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

AC Inspection as Found

MISSISSIPPI SILICON, LLC
P.O. BOX 316
BURNSVILLE, MS 38833

FolderID: 152629
FormID: 20158362

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	

Hi-Speed Job Number:	152629
Manufacturer:	SEW Eurodrive
Product Number:	R67 R36 DRS71S4/TF
Serial Number:	01.7188018701.0006.15
HP/kW:	.37 (kW)
RPM:	1700 (RPM)
Voltage:	460
Current:	1.83/1.06 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	04/19/2024
Bearing RTDs:	No
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **11 - High** **55 - Good**

Overall Condition

1. Report Date **04/23/2024**
2. Nameplate Picture P2

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

4.	Describe the Overall Condition of the Equipment as Received ***Rewind needs new fan no machine work***		
Initial Mechanical/Electrical			
5.	Does Shaft Turn Freely?	**(N) No**	
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 ***N/A motor locked up***	**Inches**	
9.	Assembled Shaft End Play ***N/A motor locked up***	**inches**	
10.	Air Gap Variation <10%	**ıo provision for measurement**	

11.	Lead Condition	**(P) Pass**	
12.	Lead Length	**6 Inches**	
13.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**	
14.	Lead Numbers	**no numbers**	
15.	Stator Temperature Detector Rating and Function		

Quantity	Rating	Quantity Passed

16.	Frame Condition	**good**	
17.	Fan Condition	**(F) Fail**	P17

18.	Broken or Missing Components	**yes**	

Fan melted

Initial Electrical Inspection

19.	Insulation Resistance/Megger	**0 Megohms**	P19

20. Winding Resistance

1-2	1-3	2-3
0	**0**	**0**

Burnt

21.	Perform Surge Test	**(F) Fail**	P21

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

Mechanical Inspection

26.	Drive End Bearing Brand	**nsk**	
27.	Drive End Bearing Number-	**6303 zz c3**	
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 present**	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**	P32

33.	Drive End Bearing Condition	**normal wear**	P33

34.	Opposite Drive End Bearing Brand	**skf**	
35.	Opposite Drive End Bearing Number-	**6203**	
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 present**	
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P40

41.	Opposite Drive End Bearing Condition	**normal wear**	P41

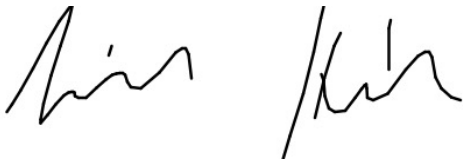
42.	Drive End Seal	**lip seal**	P42

17-30-7

43.	Opposite Drive End Seal		**lip seal**	P43
	16-28-7			

Rotor Inspection

44.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**	
45.	Growler Test	**(Pass) Pass**	
46.	Number of Rotor Bars	**30**	
47.	Rotor Condition	**good**	
48.	List the Parts needed for the Repair Below		
	1- 16-28-7 lipseal *1- 17-30-7 lipseal* *1- Fan* *1- 6203 zz* *1- 6303 zz*		
49.	Signature of Technician that Disassembled Motor	**Nigel Hill**	



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

53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
0.6693	**0.6694**	**0.6694**

Tol. 0.6695-0.6692

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

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
0.6695	**0.6694**	**0.6695**

Tol. 0.6695-0.6692

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

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.8506	**1.8506**	**1.8506**

Tol. 1.8504-1.8510

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.5753	**1.5754**	**1.5754**

Tol. 1.5748-1.5754

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	**N/A**

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

65. List Machine Work Needed Below

None

66. Technician **Nigel Hill**

Root Cause of Failure

67. Failure locations

	Winding
68.	Root cause of failure