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

AC Inspection as Found

ConAgra (10859-CON)
3100 E. Main St.
Russellville, AR 72801

FolderID: 101583
FormID: 17240297

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	W20002127-AL
Description:	800HP ODP

Hi-Speed Job Number:	101583
Manufacturer:	Other
Serial Number:	W20002127-AL
HP/kW:	800 (HP)
RPM:	3580 (RPM)
Frame:	5808S
Voltage:	2300/4160
Current:	177/98.4
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	ODP
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	None
Date Received:	07/05/2023
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	Yes
Bearing Housing Machined Fit Repairs Required:	Yes
Heaters:	No
Winding Type :	Form Coil

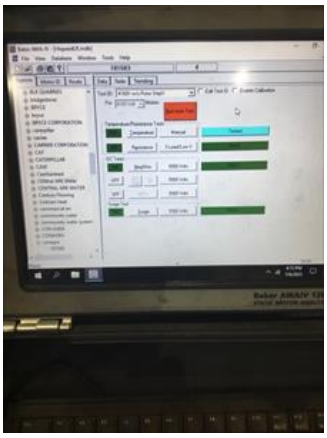
Priorities Found: **4 - High** **3 - Good**

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

Serviceable

Initial Mechanical/Electrical

5. Does Shaft Turn Freely? **(No) No**

6.	Does Shaft Have Visible Damage?	**(Yes) Yes**	P17

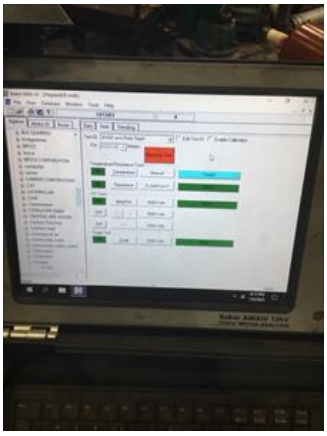
7.	Assembled Shaft Runout		
8.	Assembled Shaft End Play		
9.	Air Gap Variation <10%		
10.	Lead Condition	**(P) Pass**	P57

11.	Lead Length	**18 Inches**
12.	Lead Numbers	**1-6**
13.	Frame Condition	**pass**
14.	Fan Condition	**(N) NA**
15.	Broken or Missing Components	**missing 2 eyebolts**

Initial Electrical Inspection

16.	Insulation Resistance/Megger		
17.	Winding Resistance		
	1-2	1-3	2-3

18.	Perform Surge Test	**(P) Pass**	P58



19.	Number of Stator Slots	**54 Megohms**	
20.	Stator Condition	**pass**	
21.	Stator Thermistors/Ohms		
22.	Stator Overloads/Ohms		

Mechanical Inspection

23.	Drive End Bearing Brand	**SKF**	
24.	Drive End Bearing Number-	**6316**	P28

25.	Drive End Bearing Qty.	**1**	
26.	Drive End Bearing Type	**(Ball) Ball Bearing**	
27.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	
28.	Drive End Bearing Insulation or Grounding Device?	**none**	
29.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none**	
30.	Drive End Bearing Condition	**destroyed**	
31.	Opposite Drive End Bearing Brand	**SKF**	
32.	Opposite Drive End Bearing Number-	**6316 2Z/C3**	
33.	Opposite Drive End Bearing Qty.	**1**	

34.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	P107

35.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**
36.	Opposite Drive End Bearing Insulation or Grounding Device?	**none**
37.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	
38.	Opposite Drive End Bearing Condition	**replace** P117

