

## Job Information

Job #: 139011

Date: January 29, 2019

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: KTG

Reason: Motor inspection

Contact: Cindy Davis

Motor#:

PO#:

Application: Radial Load

Special notes:

## Name Plate Information

Manufacturer: General Electric

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#:

Model#: 5ks445ss308

Service Factor:

Frame: 445T

Horsepower/kW: 125

Rated RPM: 1190

Rated Amps: 139

Rated Voltage: 460

Phase: 3

Cycles:

Special design: No



Nameplate

DE

ODE

F1

F2

Top

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Fax 901-873-5301**CENTRAL ARKANSAS**6812 Lindsey Rd.  
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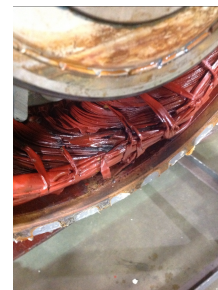
## Mechanical Inspection

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 grounding device present?: No Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6318

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6318

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: N/A

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: N/A

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

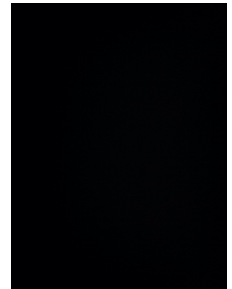
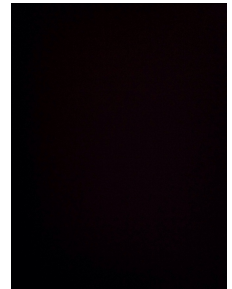
Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition  
:

Shaft damage cause: None

Shaft Image:



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## Mechanical Inspection (Continued)

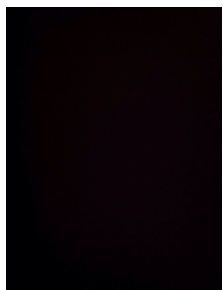
Brg. Image:



Bushings/sleeves image:



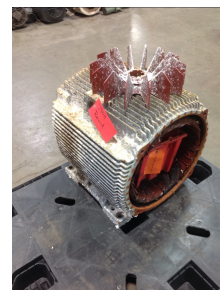
Water jacket: Ok



Fan: Ok



Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

☐ J-Box cover ☐ O-rings ☒ J-Box☐ HH cover ☐ Glands ☐ 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: 3

Terminal Markings:

Length of leads: 12 inches

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

Size of leads: 4awg

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: Standard

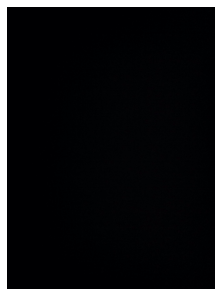
Connections As Received:

Lug Condition: Good

Terminal

Lugs

Lug size: 4awg



Lug Attachment: —

## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 54

Num broken bars: 0

Rotor



### Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Ok

If other, stator condition:

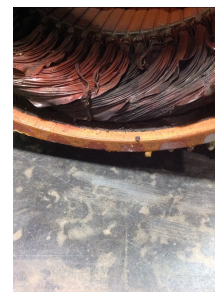
Failure location: Coil head

If other, stator failure:

Stator Image:



Failure Image:



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## AC Electrical Inspection (Continued)

Winding color: Still has color

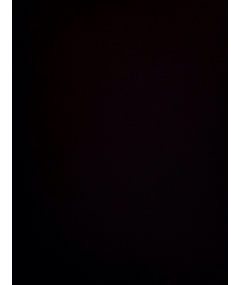
Winding image

Winding Thermal Protection: No

Winding condition : Charred

Winding Thermal  
Protection DE: —Winding Thermal  
Protection ODE: —

Stator test results: Rewind



Megs incoming: Bad

Surge incoming: Bad

Hi-pot incoming: Bad

### Winding Resistance Incoming

Phases A to B

Phases B to C

Phases C to A

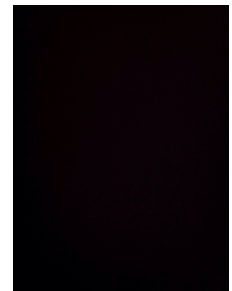
Resistive imbalance

Incoming

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:





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## Conclusion

### Component Failure

### Cause of Failure

Water in motor and possible overload

### Comments

Upon disassembly water came out of drive end once endbell was separated from stator found windings blown

Service Tech name: Dan Mahan

Service Tech signature:

A handwritten signature in black ink, appearing to read 'D - m -', likely representing the initials or full name of Dan Mahan.

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