

### **Job Information**

96611 Job #: Date: March 4, 2020

Priority: Authorized OT: No Authorized by:

### **Customer Information**

Name: Arauco Reason:

Contact: Motor#: PO#:

Application: Special notes:

### **Name Plate Information**

Manufacturer: Siemens Enclosure: Totally Enclosed **Enclosure Type image** 

Fan Cooled

Serial#: Model#:

Service Factor: 405T 1.15 Frame:

Horsepower/kW: 100 Rated RPM: 1800

Rated Amps: Rated Voltage: 230/460

Cycles: Phase: 3 60

No

Nameplate DE ODE F1 F2 Top



Special design:







Fax 901-873-5301



# **Mechanical Inspection**

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: Yes Contaminant(s): None

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

Shaft grounding device

present?:

No

Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Worn Bearings DE make: NACHI

Insulated: No Bearing DE Size: 6316Z

Bearings ODE: Worn Bearings ODE make: NACHI

Bearing Type: Ball Bearing ODE Size: 6316Z

Bearings Retainer: No Thermal Protection: No

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image

Thermal Protection



Lubrication Type: Grease Thermal Protection device DE: -

Lubrication brand inbound: Unknown Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: Full Grease Cond. DE: Other

Grease Amt ODE: Full Grease Cond. ODE: Other

Seals DE type: N/A

Seals DE size:

Seals DE (inbound) condition:

Seals ODE type: N/A

Seals ODE size:

Seals ODE (inbound) condition

:

Shaft damage cause: None Shaft Image:





Brg. Image:



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



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

Missing parts? Endbell Image:

☐ J-Box cover ☐ O-rings ☑ J-Box

☐ HH cover ☐ Glands ☐ None

Other missing parts







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:

Length of leads: 14 in REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal

Markings Identified By Color:

Size of leads: F1 1-Blue 5-Black P1-No color assigned

2-White 6-No color assigned P2-Brown

3-Orange 7-No color assigned

Lead condition: Good 4-Yellow 8-Red

Connections As Received: Lug type:

Lug Condition: — Terminal Lugs

Lug size:

Lug Attachment: —

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# **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: Ok If other, stator condition:

Failure location: Other If other, stator failure:

Stator Image: Failure Image:







# **AC Electrical Inspection (Continued)**

Winding color: Still has color Winding image Winding Thermal Protection: No

Winding condition: Solid

Winding Thermal \_\_\_\_ Protection DE:

Winding Thermal Protection ODE:

Stator test results: Salvageable

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 0.00 0.00 0.00

Leads/jumpers: Ok Lead jumper Image. :

If other, leads/jumpers:

# **Mechanical Inspection**

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good Bearings Retainer: No

Type of grounding device: Bearing DE Size: 6316

Shaft runout(TIR-Inbound): Bearing ODE Size: 6316

Retainer condition: —

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Seals DE condition: None Brg. Seats DE: Good

Seals DE type: N/A If DE undersized, amt.:

Seals DE size: Brg. Seats ODE: Good

Seals DE (inbound) condition: 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: Bad Foot/Flange condition: Ok

Endbell DE size: 6.6946 Foot flatness: Pass

Endbell DE insulated?: —

6.6976

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

variation)?

Endbell ODE insulated?: -

Endbell ODE size:



#### Conclusion

**Component Failure** 

**Cause of Failure** 

#### **Comments**

Both bearings show signs of contamination and false brenalling, J-box is missing, both end bells are over sized. Recommend new bearings, J-box, machine work, and reconditioning and a aegis ring.

Mulley

Service Tech name: Chris Wiley

Service Tech signature: