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

AC Inspection as Found

GEORGIA PACIFIC GYPSUM
150 TEMPLE DR
CUMBERLAND, TN 37050

FolderID: 155998
FormID: 25206037

AC Inspection - Rev. 2

Location:	Motor Shop
Serial Number:	1093144308

Description:300 HP AC

Hi-Speed Job Number:	155998
Manufacturer:	WEG
Serial Number:	1093144308
HP/kW:	300 (HP)
RPM:	1780 (RPM)
Frame:	447/9TS
Voltage:	460
Current:	330 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	12
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	07/11/2025
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Rewind:	Yes
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **4 - High** **5 - Good**

Overall Condition

1.	Report Date	**07/22/2025**

2. Nameplate Picture P2

3. Photos of all six sides of the machine. P3

	4.	Describe the Overall Condition of the Equipment as Received ***Failed surge test and requires. Machine work required in both end bells. Sticker on side of motor says AEGIS ring is installed on motor but none is present.***		
	5.	Is this a UL Listed Motor	**(NO) NO**	
	6.	Is the motor water cooled or can be pressure checked before teardown	**(NO) NO**	
Initial Mechanical/Electrical				
🔴	7.	Does Shaft Turn Freely?	**(Y) Yes**	
	8.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(NO) NO**	
	9.	Does Shaft Have Visible Damage?	**(No) No**	
🔴	10.	Assembled Shaft Runout	**0.0005 Inches**	
	11.	Assembled Shaft End Play	**0 inches**	
	12.	Air Gap Variation <10%	**No Provisions for measurement**	
🟢	13.	Lead Condition	**(P) Pass**	
	14.	Lead Length	**12 Inches**	P14

Measurement from outer edge of j box

🟢	15.	Does it have Lugs?, If so what is the Stud Size? ***1/2"***	**(YES) YES**	
	16.	Lead Numbers	**1-12**	
	17.	Are the Leads insulated with Chico or other material	**(NO) NO**	
	18.	Frame Condition	**Pass**	
🟢	19.	Fan Condition	**(P) Pass**	
	20.	Does motor have internal fan?	**(NO) NO**	
	21.	Broken or Missing Components	**None**	

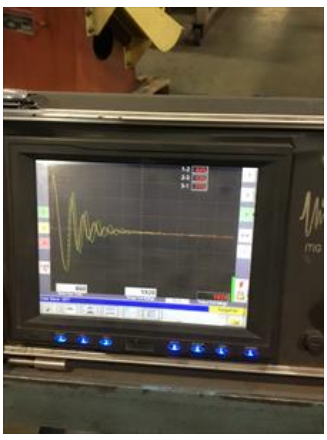
Initial Electrical Inspection

22. Insulation Resistance/Megger **92000 Megohms** P22

23. Winding Resistance P23

1-2	1-3	2-3
.016033	**.016001**	**.016055**

24. Perform Surge Test P24



25. Number of Stator Slots **48**

26. Stator Condition **Requires rewind** P26

27.	Stator Thermistors/Ohms	**N/A**	
28.	Stator Overloads/Ohms	**N/A**	

Mechanical Inspection

29.	Drive End Bearing Brand	**C&U**	
30.	Drive End Bearing Number-	**6314 C3**	
31.	Drive End Bearing Qty.	**1**	
32.	Drive End Bearing Type	**(Ball) Ball Bearing**	
33.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
34.	Drive End Bearing Insulation or Grounding Device?	**None**	
35.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**None**	
36.	Drive End Bearing Condition		P36

37.	Opposite Drive End Bearing Brand	**C&U**	
38.	Opposite Drive End Bearing Number-	**6314 C3**	
39.	Opposite Drive End Bearing Qty.	**1**	
40.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
41.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
42.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Snap Ring and springs**	

44.	Opposite Drive End Bearing Condition		P44

45.	Drive End Seal	**Good**
46.	Opposite Drive End Seal	**Good**

Rotor Inspection

47.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
48.	Growler Test	**(Pass) Pass**
49.	Number of Rotor Bars	**42**
50.	Rotor Condition	**Pass**
51.	List the Parts needed for the Repair Below	

Rewind
Lugs 1/2" x wire size
6314 C3 insulated
6314 ZC3
Aegis ring SGR-82.1-3FH [Mfr# SGR-82.1-104.1-3FH]

52.	Signature of Technician that Disassembled Motor	**Brandon Woodard**

Mechanical Fits- Rotor

53.	Shaft Runout	**0.001 inches**
54.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.001**	**0.001**

55. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees
2.3745	**2.3745**	**2.3745**

56. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.3745	**2.3745**	**2.3745**

57. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.7565	**2.7565**	**2.7565**

Tolerance is 2.7560-2.7565

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

59. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.7564	**2.7564**	**2.7564**

Tolerance is 2.7560-2.7565

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

61. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

Mechanical Fits- Bearing Housings

62. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
6.9074	**6.9074**	**6.9074**

Tolerance is 5.9055-5.9065

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

64. Opposite Drive End - Endbell Bearing Fit

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

Tolerance is 5.9055-5.9065

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

66. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
Pass	**Pass**

67. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
Pass	**Pass**

68. List Machine Work Needed Below

Bore and bush both end bells.

69. Technician **Brandon Woodard**

Root Cause of Failure

70. Failure locations

71. Root cause of failure

Rewind

72. THERMAL DETECTION EQUIPMENT FINAL TESTING - RTD'S/KLIXONS/THERMISTORS

Assembly

73. Was a Insulated bearing or end bell tested?

74. Motor RPM