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

AC Inspection as Found

Big River Steel (004767)
2027 E State Highway 198
Osceola, AR 72370

FolderID: 152664
FormID: 20192033

AC Inspection - Rev. 2

Location:	Default
Serial Number:	

Hi-Speed Job Number:	152664
Manufacturer:	Rossi
HP/kW:	12.7 (kW)
RPM:	1765 (RPM)
Voltage:	460
Current:	20.6 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
J-box Included:	Complete
Coupling/Sheave:	Coupling
Date Received:	04/25/2024
Bearing RTDs:	No
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **5 - High** **57 - Good**

Overall Condition

1. Report Date **04/25/2024**
2. Nameplate Picture P2

3. Photos of all six sides of the machine. P3

4.	Describe the Overall Condition of the Equipment as Received		
	Gear box was about 3 gallons over full ***Seal on input side of gearbox was blown out into the space between the motor and gear box causing oil to fill the motor*** ***Fill cap replaced with bolt on gear box*** ***Motor had about 1 gallon of oil inside*** ***Motor is a rewind*** ***No machine work*** ***New seals and bearings***		
5.	Distance from the end of the shaft to the Coupling/Sheave		**inches**
	Shouldered out		

Initial Mechanical/Electrical

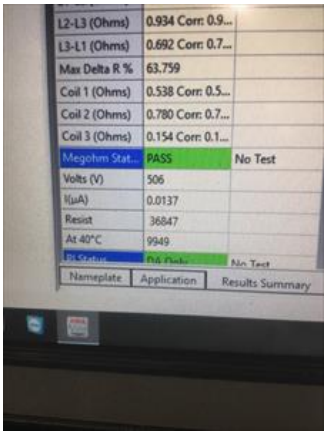
6.	Does Shaft Turn Freely?	**(Y) Yes**
7.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
8.	Does Shaft Have Visible Damage?	**(No) No**
9.	Assembled Shaft Runout	**0.0005 Inches**
10.	Assembled Shaft End Play	**0.001 inches**
11.	Air Gap Variation <10%	**ıo provision for measurement**
12.	Lead Condition	**(P) Pass**
13.	Lead Length	**8 Inches**
14.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes**
	5/16	
15.	Lead Numbers	**1-6**
16.	Stator Temperature Detector Rating and Function	

Quantity	Rating	Quantity Passed
1	**.575**	**1**

17.	Frame Condition	**good**
18.	Fan Condition	**(P) Pass**
19.	Broken or Missing Components	
	Missing ***Fan cover bolt*** ***Encoder***	

