

LR Motor Shop Repairs

Job Number 103209

Prepared for CINTAS (10704)

102 CHAMPS BLVD MAUMELLE AR 72113

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AC Inspection - Rev. 2: 16893

1.0



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AC Inspection as Found CINTAS (10704)

102 CHAMPS BLVD MAUMELLE, AR 72113

AC Inspection - Rev. 2

Location: MOTOR SHOP LR

Serial Number: 16893

Description:13.2KW KUEENLE EVAL

Hi-Speed Job Number:	103209
Manufacturer:	Other
Serial Number:	16893
HP/kW:	13.2 (kW)
RPM:	3470 (RPM)
Voltage:	460
Current:	20.5A
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Half
Coupling/Sheave:	None
Date Received:	07/11/2024
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 :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 6 - High







Overall Condition

07/12/2024 1. Report Date

2. Nameplate Picture



3. Photos of all six sides of the machine.

















4. Describe the Overall Condition of the Equipment as Received Serviceable

Initial Mechanical/Electrical

5. Does Shaft Turn Freely?

(N) No

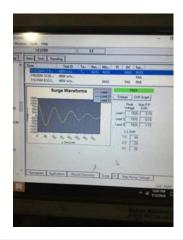
6. Does the shaft require T.I.R in Lathe to identify additional repairs?

(Yes) Yes



7. Does Shaft Have Visible Damage?	(Yes) Yes
Assembled Shaft Runout	Inches
9. Assembled Shaft End Play	inches
10. Air Gap Variation <10%	

11.	Lead Condition		(P) Pass
12.	Lead Length		8 Inches
13.	Does it have Lugs?, If so what is the S	Stud Size?	(Yes) Yes
14.	Lead Numbers		1-6
15.	Frame Condition		pass
16.	Fan Condition		(N) NA
-	Fan missing		
17.	Broken or Missing Components		fan cover fan and connection box cover
-	And hardware		
Initial Electrical Inspection			
18.	Insulation Resistance/Megger		6636 Megohms
19.	Winding Resistance		
	1-2	1-3	2-3
	0.633	0.634	0.631
2 0.	Perform Surge Test		(P) Pass



21. Number of Stator Slots22. Stator Condition36wash and bake





23. Stator Thermistors/Ohms	196.8
24. Stator Overloads/Ohms	
Mechanical Inspection	
25. Drive End Bearing Brand	SKF

26. Drive End Bearing Number-	6309 2RS
27. Drive End Bearing Qty.	1
28. Drive End Bearing Type	(Ball) Ball Bearing
29. Drive End Lubrication Type	(Grease) Grease Lubricated
30. Drive End Bearing Insulation or Grounding Device?	na
31. Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
32. Drive End Bearing Condition	bad





33.	. Opposite Drive End Bearing Brand	SKF
34.	. Opposite Drive End Bearing Number-	6308 2RS



35.	Opposite Drive End Bearing Qty.	1
36.	Opposite Drive End Bearing Type	(Ball) Ball Bearing
37.	Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
38.	Opposite Drive End Bearing Insulation or Grounding Device?	
39.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
40.	Opposite Drive End Bearing Condition	
-	Contamination	



41. Drive End Seal	Na
42. Opposite Drive End Seal	Na

Rotor Inspection

43. Rotor Type/Material

(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast



44. Growler Test	(Pass) Pass
45. Number of Rotor Bars	28
46. Rotor Condition	wash
47. List the Parts needed for the Repair Below 6309 2RS 6308 2RS	
48. Signature of Technician that Disassembled Motor	RW

Mechanical Fits- Rotor

49. Shaft Runout inches

Na

50. Rotor Runout

Drive End Bearing Fit Rotor Body Opposite Drive End Bearing

51.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
52.	Coupling Fit Closest to the end of the	Shaft		
	0 Degrees	60 Degrees	120 Degrees	
53.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
5 4.	Drive End Bearing Shaft Fit Condition		(F) Fail



	55.	Opposite Drive End Bearing Shart Fit			
		0 Degrees	60 Degrees	120 Degrees	
		1.5751	1.5751	1.5751	
	56.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass
	57.	Shaft Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
	-	Pass			
N	/lecha	anical Fits- Bearing Housings			
	58.	Drive End - Endbell Bearing Fit			
		0 Degrees	60 Degrees	120 Degrees	
		3.9527	3.9527	3.9527	
	59.	Drive End - Endbell Bearing Fit Condi	iion		(F) Fail
	60.	Opposite Drive End - Endbell Bearing	Fit		
		0 Degrees	60 Degrees	120 Degrees	
		3.5457	3.5457	3.5457	
	61.	Opposite Drive End - Endbell Bearing	Fit Condition		(F) Fail
	62.	Bearing Cap Condition			
		Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	-	NA			
	63.	End Bell Air Seal Fits			
		Drive End Air Seal	Opposite Drive End Air Seal		
	-	Pass			

64. List Machine Work Needed Below

Both end bell bearing fit bad .Shaft de bearing fit bad



65. Technician RW



Root Cause of Failure

- 66. Failure locations

 Bearings shaft and end bells
- 67. Root cause of failure No lubricant

Dynamic Balance Report

68. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

69. Initial Balance Readings

Drive End Opposite Drive End



70. Final Balance Readings

Drive End

Opposite Drive End



71. Technician Cw

Mechanical Fits- Rotor - Post Repair

72.	Shaft Runout Post Repair	0.0004 inches
73.	Rotor Runout Post Repair	

Drive End Bearing Fit

Rotor Body Opposite Drive End Bearing

NA

74. Coupling Fit Closest to Bearing Housing Post Repair

0 Degrees 90 Degrees 120 Degrees

NA

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

0 Degrees 60 Degrees 120 Degrees

NA

76. Drive End Bearing Shaft F	76. Drive End Bearing Shaft Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees	
1.7722	1.7722	1.7722	



77.	Opposite Drive End Bearing Shaft Fit Post Repair			
	0 Degrees	60 Degrees	120 Degrees	
-	NA			
78.	Shaft Air Seal Fits Post Repair			
	Drive End Air Seal	Opposite Drive End Air Seal		
-	NA			
79.	Shaft Repair Sign-off			RW
(2 W			
Mechanical Fits- Bearing Housings - Post Repair				
IVICCIII	3	•		

120 Degrees

3.9375

60 Degrees

3.9375



0 Degrees3.9375

81. Opposite Drive End - Endb	81. Opposite Drive End - Endbell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees	
3.5437	3.5437	3.5437	



82.	Bearing Cap Condition Post Repair	
	Drive End Bearing Cap	Opposite Drive End Bearing Cap
-	NA	
83.	End Bell Air Seal Fits Post Repair	
	Drive End Air Seal	Opposite Drive End Air Seal
-	NA	
84.	End Bell Repair Sign-off	RW
Asser	mbly	

85. QC Check All Parts for Cleanliness Prior to Assembly

Min

Cw

86. Photograph All Major Components prior to assembly













87. Final Insulation Resistance Test	Megohms
Pass	
88. Assembled Shaft Endplay	inches
89. Assembled Shaft Runout	inches



Witnessed by T Holland



91. Test Run Amperage
Amps Amps Amps



92. Drive End Vibration Readings - Inches Per Second			
	Horizontal	Vertical	Axial
93.	. Opposite Drive End Vibration Readings - Inches Per Second		
	Horizontal	Vertical	Axial
94.	. Ambient Temperature - Fahrenheit		
95.	Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
96.	Opposite Drive End Bearing Temps - Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes
97.	Document Final Condition with Picture	es after paint	





98. Final Pics and QC Review

 Cw

Co sign: RRW



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