

Job Information

Job #: 94650

Date: August 29, 2018

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Welspun

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#: N8205104

Model#: 1LAO T53-4YA91Z

Service Factor:

Frame: 160M

Horsepower/kW: 11

Rated RPM: 1755

Rated Amps: 18

Rated Voltage: 460

Phase: 3

Cycles: 60

Special design: No



Nameplate

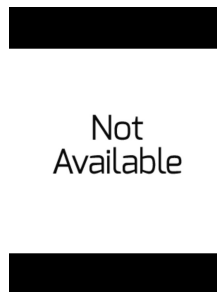
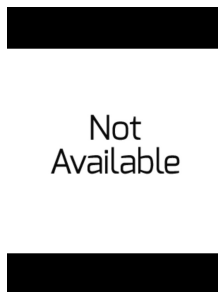
DE

ODE

F1

F2

Top



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: Yes

Contaminant(s): None

Shaft rotation: Bi-directional

Contaminant(s) Amt: None

Shaft grounding device present?: No

Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound): .001

Bearings DE: Worn

Bearings DE make: SKF

Insulated: No

Bearing DE Size: 6209 2Z/C3

Bearings ODE: Worn

Bearings ODE make: SKF

Bearing Type: Ball

Bearing ODE Size: 6209 2Z/C3

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: Mobile Polyrex EM

Thermal Protection device ODE: —

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: Hard

Grease Amt ODE: Full

Grease Cond. ODE: Hard

Seals DE type: Slinger

Seals Image:



Seals DE size:

Seals DE (inbound) condition :

Seals Image 2:



Seals ODE type: Slinger

Not Available

Seals ODE size:

Seals ODE (inbound) condition :



Shaft damage cause: None

Shaft Image:



Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:

Not
Available

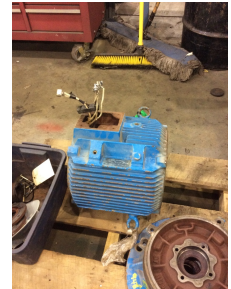
Water jacket: N/A

Not
Available

Fan: Broken



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|---|----------------------------------|---|
| <input checked="" type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input checked="" type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover | <input type="checkbox"/> Glands | <input type="checkbox"/> None |

Endbell Image:



Other missing parts

Fan cover

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: N/A

Length of leads: 6.5"

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: Leads paired but not numbered.

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: 37

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: Other

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.
Little Rock, AR 72206
Phone 501-375-9178
Fax 501-375-4254

AC Electrical Inspection (Continued)

Winding color: Still has color

Winding image

Winding Thermal Protection: No

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Salvageable



Not Available

Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Good

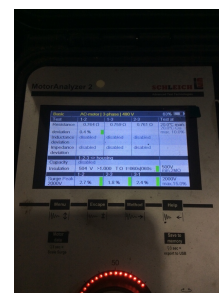
Winding Resistance Incoming

| | Phases A to B | Phases B to C | Phases C to A | Resistive imbalance |
|----------|---------------|---------------|---------------|---------------------|
| Incoming | 0.764 | 0.759 | 0.761 | 0.4 |

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:



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Conclusion

Component Failure

Bearings

Cause of Failure

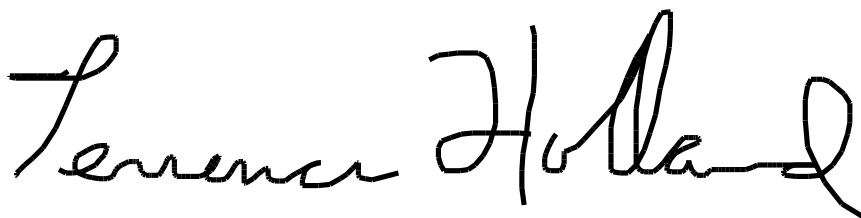
Bearing grease contamination.

Comments

Motor windings checked good. Bearing grease showed signs of contamination and was hardened. Also the fan has numerous broken blades and needs replacing. The fan cover and connection box are missing and the motor leads were paired up but not numbered.

Service Tech name: Terrence Holland

Service Tech signature:

A handwritten signature in black ink that reads 'Terrence Holland'.