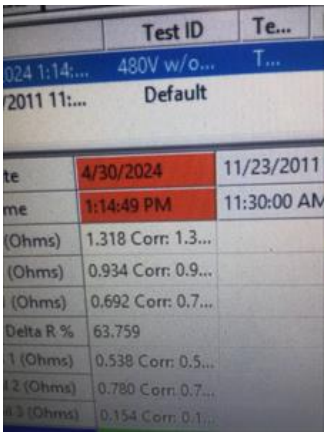
Initial Electrical Inspection

20. Insulation Resistance/Megger **99.48999999999999 Megohms** P20

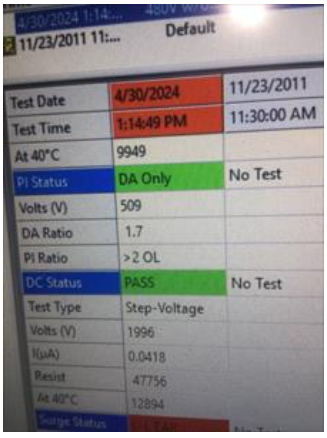


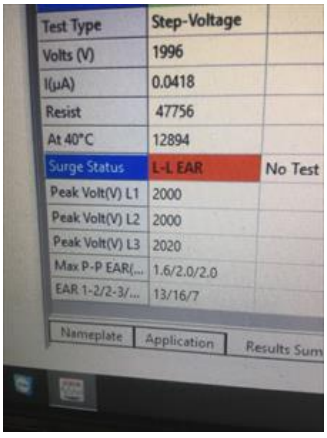
21. Winding Resistance P21

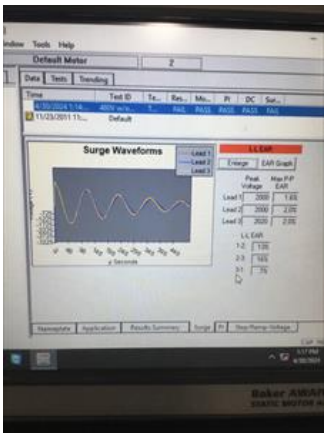
1-2	1-3	2-3
.538	**.780**	**.154**



22. Perform Surge Test **(F) Fail** P22







23.	Number of Stator Slots	**36**	
24.	Stator Condition	**rewind**	
25.	Stator Thermistors/Ohms		
26.	Stator Overloads/Ohms		

Mechanical Inspection

27.	Drive End Bearing Brand	**ntn**	
28.	Drive End Bearing Number-	**6309 2rs c3**	
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?	**none present**	
33.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	
34.	Drive End Bearing Condition	**normal wear**	P34

35.	Opposite Drive End Bearing Brand	**ntn**	
36.	Opposite Drive End Bearing Number-	**6309 2rs c3**	
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?	**none present**	
41.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**2 snaprings**	

42.	Opposite Drive End Bearing Condition	**normal wear**	P42

43.	Drive End Seal	**45-60-8**
44.	Opposite Drive End Seal	**45-60-8**

Rotor Inspection

45.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**29**
48.	Rotor Condition	**good**

49. List the Parts needed for the Repair Below

2- 46-60-8 lip seals
2- 6309 2rs c3 bearings
1- 80-100-10 lip seal
1- 120-150-12 lip seal
All lip seals need to be viton

50. Signature of Technician that Disassembled Motor **Nigel Hill**

Mechanical Fits- Rotor

51.	Shaft Runout	**0.0005 inches**
52.	Rotor Runout	

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.0005	**0.0005**	**0.0005**

Good.

53. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

Good

54. Coupling Fit Closest to the end of the Shaft

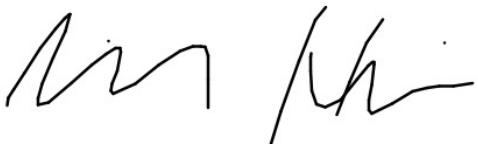
0 Degrees	60 Degrees	120 Degrees

Good

55.	Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.7721	**1.7721**	**1.772**	
	Tol. 1.7722-1.7718			
56.	Drive End Bearing Shaft Fit Condition			**(P) Pass**
57.	Opposite Drive End Bearing Shaft Fit			
	0 Degrees	60 Degrees	120 Degrees	
	1.772	**1.7719**	**1.772**	
	Tol. 1.7722-1.7718			
58.	Opposite Drive End Bearing Shaft Fit Condition			**(P) Pass**
59.	Shaft Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	n/a	**n/a**		

Mechanical Fits- Bearing Housings

60.	Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.9375	**3.9375**	**3.9374**	
	Tol. 3.9370-3.9379			
61.	Drive End - Endbell Bearing Fit Condition			**(P) Pass**
62.	Opposite Drive End - Endbell Bearing Fit			
	0 Degrees	60 Degrees	120 Degrees	
	3.9376	**3.9377**	**3.9377**	
	Tol. 3.9370-3.9379			
63.	Opposite Drive End - Endbell Bearing Fit Condition			**(P) Pass**
64.	Bearing Cap Condition			
	Drive End Bearing Cap	Opposite Drive End Bearing Cap		
	n/a	**n/a**		
65.	End Bell Air Seal Fits			
	Drive End Air Seal	Opposite Drive End Air Seal		
	n/a	**n/a**		
66.	List Machine Work Needed Below			
	No machine work needed			
67.	Technician			**Nigel Hill**



Root Cause of Failure

68.	Failure locations
69.	Root cause of failure