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

AC Inspection as Found

Draslovka
2571 Fite Road
Millington, TN 38057

FolderID: 153432
FormID: 21285784

AC Inspection - Rev. 2

Completed by: JAMES VALENTINE on 08/13/2024

Location:	Default
Serial Number:	6891424

Description:250 Hp Reliance

Hi-Speed Job Number:	153432
Manufacturer:	Reliance
Serial Number:	6891424
HP/kW:	250 (HP)
RPM:	1790 (RPM)
Frame:	449T
Voltage:	460
Current:	277 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	Coupling
Date Received:	08/13/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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: **53 - Good**

Overall Condition

1.	Report Date	**08/13/2024**

2. Nameplate Picture P2

3. Photos of all six sides of the machine. P3

	4.	Describe the Overall Condition of the Equipment as Received *Good*		
	5.	Distance from the end of the shaft to the Coupling/Sheave	**0 inches**	
	6.	Report Date [COPY]		

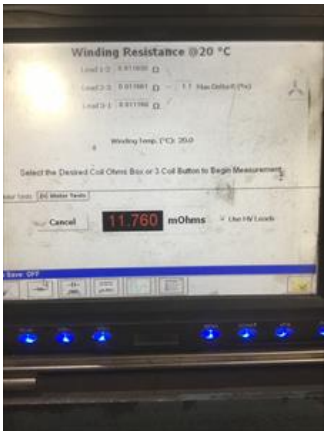
Initial Mechanical/Electrical

	7.	Does Shaft Turn Freely?	**(Y) Yes**	
	8.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
	9.	Does Shaft Have Visible Damage?	**(No) No**	
	10.	Assembled Shaft Runout	**Inches**	
	11.	Assembled Shaft End Play		
	12.	Air Gap Variation <10%		
	13.	Lead Condition	**(P) Pass**	
	14.	Lead Length	**28 Inches**	
	15.	Does it have Lugs?, If so what is the Stud Size? *3/8*	**(Yes) Yes**	
	16.	Lead Numbers	**t1-t3**	
	17.	Frame Condition	**good**	
	18.	Fan Condition	**(P) Pass**	P18

	19.	Broken or Missing Components	**none**	

Initial Electrical Inspection

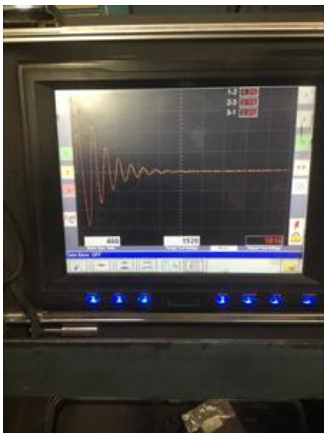
20. Insulation Resistance/Megger **Megohms** P20



21. Winding Resistance P21

1-2	1-3	2-3

22. Perform Surge Test **(P) Pass** P22



23.	Number of Stator Slots	**73**		
24.	Stator Condition	**good**		
25.	Stator Thermistors/Ohms			
26.	Stator Overloads/Ohms			

Mechanical Inspection

27.	Drive End Bearing Brand	**fag**		
28.	Drive End Bearing Number-	**6318**		
29.	Drive End Bearing Qty.	**1**		
30.	Drive End Bearing Type	**(Ball) Ball Bearing**		
31.	Drive End Lubrication Type	**(Grease) Grease Lubricated**		
32.	Drive End Bearing Insulation or Grounding Device?	**none**		
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**		
34.	Drive End Bearing Condition	**good**	P34	

35.	Opposite Drive End Bearing Brand	**skf**		

36.	Opposite Drive End Bearing Number-	**6318 M/C3VL0241 (insulated)**	P36

37.	Opposite Drive End Bearing Qty.	**1**	
38.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
39.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
40.	Opposite Drive End Bearing Insulation or Grounding Device?	**insulated bearing**	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P41

42.	Opposite Drive End Bearing Condition	**good**	P42

43.	Drive End Seal		
44.	Opposite Drive End Seal		

Rotor Inspection

45.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**50**
48.	Rotor Condition	**good**
49.	List the Parts needed for the Repair Below ***1-6318 insulated bearing*** ***1-6318 bearing*** ***1-bearing snap ring***	
50.	Signature of Technician that Disassembled Motor	**James Valentine**

Mechanical Fits- Rotor

51.	Shaft Runout			**inches**
52.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
53.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
	3.375	**3.375**	**3.375**	
54.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
	3.374	**3.374**	**3.374**	
55.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.543	**3.543**	**3.543**	
	3.5440/3.5434			
56.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
57.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.5438	**3.5438**	**3.5438**	
	3.5440/3.5434			
58.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
59.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		

Mechanical Fits- Bearing Housings

60.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	7.4812	**7.4812**	**7.4812**	
	7.4803/7.4814			
61.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
7.4803	**7.4803**	**7.4803**

7.4803/7.4814

63. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

64. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
good	**good**

65. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

66. List Machine Work Needed Below

None

67. Technician **James Valentine**

Root Cause of Failure

68. Failure locations

Reconditioning

69. Root cause of failure

N/a