

## LR Motor Shop Repairs

## **Job Number 100076**

Prepared for Twin Rivers

1701 Jefferson Parkway White Hall AR 71602

### **Table of Contents**

AC Recondition As Found - MOTOR SHOP LR

AC Recondition - Rev. 2: PMS125204

1.0



FolderID: 100076

FormID: 14160409



MOTOR SHOP LR

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

**Twin Rivers** 

Location:

1701 Jefferson Parkway White Hall, AR 71602

AC Recondition - Rev. 2

Serial Number: PMS125204

Description: 50HP GE 1800RPM 326T

Hi-Speed Job Number:	100076
Manufacturer:	GE
Product Number:	5KS326SS205522
Serial Number:	PMS125204
HP/kW:	50 (HP)
RPM:	1775 (RPM)
Frame:	326T
Voltage:	230 / 460
Current:	121.7/60.7
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	None
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: 2 - High

6 - Good

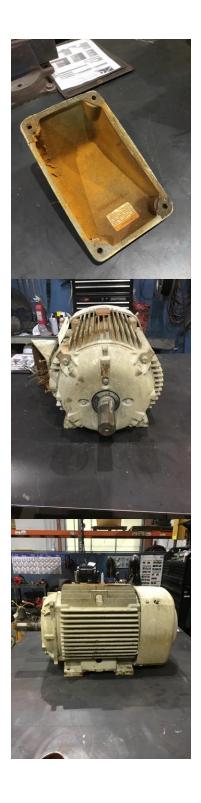
#### **Overall Condition**

Report Date 7/29/2022

Nameplate Picture

















- 3. Photos of all six sides of the machine.
- Describe the Overall Condition of the Equipment as Received
   *Dirty*

#### **Initial Mechanical/Electrical**

5. Does Shaft Turn Freely? (Yes) Yes
6. Does Shaft Have Visible Damage? (Yes) Yes



- 7. Assembled Shaft Runout
- 8. Assembled Shaft End Play
- 9. Air Gap Variation <10%

10.	Lead Condition	(P) Pass
-	Has two leads that need to be reconnected	
11.	Lead Length	8 Inches
12.	Frame Condition	pass
13.	Fan Condition	(P) Pass



14	. Broken or Missing Components	na
Initia	al Electrical Inspection	
15	. Insulation Resistance/Megger	
16	. Winding Resistance	
	1-2	2-3
17		(P) Pass
18	. Stator Condition	
	. Number of Stator Slots	
Mec	hanical Inspection	
20	. Drive End Bearing Number-	6312
21	. Drive End Bearing Qty.	1
22	Drive End Bearing Type	(Ball) Ball Bearing
23	Drive End Lubrication Type	(Grease) Grease Lubricated
24	. Drive End Bearing Insulation or Grounding Device?	na
25	. Drive End Wavy Washer/Snap-Ring Other Retention Device?	na
26	Drive End Bearing Condition	contamination and mixed grease
27	. Opposite Drive End Bearing Number-	6312
28	. Opposite Drive End Bearing Qty.	1
29	. Opposite Drive End Bearing Type	(Ball) Ball Bearing
30	. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
31	. Opposite Drive End Bearing Insulation or Grounding Device?	na
32	. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
33	. Opposite Drive End Bearing Condition	contamination and mixed grease
34	. Drive End Seal	na
35	. Opposite Drive End Seal	na
36	. Drive End Bearing Brand	
37	. Opposite Drive End Bearing Brand	

R	otor	Inspection		
		Rotor Type/Material		(Squirrel Aluminum) Squirrel
		,,		Cage Aluminum Die Cast
	39.	Growler Test		(Pass) Pass
	40.	Number of Rotor Bars		
	41.	Rotor Condition		pass
	42.	List the Parts needed for the Repair B	elow	
		6312x2		
	43.	Signature of Technician that Disassen	nbled Motor	Cw
		100	7 /	
M	echa	anical Fits- Rotor		
	44.	Shaft Runout		
	45.	Rotor Runout		
		Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	46.	Coupling Fit Closest to Bearing Housi		
		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
		2.3625	2.3625	2.3625
		Drive End Bearing Shaft Fit Condition		(P) Pass
	50.	Opposite Drive End Bearing Shaft Fit		
		0 Degrees	60 Degrees	120 Degrees
		2.3628	2.3628	2.3628
	51.	Opposite Drive End Bearing Shaft Fit	Condition	(P) Pass
	52.			
		Drive End Air Seal	Opposite Drive End Air Seal	
M	echa	anical Fits- Bearing Housings		
	53.	Drive End - Endbell Bearing Fit		
		0 Degrees	60 Degrees	120 Degrees
		5.1195	-	
	54.	Drive End - Endbell Bearing Fit Condi	tion	(F) Fail
	55.	Opposite Drive End - Endbell Bearing	Fit	
		0 Degrees	60 Degrees	120 Degrees
		5.1120		
	56.	Opposite Drive End - Endbell Bearing	Fit Condition	(F) Fail

