

Job Information

Job #: 140626

Date: September 12, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Forterra

Reason:

Contact:

Motor#: 140626

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Hawkeyes

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 161336738

Model#: ITV-VR/36-11000

Service Factor:

Frame:

Horsepower/kW: 5.8hp

Rated RPM: 3600

Rated Amps: 13.8/6.9

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?: Yes

Contaminant(s): Other

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: NJ2312ECP/C4VQ015

Bearings ODE: Worn

Bearings ODE make: SKF

Bearing Type: Roller

Bearing ODE Size: NJ2312ECP/ C4VQ015

Bearings Retainer: Yes

Thermal Protection: Yes

Retainer condition: Good

Thermal Protection Type: Thermocouple

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



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)

Lubrication Type: Grease

Thermal Protection device DE: Thermal Overloads

Lubrication brand inbound: Unknown

Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: Full

Grease Cond. DE: New

Grease Amt ODE: Full

Grease Cond. ODE: New

Seals DE type: Other

Seals Image:

Seals DE size: O ring

Seals DE (inbound) condition : Fair



Seals ODE type: Other

Seals Image 2:

Seals ODE size: O ring

Seals ODE (inbound) condition : Fair



Shaft damage cause: None

Shaft Image:



Mechanical Inspection (Continued)

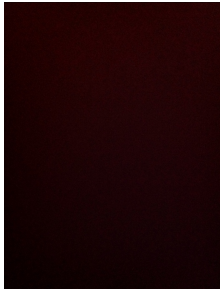
Brg. Image:



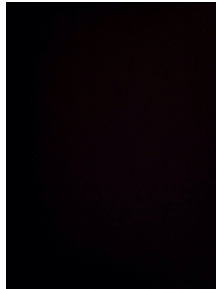
Bushings/sleeves image:



Water jacket: Ok



Fan: Ok



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|--------------------------------------|----------------------------------|--|
| <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 checked="" 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: 9

Terminal Markings: 1-9

Length of leads: 10"

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

Size of leads: 14

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: Bad

Lug type: Reg

Connections As Received: 460

Lug Condition: Bad

Lug size: 14

Lug Attachment: Replace

Terminal



Lugs



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 28

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: Rewind

Failure location: Coil head

If other, stator failure: Coil head

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: —

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	100	100	9.3	

Leads/jumpers: Replace

Lead jumper Image. :

If other, leads/jumpers:





MILLINGTON, TN

LITTLE ROCK, AR

Conclusion

Component Failure

Winding is bad it roasted the DE bearings are warn ODE END BELL IS BUSTED PUSH OFF BOLT HOLE

Cause of Failure

It appears too had went to ground caused by water getting inside the stator do too the o rings not holding a water tight seal and the winding is fully incapacitated but the water was still able too get inside that causing it too go to ground and

Comments

Only use KIUBER ISOFLEX NBU15 GREASE IN THE BEARINGS
AFTER MOTOR IS DIPPED AND BAKED WINDING SHOULD BE INCAPACITATED TOO MAKE IT WATER THIGHT
AND ORDER THREE NEW O RINGS
REPAIR NUMBER 2 END. BELL
CHECK FITS

Service Tech name: Michael

Service Tech signature:

WEST TENNESSEE

7030 Ryburn Drive
Millington, TN 38053
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