

## Job Information

Job #: 95381

Date: March 13, 2019

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: Araucaria

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

## Name Plate Information

Manufacturer: Reliance

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#:

Model#: 4X321085A2-GU

Service Factor: 1.15

Frame: 444TS

Horsepower/kW: 100

Rated RPM: 1180

Rated Amps: 240/120

Rated Voltage: 230/460

Phase: 3

Cycles: 60

Special design: No



Nameplate

DE

ODE

F1

F2

Top



## 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: SKF

Insulated: No

Bearing DE Size: 6213 ZZ

Bearings ODE: Worn

Bearings ODE make: Other

Bearing Type: Ball

Bearing ODE Size: 6213 ZZ

Bearings Retainer: Yes

Thermal Protection: Yes

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: Full

Grease Cond. DE: New

Grease Amt ODE: Full

Grease Cond. ODE: New

Seals DE type: N/A

Seals Image:

Seals DE size:

Not  
Available

Seals DE (inbound) condition :

Seals ODE type: N/A

Seals Image 2:

Seals ODE size:

Not  
AvailableSeals ODE (inbound) condition  
:

Shaft damage cause: None

Shaft Image:

**WEST TENNESSEE**

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## Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:

Not Available

Water jacket: N/A

Fan: N/A

Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- |   |                                  |   |
|---|----------------------------------|---|
| <input checked="" type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input checked="" type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover               | <input type="checkbox"/> Glands  | <input type="checkbox"/> None             |

Endbell Image:



Other missing parts





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## Mechanical Inspection (Continued)

### Air Gap Measurements (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: 3

Terminal Markings:

Length of leads:

REF: NEMA Std. MG 1-2009, Rev. 1-2010, 2.41-Terminal Markings Identified By Color:

Size of leads:

1-Blue  
2-White  
3-Orange  
4-Yellow

5-Black  
6-No color assigned  
7-No color assigned  
8-Red

P1-No color assigned  
P2-Brown

Lead condition: Good

Lug type:

Connections As Received:

Lug Condition: Good

Terminal

Lugs

Lug size:

Lug Attachment: —

Not  
Available

Not  
Available

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## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:

Num broken bars:

Rotor



### Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

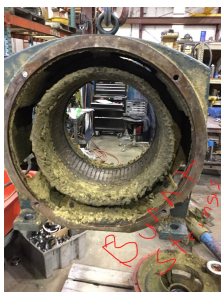
Stator condition: Ok

If other, stator condition:

Failure location: In slot

If other, stator failure:

Stator Image:



Failure Image:



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## AC Electrical Inspection (Continued)

Winding color: Like new

Winding image

Winding Thermal Protection: No

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —



Stator test results: Rewind

Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Bad

### Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming	0.00	0.00	0.00	0.00

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:

Not Available

## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good

Bearings Retainer: Yes

Type of grounding device:

Bearing DE Size: 6213

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6213

Retainer condition: —



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## Mechanical Inspection (Continued)

Seals DE condition : None

Brg. Seats DE: Undersized

Seals DE type: N/A

If DE undersized, amt.: 2.5588

Seals DE size:

Brg. Seats ODE: Undersized

Seals DE (inbound) condition :

If ODE undersized, amt.: 2.5590

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: 4.7259

Foot flatness: Pass

Endbell DE insulated?: No

Does Air Gap Meet Customer or EASA spec(&lt;10% variation)?

Endbell ODE size: 4.7259

—

Endbell ODE insulated?: —

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## Conclusion

### Component Failure

### Cause of Failure

### Comments

Strings burnt on both ends of stator. De and Ode bearing fits are bad on shaft also both end bell housing fits are bad .Found frosting and brenilling in both bearings

Service Tech name: Robert Wiley

Service Tech signature:

A handwritten signature in black ink that reads 'Robert Wiley'. The signature is written in a cursive, flowing style.

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