



MILLINGTON, TN

LITTLE ROCK, AR

Job Information

Job #: 138888

Date: January 14, 2019

Priority: 2

Authorized OT: No

Authorized by: Andrew

Customer Information

Name: GE Aviation

Reason: Motor failure

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: G3

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: CTH6083514002

Model#: 5KE284AC205C

Service Factor:

Frame: 284T

Horsepower/kW: 25

Rated RPM: 1760

Rated Amps: 60/30

Rated Voltage: 230/460

Phase: 3

Cycles:

Special design: No



Nameplate

DE

ODE

F1

F2

Top



WEST TENNESSEE
7030 Ryburn Drive
Millington, TN 38053
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Fax 901-873-5301

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Phone 501-375-9178
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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: None

Shaft grounding device present?: No

Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound): .000

Bearings DE: Worn

Bearings DE make: NTN

Insulated: No

Bearing DE Size: 311Z

Bearings ODE: Worn

Bearings ODE make: NSK

Bearing Type: Ball

Bearing ODE Size: 6310Z

Bearings Retainer: Yes

Thermal Protection: No

Retainer condition: Good

Thermal Protection Type: —

Bearing Type Image



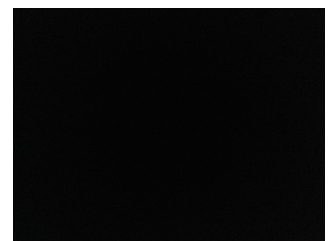
Bearing Make Image



Bearing Retainer Image



Thermal Protection



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Mechanical Inspection (Continued)

Lubrication Type: Grease

Thermal Protection device DE: —

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: —

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: New

Grease Amt ODE: Full

Grease Cond. ODE: New

Seals DE type: N/A

Seals Image:

Seals DE size:

Seals DE (inbound) condition :

Seals ODE type: N/A

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition
:

Shaft damage cause: None

Shaft Image:



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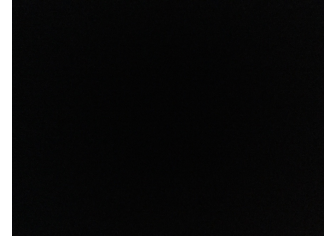
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Mechanical Inspection (Continued)

Brg. Image:



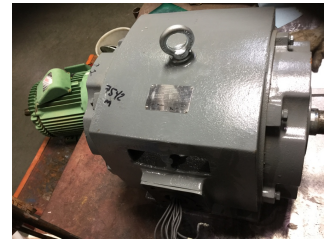
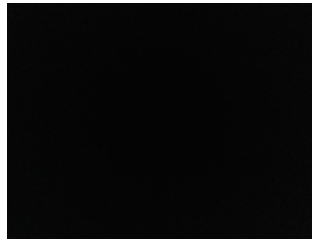
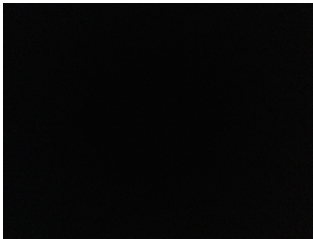
Bushings/sleeves image:



Water jacket: N/A

Fan: N/A

Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|--------------------------------------|----------------------------------|---|
| <input type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input checked="" type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover | <input type="checkbox"/> Glands | <input type="checkbox"/> None |

Other missing parts

Endbell Image:



Mechanical Inspection (Continued)

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

AC Electrical Inspection

Number of leads: 12

Terminal Markings: Stickers

Length of leads: 8"

REF: NEMA Std. MG 1-2009, Rev. 1-2010, 2.41-Terminal Markings Identified By Color:

Size of leads: 12 wag

1-Blue
2-White
3-Orange
4-Yellow

5-Black
6-No color assigned
7-No color assigned
8-Red

P1-No color assigned
P2-Brown

Lead condition: Good

Lug type: None

Connections As Received: 460

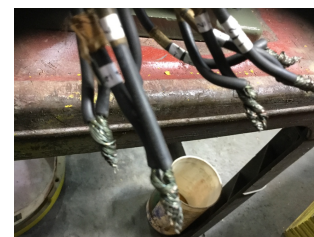
Lug Condition: —

Terminal

Lugs

Lug size:

Lug Attachment: —



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Open bars

Num rotor bars: 40

Num broken bars: 1

Rotor



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Coil-Coil short

If other, stator condition:

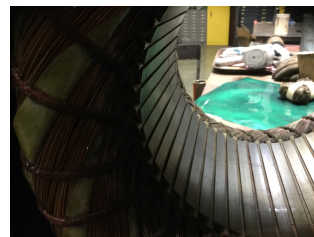
Failure location: Other

If other, stator failure:

Stator Image:



Failure Image:



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AC Electrical Inspection (Continued)

Winding color: Still has color

Winding image

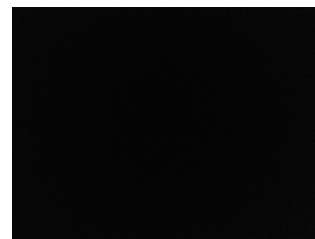
Winding Thermal Protection: Yes

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Rewind



Megs incoming: Good

Surge incoming: Bad

Hi-pot incoming: Good

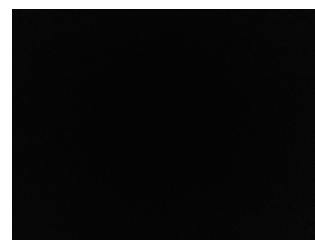
Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming	10	1.5	8.9	

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:





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Conclusion

Component Failure

Winding and rotor bar

Cause of Failure

Poor rewind

Comments

Failed surge test, put 50volts on and spun little rotor well and amps even. fairly fresh rewind but not buy us. marked rotor with two green marks showing open bar. washed and baked still checks bad.

Service Tech name: Jeremy

Service Tech signature:

A handwritten signature in black ink that reads 'Jeremy Wilson'.

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