

LR Motor Shop Repairs

Job Number 103448

Prepared for FUTURE FUEL CHEMICAL

2800 GAP RD HWY 394 SO BATESVILLE AR 72501

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AC Inspection as Found - LR MOTOR SHOP

AC Inspection - Rev. 2: AAP7021KD03A

1.0



AAP7021KD03A

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

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AC Inspection as Found FUTURE FUEL CHEMICAL

2800 GAP RD HWY 394 SO BATESVILLE, AR 72501

Serial Number:

AC Inspection - Rev. 2

Location: LR MOTOR SHOP

Description: 3HP GE 1765RPM

Hi-Speed Job Number:	103448
Manufacturer:	GE
Serial Number:	AAP7021KD03A
HP/kW:	3 (HP)
RPM:	1785 (RPM)
Frame:	11841P10
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.00
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:	Yes
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 4 - High

6 - Good

Overall Condition

09/03/2024 1. Report Date

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2. Nameplate Picture



3. Photos of all six sides of the machine.





























	4.	Describe the Overall Condition of the Equipment as Received	
		Serviceable	
	5.	Report Date [COPY]	09/03/2024
Init	tial	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?	(No) No
	9.	Assembled Shaft Runout	Inches
7		Na	
•	10.	Assembled Shaft End Play	inches
7		Na	
,	11.	Air Gap Variation <10%	
-		Na	
• 1	12.	Lead Condition	(P) Pass
,	13.	Lead Length	10 Inches
• 1	14.	Does it have Lugs?, If so what is the Stud Size?	(Yes) Yes
•	15.	Lead Numbers	1-9

16. Frame Condition pass



17. Fan Condition(P) Pass



	18.	Broken or Missing Components			broke in conn box
In	itial	Electrical Inspection			
	19.	Insulation Resistance/Megger			0 Megohms
	20.	Winding Resistance			
		1-2	1-3	2-3	
	-	Na			
	21.	Perform Surge Test			(F) Fail
	22.	Number of Stator Slots			36

23. Stator Condition rewind



24. Stator Thermistors/Ohms	na
25. Stator Overloads/Ohms	yes
Mechanical Inspection	
26. Drive End Bearing Brand	sky
27. Drive End Bearing Number-	5307





28. Drive End Bearing Qty.	1
29. Drive End Bearing Type	(Ball) Ball Bearing
30. Drive End Lubrication Type	(Grease) Grease Lubricated
31. Drive End Bearing Insulation or Grounding Device?	na
32. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na



34. Opposite Drive End Bearing Brand	na
35. Opposite Drive End Bearing Number-	6206 C3
36. Opposite Drive End Bearing Qty.	1
37. Opposite Drive End Bearing Type	(Ball) Ball Bearing
38. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
39. Opposite Drive End Bearing Insulation or Grounding Device?	na
40. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	spacer
41. Opposite Drive End Bearing Condition	normal wear



42. Drive End Seal	pass
43. Opposite Drive End Seal	pass
Rotor Inspection	



45. Growler Test	(Pass) Pass
46. Number of Rotor Bars	28
47. Rotor Condition	wash
48. List the Parts needed for the Repair Below 1-5307 1-6206	
49. Signature of Technician that Disassembled Motor	RHR

Mechanical Fits- Rotor

Na

Na

50.	Shaft Runout	inches
-	Na	
51.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

52.	Coupling Fit Closest to Bearing Housi	ng	
	0 Degrees	00 Degrees	120 Dogroos

0 Degrees	90 Degrees	120 Degrees

53. Coupling Fit Closest to the end o	. Coupling Fit Closest to the end of the Shaft			
0 Degrees	0 Degrees 60 Degrees 120 Degrees			

_	Iva			
54.	. Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.3781	1.3781	1.3781	





56.	56. Opposite Drive End Bearing Shaft Fit			
	0 Degrees	120 Degrees		
	1.1812	1.1812	1.1812	
57.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass



58. Shaft Air Seal Fits	
Drive End Air Seal	Opposite Drive End Air Seal
pass	pass
Mechanical Fits- Bearing Housings	

59. Drive End - Endbell Bearing Fit		
0 Degrees	60 Degrees	120 Degrees
3.1515	3.151	3.1517



60.	Drive End - Endbell Bearing Fit Condition			(F) Fail
-	■ Resleeve			
61. Opposite Drive End - Endbell Bearing Fit				
0 Degrees 60 Degrees 120 Degrees				
	2.4436	2.4426	2.4334	



62.	Opposite Drive End - Endbell Bearing Fit Condition	(F) Fail
-	Resleeve	





64.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
	pass	pass
65.	List Machine Work Needed Below	
	Both end bells	
66.	Technician	RHR
	/ / / / /	

Witnessed RRW

Root Cause of Failure

67. Failure locations

End bell bearings fits and winding

68. Root cause of failure

Water shorted windings

Dynamic Balance Report

69. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

70. Initial Balance Readings

Drive End Opposite Drive End

71. Final Balance Readings

Drive End Opposite Drive End

72. Technician

Rewind

73. Core Test Results - Watts loss per Pound

Pre-Burnout Post Burnout

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74.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
	Post Rewind Electrical Test- Insulation	n Resistance	
	Post Rewind Polarization Index		
77.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
70	Post Powind Curso Tost		
	Post Rewind Surge Test Post Rewind Hi-Pot		
	Technician		
		act Dancis	
	anical Fits- Bearing Housings - P	-	
81.	Drive End - Endbell Bearing Fit Post F		400 Dames a
	0 Degrees	60 Degrees	120 Degrees
82.	Opposite Drive End - Endbell Bearing	Fit Post Repair	
32.	0 Degrees	60 Degrees	120 Degrees
	o Degrees	oo bogicoo	120 Degrees
83.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
84.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
0.5	Ford Dall Danasin Cinna aff		
	End Bell Repair Sign-off		
Asser			
	QC Check All Parts for Cleanliness Pr	•	
	Photograph All Major Components pri	or to assembly	
	Final Insulation Resistance Test		
	Assembled Shaft Endplay		
	Assembled Shaft Runout		
91.	Test Run Voltage	V/ 16	V 16
	Volts	Volts	Volts
92	Test Run Amperage		
02.	Amps	Amps	Amps
	7 tinpo	7.11100	Ampo
93.	Drive End Vibration Readings - Inches	s Per Second	
	Horizontal	Vertical	Axial
94.	Opposite Drive End Vibration Reading	gs - Inches Per Second	
	Horizontal	Vertical	Axial
	Ambient Temperature - Fahrenheit		
96.	3 - 1 - 1		
	5 Minutes	10 Minutes	15 Minutes

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97.	97. Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
98.	98. Document Final Condition with Pictures after paint		
99.	9. Final Pics and QC Review		

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