

Job Information

Job #: 95229

Date: February 5, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Industrial Supply

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#: E1605/819180_1000
2

Model#: 1pc31042aa600fb4

Service Factor:

Frame: 200ld

Horsepower/kW: 45kw

Rated RPM: 3560

Rated Amps: 73

Rated Voltage: 460

Phase: 3

Cycles: 60

Special design: Yes



Nameplate

DE

ODE

F1

F2

Top



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: Other

Shaft grounding device present?: No Contaminant Image:

Type of grounding device:

Shaft runout(TIR-Inbound): 0.001



Bearings DE: Worn Bearings DE make: Other

Insulated: No Bearing DE Size: 6312z

Bearings ODE: Worn Bearings ODE make: Other

Bearing Type: Ball Bearing ODE Size: 6212z

Bearings Retainer: Yes 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: N/A

Lubrication brand inbound: Unknown

Thermal Protection device ODE: N/A

Lubrication brand outbound: Unknown

Grease Amt DE: 0

Grease Cond. DE: Charred

Grease Amt ODE: 1/2

Grease Cond. ODE: Other

Seals DE type: N/A

Seals DE size:

Seals DE (inbound) condition :

Seals ODE type: Slinger

Seals ODE size: VA60

Seals ODE (inbound) condition :
Good

Shaft damage cause: Other

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/Flange mount

Endbell type: Single piece

Missing parts?

☐ J-Box cover ☐ O-rings ☐ J-Box

☐ HH cover ☐ Glands ☐ None

Endbell Image:



Other missing parts

Fan cover

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:

Length of leads: 6 foot

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

Size of leads: 4 awg

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: Prong

Connections As Received:

Lug Condition: Good

Lug size: 4awg

Lug Attachment: —

Terminal



Lugs



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 28

Num broken bars: 0

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Questionable

If other, stator condition:

Failure location: Coil head

If other, stator failure:

Stator Image:



Failure Image:



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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: 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	0	0	0	0

Leads/jumpers: Replace

Lead jumper Image. :



If other, leads/jumpers:

Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Damaged

Bearings Retainer: Yes

Type of grounding device:

Bearing DE Size: 6312z

Shaft runout(TIR-Inbound): 0.001

Bearing ODE Size: 6212z

Retainer condition: Good



MILLINGTON, TN

LITTLE ROCK, AR

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 : Worn

Shaft damage: Replace

Seals ODE type: Slinger

Seals ODE size: VA60

Bushings/sleeves DE: Ok

Seals ODE (inbound) condition : Good

Bushings/sleeves ODE: Ok

Endbell fits/damage: Bad

Foot/Flange condition: Ok

Endbell DE size: 5.1205

Foot flatness: Pass

Endbell DE insulated?: No

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

Endbell ODE size: 4.3316

—

Endbell ODE insulated?: No

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Conclusion

Component Failure

Windings, bearings, shaft

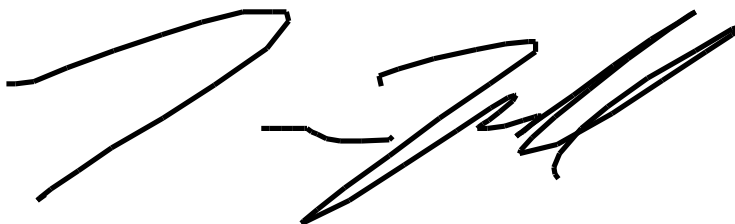
Cause of Failure

Bearings failed and locked up the rotor. The overload of the windings and debris caused the windings to blow up.

Comments

Service Tech name: Trevor Hall

Service Tech signature:

A handwritten signature in black ink, appearing to be 'T. Hall', written in a cursive style.