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

AC Inspection as Found

Johnson Controls Inc
4301 WEST MARKAM
Little Rock, AR 72204

FolderID: 104792
FormID: 24898136

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	
Description:	75 HP RELIANCE RUSH

Hi-Speed Job Number:	104792
Manufacturer:	Reliance
Product Number:	P36G3305P
Spec/ID #:	P36G3305-4
HP/kW:	75 (HP)
RPM:	1780 (RPM)
Frame:	365T
Voltage:	460
Current:	85.9 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	3
J-box Included:	None
Coupling/Sheave:	Coupling
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

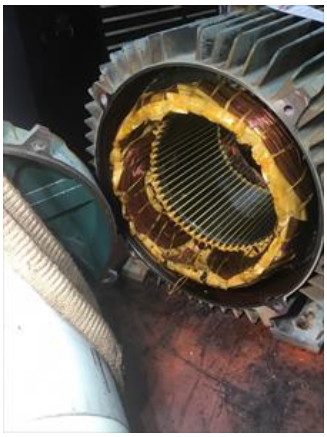
Priorities Found: **16 - Good**

Overall Condition

1.	Report Date	**06/23/2025**

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P44



4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***		
5.	Distance from the end of the shaft to the Coupling/Sheave	**0 inches**	P75

6.	Is this a UL Listed Motor	**(No) No**	
7.	Is the motor water cooled or can be pressure checked before teardown	**(No) No**	

Initial Mechanical/Electrical

8.	Does Shaft Turn Freely?	**(Y) Yes**	
9.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
10.	Does Shaft Have Visible Damage?	**(No) No**	P26

11.	Assembled Shaft Runout	**0.001 Inches**	
12.	Assembled Shaft End Play	**0 inches**	

	13.	Air Gap Variation <10%		
●	14.	Lead Condition	**(P) Pass**	P70

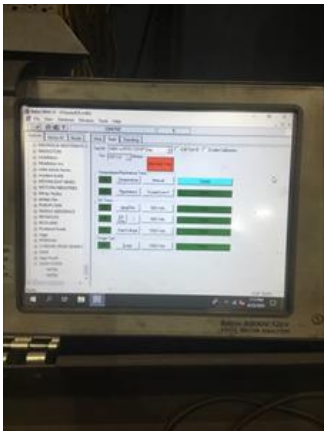
	15.	Lead Length	**14 Inches**	
●	16.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
	17.	Lead Numbers	**1-3**	
●	18.	Are the Leads insulated with Chico or other material	**(No) No**	
	19.	Frame Condition	**pass**	
●	20.	Fan Condition	**(P) Pass**	
●	21.	Does motor have internal fan?	**(No) No**	
	22.	Broken or Missing Components	**connection box**	

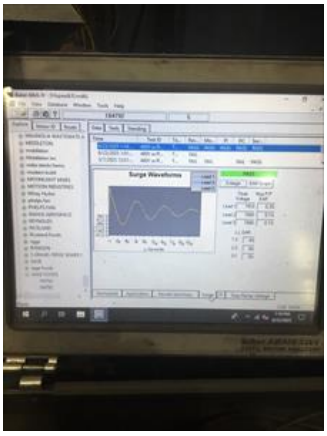
Initial Electrical Inspection

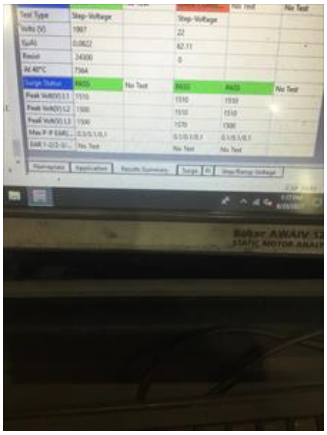
	23.	Insulation Resistance/Megger	**Megohms**	
		See below		
	24.	Winding Resistance		P16

1-2	1-3	2-3

25.	Perform Surge Test		P59







26.	Number of Stator Slots	**60**	
27.	Stator Condition	**pass**	
28.	Stator Thermistors/Ohms		
29.	Stator Overloads/Ohms		

