 Degrees	120 Degrees

49.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
1.7718	**1.7718**	**1.7718**

50.	Drive End Bearing Shaft Fit Condition	**(P) Pass**
51.	Opposite Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
1.5748	**1.5747**	**1.5747**

52.	Opposite Drive End Bearing Shaft Fit Condition	**(P) Pass**
53.	Shaft Air Seal Fits	

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

54. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad. Excessive wear.

55. Drive End - Endbell Bearing Fit Condition **(F) Fail** P15

56. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad excessive wear.

57. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail** P41

58. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	

59. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

60. List Machine Work Needed Below

Re-sleeve both housing fits. Machine new seal sleeve.

61. Technician **Terrence Holland**

Dynamic Balance Report

62. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

63. Initial Balance Readings

Drive End	Opposite Drive End

64. Final Balance Readings

Drive End	Opposite Drive End

65. Technician

Rewind

66. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

67. Core Hot Spot Test

Pre-Burnout	Post-Burnout

68. Post Rewind Electrical Test- Insulation Resistance

69. Post Rewind Polarization Index

70.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
71.	Post Rewind Surge Test		
72.	Post Rewind Hi-Pot		
73.	Technician		

Root Cause of Failure

74.	Failure locations		
75.	Root cause of failure		

Mechanical Fits- Rotor - Post Repair

76.	Shaft Runout Post Repair		
77.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
78.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
79.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
80.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
81.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
82.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
83.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

84.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
85.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
87.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
88.	End Bell Repair Sign-off		

Assembly

89.	QC Check All Parts for Cleanliness Prior to Assembly		

90.	Photograph All Major Components prior to assembly		
91.	Final Insulation Resistance Test		
92.	Assembled Shaft Endplay		
93.	Assembled Shaft Runout		
94.	Test Run Voltage		
	Volts	Volts	Volts
95.	Test Run Amperage		
	Amps	Amps	Amps
96.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
97.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
98.	Ambient Temperature - Fahrenheit		
99.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
100.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
101.	Document Final Condition with Pictures after paint		
102.	Final Pics and QC Review		