

## Job Information

Job #: 94836

Date: October 31, 2018

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: Delete Logistics

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes: Explosion proof motor

## Name Plate Information

Manufacturer: Baldor

Enclosure : Totally Enclosed Fan Cooled

Enclosure Type image

Serial#: Z1701090742

Model#: CAT #IDXM7554T-C

Service Factor: 1.0

Frame: 254T

Horsepower/kW: 15

Rated RPM: 1765

Rated Amps: 36.3/18.1

Rated Voltage: 230/460

Phase: 3

Cycles: 60

Special design: No



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 grounding device present?: No

Type of grounding device: None

Shaft runout(TIR-Inbound):

Bearings DE: Worn

Bearings DE make: SKF

Insulated: No

Bearing DE Size: 6309 C3

Bearings ODE: Worn

Bearings ODE make: NACHI

Bearing Type: Ball

Bearing ODE Size: 6208 C3

Bearings Retainer: Yes

Thermal Protection: Yes

Retainer condition: Good

Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection

### WEST TENNESSEE

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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: Watery

Grease Amt ODE: Full

Grease Cond. ODE: Watery

Seals DE type: N/A

Seals Image:

Seals DE size:

Not  
Available

Seals DE (inbound) condition :

Seals ODE type: N/A

Seals Image 2:

Seals ODE size:

Not  
AvailableSeals ODE (inbound) condition  
:

Shaft damage cause: None

Shaft Image:

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## Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:

Not  
Available

Water jacket: N/A

Not  
Available

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

Endbell Image:



Other missing parts





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## Mechanical Inspection (Continued)

### Air Gap Measurements (N/A on Single Piece Endbell)

Does Air Gap Meet Customer or EASA spec(&lt;10% variation)?

DE @ 0

ODE @ 0

—

DE @ 90

ODE @ 90

DE @ 180

ODE @ 180

DE @ 270

ODE @ 270

## AC Electrical Inspection

Number of leads: 9

Terminal Markings:

Length of leads: 9"

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

Size of leads:

1-Blue  
2-White  
3-Orange  
4-Yellow5-Black  
6-No color assigned  
7-No color assigned  
8-RedP1-No color assigned  
P2-Brown

Lead condition: Good

Lug type: None

Connections As Received: 460v

Lug Condition: —

Terminal

Lugs

Lug size: N/a

Lug Attachment: —

Not  
AvailableNot  
Available

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## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars: 42

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:

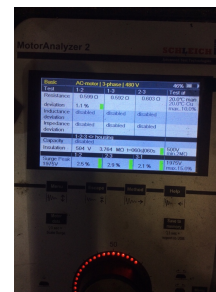
Failure location: Other

If other, stator failure:

Stator Image:



Failure Image:



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## AC Electrical Inspection (Continued)

Winding color: Like new

Winding image

Winding Thermal Protection: Yes

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Salvageable



Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Good

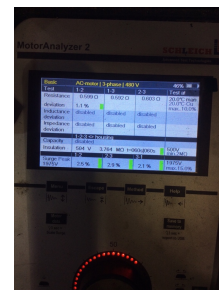
### Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming	0.599	0.592	0.603	1.1

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:



## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good

Bearings Retainer: Yes

Type of grounding device: None

Bearing DE Size: 6309 Z C3

Shaft runout(TIR-Inbound): .002

Bearing ODE Size: 6208 Z C3

Retainer condition: Good



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## Mechanical Inspection (Continued)

Seals DE condition : None

Brg. Seats DE: Good

Seals DE type: N/A

If DE undersized, amt.:

Seals DE size:

Brg. Seats ODE: Good

Seals DE (inbound) condition :

If ODE undersized, amt.:

Seals ODE condition : None

Shaft damage: OK

Seals ODE type: N/A

Seals ODE size:

Bushings/sleeves DE: Ok

Seals ODE (inbound) condition :

Bushings/sleeves ODE: Ok

Endbell fits/damage: Good

Foot/Flange condition: Ok

Endbell DE size: 3.9371

Foot flatness: Pass

Endbell DE insulated?: No

Does Air Gap Meet Customer or EASA spec(&lt;10% variation)?

Endbell ODE size: 3.1500

—

Endbell ODE insulated?: No

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## Conclusion

### Component Failure

Both bearings.

### Cause of Failure

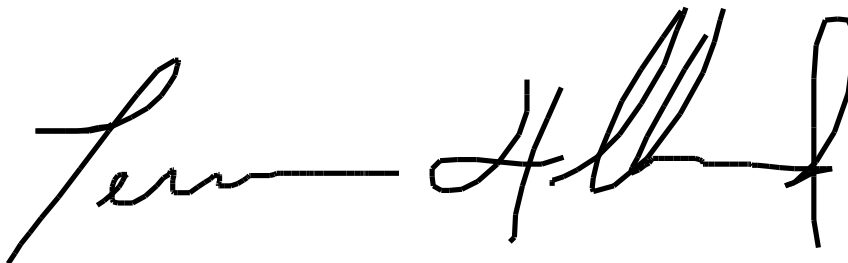
Moisture condensation inside stator and end bell housings.

### Comments

Excessive moisture condensation inside the stator and end bell housings was the main cause of premature bearing failure. Recommend adding heaters inside the stator to help alleviate this problem.

Service Tech name: Terrence Holland

Service Tech signature:

A handwritten signature in black ink, appearing to read 'Terrence Holland', with a stylized flourish at the end.**WEST TENNESSEE**

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