

Job Information

Job #: 136674

Date: February 15, 2018

Priority: 1A Rush/OT

Authorized OT: No

Authorized by: Tony Hall

Customer Information

Name: Friedman Industries Inc.

Reason: Brushes worn/Comm threaded

Contact: Tony Hall

Motor#:

PO#:

Application: Direct Drive

Special notes: Order extra set of brushes

Name Plate Information

Manufacturer: Westinghouse

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 1S-70

Model#: 70F97789

Service Factor: 1.15

Frame: FB848ASY

Horsepower/kW: 450

Rated RPM: 247/935



Armature

Volts 500

Amps 570

Fields

Volts 120240

Amps 16.52

Nameplate



DE



ODE



F1



F2



Top



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: No

Contaminant(s): Dirt

Shaft rotation: CCW

Contaminant(s) Amt: Other

Shaft Condition: Good

Contaminant Image:

Shaft grounding device present?: No



Type of grounding device:

Shaft runout(TIR-Inbound):

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: Watery

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	12
	Condition	Salvageable
	Size	5/8" x 1 1/2"
	Spring type	Roll

Brushes	Number	12
	Size	1/4" x 1 1/2"
	Shunt Len.	4"
	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



MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Missing parts?

☐ J-Box cover

☐ O-rings

☐ J-Box

☐ HH cover

☐ Glands

☐ None

Other missing parts 1 cover on ODE opposite lead side

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: Worn to rivets

Brush Image:



Brush holders: Salvageable Qty. 12

Insulators: Salvageable Qty. 4

Lead support stud: Salvageable Qty. 4

Alternate brush image:



Rocker ring: Salvageable Qty. 1

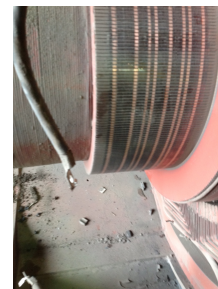
Commutator Type: Tig welded

Commutator images

Commutator Hardness: Good

Commutator Condition : Oil soaked

Commutator Film: Ok



Armature type: Factory If other

Failure mode: Ok If other

Failure location: Other If other

Armature condition: Solid If other

Winding color: Painted

Armature images



DC Electrical Inspection (Continued)

Armature Test Results

Armature image



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

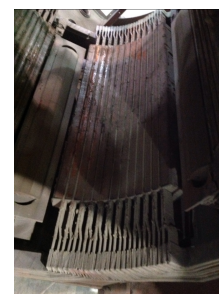
Fields condition

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: None

Field Test image

RTD: None At



Thermostat: None

Leads/jumpers: Ok

Lead jumper Image:



Conclusion

Component Failure

Commutator threaded. General clean, T/UC, brushes, etc.

Cause of Failure

Brushes worn down

Comments

Service Tech name: Marc Pilgrim

Service Tech
signature:

