

### **Job Information**

Job #: 140524 Date: August 30, 2019

Priority: — Authorized OT: No Authorized by:

## **Customer Information**

Name: Big River Steel Reason:

Contact: Motor#: PO#:

Application: – Special notes:

#### **Name Plate Information**

Manufacturer: Rossi Enclosure: Totally Enclosed Enclosure Type image

Fan Cooled

Serial#: Model#:

Service Factor: 1.15 Frame: 160

Horsepower/kW: 15 Rated RPM: 1765

Rated Amps: 19 Rated Voltage: 460

Phase: 3 Cycles: 60

Special design: Yes

Nameplate DE ODE F1 F2 Top













Fax 901-873-5301



## **Mechanical Inspection**

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No Contaminant(s): None

Shaft rotation: — Contaminant(s) Amt: None

Shaft grounding device present?: No Contaminant Image:

Shaft runout(TIR-Inbound):

Type of grounding device:

Bearings DE: Worn Bearings DE make: Other

Insulated: No Bearing DE Size: 6309-2z C3

Bearings ODE: Fell Apart Bearings ODE make: Other

Bearing Type: Ball Bearing ODE Size: 6309-2z C3

Bearings Retainer: No Thermal Protection: No

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



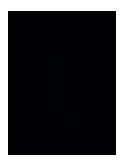
Bearing Make Image



Bearing Retainer Image



Thermal Protection





# **Mechanical Inspection (Continued)**

Lubrication Type: Grease Thermal Protection device DE:

Lubrication brand inbound: Mobile Polyrex EM Thermal Protection device ODE:

Lubrication brand outbound: Mobile Polyrex EM

> Grease Amt DE: 1/4 Grease Cond. DE: Other

Grease Amt ODE: 1/4 Grease Cond. ODE: Other

Seals DE type: Seals Image: Other

Seals DE size: 45-60-8

Seals DE (inbound) condition: Bad

> Seals Image 2: Seals ODE type: Other

Seals ODE size: 45-60-8

Seals ODE (inbound) condition Bad

Shaft damage cause: Shaft Image: None





# **Mechanical Inspection (Continued)**

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A



Fan:

N/A

Frame cond.:

Good



Motor Mount Position:

Horizontal/Foot mount

Endbell type:

Single piece

Missing parts?

☐ J-Box cover

O-rings

☐ J-Box

☐ HH cover

Glands

✓ None

Endbell Image:







## **Mechanical Inspection (Continued)**

Air Gap Meaurements (N/A on Single Piece Endbell)

Does Air Gap Meet Customer or EASA

spec(<10% variation)?

DE @ 0 ODE @ 0 -

DE @ 90 ODE @ 90

DE @ 180 ODE @ 180

DE @ 270 ODE @ 270

## **AC Electrical Inspection**

Number of leads: 6 Terminal Markings: W1,V1,u1,w2,v2,u2

Length of leads: REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal

Markings Identified By Color:

Size of leads: 1-Blue 5-Black P1-No color assigned

Connections As Received:

2-White 6-No color assigned P2-Brown

460

3-Orange 7-No color assigned

Lead condition: — 4-Yellow 8-Red

Lug type:

Lug Condition: Good Terminal Lugs

Lug size:

Lug Attachment: —







# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars: 28

Num broken bars: 0

Rotor



#### **Rotor Test Results**

**Rotor Condition:** 

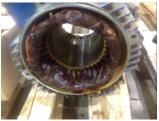
Visual: Pass Growler: Pass Single phase: Pass

Stator type: Factory If other, stator type:

Stator condition: Ok If other, stator condition:

Failure location: In slot If other, stator failure:

Stator Image: Failure Image:







# **AC Electrical Inspection (Continued)**

Winding color: Still has color Winding image Winding Thermal Protection: Yes

Winding condition: Solid

Winding Thermal Good Protection DE:

Winding Thermal Protection ODE:

Stator test results: Rewind





Megs incoming: Good Surge incoming: Good Hi-pot incoming: Good

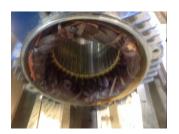
**Winding Resistance Incoming** 

Phases A to B Phases B to C Phases C to A Resistive imbalance

Incoming 555 555 556 0.3

Leads/jumpers: Ok Lead jumper Image. :

If other, leads/jumpers:





### Conclusion

Component Failure
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Encoder bad, ode Bearing bad

#### **Cause of Failure**

Ode Bearing locked up exploded in motor.

#### **Comments**

Need new encoder. Rhi 593, part# 731823-01, ser#46992, Supply 9..30V.dc, Output 1024 per htl, manufacture Leine Line

Service Tech name: Kelly Felts

Service Tech signature:

Kellynele