

Job Information

Job #: 96291

Date: December 6, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Alcoa

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: US

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#:

Model#:

Service Factor:

Frame: 5809ML

Horsepower/kW: 500

Rated RPM: 1200

Rated Amps: 122

Rated Voltage: 2300

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: FAG

Insulated: No

Bearing DE Size: 22226

Bearings ODE: Worn

Bearings ODE make: FAG

Bearing Type: Ball

Bearing ODE Size: 6226

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: Labyrinth

Seals Image:

Seals DE size:

Seals DE (inbound) condition :



Seals ODE type: Labyrinth

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition :



Shaft damage cause: None

Shaft Image:



WEST TENNESSEE

7030 Ryburn Drive
Millington, TN 38053
Phone 901-873-5300
Fax 901-873-5301

CENTRAL ARKANSAS

6812 Lindsey Rd.
Little Rock, AR 72206
Phone 501-375-9178
Fax 501-375-4254

Mechanical Inspection (Continued)

Brg. Image:



Water jacket: N/A



Fan: Ok



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

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

Endbell Image:



Other missing parts

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: 6

Terminal Markings: 1-6

Length of leads: 25"

REF: NEMA Stds. 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:

Not
Available

Lug Attachment: —



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Broken bars

Num rotor bars:

Num broken bars: 3

Rotor



Rotor Test Results

Visual: Pass

Growler: Fail

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: Dull black

Winding image

Winding Thermal Protection: Yes

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Rewind



Not Available

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	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: 22226

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6226

Retainer condition: —



MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Seals DE condition : Worn

Brg. Seats DE: Good

Seals DE type: Labyrinth

If DE undersized, amt.: 5.1185

Seals DE size:

Brg. Seats ODE: Good

Seals DE (inbound) condition :

If ODE undersized, amt.: 5.1182

Seals ODE condition : Worn

Shaft damage: OK

Seals ODE type: Labyrinth

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: 9.0563

Foot flatness: Pass

Endbell DE insulated?: No

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

Endbell ODE size: 9.0562

—

Endbell ODE insulated?: No

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MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

Cause of Failure

Comments

Rewind stator was overloaded. Found false brenilling in ode bearing rotor had bad hot spot with 3 or more broken bars

Service Tech name: Robert Wiley

Service Tech signature:

A handwritten signature in black ink that reads 'Robert Wiley'.

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