

## Job Information

Job #: 94041

Date: March 19, 2018

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: Eden Isle

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes: Motor has been wound for 230v only. Name plate info needs to be corrected.

## Name Plate Information

Manufacturer: Smith&amp;Loveless

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 6201959

Model#: 324-14200-01

Service Factor:

Frame: 324upz

Horsepower/kW: 5

Rated RPM: 1160

Rated Amps: 20/10

Rated Voltage: 230/460

Phase: 1

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: CCW

Contaminant(s) Amt: None

Shaft grounding device present?: No

Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Other

Bearings DE make: Other

Insulated: No

Bearing DE Size: 6312D 2rs

Bearings ODE: Other

Bearings ODE make: Other

Bearing Type: Ball

Bearing ODE Size: 6312D 2rs

Bearings Retainer: Yes

Thermal Protection: Yes

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: 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: Slinger

Seals Image:

Seals DE size:

Seals DE (inbound) condition :



Seals ODE type: Slinger

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition :



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: —

Terminal Markings:

Length of leads:

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: —

Terminal

Lugs

Lug size:

Lug Attachment: —



## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:

Num broken bars:

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: In slot

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: Like new

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

Leads/jumpers: Ok

If other, leads/jumpers:

## Conclusion

### Component Failure

### Cause of Failure


Shaft worn

### Comments

Initially found leads were hooked up for rotation in the wrong direction. Re-hooked up the leads for the right rotation and the motor ran good at 230v pulling approximately 16 amps on both legs. However the following discrepancies were noted. The motor is apparently wound for 230v operation only and the 460v information on the motor name plate was not removed. The drive end end bell slinger was caulked to the shaft because of the shaft having excessive wear and needs to be machined to the proper specs. Also the drive end end bell was full of grease and the opposite

Service Tech name: Terrence Holland

Service Tech signature:

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