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: 101289
FormID: 16612931

AC Inspection - Rev. 2

Location:	Shop
Serial Number:	C 05 7769144-0003 R 0002
Description:	150HP US MOTORS 1800RPM 445T

Hi-Speed Job Number:	100289
Manufacturer:	US Motors/Nidec
Product Number:	HD150P2F
Spec/ID #:	C 05 7769144-0003 R 0002
HP/kW:	150 (HP)
RPM:	1790 (RPM)
Frame:	445T
Voltage:	460
Current:	171
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **1 - High** **8 - 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? **(Yes) Yes**

	6.	Does Shaft Have Visible Damage?	**(No) No**	P20

	7.	Assembled Shaft Runout	**0.002 Inches**	
	8.	Assembled Shaft End Play	**inches**	
	9.	Air Gap Variation <10%		
	10.	Lead Condition	**(P) Pass**	
	11.	Lead Length		
	12.	Frame Condition	**pass**	
	13.	Fan Condition	**(P) Pass**	P93

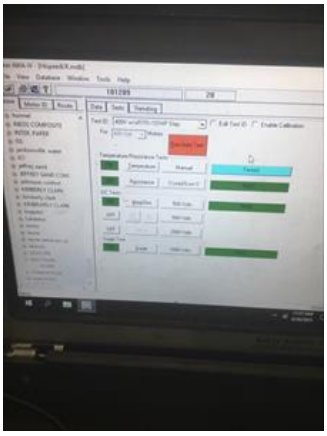
	14.	Broken or Missing Components	**none**

Initial Electrical Inspection

	15.	Insulation Resistance/Megger	
	16.	Winding Resistance	

1-2	1-3	2-3

17.	Perform Surge Test	**(P) Pass**	P57



18.	Number of Stator Slots		
19.	Stator Condition		
20.	Stator Thermistors/Ohms		
21.	Stator Overloads/Ohms		

Mechanical Inspection

22.	Drive End Bearing Brand	**FAG**	
23.	Drive End Bearing Number-	**6318**	P32

24.	Drive End Bearing Qty.	**1**	

25.	Drive End Bearing Type	**(Ball) Ball Bearing**	P49

26.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
27.	Drive End Bearing Insulation or Grounding Device?	**none**	
28.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P72

29.	Drive End Bearing Condition	**replace. Frosting on inner and outer races.**	P78

30.	Opposite Drive End Bearing Brand	**KBC**	P85

31.	Opposite Drive End Bearing Number-	**6313**	
32.	Opposite Drive End Bearing Qty.	**1**	
33.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	P92

34.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
35.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
36.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**snap ring**

37.	Opposite Drive End Bearing Condition	**replace. frosting on inner and outer race**	P99

38.	Drive End Seal		P100

39.	Opposite Drive End Seal	**none**	

Rotor Inspection

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

41.	Growler Test	**(Pass) Pass**	
42.	Number of Rotor Bars		
43.	Rotor Condition	**pass**	
44.	List the Parts needed for the Repair Below		

45.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

46.	Shaft Runout	**0.002 inches**
47.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

48.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

49.	Coupling Fit Closest to the end of the Shaft	

0 Degrees	60 Degrees	120 Degrees

50.	Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
3.5444	**3.5442**	**3.5443**

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

0 Degrees	60 Degrees	120 Degrees
2.5594	**2.5594**	**2.5595**

53.	Opposite Drive End Bearing Shaft Fit Condition	**(P) Pass**
54.	Shaft Air Seal Fits	

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

55.	Drive End - Endbell Bearing Fit	

0 Degrees	60 Degrees	120 Degrees
7.4808	**7.481**	**7.4811**

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

0 Degrees	60 Degrees	120 Degrees
5.5122	**5.5124**	**5.5123**

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

59. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

60. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

61. List Machine Work Needed Below

None

62. Technician **Terrence Holland**

Dynamic Balance Report

63. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

64. Initial Balance Readings

Drive End	Opposite Drive End

65. Final Balance Readings

Drive End	Opposite Drive End

66. Technician

Rewind

67. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

68. Core Hot Spot Test

Pre-Burnout	Post-Burnout

69. Post Rewind Electrical Test- Insulation Resistance

70. Post Rewind Polarization Index

71.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
72.	Post Rewind Surge Test		
73.	Post Rewind Hi-Pot		
74.	Technician		

Root Cause of Failure

75.	Failure locations		
76.	Root cause of failure		

Mechanical Fits- Rotor - Post Repair

77.	Shaft Runout Post Repair		
78.	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
79.	Coupling Fit Closest to Bearing Housing Post Repair		
	0 Degrees	90 Degrees	120 Degrees
80.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
81.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
82.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
83.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
84.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

85.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
86.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
87.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
88.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
89.	End Bell Repair Sign-off		

Assembly

90.	QC Check All Parts for Cleanliness Prior to Assembly		

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