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: 152680
FormID: 20240862

AC Inspection - Rev. 2

Location:	MLMR Shop
Serial Number:	8207
Description:	125 Hp Ac Motor

Hi-Speed Job Number:	152680
Manufacturer:	TECO Westinghouse
Product Number:	773B975G27
Serial Number:	8207
HP/kW:	125 (HP)
RPM:	1780 (RPM)
Frame:	444T
Voltage:	460
Current:	136 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.16
Enclosure:	TEFC
# of Leads:	3
J-box Included:	Half
Coupling/Sheave:	None
Date Received:	04/29/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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: **1 - High** **18 - Good**

Overall Condition

1.	Report Date	**04/30/2024**

2. Nameplate Picture P2

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

	4.	Describe the Overall Condition of the Equipment as Received	

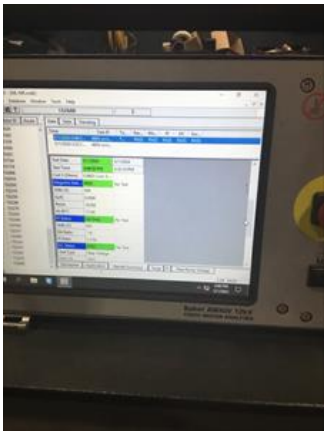
Initial Mechanical/Electrical

●	5.	Does Shaft Turn Freely?	**(Y) Yes**	
●	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
●	7.	Does Shaft Have Visible Damage?	**(No) No**	
●	8.	Assembled Shaft Runout	**0.0005 Inches**	
●	9.	Assembled Shaft End Play	**0.0005 inches**	
●	10.	Air Gap Variation <10%	**ıo provision for measurement**	
●	11.	Lead Condition	**(P) Pass**	
●	12.	Lead Length	**16 Inches**	
●	13.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
		3/8 hole		
●	14.	Lead Numbers	**1-3**	
	15.	Frame Condition		
●	16.	Fan Condition	**(P) Pass**	P16

	17.	Broken or Missing Components	

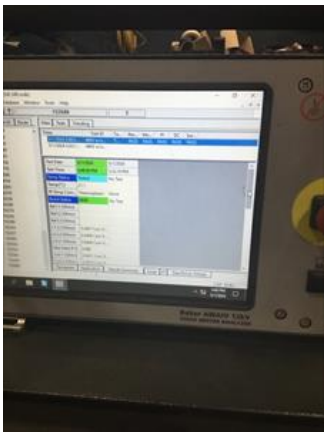
Initial Electrical Inspection

18.	Insulation Resistance/Megger	**17145 Megohms**	P18

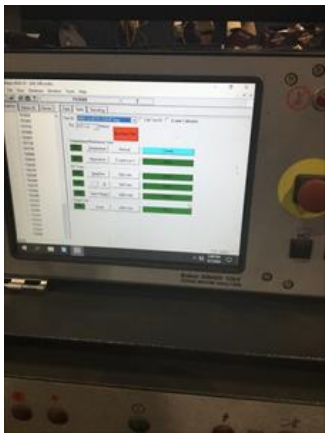


19.	Winding Resistance		P19

1-2	1-3	2-3
.0407	**.0408**	**.0404**



20.	Perform Surge Test	**(P) Pass**	
21.	Number of Stator Slots	**72**	
22.	Stator Condition		P22



23.	Stator Thermistors/Ohms	**none present**	
24.	Stator Overloads/Ohms	**none present**	

Mechanical Inspection

25.	Drive End Bearing Brand	**SKF**	

26.	Drive End Bearing Number-	**6319zz C3**	P26

27.	Drive End Bearing Qty.	**1**
28.	Drive End Bearing Type	**(Ball) Ball Bearing**
29.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
30.	Drive End Bearing Insulation or Grounding Device?	**none present**
31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
32.	Drive End Bearing Condition	P32

33.	Opposite Drive End Bearing Brand	**SKF**	
34.	Opposite Drive End Bearing Number-	**6313 C3ZZ**	P34

35.	Opposite Drive End Bearing Qty.	**1**
36.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
37.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
38.	Opposite Drive End Bearing Insulation or Grounding Device?	**none present**
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none present**
40.	Opposite Drive End Bearing Condition	P40

41.	Drive End Seal	**none present**
42.	Opposite Drive End Seal	**none present**

Rotor Inspection

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

44.	Growler Test		**(Pass) Pass**	
45.	Number of Rotor Bars			
46.	Rotor Condition		**acceptable**	
47.	List the Parts needed for the Repair Below ***6319ZZC3 bearing*** ***6313ZZC3 bearing***			
48.	Signature of Technician that Disassembled Motor			

Mechanical Fits- Rotor

49.	Shaft Runout		**0.001 inches**	
50.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
	0.002	**2**	**2**	
51.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
	3.375	**3.375**	**3.375**	
52.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
	3.375	**3.375**	**3.375**	
53.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.7404	**3.7404**	**3.7404**	
	Tolerance is 3.7403-3.7409			
54.	Drive End Bearing Shaft Fit Condition		**(P) Pass**	P54

55. Opposite Drive End Bearing Shaft Fit P55

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

Tolerance is 2.5592-2.5597

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

57. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

Mechanical Fits- Bearing Housings

58. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
7.8771	**7.8771**	**7.8774**

Tolerance is 7.8740-7.8751

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

60. Opposite Drive End - Endbell Bearing Fit P60

0 Degrees	60 Degrees	120 Degrees
5.5127	**5.5127**	**5.5127**

Tolerance is 5.5118-5.5128

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

62. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
N/A	**N/A**

63.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
	Pass	**Pass**

64. List Machine Work Needed Below P64

Bore and bush drive end.
Drive end end bell is cracked and needs repaired

65. Technician **Brandon Woodard**

Root Cause of Failure

66. Failure locations

67. Root cause of failure