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

AC Inspection as Found

Tyson Foods (10914)
1238 Market Street
Clarksville, AR 72830

FolderID: 104415
FormID: 24037883

AC Inspection - Rev. 2

Location:	LR MOTOR SHOP
Serial Number:	12H013Y276
Description:	40 HP BALDOR

Hi-Speed Job Number:	104415
Manufacturer:	Baldor
Product Number:	CAT#EM4110T
Serial Number:	12H013Y276
HP/kW:	40 (HP)
RPM:	1775 (RPM)
Frame:	324T
Voltage:	230 / 460
Current:	96 / 48 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.0
Enclosure:	TEFC
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
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

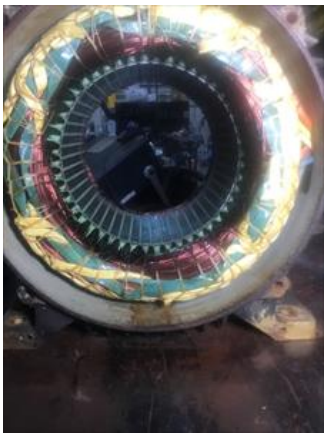
Priorities Found: **1 - High** **14 - Good**

Overall Condition

1.	Report Date	**04/18/2025**

2. Nameplate Picture P37

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



	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
●	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	**0.002 Inches**
	11.	Assembled Shaft End Play	**0 inches**
	12.	Air Gap Variation <10%	

●	13.	Lead Condition	**(P) Pass**	P69

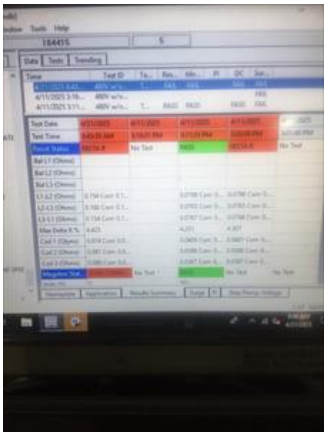
	14.	Lead Length	**11 Inches**	
●	15.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
	16.	Lead Numbers	**1-9**	
●	17.	Are the Leads insulated with Chico or other material	**(No) No**	
	18.	Frame Condition	**pass**	
●	19.	Fan Condition	**(P) Pass**	P115

●	20.	Does motor have internal fan?	**(No) No**	
	21.	Broken or Missing Components		

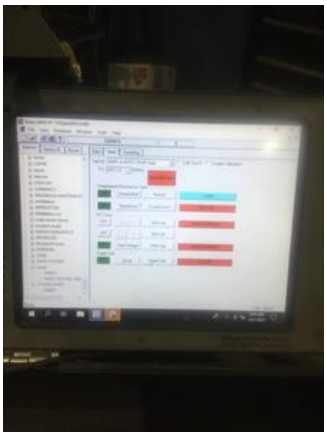
Initial Electrical Inspection

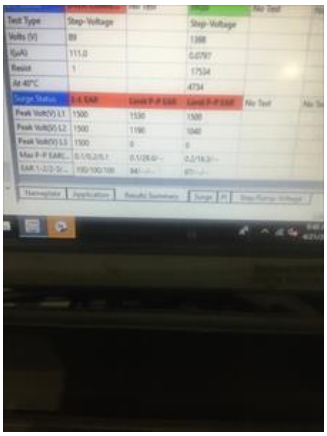
	22.	Insulation Resistance/Megger	**Megohms**	P8

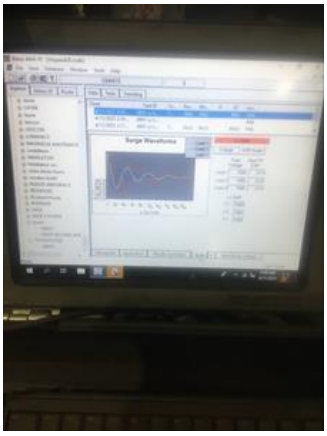
23.	Winding Resistance			P20
	1-2	1-3	2-3	



24.	Perform Surge Test	**(F) Fail**	P57







25.	Number of Stator Slots	**48**
26.	Stator Condition	**rewind**
27.	Stator Thermistors/Ohms	
28.	Stator Overloads/Ohms	

Mechanical Inspection

29.	Drive End Bearing Brand	**SKF**

30.	Drive End Bearing Number-	**6312/C3**	P32

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	**evidence of frosting**
37.	Opposite Drive End Bearing Brand	**FAG** P92

38.	Opposite Drive End Bearing Number-	**6311 C3**	P99

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?		
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P114

44.	Opposite Drive End Bearing Condition	**evidence of frosting on inner and outer races**	
45.	Drive End Seal	**VA-055**	P120

46.	Opposite Drive End Seal		

Rotor Inspection

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

48.	Growler Test	**(Pass) Pass**	

49.	Number of Rotor Bars	**41**
50.	Rotor Condition	**pass**
51.	List the Parts needed for the Repair Below ***1) 6312/C3*** ***1) 6311/C3*** ***Rewind stator***	
52.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

53.	Shaft Runout	**0.002 inches**

54. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

55. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

56. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

57. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.3625	**2.3626**	**2.2625**

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

59. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
2.1659	**2.1659**	**2.1659**

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

61. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

62. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
5.1184	**5.1182**	**5.1182**

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

64. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.725	**4.7251**	**4.72**

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

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

68. List Machine Work Needed Below

Two broken bolts on connection box. Drill and tap connection box cover bolt holes

69. Technician **Terrence Holland**

Co sign: CRW

Root Cause of Failure

70. Failure locations

Windings shorted. Both bearings have frosting.

71. Root cause of failure

Windings shorted between phases.

Dynamic Balance Report

72. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

73. Initial Balance Readings

Drive End	Opposite Drive End

74. Final Balance Readings

Drive End	Opposite Drive End

75. Technician

Rewind

76. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

77. Core Hot Spot Test

Pre-Burnout	Post-Burnout

78. Post Rewind Electrical Test- Insulation Resistance

79. Post Rewind Polarization Index

80. Post Rewind Winding Resistance

1-2	1-3	2-3

81. Post Rewind Surge Test

82. Post Rewind Hi-Pot

83. Technician

Assembly

84. QC Check All Parts for Cleanliness Prior to Assembly

85. Photograph All Major Components prior to assembly

86. Final Insulation Resistance Test

87.	Assembled Shaft Endplay		
88.	Assembled Shaft Runout		
89.	Test Run Voltage		
	Volts	Volts	Volts
90.	Test Run Amperage		
	Amps	Amps	Amps
91.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
92.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
93.	Ambient Temperature - Fahrenheit		
94.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
95.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
96.	Document Final Condition with Pictures after paint		
97.	Final Pics and QC Review		