

Job Information

Job #: 138661

Date: December 7, 2018

Priority: 2

Authorized OT: No

Authorized by: ANDREW

Customer Information

Name: KTG

Reason: Motor not functional

Contact:

Motor#: 138661

PO#:

Application: Direct Drive

Special notes: ODE Bearing destroyed

Name Plate Information

Manufacturer: Siemens

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 1LE15032BA235AB4

Model#: 1CV3222A

Service Factor:

Frame:

Horsepower/kW: 45Kw

Rated RPM: 3560

Rated Amps: 74

Rated Voltage: 480

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?: No Contaminant(s): Other

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

Shaft grounding device present?: No Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound): Unknown

Bearings DE: Worn Bearings DE make: Other

Insulated: No Bearing DE Size: 6213

Bearings ODE: Fell Apart Bearings ODE make: Other

Bearing Type: Ball Bearing ODE Size: 6213

Bearings Retainer: No Thermal Protection: No

Retainer condition: — Thermal Protection Type: Thermocouple

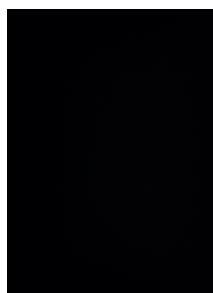
Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection





MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Lubrication Type: Oil

Thermal Protection device DE: N/A

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: N/A

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: 1/2

Grease Cond. DE: Gritty

Grease Amt ODE: 1/2

Grease Cond. ODE: Charred

Seals DE type: N/A

Seals Image:

Seals DE size:

Seals DE (inbound) condition :

Seals ODE type: N/A

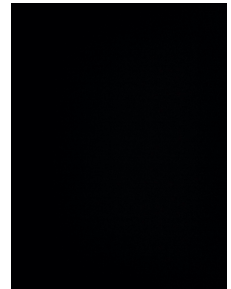
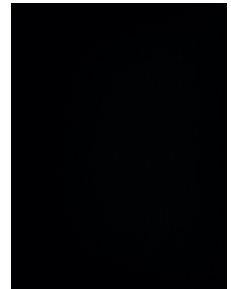
Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition
:

Shaft damage cause: Other

Shaft Image:



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

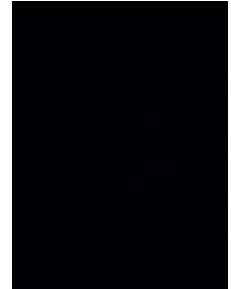
CENTRAL ARKANSAS
6812 Lindsey Rd.
Little Rock, AR 72206
Phone 501-375-9178
Fax 501-375-4254

Mechanical Inspection (Continued)

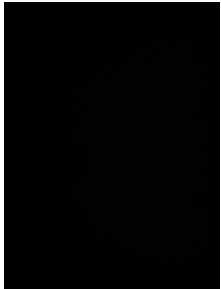
Brg. Image:



Bushings/sleeves image:



Water jacket: N/A



Fan: Broken



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|--------------------------------------|----------------------------------|--------------------------------|
| <input type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover | <input type="checkbox"/> Glands | <input type="checkbox"/> 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: IEC Standard

Length of leads: 6"

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

Size of leads: 8AWG

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: Copper

Connections As Received: (V2,W1) (U2,V1) (W2,U1) Delta

Lug Condition: Good

Lug size: 5/16"

Lug Attachment: Acceptable

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:

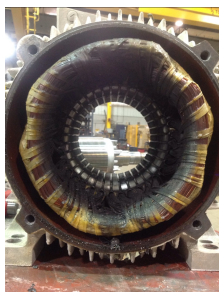
Stator condition: Roast-out

If other, stator condition: Blown windings

Failure location: Coil head

If other, stator failure: Bearing explosion

Stator Image:



Failure Image:



AC Electrical Inspection (Continued)

Winding color: Dull black

Winding image

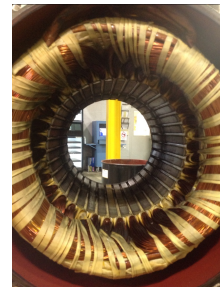
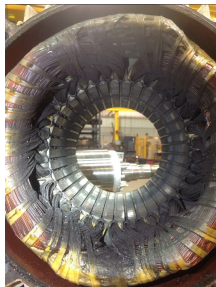
Winding Thermal Protection: Yes

Winding condition : Charred

Winding Thermal Protection DE: Bad

Winding Thermal Protection ODE: Bad

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

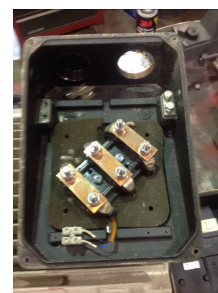
Resistive imbalance

Incoming

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:





MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

ODE Bearing failure that damaged ODE windings

Cause of Failure

No lubrication or overheating

Comments

Service Tech name: Dan Mahan

Service Tech signature:

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by a horizontal line and a series of loops and flourishes.

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