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: 153435
FormID: 21298642

AC Inspection - Rev. 2

Completed by: JAMES VALENTINE on 08/14/2024

Location: Default

Serial Number:

Description: 250 Hp Allis Chalmers

Hi-Speed Job Number:	153435
Manufacturer:	Allis Chalmers
Serial Number:	1-511347636-1-1
HP/kW:	250 (HP)
RPM:	1780 (RPM)
Frame:	507 US
Voltage:	460
Current:	282 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	Coupling
Date Received:	08/12/2024
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: **2 - High** **55 - Good**

Overall Condition

1.	Report Date	**08/14/2024**

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	**0.002 Inches**		
11.	Assembled Shaft End Play	**0.002 inches**		
12.	Air Gap Variation <10%			
13.	Lead Condition	**(P) Pass**		
14.	Lead Length	**25 Inches**		
15.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**		
	3/8			
16.	Lead Numbers	**t1-t3**		
17.	Frame Condition	**good**		
18.	Fan Condition	**(F) Fail**		P18

19.	Broken or Missing Components	**fan**		

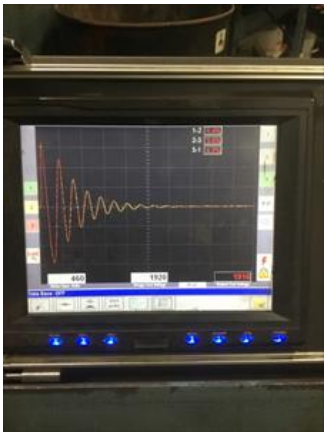
Initial Electrical Inspection

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	**74**
24.	Stator Condition	**good**
25.	Stator Thermistors/Ohms	
26.	Stator Overloads/Ohms	

Mechanical Inspection

27.	Drive End Bearing Brand	**ntn**

28.	Drive End Bearing Number-		**6315**
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**
35.	Opposite Drive End Bearing Brand		**ntn**
36.	Opposite Drive End Bearing Number-		**6315**
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?		**none**
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?		**none**
42.	Opposite Drive End Bearing Condition		**good**
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 ***2-6315 bearings*** ***1-aluminum fan***	
50.	Signature of Technician that Disassembled Motor	**James Valentine**

Mechanical Fits- Rotor

51.	Shaft Runout		
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
	2.6235	**2.6235**	**2.6235**
54.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees
	2.624	**2.624**	**2.624**
55.	Drive End Bearing Shaft Fit		
	0 Degrees	60 Degrees	120 Degrees
	2.953	**2.953**	**2.953**
	2.9534-2.9529		
56.	Drive End Bearing Shaft Fit Condition		**(P) Pass**

57. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.9529	**2.9529**	**2.9529**

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
6.2992	**6.2992**	**6.2992**

6.2992-6.3002

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

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
6.3002	**6.3002**	**6.3002**

6.2992-6.3002

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

Recondition

69. Root cause of failure

N/a