

Job Information

Job #: 136991

Date: April 16, 2018

Priority: 2

Authorized OT: No

Authorized by:

Customer Information

Name: Friedman Industries Inc.

Reason:

Contact: Tony Hall

Motor#:

PO#:

Application: Direct Drive

Special notes:

Name Plate Information

Manufacturer: GE

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 01KH503658-BA

Model#:

Service Factor:

Frame: C3613ATZ

Horsepower/kW: 125

Rated RPM: 650/1700



Armature

Volts 500

Amps 203

Fields

Volts 300

Amps 8.84

Nameplate

DE

ODE

F1

F2

Top



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: Yes

Contaminant(s): Dirt

Shaft rotation: Bi-directional

Contaminant(s) Amt: Other

Shaft Condition: Good

Contaminant Image:

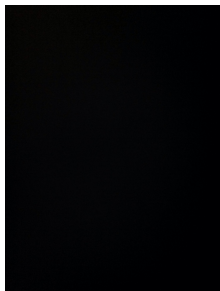
Shaft grounding device present?: No

Type of grounding device:

Shaft runout(TIR-Inbound): .001



Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



Lubrication Type: Grease

Thermal Protection device DE: N/A

Lubrication brand inbound: Unknown

Thermal Protection device ODE: N/A

Lubrication brand outbound: Unknown

Grease Amt DE: Full

Grease Cond. DE: Hard

Grease Amt ODE: Full

Grease Cond. ODE: Hard

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)

Brushholders	Number	8
	Condition	Good
	Size	
	Spring type	

Brushes	Number	8
	Size	1.375
	Shunt Len.	3.25
	Insulated	No
	TermType	Split ring

Brg Image



Shaft Image



Brushing/sleeves



End bell



Water jacket: N/A

Fan: N/A

Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Foot/Flange condition: Ok

Foot flatness: Pass

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



MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Missing parts?

☒ J-Box cover

☐ O-rings

☐ J-Box

☒ HH cover

☐ Glands

☐ None

Other missing parts

No blower

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

Electrical Inspection

☐ Move armature imbalance to Assemble

Commutator: Salvageable

Winding Inspection

Meg Test IP to Flds: Good

Polarity Check IP to Flds: Yes

Meg Series to Shunt: —

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

DC Electrical Inspection

Brushes: Grooved

Brush Image:



Brush holders: Salvageable Qty. 4

Insulators: Salvageable Qty. 4

Lead support stud: Salvageable Qty. 4

Alternate brush image:



Rocker ring: Salvageable Qty. 1

Commutator Type: Tig welded

Commutator images

Commutator Hardness: Good

Commutator Condition : Streaked

Commutator Film: Other



Armature type: Factory If other

Failure mode: Ok If other

Failure location: Other If other

Armature condition: Solid If other

Winding color: Still has color

Armature images



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

DC Electrical Inspection (Continued)

Armature Test Results

Megs: Good Hi-pot: Good Core loss: Good

Armature image



Fields condition

Series/Stab condition: Ok

Fields condition image:



Shunts condition: Ok

InterCoils condition: Ok

Fields test results

Series/Stab Meg: Ok Hi Pot: Ok Resistance: Ok

Shunts Meg: Ok Hi Pot: Ok Resistance: Ok

InterCoils Meg: Ok Hi Pot: Ok Resistance: Ok

Thermistors: In use

Field Test image

RTD: In use 0.2 At



Thermostat: None



MILLINGTON, TN

LITTLE ROCK, AR

Leads/jumpers: Ok

Lead jumper Image:



Conclusion

Component Failure

Motor preventive maintenance

Cause of Failure

Inside of motor very dirty. Commutator has grooving on it. Brushes worn. Bearings had hard grease, so lack of lubrication.

Comments

Motor cleaned up really good. Should be ok after steam and bake.

Service Tech name: Marc Pilgrim

Service Tech
signature:

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