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#### 57. Bearing Cap Condition

Drive End Bearing Cap

Opposite Drive End Bearing Cap

Pass



58. End Bell Air Seal Fits

Drive End Air Seal Opposite Drive End Air Seal

59. List Machine Work Needed Below Both end bell bearing fits

60. Technician Cw

M

#### **Dynamic Balance Report**

61. Rotor Weight and Balance Grade

Rotor Weight Balance Grade

62. Initial Balance Readings

Drive End Opposite Drive End

.43 .79



63.	Final Balance Readings		
	Drive End	Opposite Drive End	
	.22	.25	
64.	Technician	$\mathcal{J}$	RW
Rewir	nd		
65.	Core Test Results - Watts loss per Po	und	
	Pre-Burnout	Post Burnout	
66.	Core Hot Spot Test		
	Pre-Burnout	Post-Burnout	
67.	Post Rewind Electrical Test- Insulation	n Resistance	
68.	Post Rewind Polarization Index		
69.	Post Rewind Winding Resistance		
	1-2	1-3	2-3
70.	Post Rewind Surge Test		
71.	Post Rewind Hi-Pot		
72.	Technician		
Root	Cause of Failure		
73.	Failure locations		
	Bearings and end bell bearing fits		
74.	Root cause of failure  Mixed grease and wear		
Mech	anical Fits- Rotor - Post Repair		
	Shaft Runout Post Repair		
	Rotor Runout Post Repair		
	Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
	3		
77.	Coupling Fit Closest to Bearing Housi	ng Post Repair	
	0 Degrees	90 Degrees	120 Degrees
78.	Coupling Fit Closest to the end of the	Shaft Post Repair	
	0 Degrees	60 Degrees	120 Degrees
79.	Drive End Bearing Shaft Fit Post Repa		100 5
	0 Degrees	60 Degrees	120 Degrees
80.	Opposite Drive End Bearing Shaft Fit	Post Repair	
	0 Degrees	60 Degrees	120 Degrees
0.4	Chaft Air Coal Fits Boot Boosin		
81.	Shaft Air Seal Fits Post Repair	Opposite Drive End Air Seel	
	Drive End Air Seal	Opposite Drive End Air Seal	

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# 82. Shaft Repair Sign-off Mechanical Fits- Bearing Housings - Post Repair 83. Drive End - Endbell Bearing Fit Post Repair 0 Degrees 60 Degrees 120 Degrees 5.1188 5.1189 5.1189



84. Opposite Drive End - Endbell Bearing Fit Post Repair  0 Degrees 60 Degrees 120 Degrees		
0 Degrees	60 Degrees	120 Degrees
5.1187	5.1187	5.1187

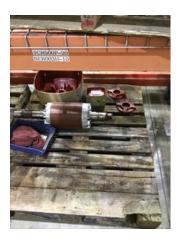


85.	Bearing Cap Condition Post Repair		
	Drive End Bearing Cap	Opposite Drive End Bearing Cap	
86.	End Bell Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
87.	End Bell Repair Sign-off		Gary

the man

#### **Assembly**

- 88. QC Check All Parts for Cleanliness Prior to Assembly
- 89. Photograph All Major Components prior to assembly (Complete) Complete





















90. Fi	inal Insulation Resistance Test		
91. As	ssembled Shaft Endplay		inches
92. As	ssembled Shaft Runout		
93. Te	est Run Voltage		
V	olts/	Volts	Volts
46	62	462	461



94. Test Run Amperage		
Amps	Amps	Amps
20.2	21	19.9

95. Drive End Vibration Readings - Inches Per Second				
	Horizontal	Vertical	Axial	
	0.0373	0.0133	0.0359	
96.	Opposite Drive End Vibration Reading	gs - Inches Per Second		
	Horizontal	Vertical	Axial	
	0.0254	0.0357	0.0215	
97.	7. Ambient Temperature - Fahrenheit			70
98.	3. Drive End Bearing Temps - Fahrenheit			
	5 Minutes	10 Minutes	15 Minutes	
99.	Opposite Drive End Bearing Temps -	Fahrenheit		
	5 Minutes	10 Minutes	15 Minutes	
100.	Document Final Condition with Picture	es after paint		
	Final Pics and QC Review			











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