

Job Information

Job #: 138886

Date:

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: KTG

Reason: Motor inspection

Contact: Cindy Davis

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Siemens

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 1LE15032BA235AB4

Model#: 1CV3222A

Service Factor:

Frame:

Horsepower/kW: 45

Rated RPM: 3600

Rated Amps:

Rated Voltage: 480

Phase: 3

Cycles:

Special design: No



Nameplate

DE

ODE

F1

F2

Top



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No

Contaminant(s): Water

Shaft rotation: CW

Contaminant(s) Amt: Gallon

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: 6213zz

Bearings ODE: Worn

Bearings ODE make: SKF

Bearing Type: Ball

Bearing ODE Size: 6213

Bearings Retainer: No

Thermal Protection: Yes

Retainer condition: —

Thermal Protection Type: RTD

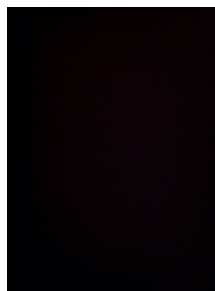
Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



Mechanical Inspection (Continued)

Lubrication Type: Grease

Thermal Protection device DE: Thermal Overloads

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: N/A

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: Watery

Grease Amt ODE: Full

Grease Cond. ODE: New

Seals DE type: Other

Seals Image:

Seals DE size: V-45

Seals DE (inbound) condition : Worn



Seals ODE type: Other

Seals Image 2:

Seals ODE size: V-45

Seals ODE (inbound) condition : Worn



Shaft damage cause: None

Shaft Image:

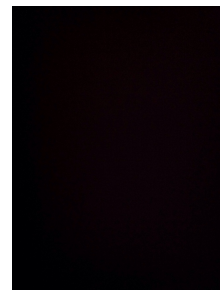


Mechanical Inspection (Continued)

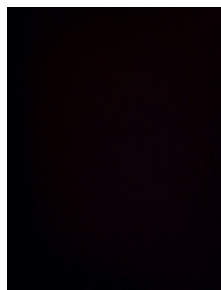
Brg. Image:



Bushings/sleeves 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

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:

Length of leads: 12 inches

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

Size of leads: 6 wag

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: Standard

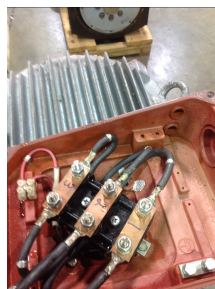
Connections As Received: 480 volt

Lug Condition: Good

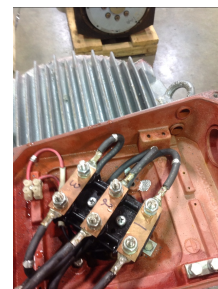
Lug size: 6awg

Lug Attachment: —

Terminal



Lugs



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 22

Num broken bars: 0

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Ground

If other, stator condition:

Failure location: In slot

If other, stator failure:

Stator Image:



Failure Image:



WEST TENNESSEE

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

CENTRAL ARKANSAS

6812 Lindsey Rd.
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Phone 501-375-9178
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AC Electrical Inspection (Continued)

Winding color: Still has color

Winding image

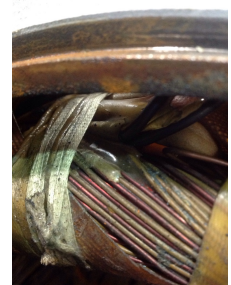
Winding Thermal Protection: Yes

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

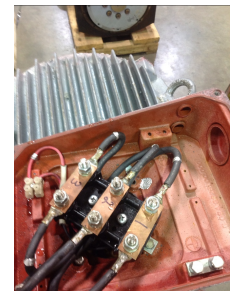
Resistive imbalance

Incoming

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:





MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

D.E. breaking and windings

Cause of Failure

Cause of failure was water inside of motor. Water wiped out d.e. Bearing causing severe vibration and grounding out the windings.

Comments

The dust shield that customer states is a shield is not a seal. It's a dust shield. Behind the shield is a v-ring. Even with both shield and v ring still won't seal the front shaft seal. It's meant to keep dust out NOT WATER.

Service Tech name: Dan Mahan

Service Tech signature:

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