

Job Information

Job #: 94758

Date: September 28, 2018

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Flakeboard

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed Wash down

Enclosure Type image

Serial#: L93

Model#: 1LA03654TC21A

Service Factor: 1.15

Frame: 365T

Horsepower/kW: 75

Rated RPM: 1775

Rated Amps: 178.8/89.4

Rated Voltage: 230/460

Phase: 3

Cycles: 60

Special design: No



Nameplate

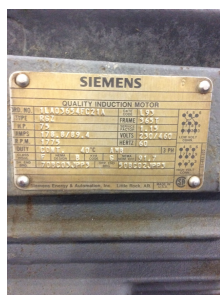
DE

ODE

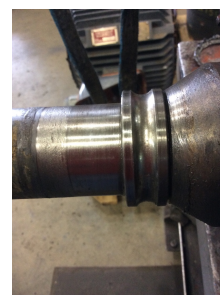
F1

F2

Top



Not Available



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No Contaminant(s): None

Shaft rotation: Bi-directional Contaminant(s) Amt: None

Shaft grounding device present?: No

Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6314 Z

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6210 Z

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Not Available



Thermal Protection



Not Available



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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: Charred

Grease Amt ODE: Full

Grease Cond. ODE: Charred

Seals DE type: N/A

Seals Image:

Seals DE size:

Not
Available

Seals DE (inbound) condition :

Seals ODE type: N/A

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:



Water jacket: N/A



Not
Available



Fan: Ok



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 |

Endbell Image:



Other missing parts

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: 12"

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: Good

Lug type:

Connections As Received:

Lug Condition: Good

Terminal

Lugs

Lug size:

Lug Attachment: Acceptable

Not
Available



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 36

Num broken bars: 0

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

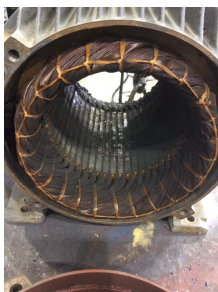
Stator condition: Questionable

If other, stator condition:

Failure location: In slot

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

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

Leads/jumpers: Ok

If other, leads/jumpers:

Conclusion

Component Failure

O.D.E bearing

Cause of Failure

Bearing suffered metal fatigue and flung pieces of shrapnel into the windings. Also the rotor collapsed onto the stator iron causing significant damage and needs to be core tested to see if it still within tolerance.

Comments

Motor assembly test ran good on initial run. However subsequent disassembly of motor revealed signs of electrical discharge which caused the grease to become discolored. To confirm this both bearings were cut in half which showed definite signs of fluting in both bearings. To solve this problem I recommend electrical shaft isolation procedures be implemented in the form of Aegis ring/Inso-coat style bearing

Service Tech name: Terrence Holland

Service Tech signature:

A handwritten signature in black ink, appearing to read 'Terrence Holland', with a stylized, cursive script.

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