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: 153676
FormID: 21608538

AC Inspection - Rev. 2

Location:	Default
Serial Number:	

Hi-Speed Job Number:	153676
Manufacturer:	Rossi
Product Number:	RC00037158
Serial Number:	1960678
HP/kW:	4 (HP)
RPM:	1740 (RPM)
Voltage:	230 / 460
Current:	10-5.8 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	TEFC
# of Leads:	6
J-box Included:	Complete
Coupling/Sheave:	Gear
Date Received:	09/13/2024
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Teardown Inspection
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: **3 - High** **11 - Good**

Overall Condition

1.	Report Date	**09/13/2024**

2. Nameplate Picture P2

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

	4.	Describe the Overall Condition of the Equipment as Received ***Rewind stator and replace gear box seals***	
	5.	Distance from the end of the shaft to the Coupling/Sheave ***Shouldered with shaft bolt***	**0 inches**
	6.	Report Date [COPY]	**09/13/2024**
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	**0.001 Inches**
	11.	Assembled Shaft End Play	**0.0005 inches**

	12.	Air Gap Variation <10%	**ıo provision for measurement**
●	13.	Lead Condition	**(P) Pass** P13

	14.	Lead Length	**4 Inches**
●	15.	Does it have Lugs?, If so what is the Stud Size?	**(Yes) Yes** P15

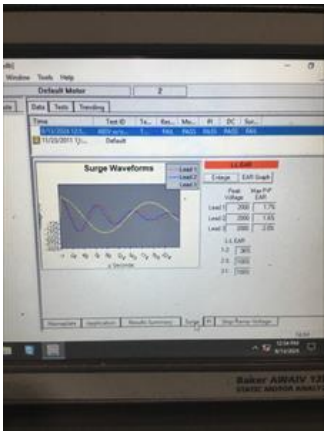
	16.	Lead Numbers	**1-6**
	17.	Frame Condition	**good**
●	18.	Fan Condition	**(P) Pass**
	19.	Broken or Missing Components	**none**

Initial Electrical Inspection

	20.	Insulation Resistance/Megger	**4204 Megohms**
	21.	Winding Resistance	

1-2	1-3	2-3
2.206	**2.835**	**0.814**

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



23.	Number of Stator Slots	**36**
24.	Stator Condition	**rewind**
25.	Stator Thermistors/Ohms	**.590**
	1- .590 k ohms	
26.	Stator Overloads/Ohms	

Mechanical Inspection

27.	Drive End Bearing Brand	**nsk**
28.	Drive End Bearing Number-	**6206 zz 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** P33

34.	Drive End Bearing Condition	
35.	Opposite Drive End Bearing Brand	**nsk**
36.	Opposite Drive End Bearing Number-	**6206 2rs**
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?	**snap ring on shaft and in endbell**
42.	Opposite Drive End Bearing Condition	

43.	Drive End Seal	**30-50-7 lipseal**	P43

44.	Opposite Drive End Seal	**va32-20**

Rotor Inspection

45.	Rotor Type/Material	**(Aluminum Bar) Aluminum Barred Rotor**
46.	Growler Test	**(Pass) Pass**
47.	Number of Rotor Bars	**26**
48.	Rotor Condition	**good**
49.	List the Parts needed for the Repair Below	

1- VA32-20
1- 30-50-7 lip seal
2- 6206 2rs c3 bearings
1- 40-90-8/7 lipseal
1- 50-66-8/8.5 lipseal

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

Mechanical Fits- Rotor

51.	Shaft Runout
52.	Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

53.	Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

54.	Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

55.	Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.1815	**1.1814**	**1.1814**

Tol. 1.1815-1.1812

56.	Drive End Bearing Shaft Fit Condition	**(P) Pass**

57. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.1813	**1.1813**	**1.1813**

Tol. 1.1815-1.1812

58. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass**

59. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

Mechanical Fits- Bearing Housings

60. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
2.4414	**2.4415**	**2.4414**

Tol. 2.4409-2.4416

61. Drive End - Endbell Bearing Fit Condition **(P) Pass**

62. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
2.441	**2.4411**	**2.4411**

Tol. 2.4409-2.4416

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
good	**good**

66. List Machine Work Needed Below

No work needed

67. Technician **Nigel Hill**

Root Cause of Failure

68. Failure locations

Winding failed

69. Root cause of failure