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

AC Inspection as Found

BAD BOY
102 INDUSTRIAL DRIVE
BATESVILLE, AR 72501

FolderID: 101620
FormID: 17332342

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	25CA7381
Description:	50 HP WEG RUSH!!

Hi-Speed Job Number:	101620
Manufacturer:	WEG
Product Number:	MODEL# 24CA7381
HP/kW:	50 (HP)
RPM:	1775 (RPM)
Frame:	326TSC
Voltage:	208-230/460
Current:	120-59.9
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.25
Enclosure:	ODP
# of Leads:	12
J-box Included:	Complete
Date Received:	07/17/2023
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **7 - Good**

Overall Condition

1. Report Date
2. Nameplate Picture P37

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

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	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
	5.	Distance from the end of the shaft to the Coupling/Sheave	**inches**
Initial Mechanical/Electrical			
●	6.	Does Shaft Turn Freely?	**(Yes) Yes**

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	7.	Does Shaft Have Visible Damage?	**(No) No**	P17

●	8.	Assembled Shaft Runout	**0.001 Inches**	
	9.	Assembled Shaft End Play	**0 inches**	
	10.	Air Gap Variation <10%		
●	11.	Lead Condition	**(P) Pass**	
	12.	Lead Length	**10 Inches**	P84

13.	Lead Numbers	**1-12**	
14.	Frame Condition	**pass**	
15.	Fan Condition	**(N) NA**	
16.	Broken or Missing Components	**none**	

Initial Electrical Inspection

17.	Insulation Resistance/Megger	**Megohms**	
18.	Winding Resistance		

1-2	1-3	2-3

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19.	Perform Surge Test	**(NA) Not Applicable**	P58

20.	Number of Stator Slots	**48 Megohms**	
21.	Stator Condition	**rewind**	
22.	Stator Thermistors/Ohms	**none**	
23.	Stator Overloads/Ohms	**none**	

Mechanical Inspection

24.	Drive End Bearing Brand	**C & U**	P15

25.	Drive End Bearing Number-	**6312 Z**	P28

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

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29.	Drive End Bearing Insulation or Grounding Device?	**none**	
30.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
31.	Drive End Bearing Condition	**replace**	
32.	Opposite Drive End Bearing Brand	**NSK**	P92

33.	Opposite Drive End Bearing Number-	**6212 Z**	P100

34.	Opposite Drive End Bearing Qty.	**1**	
35.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	P107

36.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
37.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**	
38.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P116

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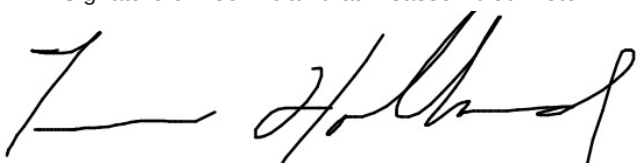
39.	Opposite Drive End Bearing Condition		
40.	Drive End Seal	**none**	
41.	Opposite Drive End Seal		

Rotor Inspection

42.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3

43.	Growler Test	**(Pass) Pass**
44.	Number of Rotor Bars	**40**
45.	Rotor Condition	**serviceable**
46.	List the Parts needed for the Repair Below	
47.	Signature of Technician that Disassembled Motor	**Terrence Holland**



Mechanical Fits- Rotor

48.	Shaft Runout		**0.001 inches**
49.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

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50. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

51. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

52. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.363	**2.3631**	**2.3631**

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

54. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.3628	**2.3629**	**2.3629**

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

56. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

57. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

58. Drive End - Endbell Bearing Fit Condition

59. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.331	**4.331**	**4.3299**

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

61. Bearing Cap Condition P52

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**n/a**

62. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

63. List Machine Work Needed Below

64. Technician

Dynamic Balance Report

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65. Rotor Weight and Balance Grade

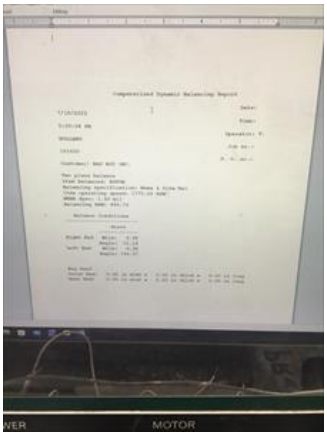
Rotor Weight	Balance Grade

66. Initial Balance Readings

Drive End	Opposite Drive End

67. Final Balance Readings P27

Drive End	Opposite Drive End



68. Technician

Rewind

69. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

70. Core Hot Spot Test

Pre-Burnout	Post-Burnout

71. Post Rewind Electrical Test- Insulation Resistance

72. Post Rewind Polarization Index

73. Post Rewind Winding Resistance

1-2	1-3	2-3

74. Post Rewind Surge Test

75. Post Rewind Hi-Pot

76. Technician

Root Cause of Failure

77. Failure locations

78. Root cause of failure

Mechanical Fits- Rotor - Post Repair

79. Shaft Runout Post Repair

80. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

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81. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

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

0 Degrees	60 Degrees	120 Degrees

83. Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

84. Opposite Drive End Bearing Shaft Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

85. Shaft Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

86. Shaft Repair Sign-off

Mechanical Fits- Bearing Housings - Post Repair

87. Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

88. Opposite Drive End - Endbell Bearing Fit Post Repair

0 Degrees	60 Degrees	120 Degrees

89. Bearing Cap Condition Post Repair

Drive End Bearing Cap	Opposite Drive End Bearing Cap

90. End Bell Air Seal Fits Post Repair

Drive End Air Seal	Opposite Drive End Air Seal

91. End Bell Repair Sign-off

Assembly

92. QC Check All Parts for Cleanliness Prior to Assembly **Terrence Holland** P4

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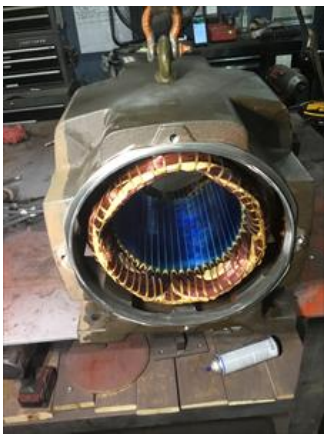

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93.	Photograph All Major Components prior to assembly		
94.	Final Insulation Resistance Test		
95.	Assembled Shaft Endplay		
96.	Assembled Shaft Runout		
97.	Test Run Voltage		
	Volts	Volts	Volts
98.	Test Run Amperage		
	Amps	Amps	Amps
99.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
100.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
101.	Ambient Temperature - Fahrenheit		
102.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
103.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes

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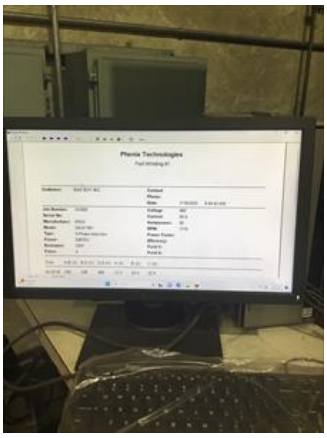
104. Document Final Condition with Pictures after paint

105. Final Pics and QC Review **Terrence Holland** P129



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