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

AC Recondition As Found

Union Pacific-Vine St 10945
1020 N. Vine Street
North Liittle Rock, AR

FolderID: 100431
FormID: 14797385

AC Recondition - Rev. 2

Location:	Shop
Serial Number:	Q2-D15T5728GPE
Description:	50HP SIEMENS 3600RPM 326TS

Hi-Speed Job Number:	100431
Manufacturer:	Siemens
Product Number:	1LE22213BA216AA3
Serial Number:	Q2-D15T5728GPE
HP/kW:	50 (HP)
RPM:	3535 (RPM)
Frame:	326TS
Voltage:	230 / 460
Current:	110/55
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Half
Coupling/Sheave:	Coupling
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

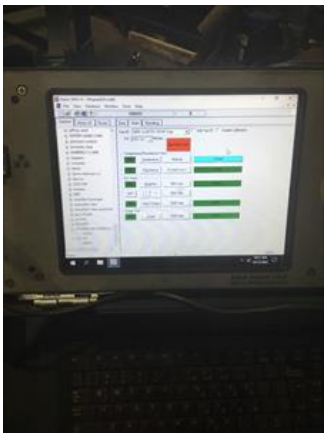
Priorities Found: **3 - High** **5 - Good**

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 ***Serviceable***	
	5.	Distance from the end of the shaft to the Coupling/Sheave	**0.375 inches** P40

Initial Mechanical/Electrical

●	6.	Does Shaft Turn Freely?	**(Yes) Yes**
	7.	Does Shaft Have Visible Damage?	**(No) No** P12

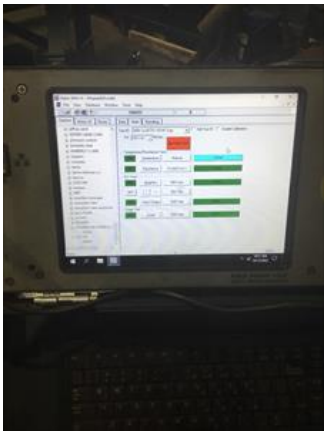
●	8.	Assembled Shaft Runout	**0.001 Inches**
	9.	Assembled Shaft End Play	**inches**
	10.	Air Gap Variation <10%	
●	11.	Lead Condition	**(P) Pass**
	12.	Lead Length	**15 Inches**

13.	Frame Condition	**pass**	
14.	Fan Condition		P54

15.	Broken or Missing Components	**D.E. coupling**	P58

Initial Electrical Inspection

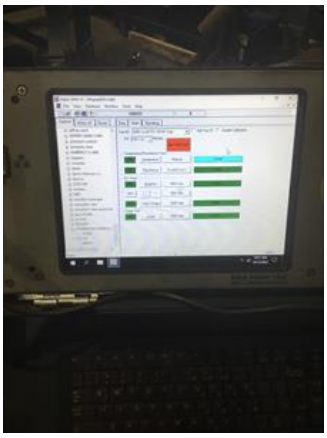
16. Insulation Resistance/Megger **Megohms** P5



17. Winding Resistance

1-2	1-3	2-3

18. Perform Surge Test **(P) Pass** P35



19. Stator Condition **pass** P39

Mechanical Inspection

20.	Drive End Bearing Number-	**6312**	P8

21.	Drive End Bearing Qty.	**1**	P16

22.	Drive End Bearing Type	**(Ball) Ball Bearing**
23.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
24.	Drive End Bearing Insulation or Grounding Device?	**none**
25.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**
26.	Drive End Bearing Condition	**replace**
27.	Opposite Drive End Bearing Number-	**6210** P47

28.	Opposite Drive End Bearing Qty.	**1**	
29.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
30.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
31.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
32.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**yes**	P56

33.	Opposite Drive End Bearing Condition	**replace**
34.	Drive End Seal	**lip seal**
35.	Opposite Drive End Seal	**none**

Rotor Inspection

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

37.	Growler Test	**(Pass) Pass**
38.	Number of Rotor Bars	
39.	Rotor Condition	**pass**
40.	List the Parts needed for the Repair Below	
41.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

42.	Shaft Runout	**0.001 inches**
43.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

44.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

45.	Coupling Fit Closest to the end of the Shaft	

0 Degrees	60 Degrees	120 Degrees

46.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
2.363	**2.363**	**2.3629**

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

0 Degrees	60 Degrees	120 Degrees
1.969	**1.969**	**1.9692**

49.	Opposite Drive End Bearing Shaft Fit Condition	**(P) Pass**
50.	Shaft Air Seal Fits	

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

51. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.1194	**5.1196**	

Max allowed is 5.1191

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

53. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
3.5445	**3.5444**	**3.5444**

Max allowed is 3.5442

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

55. Bearing Cap Condition P30

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	

56. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

57. List Machine Work Needed Below

Re-sleeve both end bell housing fits.

58. Technician **Terrence Holland**

Root Cause of Failure

59. Failure locations

Housing fits

60. Root cause of failure

Excessive wear