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

AC Inspection as Found

ARKEMA, INC.
2571 Fite Road
Memphis, TN 38127

FolderID: 153635
FormID: 21553315

AC Inspection - Rev. 2

Completed by: JAMES VALENTINE on 09/09/2024

Location:	Maintenance Shop
Serial Number:	P36G0401B

Description:60 HP Baldor Motor

Hi-Speed Job Number:	153635
Manufacturer:	Baldor
Spec/ID #:	P3680401B
Serial Number:	P3680401B
HP/kW:	60 (HP)
RPM:	3560 (RPM)
Frame:	364T3
Voltage:	230 / 460
Current:	40 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	09/04/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High** **50 - Good**

Overall Condition

1.	Report Date	**09/09/2024**

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.	Report Date [COPY]	**09/09/2024**		

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	**(Y) Yes**		
7.	Does the shaft require T.I.R in Lathe to identify additional repairs? ***.001***	**(No) No**		
8.	Does Shaft Have Visible Damage?	**(No) No**		
9.	Assembled Shaft Runout	**0.001 Inches**		
10.	Assembled Shaft End Play	**0.003 inches**		
11.	Air Gap Variation <10%			
12.	Lead Condition	**(P) Pass**		
13.	Lead Length	**10 Inches**		
14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**		
15.	Lead Numbers	**9**		
16.	Frame Condition	**good**		
17.	Fan Condition ***Cracked*** ***I.D. 1.8802***	**(F) Fail**		
18.	Broken or Missing Components	**fan**		P20

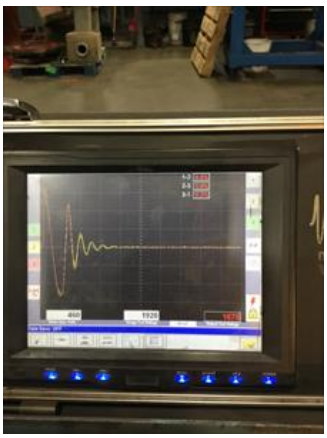
Initial Electrical Inspection

19.	Insulation Resistance/Megger	**92000 Megohms**	P21

20.	Winding Resistance		P22

1-2	1-3	2-3
.100880	**.101150**	**.100920**

21.	Perform Surge Test	**(P) Pass**	P23



22.	Number of Stator Slots	**48**
23.	Stator Condition	**good**
24.	Stator Thermistors/Ohms	**N/A**
25.	Stator Overloads/Ohms	**N/A**

Mechanical Inspection

26.	Drive End Bearing Brand	**ntn**

27.	Drive End Bearing Number-	**6313**	
28.	Drive End Bearing Qty.	**1**	
29.	Drive End Bearing Type	**(Ball) Ball Bearing**	
30.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
31.	Drive End Bearing Insulation or Grounding Device?	**none**	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
33.	Drive End Bearing Condition	**good**	
34.	Opposite Drive End Bearing Brand	**ntn**	
35.	Opposite Drive End Bearing Number-	**6313**	
36.	Opposite Drive End Bearing Qty.	**1**	
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
38.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P42

41.	Opposite Drive End Bearing Condition	**good**	
42.	Drive End Seal		
43.	Opposite Drive End Seal		

Rotor Inspection

44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	
45.	Growler Test	**(Pass) Pass**	
46.	Number of Rotor Bars	**37**	
47.	Rotor Condition	**good**	
48.	List the Parts needed for the Repair Below ***2-6313 bearings***		
49.	Signature of Technician that Disassembled Motor	**James Valentine**	

Mechanical Fits- Rotor

50.	Shaft Runout		
51.	Rotor Runout		

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

52. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees
1.879	**1.879**	**1.879**

53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
1.874	**1.874**	**1.874**

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5595	**2.5595**	**2.5595**

2.5603/2.5595

55. Drive End Bearing Shaft Fit Condition **(P) Pass** P57

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.5595	**2.5595**	**2.5595**

2.5603/2.5595

57. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass** P59

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.5118	**5.5118**	**5.5118**

5.5118/5.5128

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.5145	**5.5153**	**5.515**

5.5118/5.5128

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

63. Bearing Cap Condition

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

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

65. List Machine Work Needed Below

Drive end embellished needs meatalizing and cut.

66. Technician **James Valentine**

Root Cause of Failure

67. Failure locations

Recondition and machine work

68. Root cause of failure

N/a