39.	Drive End Seal	**none**
40.	Opposite Drive End Seal	**none**

41. DE Sleeve Bearing Inside Diameter

0 degrees	120 degrees	240 degrees

42. DE Sleeve Bearing Outside Diameter

0 degrees	120 degrees	240 degrees

43. DE Sleeve Bearing Housing Inside Diameter

0 degrees	120 degrees	240 degrees

44. DE Sleeve Bearing to Housing Clearance

0 degrees	120 degrees	240 degrees

45. ODE Sleeve Bearing Inside Diameter

0 degrees	120 degrees	240 degrees

46. ODE Sleeve Bearing Outside Diameter

0 degrees	120 degrees	240 degrees

47. ODE Sleeve Bearing Housing Inside Diameter

0 degrees	120 degrees	240 degrees

48. ODE Sleeve Bearing to Housing Clearance

0 degrees	120 degrees	240 degrees

Rotor Inspection

49.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**
50.	Growler Test	**(Pass) Pass**
51.	Number of Rotor Bars	**41**
52.	Rotor Condition	**replace shaft**
53.	List the Parts needed for the Repair Below ***New shaft***	
54.	Signature of Technician that Disassembled Motor	**Terrence Holland**

Mechanical Fits- Rotor

55.	Shaft Runout	**inches**
	Shaft replacement.	
56.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

57. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

58. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

59. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

Shaft needs replacing

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

61. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees

New shaft

62.	Opposite Drive End Bearing Shaft Fit Condition	**(NA) Not Applicable**

Need a new shaft

63. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
needs sleeved	

Mechanical Fits- Bearing Housings

64. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad

65. Drive End - Endbell Bearing Fit Condition **(F) Fail**

Excessive wear

66. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees

Bad

67. Opposite Drive End - Endbell Bearing Fit Condition **(F) Fail** P38

68. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
Re-sleeve	

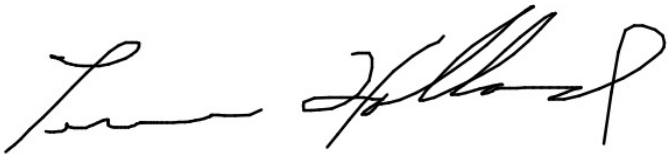
69. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

70. List Machine Work Needed Below

Machine both housing fits. Make a new shaft, and sleeve the D.E bearing cap, plus machine and sleeve the D.E. end bell shaft opening.

71. Technician **Terrence Holland**



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		

Root Cause of Failure

76.	Failure locations		
77.	Root cause of failure		

Mechanical Fits- Rotor - Post Repair

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

Mechanical Fits- Bearing Housings - Post Repair

86.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
87.	Opposite Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
88.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
89.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
90.	DE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3

91.	DE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3
92.	DE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
93.	DE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3
94.	End Bell Repair Sign-off		
95.	ODE Sleeve Bearing Inside ID Post Repair		
	Measure 1	Measure 2	Measure 3
96.	ODE Sleeve Bearing Outside ID Post Repair		
	Measure 1	Measure 2	Measure 3
97.	ODE Sleeve Bearing Inside OD Post Repair		
	Measure 1	Measure 2	Measure 3
98.	ODE Sleeve Bearing Outside OD Post Repair		
	Measure 1	Measure 2	Measure 3

Assembly

99.	QC Check All Parts for Cleanliness Prior to Assembly		
100.	Photograph All Major Components prior to assembly		
101.	Final Insulation Resistance Test		
102.	Assembled Shaft Endplay		
103.	Assembled Shaft Runout		
104.	Test Run Voltage		
	Volts	Volts	Volts
105.	Test Run Amperage		
	Amps	Amps	Amps
106.	Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
107.	Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
108.	Ambient Temperature - Fahrenheit		
109.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
110.	Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes

111.	Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
112.	Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
113.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
114.	Opposite Drive End Bearing Temps - Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
115.	Opposite Drive End Bearing Temps - Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
116.	Opposite Drive End Bearing Temps - Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
117.	Stator Temperatures- Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
118.	Stator Temperatures- Fahrenheit 20-30 Minutes		
	20 Minutes	25 Minutes	30 Minutes
119.	Stator Temperatures- Fahrenheit 35-45 Minutes		
	35 Minutes	40 Minutes	45 Minutes
120.	Stator Temperatures- Fahrenheit 50-60 Minutes		
	50 Minutes	55 Minutes	60 Minutes
121.	Document Final Condition with Pictures after paint		
122.	Final Pics and QC Review		