

Job Information

Job #: 96410

Date: January 6, 2020

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: 3M Company

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#: J06T2010ES1

Model#:

Service Factor: 1.15

Frame: B449T

Horsepower/kW: 250

Rated RPM: 1185

Rated Amps: 280

Rated Voltage: 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): Grease

Shaft rotation: Bi-directional Contaminant(s) Amt: Other

Shaft grounding device present?: No Contaminant Image:

Type of grounding device:

Shaft runout(TIR-Inbound):



Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6314

Bearings ODE: Fell Apart Bearings ODE make: Other

Bearing Type: Ball Bearing ODE Size: 6210

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: Unknown

Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: Full

Grease Cond. DE: Hard

Grease Amt ODE: Full

Grease Cond. ODE: Hard

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:



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: Broken

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:



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: 9

Terminal Markings:

Length of leads: 14 1/2 in

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: NA

Connections As Received:

Lug Condition: —

Terminal

Lugs

Lug size:

Lug Attachment: —

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AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 44

Num broken bars: 0

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: Dull black

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: 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: 6314

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6210

Retainer condition: —



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Mechanical Inspection (Continued)

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: 5.9078

Foot flatness: Pass

Endbell DE insulated?: —

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

Endbell ODE size: 3.5448

—

Endbell ODE insulated?: —

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Conclusion

Component Failure

Cause of Failure

Comments

DE bearing shows signs of frosting, ODE bearing shows signs of extensive wear, ODE bearing fit on shaft is worn, DE and ODE bearing fits in the end bells are over sized, fan is broke, the J-box is missing, and the windings are blown. Recommend reconditioning, new bearings, aegis ring, machine work on DE and ODE end bells, machine work on ODE bearing fit of the shaft, new fan, new J-box, and rewind.

Service Tech name: Chris Wiley

Service Tech signature:

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

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