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

AC Recondition As Found

Phelps Fan Manufacturing Co.
10701 Interstate 30
Little Rock, AR 72209

FolderID: 100152
FormID: 14286322

AC Recondition - Rev. 2

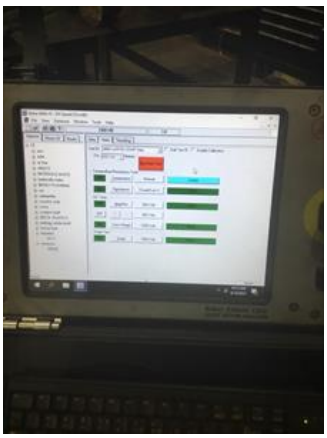
Location:	MOTOR SHOP LR
Serial Number:	1LE23214CB112AA3
Description:	125HP SIEMENS 1800RPM 444T

Hi-Speed Job Number:	100152
Manufacturer:	Siemens
Product Number:	1LE23214CB112AA3
HP/kW:	125 (HP)
RPM:	1785 (RPM)
Frame:	444T
Voltage:	460
Current:	143
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **1 - High** **7 - Good**

Overall Condition

1. Report Date
2. Nameplate Picture P21



3. Photos of all six sides of the machine. P27

4. Describe the Overall Condition of the Equipment as Received P31

Good but dirty

Initial Mechanical/Electrical

5. Does Shaft Turn Freely? **(Yes) Yes**

6. Does Shaft Have Visible Damage? **(No) No** P12

7. Assembled Shaft Runout

8. Assembled Shaft End Play

9. Air Gap Variation <10%

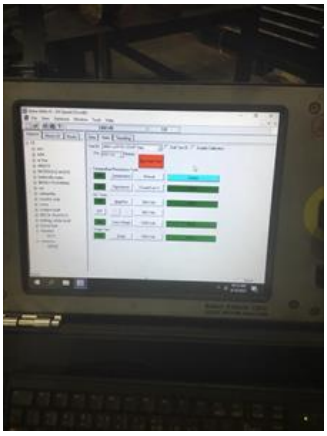
10. Lead Condition **(P) Pass**

11.	Lead Length	**Inches**	P44

12.	Frame Condition	**good**	
13.	Fan Condition	**(P) Pass**	
14.	Broken or Missing Components		

Initial Electrical Inspection

15.	Insulation Resistance/Megger	**Megohms**	P5



16.	Winding Resistance			
	1-2	1-3	2-3	
17.	Perform Surge Test			**(P) Pass**
18.	Stator Condition			**good**

Mechanical Inspection

19.	Drive End Bearing Number-	**NU 318**	P8

20.	Drive End Bearing Qty.	**1**
21.	Drive End Bearing Type	
22.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
23.	Drive End Bearing Insulation or Grounding Device?	**none**
24.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
25.	Drive End Bearing Condition	**grease dirty and contaminated** P42

26.	Opposite Drive End Bearing Number-	**6316**
27.	Opposite Drive End Bearing Qty.	
28.	Opposite Drive End Bearing Type	
29.	Opposite Drive End Lubrication Type	
30.	Opposite Drive End Bearing Insulation or Grounding Device?	
31.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	
32.	Opposite Drive End Bearing Condition	**grease contaminated**
33.	Drive End Seal	
34.	Opposite Drive End Seal	

Rotor Inspection

35.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
36.	Growler Test	**(Pass) Pass**
37.	Number of Rotor Bars	
38.	Rotor Condition	**good**

39. List the Parts needed for the Repair Below

316 sleeve for ode housing fit and 6316 2Z bearing as well as NU 318 c3 bearing. Also customer request new connection box.

40. Signature of Technician that Disassembled Motor **Terrence. Holland**

Mechanical Fits- Rotor

41. Shaft Runout **0.002 inches**

42. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

43. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

44. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

45. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.5444	**3.5443**	**3.5444**

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

47. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
3.1504	**3.1506**	**3.1504**

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

49. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

50. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
7.4803	**7.4805**	**7.4805**

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

52. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Housing fit pitted and require repair.

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

54. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**pass**

55. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

56. List Machine Work Needed Below

Ode housing fit pitted.

57. Technician **Terrence. Holland**

Root Cause of Failure

58. Failure locations

59. Root cause of failure