



MILLINGTON, TN

LITTLE ROCK, AR

## Job Information

Job #: 96885

Date: May 22, 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#: E06T0623FU

Model#:

Service Factor: 1.15

Frame: 405T

Horsepower/kW: 100

Rated RPM: 1780

Rated Amps: 113

Rated Voltage: 460

Phase: 3

Cycles: 60

Special design: No



Nameplate

DE

ODE

F1

F2

Top



**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  
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## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No 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: Fell Apart Bearings DE make: SKF

Insulated: No Bearing DE Size: 6316

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6316

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: Good 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: 1/4

Grease Cond. DE: Hard

Grease Amt ODE: Full

Grease Cond. ODE: Watery

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:



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## 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?

☐ 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: 3

Terminal Markings:

Length of leads: 16 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: Worn

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: 40

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: Core edge

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: Other

Lead jumper Image. :

If other, leads/jumpers:



## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good

Bearings Retainer: Yes

Type of grounding device:

Bearing DE Size: 6316

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6316

Retainer condition: Good



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## Mechanical Inspection (Continued)

Seals DE condition : Worn

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: 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: 6.6949

Foot flatness: Pass

Endbell DE insulated?: —

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

Endbell ODE size: 6.6985

—

Endbell ODE insulated?: —

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## Conclusion

### Component Failure

### Cause of Failure

### Comments

Fan cover bolts are broke off, bearings failed, DE bearing fit on shaft is undersized, both end bells are over sized, signs of core damage and the windings are blown. Recommend new bearings, rewind, replacement of fan cover bolts, and machine work.

Service Tech name: Chris Wiley

Service Tech signature:

A handwritten signature in black ink, appearing to read 'Chris Wiley'.**WEST TENNESSEE**

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