

Job Information

Job #: 141281

Date: December 4, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Toyota Boshuku

Reason:

Contact:

Motor#: 141281

PO#:

Application: Radial Load

Special notes: MAKE SURE THAT ANY TIME A MOTOR DC or AC comes from Toyota that you only use metric tools on

Name Plate Information

Manufacturer: Yaskawa

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: S14E79101

Model#: GBDR-K

Service Factor:

Frame: 200CD

Horsepower/kW: 55kw

Rated RPM: 1750



Armature

Volts 440

Amps 136

Fields

Volts 150

Amps 10.1

Nameplate

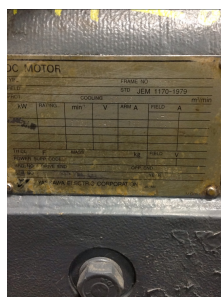
DE

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 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: Oil

Thermal Protection device DE: N/A

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: Thermal Overloads

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: New

Grease Amt ODE: Full

Grease Cond. ODE: New

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	Yes

Brushes

Number	8
Size	151728
Shunt Len.	4"
Insulated	No
TermType	

Brg Image



Shaft Image



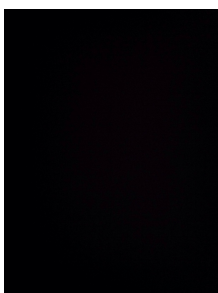
Brushing/sleeves



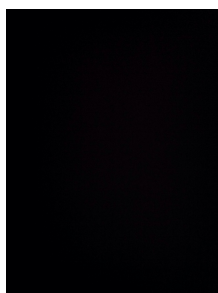
End bell



Water jacket: Ok



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 The j-box cover is for the tach and also missing the blower fan assembly

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: Good

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DC Electrical Inspection

Brushes: Normal wear

Brush Image:



Brush holders: Salvageable Qty.

Insulators: Salvageable Qty.

Lead support stud: Salvageable Qty.

Alternate brush image:



Rocker ring: Salvageable Qty.

Commutator Type: Tig welded

Commutator images

Commutator Hardness: Good

Commutator Condition : Streaked

Commutator Film: Ok



Armature type: Other

If other **Mush**

Armature images

Failure mode: Other

If other **Slot paper**



Failure location: CE core edge

If other

Armature condition: Rewind

If other

Winding color: Painted

DC Electrical Inspection (Continued)

Armature Test Results

Megs: Bad Hi-pot: Bad 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

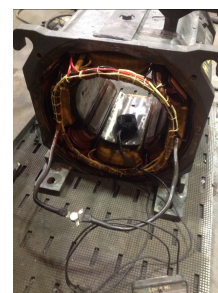
Resistance: Ok

Thermistors: In use .1

Field Test image

RTD: None At

Thermostat: None



Leads/jumpers: Ok

Lead jumper Image:



Conclusion

Component Failure

Armature winding insulation appears to have broke down at the end of the slot between two coils

Cause of Failure

Slot paper appears to have possibly been cut causing the winding to have come in contact with the core iron at the end of the slot

Comments

Rewind the armature

Turn and undercut the com

Order 8 new brushes #8827 151728

Order two new bearings one NU316EC and one instant coat 6312M/C3VL0241

Service Tech name: Michael Jordan

Service Tech
signature:

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