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

AC Recondition As Found

Bryce Corporation (10053-BRC)
450 S. Benton
Searcy, AR 72143

FolderID: 101078
FormID: 16215467

AC Recondition - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	1020939895
Description:	125HP WEG 3600RPM 444/5TS

Hi-Speed Job Number:	101078
Manufacturer:	WEG
Product Number:	ARZ-180089000
Spec/ID #:	12457670
Serial Number:	1020939895
HP/kW:	125 (HP)
RPM:	3570 (RPM)
Frame:	444/5TS
Voltage:	460
Current:	134
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	None
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **5 - High** **2 - Good**

Overall Condition

1. Report Date
2. Nameplate Picture P37

3. Photos of all six sides of the machine. P45

	4.	Describe the Overall Condition of the Equipment as Received	
Initial Mechanical/Electrical			
🔴	5.	Does Shaft Turn Freely?	**(No) No**
	6.	Does Shaft Have Visible Damage?	**(Yes) Yes**
	7.	Assembled Shaft Runout	
	8.	Assembled Shaft End Play	
	9.	Air Gap Variation <10%	
🟢	10.	Lead Condition	**(P) Pass**
	11.	Lead Length	**18 Inches**
	12.	Frame Condition	**pass**
🟢	13.	Fan Condition	**(P) Pass** P91

	14.	Broken or Missing Components	
Initial Electrical Inspection			
	15.	Insulation Resistance/Megger	**0 Megohms**
	16.	Winding Resistance	

1-2	1-3	2-3

🔴	17.	Perform Surge Test	**(F) Fail**
	18.	Number of Stator Slots	

19.	Stator Condition	**rewind**	P68

Mechanical Inspection

20.	Drive End Bearing Brand		
21.	Drive End Bearing Number-	**NU314 C3**	P32

22.	Drive End Bearing Qty.	**1**
23.	Drive End Bearing Type	**(Roller) Roller Bearing**
24.	Drive End Lubrication Type	**(Grease) Grease Lubricated**
25.	Drive End Bearing Insulation or Grounding Device?	**NA**
26.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**NA**
27.	Drive End Bearing Condition	**BAD**
28.	Opposite Drive End Bearing Brand	**KOYO**

29.	Opposite Drive End Bearing Number-	**6314 C3**

30.	Opposite Drive End Bearing Qty.	**1**
31.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**
32.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
33.	Opposite Drive End Bearing Insulation or Grounding Device?	**NA**
34.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Snap Ring**
35.	Opposite Drive End Bearing Condition	
36.	Drive End Seal	
37.	Opposite Drive End Seal	

Rotor Inspection

38.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
39.	Growler Test	**(Pass) Pass**
40.	Number of Rotor Bars	**40**
41.	Rotor Condition	**pass**
42.	List the Parts needed for the Repair Below ***1-NU314C3 1-6314C3 BEARING***	
43.	Signature of Technician that Disassembled Motor	**RW**

Mechanical Fits- Rotor

44.	Shaft Runout		
45.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
46.	Coupling Fit Closest to Bearing Housing		
	0 Degrees	90 Degrees	120 Degrees
47.	Coupling Fit Closest to the end of the Shaft		
	0 Degrees	60 Degrees	120 Degrees

48. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

49. Drive End Bearing Shaft Fit Condition **(F) Fail** P75

Inner race spoon on shaft

50. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

51. Opposite Drive End Bearing Shaft Fit Condition

52. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

53. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.907	**5.907**	**5.907**

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

Resleeve

55. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.9076	**5.9076**	**5.9076**

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

Resleeve

57. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
repair both caps	**repair inside cap cracked**

Drive end

ODE CRACK

ODE CRACK

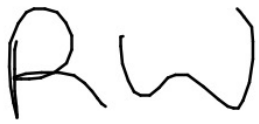
58. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

59. List Machine Work Needed Below

New shaft both end bells need resleeved de bearing caps need repaired.ode bearing cap cracked

60. Technician **RW**



Dynamic Balance Report

61. Rotor Weight and Balance Grade

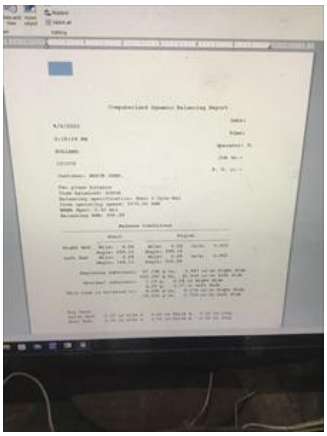
Rotor Weight	Balance Grade

62. Initial Balance Readings

Drive End	Opposite Drive End

63. Final Balance Readings P27

Drive End	Opposite Drive End



64. Technician

Rewind

65. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

66. Core Hot Spot Test

Pre-Burnout	Post-Burnout

67. Post Rewind Electrical Test- Insulation Resistance

68. Post Rewind Polarization Index

69. Post Rewind Winding Resistance

1-2	1-3	2-3

70. Post Rewind Surge Test

71. Post Rewind Hi-Pot

72. Technician

Root Cause of Failure

73. Failure locations

74. Root cause of failure

Mechanical Fits- Rotor - Post Repair

75. Shaft Runout Post Repair

76. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

77. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

78. Coupling Fit Closest to the end of the Shaft Post Repair

0 Degrees	60 Degrees	120 Degrees

79. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

80. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

81. Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

82. Shaft Repair Sign-off **Gary** P74

Machined new shaft

Mechanical Fits- Bearing Housings - Post Repair

83. Drive End - Endbell Bearing Fit Post Repair P5

0 Degrees	60 Degrees	120 Degrees

84.	Opposite Drive End - Endbell Bearing Fit Post Repair			P20
	0 Degrees	60 Degrees	120 Degrees	
	5.906	**5.906**	**5.906**	

85.	Bearing Cap Condition Post Repair		P24
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	

86.	End Bell Air Seal Fits Post Repair	
	Drive End Air Seal	Opposite Drive End Air Seal

87.	End Bell Repair Sign-off	**Gary M**

Assembly		
88.	QC Check All Parts for Cleanliness Prior to Assembly	
89.	Photograph All Major Components prior to assembly	
90.	Final Insulation Resistance Test	
91.	Assembled Shaft Endplay	
92.	Assembled Shaft Runout	

93.	Test Run Voltage		
	Volts	Volts	Volts
94.	Test Run Amperage		
	Amps	Amps	Amps
95.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
96.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
97.	Ambient Temperature - Fahrenheit		
98.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
99.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes

100. Document Final Condition with Pictures after paint P100

101. Final Pics and QC Review P101