

Job Information

Job #: 142236

Date: April 6, 2020

Priority: 4

Authorized OT: No

Authorized by:

Customer Information

Name: ADM

Reason:

Contact:

Motor#: 142236

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: North American electric

Enclosure : Totally Enclosed Fan Cooled

Enclosure Type image

Serial#: Cat#H18150

Model#:

Service Factor: 1.15

Frame: 445t

Horsepower/kW: 150

Rated RPM: 1785

Rated Amps: 161.8

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?: No Contaminant(s): Grease

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

Shaft grounding device present?: No Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound): N/A

Bearings DE: Worn Bearings DE make: NSK

Insulated: No Bearing DE Size: 6318C3

Bearings ODE: Worn Bearings ODE make: NSK

Bearing Type: Ball Bearing ODE Size: 6314C3

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: Good Thermal Protection Type: —

Bearing Type Image



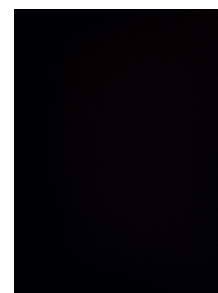
Bearing Make Image



Bearing Retainer Image



Thermal Protection



Mechanical Inspection (Continued)

Lubrication Type: Grease

Thermal Protection device DE: N/A

Lubrication brand inbound: Unknown

Thermal Protection device ODE: N/A

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: Other

Grease Amt ODE: Full

Grease Cond. ODE: Other

Seals DE type: Slinger

Seals Image:



Seals DE size: N/A

Seals DE (inbound) condition : Replace

Seals ODE type: Slinger

Seals Image 2:



Seals ODE size: N/A

Seals ODE (inbound) condition : Replace

Shaft damage cause: Other

Shaft Image:

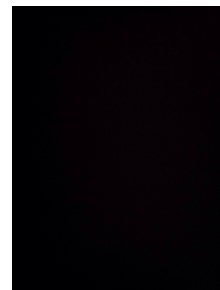


Mechanical Inspection (Continued)

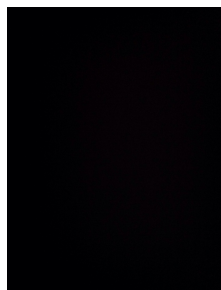
Brg. Image:



Bushings/sleeves image:



Water jacket: Ok



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: N/A

Length of leads: 12"

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

Size of leads: 6

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: Worn

Lug type: N/A

Connections As Received:

Lug Condition: —

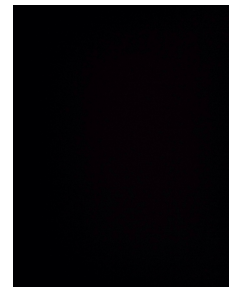
Lug size: N/A

Lug Attachment: Replace

Terminal



Lugs



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 46

Num broken bars: 0

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Turn-Turn short

If other, stator condition:

Failure location: Coil head

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
Fax 501-375-4254

AC Electrical Inspection (Continued)

Winding color: Still has color

Winding image

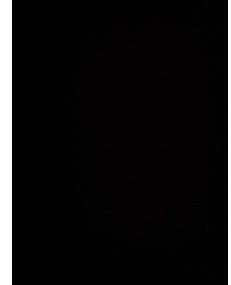
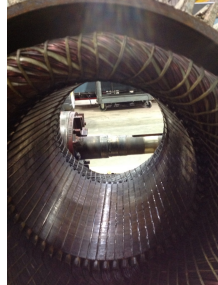
Winding Thermal Protection: Yes

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Rewind



Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Good

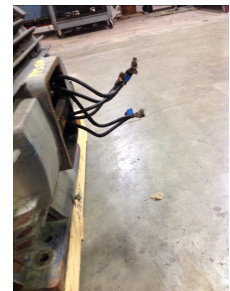
Winding Resistance Incoming

| | Phases A to B | Phases B to C | Phases C to A | Resistive imbalance |
|----------|---------------|---------------|---------------|---------------------|
| Incoming | 0.022850 | 0.021740 | 0.022720 | 4.9 |

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:





MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

Bearings and windings JRL on the DE

Cause of Failure

Bearing on the DE of the motor went down and caused the rotor too drag the core iron in the stator which caused the JRL on the DE to Weld it self too the inner race of the bearing

Comments

Mach work on the DE JRL
BEARINGS DE 6318C3 ODE 6314C3
Rewind
Clean parts
Balance rotor

Service Tech name: Michael Jordan

Service Tech signature:

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