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

AC Repair Arkansas Kraft Division

004458 Green Bay Packaging
338 Highway 113 South
Morrillton, AR 72110

FolderID: 149327
FormID: 15693621

AC Recondition - Rev. 2

Location:	Millington Shop
Serial Number:	

Hi-Speed Job Number:	149327
Manufacturer:	TECO Westinghouse
Product Number:	TUDP
Spec/ID #:	77B21022
Serial Number:	7803
HP/kW:	150 (HP)
RPM:	3550 (RPM)
Frame:	405TDZ
Voltage:	460
Current:	169 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.25
Enclosure:	ODP
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	Coupling
Date Received:	01/13/2023
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

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

Overall Condition

1.	Report Date	**01/13/2023**	
2.	Nameplate Picture		P2

3. Record Green Bay Packaging Motor Tag **M0052** P3

4. Photos of all six sides of the machine. P4

5. Describe the Overall Condition of the Equipment as Received

Windings need to be steamed and baked
Bore and Bush on both endbells
Metallization of both ends of the shaft
New bearings required

6. Distance from the end of the shaft to the Coupling/Sheave **0.1875 inches** P6

Prior to Disassembly

7. Does Shaft Turn Freely? **(Yes) Yes**

8. Does Shaft Have Visible Damage? **(No) No** P8

Rusty

9. Assembled Shaft Runout **0.002 Inches**

10. Perform Open Rotor Check **(Pass) Pass**

11.	Assembled Shaft End Play	**0.008 inches**	
12.	Lead Condition	**(P) Pass**	
13.	Lead Length	**Inches**	P13

14.	Frame Condition	**Good**
15.	Perform a Foot Flatness Test on the Front Feet	

General	General
0	**0.003**

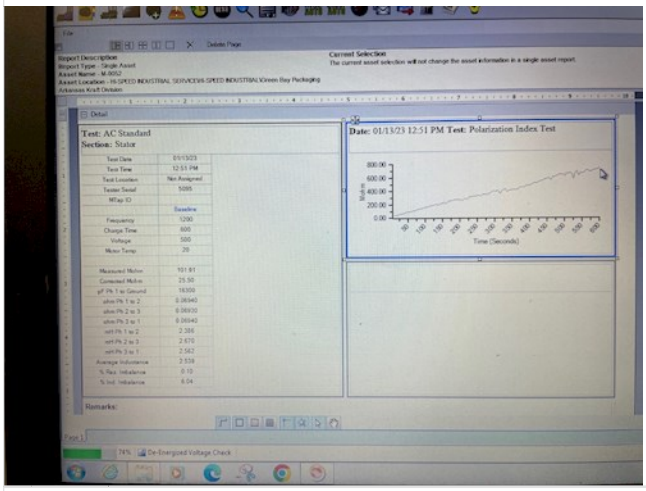
16.	Perform a Foot Flatness Test on the Back Feet	

General	General
0	**0.002**

17.	Fan Condition	**(N) NA**
18.	Is air gap measurement consistent within 10% on all sides?	**(No Provisions) No Provisions available for Measurement**
19.	Broken or Missing Components	**None**

Initial Electrical Inspection

20.	Perform PDMA Test	**(P) Pass**	P23



21.	Insulation Resistance	**25.5**
22.	Polarization Index	**7.14**
23.	Winding Resistance	

1-2	1-3	2-3
.06940	**.06930**	**.06940**

24.	Number of Stator Slots	**48**

25.	Stator Condition	**Good**	
	Needs through cleaning		

Mechanical Inspection

26.	Drive End Bearing Number-	**6314Z C3**	P29

27.	Drive End Bearing Qty.	**1**	
28.	Drive End Bearing Type	**(Ball) Ball Bearing**	
29.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
30.	Drive End Bearing Insulation or Grounding Device?	**None**	
31.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Snap Ring**	P34
	Spacer behind snap ring		

32.	Drive End Bearing Condition	**Good**	
33.	Opposite Drive End Bearing Number-	**6312Z C3**	
34.	Opposite Drive End Bearing Qty.	**1**	
35.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
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?	**None**	
39.	Opposite Drive End Bearing Condition	**Good**	
40.	Drive End Seal	**Present**	P43

41.	Opposite Drive End Seal	**None**

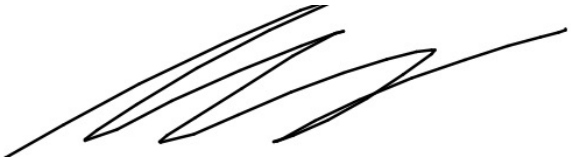
Rotor Inspection

42.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**
43.	Growler Test	**(Pass) Pass**
44.	Number of Rotor Bars	**38**
45.	Rotor Condition	**Good**

46. List the Parts needed for the Repair Below

Grease tubes NPT
1/8" x 4 1/2".
1/8" x 3".
2 1/8" x 3/4" coupling
6314Z
6312z
314 bushing
312 bushing
Drive end inpro seal. See picture for part number.

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



Mechanical Fits- Rotor

48.	Shaft Runout	**0.001 inches**

49. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.002**	**0.001**

50. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees
2.124	**2.124**	**2.124**

51. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
2.123	**2.123**	**2.123**

52. Drive End Bearing Shaft Fit P63

0 Degrees	60 Degrees	120 Degrees
2.7558	**2.7558**	**2.7558**

70mm=2.7559. Tolerance is 2.7560-2.7565. Outside of tolerance and requires machining. Shows signs of previous repair.

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

54. Opposite Drive End Bearing Shaft Fit P65

0 Degrees	60 Degrees	120 Degrees
3.3621	**3.3621**	**3.3621**

60mm=2.3622. Tolerance is 3.3626-3.3634. Outside of tolerance and requires machining. Shows signs of previous repair.

55. Opposite Drive End Bearing Shaft Fit Condition **(F) Fail**

56. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
N/A	**N/A**

Mechanical Fits- Bearing Housings

57. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.9072	**5.9072**	**5.9074**

150mm=5.9055. Tolerance is 5.9055-5.9065. Outside of tolerance and requires bore and bush

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

59. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.1121	**5.112**	**5.112**

130mm=5.1181. Tolerance is 5.1181-5.1191. Outside of tolerance and requires bore and bush

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

61. Bearing Cap Condition P72

Drive End Bearing Cap	Opposite Drive End Bearing Cap
Good	

DE has bushing.

DE

62. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
N/A	**N/A**

63. List Machine Work Needed Below

Metallize and machine both ends of rotor. Both end bells need bore and bush.

64. Technician **Brandon Woodard**

Root Cause of Failure

65. Failure locations

Dry Bearings

66. Root cause of failure

Improper bearing lubrication