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: 102404
FormID: 19487031

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	H2343989
Description:	5HP GOULD PUMP

Hi-Speed Job Number:	102404
Manufacturer:	Other
Product Number:	WS5012D4
Serial Number:	H2343989
HP/kW:	5 (HP)
RPM:	1725 (RPM)
Frame:	SUB
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Repair Stage:	Final

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 ***Disassembled***		
5.	Distance from the end of the shaft to the Coupling/Sheave ***Na***	**inches**	

Initial Mechanical/Electrical

6.	Does Shaft Turn Freely?	**(Yes) Yes**	
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**	
8.	Does Shaft Have Visible Damage?	**(No) No**	
9.	Assembled Shaft Runout ***Na***	**Inches**	
10.	Assembled Shaft End Play ***Na***	**inches**	
11.	Air Gap Variation <10% ***Na***		
12.	Lead Condition	**(P) Pass**	P69

13.	Lead Length	**8 Inches**	
14.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
15.	Lead Numbers ***Na***		

16.	Stator Temperature Detector Rating and Function			
	Quantity	Rating	Quantity Passed	
	Na			
17.	Bearing Temperature Detector Rating and Function			
	Quantity	Rating	Quantity Passed	
	Na			
18.	Frame Condition			**pass**
19.	Fan Condition			**(N) NA**
20.	Heater Quantity, Ratings			
	Quantity	Volts/Watts	Pass/Fail	
	Na			
21.	Broken or Missing Components			
	Na			

Initial Electrical Inspection

22.	Insulation Resistance/Megger			**8000 Megohms**
23.	Winding Resistance			
	1-2	1-3	2-3	
	Na			
24.	Perform Surge Test			**(P) Pass**
25.	Number of Stator Slots			**40**
26.	Stator Condition			**wash and dry**
27.	Stator Thermistors/Ohms			
	Na			
28.	Stator Overloads/Ohms			
	Na			

Mechanical Inspection

29.	Drive End Bearing Brand	**NSK**	
30.	Drive End Bearing Number-	**6206**	P32

31.	Drive End Bearing Qty.	**1**
32.	Drive End Bearing Type	**(Ball) Ball Bearing**
33.	Drive End Lubrication Type	**(Oil) Oil Lubricated**

34.	Drive End Bearing Insulation or Grounding Device?	**na**	
35.	Drive End Wavy Washer/Snap-Ring Other Retention Device?		
	Na		
36.	Drive End Bearing Condition	**normal wear**	P82

37.	Opposite Drive End Bearing Brand	**NSK**	
38.	Opposite Drive End Bearing Number-	**6204**	P99

39.	Opposite Drive End Bearing Qty.	**1**	
40.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
41.	Opposite Drive End Lubrication Type	**(Oil) Oil Lubricated**	
42.	Opposite Drive End Bearing Insulation or Grounding Device?	**na**	
43.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	
44.	Opposite Drive End Bearing Condition	**normal wear**	P118

45. Drive End Seal P120

Carbon ceramic

46. Opposite Drive End Seal

Na

47. DE Sleeve Bearing Inside Diameter

0 degrees	120 degrees	240 degrees

Na

48. DE Sleeve Bearing Outside Diameter

0 degrees	120 degrees	240 degrees

Na

49. DE Sleeve Bearing Housing Inside Diameter

0 degrees	120 degrees	240 degrees

Na

50. DE Sleeve Bearing to Housing Clearance

0 degrees	120 degrees	240 degrees

Na

51. ODE Sleeve Bearing Inside Diameter

0 degrees	120 degrees	240 degrees

Na

52. ODE Sleeve Bearing Outside Diameter

0 degrees	120 degrees	240 degrees

Na

53. ODE Sleeve Bearing Housing Inside Diameter

0 degrees	120 degrees	240 degrees

Na

54. ODE Sleeve Bearing to Housing Clearance

0 degrees	120 degrees	240 degrees

Na

Rotor Inspection

55. Rotor Type/Material — **(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**

56. Growler Test — **(Pass) Pass**

57. Number of Rotor Bars — **48** P28

58. Rotor Condition — **pass**

59. List the Parts needed for the Repair Below

6206 6204 bearings

60. Signature of Technician that Disassembled Motor — **RW**

Mechanical Fits- Rotor

61. Shaft Runout — **inches**

Na

62. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

Na

63. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

Na

64. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

Na

65. Drive End Bearing Shaft Fit P79

0 Degrees	60 Degrees	120 Degrees
1.1816	**1.1816**	**1.1816**

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

67. Opposite Drive End Bearing Shaft Fit P89

0 Degrees	60 Degrees	120 Degrees
0.7877	**0.7877**	**0.7877**

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

69. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

Mechanical Fits- Bearing Housings

70. Drive End - Endbell Bearing Fit P2

0 Degrees	60 Degrees	120 Degrees
2.4416	**2.4416**	**2.4416**

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

72. Opposite Drive End - Endbell Bearing Fit P30

0 Degrees	60 Degrees	120 Degrees
1.851	**1.851**	**1.851**

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

74. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap

Na

75. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Na

76. List Machine Work Needed Below

Na

77. Technician **RW**

Root Cause of Failure

78. Failure locations

Seals

79. Root cause of failure

Both capacitors, power cord, and seals.

Dynamic Balance Report

80. Rotor Weight and Balance Grade

Rotor Weight	Balance Grade

81. Initial Balance Readings

Drive End	Opposite Drive End

82. Final Balance Readings

Drive End	Opposite Drive End

83. Technician

Rewind

84. Core Test Results - Watts loss per Pound

Pre-Burnout	Post Burnout

85. Core Hot Spot Test

Pre-Burnout	Post-Burnout

86. Post Rewind Electrical Test- Insulation Resistance

87. Post Rewind Polarization Index

88. Post Rewind Winding Resistance

1-2	1-3	2-3

89. Post Rewind Surge Test

90. Post Rewind Hi-Pot

91. Technician

Mechanical Fits- Rotor - Post Repair

92. Shaft Runout Post Repair

93. Rotor Runout Post Repair

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

94. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees	90 Degrees	120 Degrees

95.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
96.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
97.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
98.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
99.	Shaft Repair Sign-off		

Mechanical Fits- Bearing Housings - Post Repair

100.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
101.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
102.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
103.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
104.	DE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3
105.	DE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3
106.	DE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
107.	DE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3
108.	End Bell Repair Sign-off		
109.	ODE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3
110.	ODE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3

111.	ODE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
112.	ODE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3

Assembly

113.	QC Check All Parts for Cleanliness Prior to Assembly		
114.	Photograph All Major Components prior to assembly		
115.	Final Insulation Resistance Test		
116.	Assembled Shaft Endplay		
117.	Assembled Shaft Runout		
118.	Test Run Voltage		
	Volts	Volts	Volts
119.	Test Run Amperage		
	Amps	Amps	Amps
120.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
121.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
122.	Ambient Temperature - Fahrenheit		
123.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
124.	Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
125.	Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
126.	Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
127.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
128.	Opposite Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
129.	Opposite Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes

130.	Opposite Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
131.	Stator Temperatures- Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
132.	Stator Temperatures- Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
133.	Stator Temperatures- Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
134.	Stator Temperatures- Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
135.	Document Final Condition with Pictures after paint		
136.	Final Pics and QC Review		