

### **Job Information**

Job #: 96272 Date: November 25,

2019

Priority: — Authorized OT: No Authorized by:

### **Customer Information**

Name: Aim Reason:

Contact: Motor#: PO#:

Application: Radial Load Special notes:

## **Name Plate Information**

Manufacturer: ABB Enclosure: Open Drop Proof Enclosure Type image

(ODP)

Serial#: Model#: 3155874-1

Service Factor: 1.15 Frame:

Horsepower/kW: 75kw Rated RPM: 3600

Rated Amps: 117/111 Rated Voltage: 440/460

Phase: 3 Cycles: 60

Special design: Yes

Nameplate DE ODE F1 F2 Top













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## **Mechanical Inspection**

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No Contaminant(s): Other

Shaft rotation: Bi-directional Contaminant(s) Amt: None

Shaft grounding device

present?: Contaminant Image:

Type of grounding device:

Shaft runout(TIR-Inbound):

0.001

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: Nu213

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Roller Bearing ODE Size: 6215zc3

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: Good Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



### **Mechanical Inspection (Continued)**

Lubrication Type: Oil Thermal Protection device DE: -

Lubrication brand inbound: Unknown Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: N/A Grease Cond. DE: Other

Grease Amt ODE: 0 Grease Cond. ODE: Other

Seals DE type: Isolators Seals Image:

Seals DE size: 99mm x 79mm

N/A

Seals DE (inbound) condition: Bad

Seals Image 2:

Seals ODE size:

Seals ODE type:

Seals ODE (inbound) condition

Shaft damage cause: None Shaft Image:

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# **Mechanical Inspection (Continued)**

Brg. Image:



Water jacket: N/A Fan: Broken Frame cond.: Good





Endbell type: Motor Mount Position: Horizontal/Foot mount Single piece

Missing parts? Endbell Image:

☐ J-Box cover O-rings ☐ J-Box

✓ None ☐ HH cover Glands





Other missing parts

Lugs



### **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:

REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal Length of leads: 15"

Markings Identified By Color:

P1-No color assigned 1-Blue 5-Black Size of leads: Unknown P2-Brown

2-White 6-No color assigned

Terminal

3-Orange 7-No color assigned

4-Yellow 8-Red Lead condition: Good

Connections As Received: Copper Lug type:

Lug size: 35-10

Lug Attachment:

Lug Condition:

Good



# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars: 40

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: Coil-Coil short If other, stator condition:

Failure location: In slot If other, stator failure:

Stator Image: Failure Image:







## **AC Electrical Inspection (Continued)**

Winding color: Dull black Winding image Winding Thermal Protection: No

Winding condition: Charred

Winding Thermal Protection DE:

Winding Thermal Protection ODE:

Stator test results: Rewind

Megs incoming: Bad Surge incoming: Bad Hi-pot incoming: Bad

**Winding Resistance Incoming** 

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

Incoming

Leads/jumpers: Replace Lead jumper Image. :

If other, leads/jumpers:

# **Mechanical Inspection**

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good Bearings Retainer: Yes

Type of grounding device: Bearing DE Size: Nu213

Shaft runout(TIR-Inbound): 0.001 Bearing ODE Size: 6215zc3

Retainer condition: Good

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### **Mechanical Inspection (Continued)**

Seals DE condition: Worn Brg. Seats DE: Good

Seals DE type: Isolators If DE undersized, amt.:

Seals DE size: 99mm x 79mm Brg. Seats ODE: Good

Seals DE (inbound) condition: Bad If ODE undersized, amt.:

Seals ODE condition: None Shaft damage: OK

Seals ODE type: N/A

Seals ODE size:

Bushings/sleeves DE: Ok

Seals ODE (inbound) condition : Bushings/sleeves ODE: Ok

Endbell fits/damage: Good Foot/Flange condition: Ok

Endbell DE size: 4.7251 Foot flatness: Pass

Endbell DE insulated?: No

Does Air Gap Meet Customer or EASA spec(<10%

variation)?

Endbell ODE insulated?: No

Endbell ODE size:

5.1190



### Conclusion

#### **Component Failure**

Seal, bearings, windings

#### **Cause of Failure**

Bearings failed and locked up motor

#### **Comments**

Service Tech name: Trevor Hall

Service Tech signature:

/n/M