

Job Information

Job #: 97164

Date: August 10, 2020

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Process and power

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: WEG

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#: 23562663

Model#:

Service Factor: 1.21

Frame: 250SM /04

Horsepower/kW: 75

Rated RPM: 1775

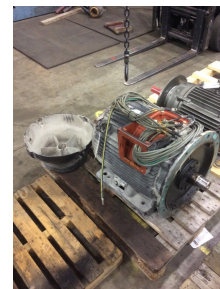
Rated Amps: 222/111

Rated Voltage: 230/460

Phase: 3

Cycles: 60

Special design: No



Nameplate

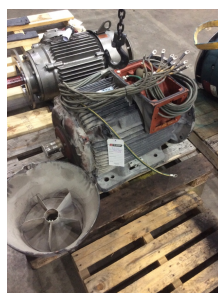
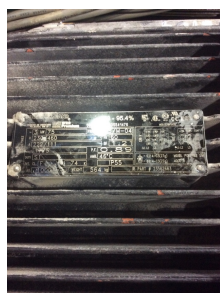
DE

ODE

F1

F2

Top



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No 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):

Bearings DE: Worn Bearings DE make: NSK

Insulated: No Bearing DE Size: 6314 C3

Bearings ODE: Worn Bearings ODE make: NSK

Bearing Type: Ball Bearing ODE Size: 6314 C3

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: — 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: Gritty

Grease Amt ODE: Full

Grease Cond. ODE: Gritty

Seals DE type: Other

Seals Image:

Seals DE size:

Seals DE (inbound) condition : Worn



Seals ODE type: Other

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition : Good



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

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: 12

Terminal Markings:

Length of leads: 7'

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



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:

Num broken bars: 0

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

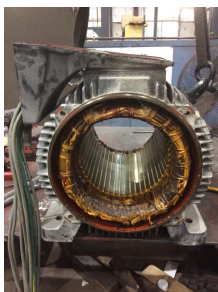
Stator condition: Ok

If other, stator condition:

Failure location: Other

If other, stator failure:

Stator Image:



Failure Image:



AC Electrical Inspection (Continued)

Winding color: Like new

Winding image

Winding Thermal Protection: Yes

Winding condition : Solid

Winding Thermal
Protection DE: —Winding Thermal
Protection ODE: —

Stator test results: Salvageable

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

Leads/jumpers: Ok

If other, leads/jumpers:

Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Worn

Bearings Retainer: Yes

Type of grounding device:

Bearing DE Size: 6314 2Z C3

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6314 2Z C3

Retainer condition: Good



MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Seals DE condition : Worn

Brg. Seats DE: Good

Seals DE type: Other

If DE undersized, amt.:

Seals DE size:

Brg. Seats ODE: Good

Seals DE (inbound) condition :

If ODE undersized, amt.:

Seals ODE condition : Other

Shaft damage: OK

Seals ODE type: Other

Seals ODE size:

Bushings/sleeves DE: Ok

Seals ODE (inbound) condition :

Bushings/sleeves ODE: Ok

Endbell fits/damage: Good

Foot/Flange condition: Ok

Endbell DE size: 5.9060

Foot flatness: Pass

Endbell DE insulated?: No

Does Air Gap Meet Customer or EASA spec(<10% variation)?

Endbell ODE size: 5.9061

—

Endbell ODE insulated?: No

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MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

D.E. Bearing

Cause of Failure

D.E. Bearing suffered catastrophic failure. Both bearings had contaminated grease. The drive end bearing cap is welded to the shaft and the bearing journal is completely worn and needs machine work.

Comments

D.E. Bearing suffered catastrophic failure and showed signs of pitting and excessive wear. Both bearings had contaminated grease. The drive end bearing cap is welded to the shaft and the bearing journal is completely worn and needs machine work. The drive end bearing was welded to the shaft as well and had to be cut off. The seal in the drive end bearing cap needs to be replaced. The windings checked good electrically.

Service Tech name: Terrence Holland

Service Tech signature:

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