

Job Information

Job #: 139036

Date: February 6, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Plaskolite

Reason: Motor inspection

Contact: Tom Guleff

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: US

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 106294FFC

Model#:

Service Factor:

Frame: 2110ATC

Horsepower/kW: 5

Rated RPM: 1750/2050



Armature

Volts 180

Amps 23.3

Fields

Volts 200

Amps 0.65

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: Worn

Contaminant Image:

Shaft grounding device present?: No



Type of grounding device:

Shaft runout(TIR-Inbound): .002

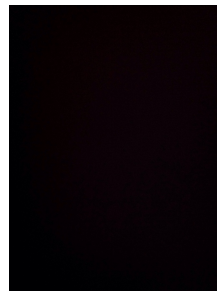
Bearing Type Image



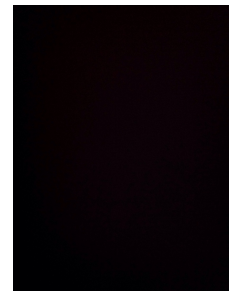
Bearing Make Image



Bearing Retainer Image



Thermal Protection



Lubrication Type: Grease

Thermal Protection device DE: N/A

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: N/A

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: N/A

Grease Cond. DE: Other

Grease Amt ODE: N/A

Grease Cond. ODE: Other

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	2
Condition	Good
Size	
Spring type	Constant tension

Brushes

Number	2
Size	H5
Shunt Len.	2.5 inches
Insulated	No
TermType	

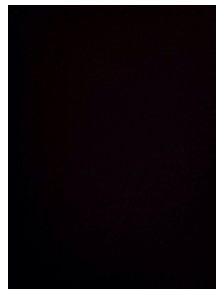
Brg Image



Shaft Image



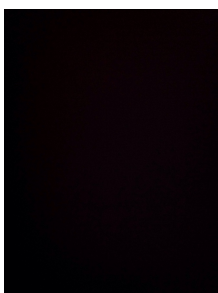
Brushing/sleeves



End bell



Water jacket: N/A



Fan: Ok



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Foot/Flange condition: Damaged/Broken

Foot flatness: Fail



MILLINGTON, TN

LITTLE ROCK, AR

Mechanical Inspection (Continued)

Missing parts?

☐ J-Box cover☐ O-rings☐ J-Box☐ HH cover☐ Glands☐ None

Other missing parts

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: Replace

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: Normal wear

Brush Image:



Brush holders: Salvageable Qty. 2

Insulators: Bad springs Qty. 2

Lead support stud: Salvageable Qty.

Alternate brush image:



Rocker ring: Salvageable Qty.

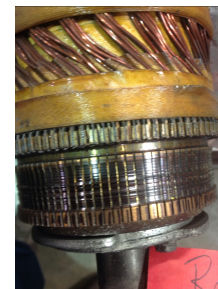
Commutator Type: Tig welded

Commutator images

Commutator Hardness: Good

Commutator Condition : Threaded

Commutator Film: Ok



Armature type: Factory If other

Failure mode: Ok If other

Failure location: Commutator If other

Armature condition: Rewind If other

Winding color: Like new

Armature images



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

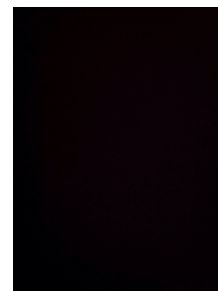
Shunts Meg: Ok Hi Pot: Ok Resistance: Ok

InterCoils Meg: Ok Hi Pot: Ok Resistance: Ok

Thermistors: None

Field Test image

RTD: None At



Thermostat: None

Leads/jumpers: Ok

Lead jumper Image:



Conclusion

Component Failure

Commutator

Cause of Failure

Read comments

Comments

Upon disassembly of motor. I noticed commutator badly threaded and grooved. Threading occurs when spring pressure is low, low current loads, contaminated atmosphere and high humidity. Grooving occurs with all the above but includes abrasive brush grade or vibration. I believe past brushes have been ran down to almost nothing and new brushes were installed and never seated properly. The frame of the motor has a soft foot issue I'm sure causing vibration in the motor. Because of these items I have listed the commutator is damaged beyond repair. Also when

Service Tech name: Daniel Mahan

Service Tech
signature: