

### Job Information

Job #: 94887

Date: November 7, 2018

Priority: —

Authorized OT: No

Authorized by:

### Customer Information

Name: Baxter

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

### Name Plate Information

Manufacturer: Reliance

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: T25S1304E-RR

Model#:

Service Factor:

Frame: SC2512ATZ

Horsepower/kW: 40

Rated RPM: 2100



Armature

Volts 400

Amps 70

Fields

Volts 150300

Amps 2.221

Nameplate



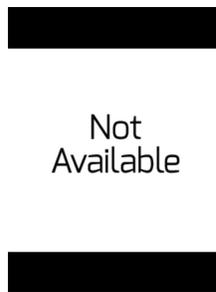
DE



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:	Bi-directional	Contaminant(s) Amt:	None
Shaft Condition:	Good	Contaminant Image:	
Shaft grounding device present?:	No		Not Available
Type of grounding device:	None		
Shaft runout(TIR-Inbound):			

Bearing Type Image



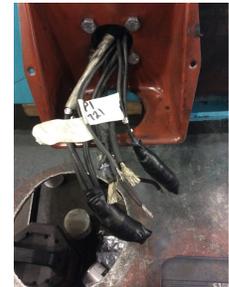
Bearing Make Image



Bearing Retainer Image



Thermal Protection



Lubrication Type: Grease

Thermal Protection device DE: N/A

Lubrication brand inbound: 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

### Mechanical Inspection (Continued)

Brushholders

- Number 4
- Condition Good
- Size
- Spring type

Brushes

- Number 4
- Size
- Shunt Len. 3.5
- Insulated No
- TermType

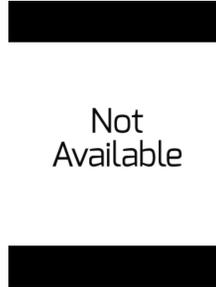
Brg Image



Shaft Image



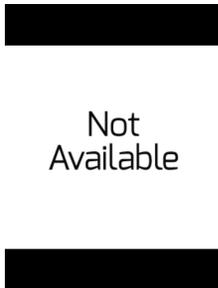
Brushing/sleeves



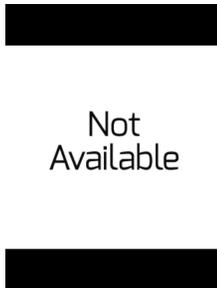
End bell



Water jacket: Ok



Fan: Ok



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Foot/Flange condition: Ok

Foot flatness: Pass

## 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: Salvageable

## Winding Inspection

Meg Test IP to Flds: Good    Polarity Check IP to Flds: Yes

Meg Series to Shunt: Good

## 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 : Flashed



Commutator Film: Black

Armature type: Factory If other

Armature images

Failure mode: Ground If other



Failure location: Commutator If other

Armature condition: Rewind If other

Winding color: Still has color

## DC Electrical Inspection (Continued)

Armature image

### Armature Test Results

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

### Fields condition

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Series/Stab condition: Ok

Fields condition image:



Shunts condition: Ok

InterCoils condition: Ok

### Fields test results

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

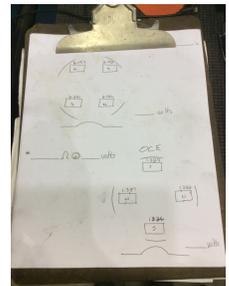
Shunts              Meg: Ok                      Hi Pot: Ok                      Resistance: Ok

InterCoils        Meg: Ok                      Hi Pot: Ok                      Resistance: Ok

Thermistors: None

Field Test image

RTD: In use                      At



Thermostat: Open

Leads/jumpers: Ok

Lead jumper Image:



## Conclusion

### Component Failure

Armature test failed.

### Cause of Failure

Grounded at the commutator. One of the brush holders was moved out of place and was rubbing against the commutator. A groove was worn into the comm which was the primary cause of failure.

### Comments

Turn and undercut comm. Rewind armature. Recondition stator. All machine fits check good. Brushes check good.

Service Tech name: Terrence Holland

Service Tech  
signature: