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# **Motor Shop Repairs**

## Job Number 100034

Prepared for Twin Rivers (12049)

3501 Jefferson Parkway Pine Bluff AR 71602

### **Table of Contents**

AC Recondition As Found - Shop

AC Recondition - Rev. 2: 324ZLPH

1.0



FolderID: 100034

FormID: 14045441



#### **AC Recondition As Found**

Twin Rivers (12049)

3501 Jefferson Parkway Pine Bluff, AR 71602

AC Recondition - Rev. 2

Serial Number: 324ZLPH

Description: 25HP US MOTORS 1200RPM

Shop

324ZLPH

Location:

Hi-Speed Job Number:	100034
Manufacturer:	US Motors/Nidec
HP/kW:	25 (HP)
RPM:	1190 (RPM)
Frame:	324ZLPH
Voltage:	460
Current:	31
Phase:	Three
Hz:	60 (Hz)
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	07/11/2022
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 6 - High



5 - Good

### **Overall Condition**

Report Date

Nameplate Picture





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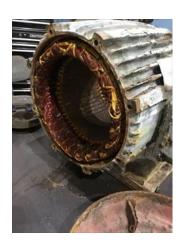












3.	Describe the Overall Condition of the E	Equipment as Received	
Initial	Mechanical/Electrical		
<b>4</b> .	Does Shaft Turn Freely?		(No) No
5.	Does Shaft Have Visible Damage?		(No) No
<ul><li>6.</li></ul>	Assembled Shaft Runout		0.01 Inches
7.	Assembled Shaft End Play		
8.	Air Gap Variation <10%		
9.	Lead Condition		(P) Pass
10.	Lead Length		8 Inches
11.	Frame Condition		good
12.	Fan Condition		(P) Pass
<ul><li>13.</li></ul>	Broken or Missing Components		fan cover nuts are weathered and rusted
Initial	Electrical Inspection		
14.	Insulation Resistance/Megger		
15.	Winding Resistance		
	1-2	1-3	2-3
<ul><li>16.</li></ul>	Perform Surge Test		(F) Fail
17.	Stator Condition		
Mecha	anical Inspection		
18.	Drive End Bearing Number-		5216
19.	Drive End Bearing Qty.		1
20.	Drive End Bearing Type		(Ball) Ball Bearing
21.	Drive End Lubrication Type		(Grease) Grease Lubricated
22.	Drive End Bearing Insulation or Groun	ding Device?	na
23.	Drive End Wavy Washer/Snap-Ring O	ther Retention Device?	na
24.	Drive End Bearing Condition		worn
25.	Opposite Drive End Bearing Number- 6211		
26.	Opposite Drive End Bearing Qty.		1
27.	Opposite Drive End Bearing Type (Ball) Ball Bearing		
28.	Opposite Drive End Lubrication Type		(Grease) Grease Lubricated
29.	Opposite Drive End Bearing Insulation	or Grounding Device?	na
20	Opposite Drive End Wavy Washer/Sna		

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	•	Opposite Drive End Bearing Condition locked	
32	. Drive End Seal		
-	Good		
33	. Opposite Drive End Seal		
-	Na		
Roto	r Inspection		
34	. Rotor Type/Material		(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast
35	. Growler Test		(Pass) Pass
36	Number of Rotor Bars		
37	. Rotor Condition		pass
38	. List the Parts needed for the Repair B	elow	
	5216		
	6211 A couple nuts for fan cover Recondition		
39	. Signature of Technician that Disasser	nbled Motor	Cw
		7 /	
Mecl	nanical Fits- Rotor		
• 40	. Shaft Runout		0.01 inches
41	. Rotor Runout		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
42	. Coupling Fit Closest to Bearing Housi	-	
	0 Degrees	90 Degrees	120 Degrees
40	Counting Fit Olssester (I	Chaff	
43	1 0		100 B
	0 Degrees	60 Degrees	120 Degrees
44	. Drive End Bearing Shaft Fit		
77	0 Degrees	60 Degrees	120 Degrees
	o pedices	oo begiees	120 Deglees
-	Pass		
• 45			(P) Pass
46	•		(. / . 200
70	Opposite Drive End Rearing Shaft Fit		
	11	60 Degrees	120 Degrees
	Opposite Drive End Bearing Shaft Fit  O Degrees	60 Degrees	120 Degrees
-	0 Degrees Pass	, i	120 Degrees
• 47	0 Degrees  Pass	, i	120 Degrees (P) Pass
	O Degrees  Pass Opposite Drive End Bearing Shaft Fit	, i	·
• 47	O Degrees  Pass  Opposite Drive End Bearing Shaft Fit	, i	·

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**Mechanical Fits- Bearing Housings** 

49.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
-	Pass			
<b>5</b> 0.	Drive End - Endbell Bearing Fit Condition (P) Pass		(P) Pass	
51.	Opposite Drive End - Endbell Bearing	Fit		
	0 Degrees	60 Degrees	120 Degrees	
	F-:I			
_	Fail Bearing sleeve came out with bearing			
<b>5</b> 2.	Opposite Drive End - Endbell Bearing	Fit Condition		(F) Fail
53.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
-	Pass			



54.	End Bell Air Seal Fits	
	Drive End Air Seal	Opposite Drive End Air Seal
55.	List Machine Work Needed Below	
	ODE end bell bearing fit Shaft is bent	
56.	Technician	Cw
	111	

### **Root Cause of Failure**

57. Failure locations

Bearings Shaft bent Windings

58. Root cause of failure

Water contamination in ODE bearing and water contamination in windings caused a short

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