

## Job Information

Job #: 94151

Date: April 18, 2018

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: 3M

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

## Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed  
Fan Cooled

Enclosure Type image

Serial#: J03T2010ES4

Model#: 1LA04496HE4N

Service Factor:

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): Water

Shaft rotation: —

Contaminant(s) Amt: Cup

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: 6318ZZ

Bearings ODE: Worn

Bearings ODE make: SKF

Bearing Type: Ball

Bearing ODE Size: 6316ZZ

Bearings Retainer: Yes

Thermal Protection: No

Retainer condition: Good

Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection

Not Available

### 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



MILLINGTON, TN

LITTLE ROCK, AR

## 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: Slinger

Seals Image:

Seals DE size:

Not  
Available

Seals DE (inbound) condition :

Seals ODE type: Slinger

Seals Image 2:

Seals ODE size:

Not  
AvailableSeals ODE (inbound) condition  
:

Shaft damage cause: None

Shaft Image:

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## Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A

Fan: Ok

Frame cond.: Good

Not  
Available



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

☒ J-Box cover ☐ O-rings ☒ J-Box☐ HH cover ☐ Glands ☐ None

Other missing parts

Endbell Image:





## 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: 2-1's 2-2's 2-3's

Length of leads: 24"

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

Size of leads: 1/0

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: None

Connections As Received:

Lug Condition: —

Terminal

Lugs

Lug size:

Lug Attachment: —



Not  
Available

## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor

Rotor Condition: Ok

Num rotor bars:

Num broken bars:



### Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: HISI

If other, stator type:

Stator condition: Turn-Turn short

If other, stator condition:

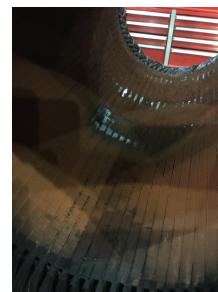
Failure location: Coil head

If other, stator failure:

Stator Image:



Failure Image:



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## AC Electrical Inspection (Continued)

Winding color: Dull black

Winding image

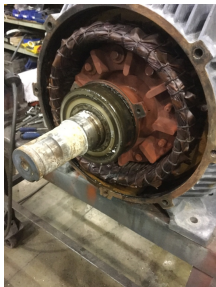
Winding Thermal Protection: No

Winding condition : Charred

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	28.876	24.543	30.234	15

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:

Not  
Available



MILLINGTON, TN

LITTLE ROCK, AR

## Conclusion

### Component Failure

Windings shorted on end turns

### Cause of Failure

### Comments

Customer wants 10 foot leads

Service Tech name: Lynn McDonald

Service Tech signature:

A handwritten signature in black ink that reads 'Lynn McDonald'.

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