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

AC Inspection as Found

Peco Foods
625 S. Allen Street
Batesville, AR 72501

FolderID: 102897
FormID: 20301209

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	ZHE722C005017
Description:	25HP AERATOR MOTOR EVAL

Hi-Speed Job Number:	102897
Manufacturer:	TECO Westinghouse
Serial Number:	ZHE722C005017
HP/kW:	25 (HP)
RPM:	1170 (RPM)
Frame:	324LP
Voltage:	230 / 460
Current:	60.6/30.3 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	12
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	05/06/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Rewind:	Yes
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High** **8 - Good**

Overall Condition

1.	Report Date	**05/09/2024**

2. Nameplate Picture P37

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

	4.	Describe the Overall Condition of the Equipment as Received ***Good condition. 1 phase of windings burnt up and requires rewind.***	
Initial Mechanical/Electrical			
	5.	Does Shaft Turn Freely?	**(Y) Yes**
	6.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	7.	Does Shaft Have Visible Damage?	**(Yes) Yes** P26

From rubbing on bushing.

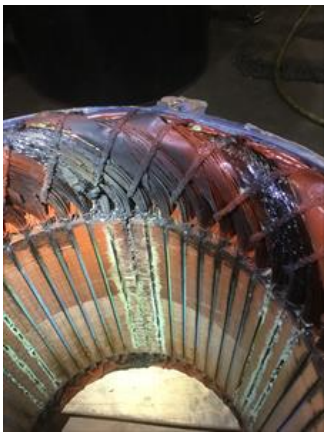
	8.	Assembled Shaft Runout	**0.003 Inches**
	9.	Assembled Shaft End Play	**0.001 inches**
	10.	Air Gap Variation <10%	**No Provisions for measurement**

11.	Lead Condition		**(P) Pass**	
12.	Lead Length		**14 Inches**	
13.	Does it have Lugs?, If so what is the Stud Size?		**(Yes) Yes**	
	5/16"			
14.	Lead Numbers		**1-12**	
15.	Frame Condition		**Pass**	
16.	Fan Condition		**(P) Pass**	P115

17.	Broken or Missing Components		**None**	

Initial Electrical Inspection

18.	Insulation Resistance/Megger		**0 Megohms**	
19.	Winding Resistance			
	1-2	1-3	2-3	
	0	**0**	**0**	
20.	Perform Surge Test		**(F) Fail**	P57



21.	Number of Stator Slots	**54**	

22.	Stator Condition	**Requires rewind**	P84

23.	Stator Thermistors/Ohms	**N/A**	
24.	Stator Overloads/Ohms	**N/A**	

Mechanical Inspection

25.	Drive End Bearing Brand	**SKF**	P12

26.	Drive End Bearing Number-	**7313**
27.	Drive End Bearing Qty.	**2**
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?	**Lock nut**	P77

Spacer

32.	Drive End Bearing Condition	**Normal Wear**	
33.	Opposite Drive End Bearing Brand	**NSK**	
34.	Opposite Drive End Bearing Number-	**6212 ZC3**	
35.	Opposite Drive End Bearing Qty.	**1**	
36.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
37.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
38.	Opposite Drive End Bearing Insulation or Grounding Device?	**None**	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Wavy Washer**	P114

40.	Opposite Drive End Bearing Condition	**Normal wear**	
41.	Drive End Seal	**60 82 12**	P120

42.	Opposite Drive End Seal	P123

Rotor Inspection

43.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
44.	Growler Test	**(Pass) Pass**
45.	Number of Rotor Bars	**42**
46.	Rotor Condition	**Pass**
47.	List the Parts needed for the Repair Below ***Rewind*** ***6212 C3*** ***7313 x2*** ***60 82 12 seal*** ***Va 60***	
48.	Signature of Technician that Disassembled Motor	**Brandon Woodard**

Mechanical Fits- Rotor

49.	Shaft Runout		**0.004 inches**
50.	Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	0.001	**0.001**	**0.001**

51. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees
1.375	**1.375**	**1.375**

52. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees
1.375	**1.375**	**1.375**

53. Drive End Bearing Shaft Fit P79

0 Degrees	60 Degrees	120 Degrees
2.5592	**2.5592**	**2.5592**

Tolerance is 2.5590-2.5593

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

55. Opposite Drive End Bearing Shaft Fit P89

0 Degrees	60 Degrees	120 Degrees
2.3624	**2.3624**	**2.3624**

Tolerance is 2.3623-2.3628

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

57. Shaft Air Seal Fits

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

Mechanical Fits- Bearing Housings

58.	Drive End - Endbell Bearing Fit			P2
	0 Degrees	60 Degrees	120 Degrees	
	5.512	**5.512**	**5.512**	
	Tolerance is 5.5117-5.5121			

59.	Drive End - Endbell Bearing Fit Condition		**(P) Pass**
60.	Opposite Drive End - Endbell Bearing Fit		P30
	0 Degrees	60 Degrees	120 Degrees
	4.3316	**4.3316**	**4.3316**
	Tolerance is 4.3307-4.3316		

61.	Opposite Drive End - Endbell Bearing Fit Condition		**(P) Pass**
62.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	Pass	**Pass**	
63.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
	Pass	**Pass**	
64.	List Machine Work Needed Below		
	None		
65.	Technician		**Brandon Woodard**

Root Cause of Failure

66. Failure locations
67. Root cause of failure