Mechanical Inspection

30.	Drive End Bearing Brand	**SKF**	

31.	Drive End Bearing Number-	**6313 /C3**	P32

32.	Drive End Bearing Qty.	**1**	
33.	Drive End Bearing Type	**(Ball) Ball Bearing**	
34.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
35.	Drive End Bearing Insulation or Grounding Device?	**none**	
36.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
37.	Drive End Bearing Condition	**fluting on inner and outer races.**	P82

38.	Opposite Drive End Bearing Brand	**SKF**	
39.	Opposite Drive End Bearing Number-		P101

40.	Opposite Drive End Bearing Qty.	**1**	
41.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
42.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
43.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
44.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	
45.	Opposite Drive End Bearing Condition	**frosting on inner and outer races**	
46.	Drive End Seal	**dust seal**	
47.	Opposite Drive End Seal	**dust seal**	

Rotor Inspection

48.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3

49.	Growler Test	**(Pass) Pass**
50.	Number of Rotor Bars	**58**
51.	Rotor Condition	**good**
52.	List the Parts needed for the Repair Below ***2) 6313 2Z/C3 bearings.*** ***Recondition stator.***	
53.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

54.	Shaft Runout			**0.001 inches**
55.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
56.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
57.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
58.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.5596	**2.5597**	**2.5596**	
59.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
60.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.5594	**2.5595**	**2.5595**	
61.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
62.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

63.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	5.5125	**5.5126**	**5.5124**	
64.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**
65.	Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	5.5123	**5.5124**	**5.5125**	
66.	Opposite Drive End - Endbell Bearing Fit Condition			**(P) Pass**
67.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	good	**good**		
68.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
69.	List Machine Work Needed Below			
	None			
70.	Technician			**Terrence Holland**

Root Cause of Failure

71. Failure locations

Bearings require changing

72. Root cause of failure

Bearings worn

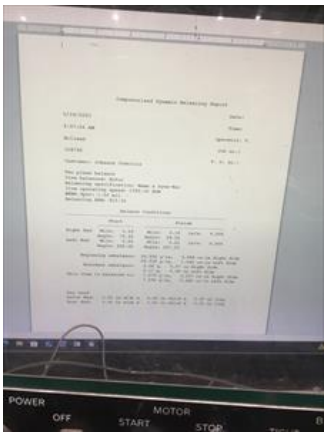
Dynamic Balance Report

73. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

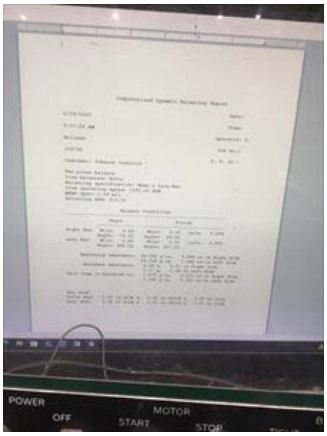
74. Initial Balance Readings P11

Drive End	Opposite Drive End
.65	**..85**



75. Final Balance Readings P27

Drive End	Opposite Drive End
.18	**.22**



76. Technician **Terrence Holland**

Assembly

77. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland**

78. Photograph All Major Components prior to assembly P20






79.	Final Insulation Resistance Test	**Megohms**	P31

80.	Assembled Shaft Endplay	**0 inches**
81.	Assembled Shaft Runout	**0.001 inches**

82.	Test Run Voltage			P54
	Volts	Volts	Volts	

83.	Test Run Amperage			P65
	Amps	Amps	Amps	
	28.6	**28.7**	**28.2**	

84. MOTOR RPM

1798

85. Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.02	**0.03**	**0.02**

86. Opposite Drive End Vibration Readings - Inches Per Second

Horizontal	Vertical	Axial
0.03	**0.02**	**0.02**

87. Ambient Temperature - Fahrenheit

88. Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

89. Opposite Drive End Bearing Temps - Fahrenheit

5 Minutes	10 Minutes	15 Minutes

90. Document Final Condition with Pictures after paint **see below**