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		Fields	
Volts	180	Volts	200
Amps	23.3	Amps	0.65

Nameplate

DE

ODE

F1

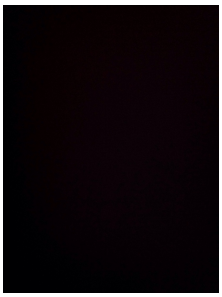
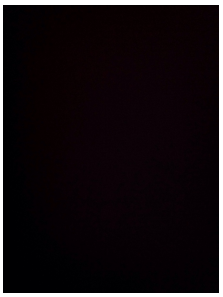
F2

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

Mechanical Inspection (Continued)

Brushholders

Number	2
Condition	Good
Size	
Spring type	Constant tension

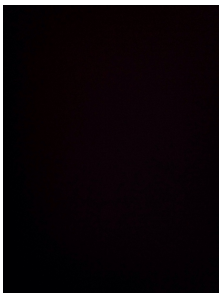
Brushes

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

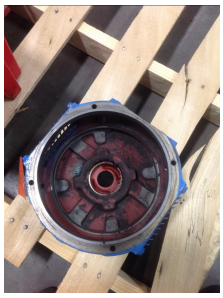
Brg Image

Shaft Image

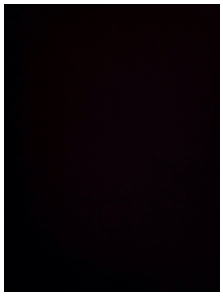
Brushing/sleeves



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

Mechanical Inspection (Continued)

Missing parts?

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

Other missing parts

Air Gap Meaurements (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: —

DC Electrical Inspection

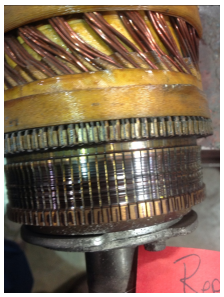
Brushes:	Normal wear		
Brush holders:	Salvageable	Qty.	2
Insulators:	Bad springs	Qty.	2
Lead support stud:	Salvageable	Qty.	
Rocker ring:	Salvageable	Qty.	

Brush Image:

Alternate brush image:

Commutator Type:	Tig welded
Commutator Hardness:	Good
Commutator Condition :	Threaded
Commutator Film:	Ok

Commutator images



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 image

Armature Test Results

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

Fields condition

Series/Stab condition: Ok

Shunts condition: Ok

InterCoils condition: Ok

Fields condition image:

Fields test results

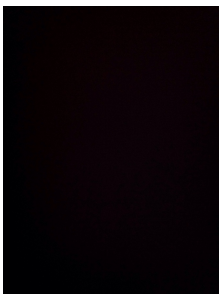
Series/Stab	Meg:	Ok	Hi Pot:	Ok	Resistance:	Ok
Shunts	Meg:	Ok	Hi Pot:	Ok	Resistance:	Ok
InterCoils	Meg:	Ok	Hi Pot:	Ok	Resistance:	Ok

Thermistors: None

RTD: None At

Thermostat: None

Field Test image



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: