

Motor Shop Repairs

Job Number 99718

Prepared for Highland Pellets (012194)

5601 Industrial Dr North Pine Bluff AR 71602

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AC Recondition As Found - Shop

AC Recondition - Rev. 2: K1608080026

1.0



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

> FolderID: 99718 FormID: 13427582

AC Recondition As Found

Highland Pellets (012194)

5601 Industrial Dr North Pine Bluff, AR 71602

AC Recondition - Rev. 2

Location:

Shop

Serial Number:

K1608080026

Description: 1000HP Baldor 1800RPM 5810

Hi-Speed Job Number:	99718
Manufacturer:	Baldor
Product Number:	EN581004L-2340
Spec/ID #:	KGPEM581004L-2340
Serial Number:	K1608080026
HP/kW:	1000 (HP)
RPM:	1792 (RPM)
Frame:	5810
Voltage:	2300/4160
Current:	224/129
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	None
Coupling/Sheave:	Coupling
Date Received:	04/27/2022
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	Yes
Heaters:	Yes
Bearing Type:	Rolling Element

Priorities Found: **a 2 - High**

7 - Good

Overall Condition

04/27/2022 1. Report Date

2. Nameplate Picture

















 Describe the Overall Condition of the Equipment as Received Very dirty on outside

4. Distance from the end of the shaft to the Coupling/Sheave

0 inches

Initial Mechanical/Electrical

5. Does Shaft Turn Freely?

(Yes) Yes

6. Does Shaft Have Visible Damage?

(No) No



- 7. Assembled Shaft Runout
 0.0005 Inches
 - 8. Assembled Shaft End Play inches
 - 9. Air Gap Variation <10%
- 10. Lead Condition(P) Pass



11. Lead Length 40 Inches



Quantity Rating Quantity Passed

All are 110 ohms. TD1 has one bad white lead





13. Bearing Temperature Detector Rating and Function

Quantity Rating Quantity Passed

14. Frame Condition good

15. Fan Condition (P) Pass



16. Heater Quantity, Ratings

Quantity Volts/Watts Pass/Fail



17. Broken or Missing Components bolts to terminal box broken

off in stator

Initial Electrical Inspection

- 18. Insulation Resistance/Megger
- 19. Winding Resistance

1-2 1-3 2-3

20. Perform Surge Test (P) Pass

21. Stator Condition Recondition

Mechanical Inspection

22. Drive End Bearing Number-



23. Drive End Bearing Qty.	1
24. Drive End Bearing Type	(Ball) Ball Bearing
25. Drive End Lubrication Type	(Grease) Grease Lubricated
26. Drive End Bearing Insulation or Grounding Device?	no
27. Drive End Wavy Washer/Snap-Ring Other Retention Device?	no
28. Drive End Bearing Condition	worn



29. Opposite Drive End Bearing Number-

6224 c3





30. Opposite Drive End Bearing Qty.	1
31. Opposite Drive End Bearing Type	(Ball) Ball Bearing
32. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
33. Opposite Drive End Bearing Insulation or Grounding Device?	no
34. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	no
35. Opposite Drive End Bearing Condition	worn
36. Drive End Seal	
37. Opposite Drive End Seal	
Rotor Inspection	

38. Rotor Type/Material







39.	Growler Test	(Fail) Fail
-	Rotor blown	
40.	Number of Rotor Bars	56
4 1.	Rotor Condition	fail
42.	List the Parts needed for the Repair Below	
	Rotor needs new laminations and new casting.	
43.	Signature of Technician that Disassembled Motor	Trevor Hall

/ - Jul/

44. Shaft Runout 0.001 inches

45. Rotor Runout

Drive End Bearing Fit Rotor Body Opposite Drive End Bearing

46. Coupling Fit Closest to Bearing Housing

0 Degrees 90 Degrees 120 Degrees

47. Coupling Fit Closest to the end of the Shaft

0 Degrees 60 Degrees 120 Degrees

48. Drive End Bearing Shaft Fit

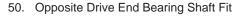
0 Degrees 60 Degrees 120 Degrees

4.7253 4.7253 4.7253



49. Drive End Bearing Shaft Fit Condition

(P) Pass



0 Degrees 60 Degrees 120 Degrees

4.7252 4.7253 4.7253



51. Opposite Drive End Bearing Shaft Fit Condition

(P) Pass

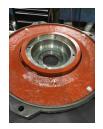
52. Shaft Air Seal Fits

Drive End Air Seal Opposite Drive End Air Seal

Mechanical Fits- Bearing Housings

53. Drive End - Endbell Bearing Fit

0 Degrees 60 Degrees 120 Degrees 10.2373 10.2372



■ 54. Drive End - Endbell Bearing Fit Condition

(P) Pass

55. Opposite Drive End - Endbell Bearing Fit

0 Degrees 60 Degrees 120 Degrees

8.4674 8.4674 8.4672



56. Opposite Drive End - Endbell Bearing Fit Condition



Drive End Bearing Cap Opposite Drive End Bearing Cap

pass pass





58. End Bell Air Seal Fits

Drive End Air Seal Opposite Drive End Air Seal

List Machine Work Needed Below
 Drive end shaft needs machined because of swapping rotor from other motor.

60. Technician

Dynamic Balance Report

61. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

62. Initial Balance Readings

Drive End Opposite Drive End

1.58 3.44

63. Final Balance Readings

Drive End Opposite Drive End

0.12 1.18

64. Technician David Maclin

Root Cause of Failure

65. Failure locations

Rotor

66. Root cause of failure

Overload

Mechanical Fits- Rotor - Post Repair

67. Shaft Runout Post Repair

68. Rotor Runout Post Repair

Drive End Bearing Fit Rotor Body Opposite Drive End Bearing

69. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees 90 Degrees 120 Degrees

70. Coupling Fit Closest to the end of the Shaft Post Repair

0 Degrees 60 Degrees 120 Degrees

71.	Drive End Bearing Shaft Fit Post Repa	air	
	0 Degrees	60 Degrees	120 Degrees
72.	3	·	
	0 Degrees	60 Degrees	120 Degrees
70	01 (1.4) 0 15; 5 15		
73.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
74	Shaft Repair Sign-off		
		act Danair	
	anical Fits- Bearing Housings - P	•	
75.	Drive End - Endbell Bearing Fit Post F		400 B
	0 Degrees	60 Degrees	120 Degrees
76	Opposite Drive End - Endbell Bearing	Fit Post Renair	
70.	•	·	120 Dogroop
	0 Degrees	60 Degrees	120 Degrees
77.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	o o g o o,p	obbeens Time Time Teaming each	
78.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
79.	End Bell Repair Sign-off		
Assen	nbly		
80.	Photograph All Major Components pri	or to assembly	
81.	Final Insulation Resistance Test		
82.	Assembled Shaft Endplay		
83.	Assembled Shaft Runout		
84.	Test Run Voltage		
	Volts	Volts	Volts
****	A. S. D. Sandagar		
Commercial Service Ser	Contract. Since additional activation between the contract of		
Mindelines Made: 3-Plan House Panie Minimani Panie	Manager (Manager Manager Manag		
man in the pay	AM 80 OR B		
85	Test Run Amperage		
00.		Amps	Amne
	Amps	Λιιιμο	Amps
86.	Drive End Vibration Readings - Inches	s Per Second	
	Horizontal	Vertical	Axial
	0.012	23	0.00899999999999999
87.			
07.	Horizontal	Vertical	Axial
	0.13	0.18	0.008
	V. 13	0.10	0.000

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88. Ambient Temperature - Fal	hrenheit	
89. Drive End Bearing Temps	- Fahrenheit	
5 Minutes	10 Minutes	15 Minutes
90. Opposite Drive End Bearin	g Temps - Fahrenheit	
5 Minutes	10 Minutes	15 Minutes
91. Stator Temperatures- Fahr	anhait	
5 Minutes	10 Minutes	15 Minutes
		To minates
92. Final Test Run Sign-off	1	David Maclin / T Holland
92. Final Test Run Sign-off 93. Document Final Condition	with Pictures after paint	
120	with Pictures after paint	































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