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: 102785
FormID: 20093748

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	FX6125A

Description:PUMP

Hi-Speed Job Number:	102785
Manufacturer:	Other
Product Number:	6125-0027
Serial Number:	FX6125A
HP/kW:	7.5 (HP)
RPM:	1750 (RPM)
Frame:	SUBPUMP
Voltage:	220-240
Current:	22 (Amps)
Phase:	Three
Enclosure:	Submersible
# of Leads:	3
J-box Included:	None
Coupling/Sheave:	Propeller
Date Received:	04/15/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Rewind:	Yes
Shaft Machined Fit Repairs Required:	Yes
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **2 - High** **6 - Good**

Overall Condition

1.	Report Date	**04/25/2024**

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2. Nameplate Picture P37

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

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4.	Describe the Overall Condition of the Equipment as Received		
	Serviceable		
5.	Distance from the end of the shaft to the Coupling/Sheave		**inches**
	Na		

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	**(Y) Yes**
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
8.	Does Shaft Have Visible Damage?	**(Yes) Yes**
	Seal surface worn.	
9.	Assembled Shaft Runout	**Inches**
	Na	
10.	Assembled Shaft End Play	**inches**
	Na	
11.	Air Gap Variation <10%	**na**
12.	Lead Condition	
	Replace sensor and power cords. ***Sensor cord is 5C-18 AWG- 25' L*** ***Power cord is 4C-8AWG-25' L***	
13.	Lead Length	**8 Inches**
14.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**
15.	Lead Numbers	**1-3**
16.	Frame Condition	**pass**
17.	Fan Condition	**(N) NA**
18.	Broken or Missing Components	
	Replace seal plate hex head stainless steel bolts.	

Initial Electrical Inspection

19.	Insulation Resistance/Megger		**Megohms**
	Na		
20.	Winding Resistance		
	1-2	1-3	2-3
	Na		

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21.	Perform Surge Test	**(NA) Not Applicable**	P57
	Motor windings shorted in coil.		

22.	Number of Stator Slots	**36**
23.	Stator Condition	**rewind**
24.	Stator Thermistors/Ohms	**na**
25.	Stator Overloads/Ohms	**0.7**

Mechanical Inspection

26.	Drive End Bearing Brand	
	Not listed	
27.	Drive End Bearing Number-	**6308**
28.	Drive End Bearing Qty.	**1**

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29.	Drive End Bearing Type	**(Ball) Ball Bearing**	P51

30.	Drive End Lubrication Type	**(Oil) Oil Lubricated**
31.	Drive End Bearing Insulation or Grounding Device?	
	Na	
32.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	
	Na	
33.	Drive End Bearing Condition	**replace**
34.	Opposite Drive End Bearing Brand	**WJB**
35.	Opposite Drive End Bearing Number-	**6303** P99

36.	Opposite Drive End Bearing Qty.	**1**
37.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**

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38.	Opposite Drive End Lubrication Type	**(Oil) Oil Lubricated**
39.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
40.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**
41.	Opposite Drive End Bearing Condition	**replace**
42.	Drive End Seal	**carbon ceramic**

#D-1250-352

43.	Opposite Drive End Seal	**carbon ceramic**

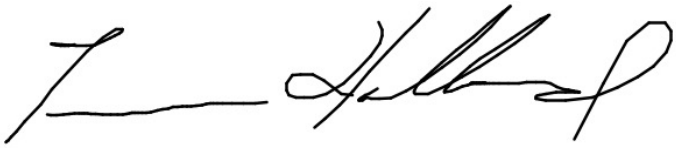
Rotor Inspection

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

45.	Growler Test	**(Pass) Pass**
46.	Number of Rotor Bars	**48**
47.	Rotor Condition	**pass**
48.	List the Parts needed for the Repair Below	

2 ea. carbon ceramic seals # D-1250-352
8 ea. stainless steel hex head, seal mount plate bolts. 1/4*20*1/2"
Rewind stator & repair shaft seal surface, and DE bearing fit.
Replace power & sensor cords.

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



Witness: Trevor Hall

Mechanical Fits- Rotor

50.	Shaft Runout	**0.005 inches**
51.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

Na

52.	Coupling Fit Closest to Bearing Housing	

0 Degrees	90 Degrees	120 Degrees

Na

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53. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

Na

54. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.5746	**1.5746**	**1.5746**

Minimum allowed is 1.5749

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

56. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
0.6695	**0.6695**	**0.6695**

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

58. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

Mechanical Fits- Bearing Housings

59. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
3.544	**3.5442**	**3.54**

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

61. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
1.5746	**1.5748**	**1.5748**

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

63. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	**na**

64. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

65. List Machine Work Needed Below

D.E. Shaft seal surface worn. And de shaft bearing journal bad.

66. Technician **Terrence Holland**

Witness: Trevor Hall

Root Cause of Failure

67. Failure locations

Windings,power cord, seals and housing and shaft fit on DE.

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68. Root cause of failure

Outer seal seat was found to be cracked. This allowed water to enter the stator and cause a short circuit in the stator coils.

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