

LR Motor Shop Repairs

Job Number 103644

Prepared for Union Pacific-Vine St 10945

1020 N. Vine Street North Liittle Rock AR

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AC Inspection as Found - Shop

AC Inspection - Rev. 2: SPEC: 120C052Z279G1

1.0



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> FolderID: 103644 FormID: 21974246

AC Inspection as Found Union Pacific-Vine St 10945

1020 N. Vine Street North Liittle Rock, AR

AC Inspection - Rev. 2

Location: Shop

Serial Number: SPEC: 120C052Z279G1

Description: 50HP BALDOR 1775RPM W/PUMP

Hi-Speed Job Number:	103644
Manufacturer:	Baldor
Product Number:	M: CEM4115T
Spec/ID #:	120C052Z279G1
HP/kW:	50 (HP)
RPM:	1775 (RPM)
Frame:	326TC
Voltage:	230 / 460
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	9
J-box Included:	Complete
Coupling/Sheave:	Coupling
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 9 - Good

Overall Condition

1. Report Date 10/17/2024

2. Nameplate Picture



3. Photos of all six sides of the machine.









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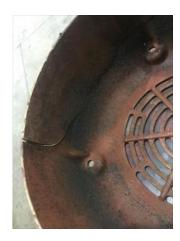














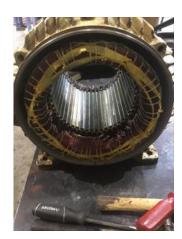
















 Describe the Overall Condition of the Equipment as Received Serviceable

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

inches



Motor coupling

	6.	Report Date [COPY]	
In	Initial Mechanical/Electrical		
	7.	Does Shaft Turn Freely?	(Y) Yes
	8.	Does the shaft require T.I.R in Lathe to identify additional repairs?	(No) No
	9. Does Shaft Have Visible Damage? (No) No		
	10.	Assembled Shaft Runout	Inches
	11.	Assembled Shaft End Play	inches
	12.	Air Gap Variation <10%	





	14.	Lead Length	18 Inches
	15.	Does it have Lugs?, If so what is the Stud Size?	(No) No
	16.	Lead Numbers	1-9
	17.	Frame Condition	pass
	18.	Fan Condition	
	19.	Broken or Missing Components	
	-	Na	
Ini	Initial Electrical Inspection		

19.92 Gigohms 20. Insulation Resistance/Megger



21. Winding Resistance			
1-2	1-3	2-3	

22. Perform Surge Test (P) Pass



23.	Number of Stator Slots	48
24.	Stator Condition	wash and bake
25.	Stator Thermistors/Ohms	
26.	Stator Overloads/Ohms	
Mecha	nical Inspection	
27.	Drive End Bearing Brand	SKF
28.	Drive End Bearing Number-	6312



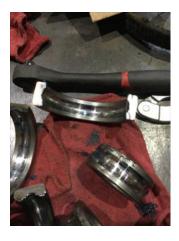
29.	Drive End Bearing Qty.	1
30.	Drive End Bearing Type	(Ball) Ball Bearing
31.	Drive End Lubrication Type	(Grease) Grease Lubricated
32.	Drive End Bearing Insulation or Grounding Device?	
-	A	
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	
-	Na	



35.	Opposite Drive End Bearing Brand	FAG
36.	Opposite Drive End Bearing Number-	6311



37. Opposite	Drive End Bearing Qty.	1
38. Opposite	Drive End Bearing Type	(Ball) Ball Bearing
39. Opposite	Drive End Lubrication Type	(Grease) Grease Lubricated
40. Opposite	Drive End Bearing Insulation or Grounding Device?	
Na		
41. Opposite	Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
42. Opposite	Drive End Bearing Condition	normal wear



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13	Drive End Seal			nass
	Opposite Drive End Seal			pass
	Inspection			puss
	Rotor Type/Material		(Squirrel Aluminur Cage Aluminu	
46.	Growler Test			Pass) Pass
47.	Number of Rotor Bars			
-	Na			
48.	Rotor Condition			wash
49.	List the Parts needed for the Repair B 1-6312 1-6311	elow		
50.	Signature of Technician that Disasser	nbled Motor		RW
lecha	anical Fits- Rotor			
51.	Shaft Runout		0	.001 inches
52.	Rotor Runout			
	Drive End Bearing Fit	Rotor Body	Opposite Drive End	Bearing
53.	Coupling Fit Closest to Bearing Housi	•		
	0 Degrees	90 Degrees	120 Degrees	
54.	Coupling Fit Closest to the end of the	Shaft		
	0 Degrees	60 Degrees	120 Degrees	
	ŭ	9	J	
55.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.3626	2.3626	2.3626	
56.	Drive End Bearing Shaft Fit Condition			(P) Pass
57.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	2.1659	2.1659	2.1659	
58.	Opposite Drive End Bearing Shaft Fit	Condition		(P) Pass
59.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	pass			
lecha	anical Fits- Bearing Housings			
60.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	5.1185	5.1185	5.1185	
61.				(P) Pass
62.	Opposite Drive End - Endbell Bearing			
	0 Degrees	60 Degrees	120 Degrees	
	4.7252	4.7252	4.7252	
63.				(P) Pass

64.	Bearing Cap Condition		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
	pass		
65.	End Bell Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
	pass		
66.	List Machine Work Needed Below		
	None		
67.	Technician		RW

AL

Root Cause of Failure

68. Failure locations Bearings

69. Root cause of failure

Trash in lower pump bearing

Dynamic Balance Report

70. Rotor Weight and Balance Grade

Rotor Weight Balance Grade



71. Initial Balance Rea	adinas	
Drive End	Opposite Drive E	nd
.29	.28	
72. Final Balance Rea	adings	
Drive End	Opposite Drive E	nd
.29	.28	
73. Technician		RW

61/

Assembly



75. Photograph All Major Components prior to assembly

(Complete) Complete

















76. Final Insulation Resistar Pass the Hi pot	nce Test	Megohms
77. Assembled Shaft Endpla	ay	inches
78. Assembled Shaft Runou	ıt	inches
79. Test Run Voltage		
Volts	Volts	Volts
453	452	456



Co sign TH

80. Test Run Amper	80. Test Run Amperage			
Amps	Amps	Amps		
21.7	20.7	21.9		



81.	Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
	0.03	0.02	0.02		
82.	Opposite Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial		
	0.02	0.02	0.02		
83.	Ambient Temperature - Fahrenheit				
84.	Drive End Bearing Temps - Fahrenheit				
	5 Minutes	10 Minutes	15 Minutes		
85.	Opposite Drive End Bearing Temps - Fahrenheit				
	5 Minutes	10 Minutes	15 Minutes		
86.	Document Final Condition with Pictures after paint				













87. Final Pics and QC Review

RW

Co sign TRH



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- 5. <u>DELIVERY OF GOODS AND/OR SERVICES.</u> Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
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