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

AC Inspection as Found

Blue Scope
1836 Dock St
Memphis, TN 38113

FolderID: 153889
FormID: 21904757

AC Inspection - Rev. 2

Location:	Maintenance Shop
Serial Number:	70374806
Description:	10 Hp

Hi-Speed Job Number:	153889
Manufacturer:	Other
Serial Number:	70374806
HP/kW:	10 (HP)
RPM:	3250 (RPM)
Frame:	IMB14
Voltage:	460
Current:	2.20 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	10/10/2024
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: **5 - High** **1 - Medium** **48 - Good**

Overall Condition

1.	Report Date	**10/10/2024**

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]	
Initial Mechanical/Electrical			
	6.	Does Shaft Turn Freely?	**(Y) Yes**
	7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	8.	Does Shaft Have Visible Damage?	**(No) No**
	9.	Assembled Shaft Runout	**0.002 Inches**
	10.	Assembled Shaft End Play	**0.111 inches**
	11.	Air Gap Variation <10%	
	12.	Lead Condition	**(P) Pass**
	13.	Lead Length	**3 Inches**
	14.	Does it have Lugs?, If so what is the Stud Size? *1/8*	**(Yes) Yes**
	15.	Lead Numbers	**1-6**
	16.	Frame Condition	**good**
	17.	Fan Condition	**(N) NA**
	18.	Broken or Missing Components	**none**
Initial Electrical Inspection			

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

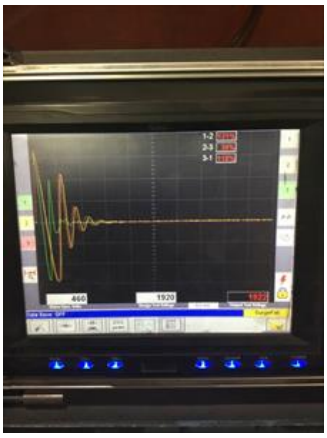
Low

Hi speed

20. Winding Resistance P21

1-2	1-3	2-3

21. Perform Surge Test **(F) Fail** P22



	22.	Number of Stator Slots	
	23.	Stator Condition	
	24.	Stator Thermistors/Ohms	
	25.	Stator Overloads/Ohms	

Mechanical Inspection

●	26.	Drive End Bearing Brand	**koyo**
●	27.	Drive End Bearing Number-	**305**
●	28.	Drive End Bearing Qty.	**1**
●	29.	Drive End Bearing Type	**(Roller) Roller 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	**koyo**
●	35.	Opposite Drive End Bearing Number-	**305**
●	36.	Opposite Drive End Bearing Qty.	**1**
●	37.	Opposite Drive End Bearing Type	**(Roller) Roller 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?	**none**
●	41.	Opposite Drive End Bearing Condition	**good**
●	42.	Drive End Seal	**Tto 1223**
		35-62-6 (2)	
●	43.	Opposite Drive End Seal	**Tto f 1223**
		35-62-6	

Rotor Inspection

●	44.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
●	45.	Growler Test	**(Pass) Pass**
●	46.	Number of Rotor Bars	**26**
●	47.	Rotor Condition	**some wear on iron**
●	48.	List the Parts needed for the Repair Below	
		35-62-6 (3) ***Koyo 305 bearings (2)***	

49.	Signature of Technician that Disassembled Motor	**James Valentine**

Mechanical Fits- Rotor

50.	Shaft Runout	**inches**
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

N/a

53.	Coupling Fit Closest to the end of the Shaft	

0 Degrees	60 Degrees	120 Degrees
1.1025	**1.1025**	**1.1025**

54.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
1.377	**1.377**	**1.377**

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

0 Degrees	60 Degrees	120 Degrees
1.377	**1.377**	**0.377**

57.	Opposite Drive End Bearing Shaft Fit Condition	**(P) Pass**
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
2.441	**2.441**	**2.441**

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

0 Degrees	60 Degrees	120 Degrees
2.441	**2.441**	**2.441**

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

Drive End Bearing Cap	Opposite Drive End Bearing Cap

N/a

64.	End Bell Air Seal Fits	

Drive End Air Seal	Opposite Drive End Air Seal

65.	List Machine Work Needed Below	

None

66. Technician **James Valentine**

Root Cause of Failure

67. Failure locations

Winding. Needs rewind. And recondition

68. Root cause of failure

N/a