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

AC Recondition As Found

Twin Rivers (12049)
3501 Jefferson Parkway
Pine Bluff, AR 71602

FolderID: 100275
FormID: 14549111

AC Recondition - Rev. 2

Location:	Shop
Serial Number:	NO TAG

Description:25HP US MOTORS AERATOR 1200RPM 324LPHZ

Hi-Speed Job Number:	100275
Manufacturer:	US Motors/Nidec
Spec/ID #:	N/A
HP/kW:	20 (HP)
RPM:	1190 (RPM)
Voltage:	460
Current:	29
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
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** **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***	
Initial Mechanical/Electrical			
	5.	Does Shaft Turn Freely?	**(Yes) Yes**
	6.	Does Shaft Have Visible Damage?	**(No) No**
	7.	Assembled Shaft Runout	**0.001 Inches**
	8.	Assembled Shaft End Play	
	9.	Air Gap Variation <10%	
	10.	Lead Condition	**(P) Pass** P32

	11.	Lead Length	**8 Inches**
	12.	Frame Condition	**pass**

13.	Fan Condition	**(P) Pass**	P53

14.	Broken or Missing Components	**none**	

Initial Electrical Inspection

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

16.	Winding Resistance		

1-2	1-3	2-3

17.	Perform Surge Test		
18.	Stator Condition	**pass**	

Mechanical Inspection

19.	Drive End Bearing Number-	**5213 RS**	P8

20.	Drive End Bearing Qty.	**1**
21.	Drive End Bearing Type	**(Ball) Ball Bearing**
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	**replace**
26.	Opposite Drive End Bearing Number-	**6210** P46

27.	Opposite Drive End Bearing Qty.	**1**
28.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
29.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**

30.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
31.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
32.	Opposite Drive End Bearing Condition	**replace**	
33.	Drive End Seal	**national 471138**	P58

34.	Opposite Drive End Seal	**none**

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

Mechanical Fits- Rotor

41.	Shaft Runout	**0.001 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
2.5597	**2.5597**	**2.5597**

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

47. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.9687	**1.9687**	**1.9686**

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

51. Drive End - Endbell Bearing Fit Condition

52. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

53. Opposite Drive End - Endbell Bearing Fit Condition

54. Bearing Cap Condition P30

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

Seal surface worn

57. Technician **Terrence. Holland**

Root Cause of Failure

58. Failure locations

59. Root cause of failure

P11

Motor pulls high amps with no load. Possibly wound with wrong data. Both housing fits in stator and on end bells not clean. Also found water inside stator.