

## Job Information

Job #: 96887

Date: May 28, 2020

Priority: —

Authorized OT: No

Authorized by:

## Customer Information

Name: Magellan Midstream

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

## Name Plate Information

Manufacturer: Siemens

Enclosure : Totally Enclosed  
Fan Cooled

Enclosure Type image

Serial#:

Model#: Type: SD100 IEEE

Service Factor: 1.15

Frame:

Horsepower/kW: 125

Rated RPM: 1785

Rated Amps: 143.0

Rated Voltage: 460

Phase: 3

Cycles: 60

Special design: No



Nameplate

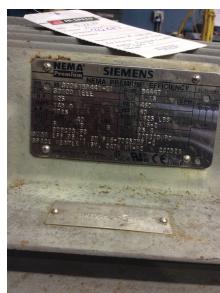
DE

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

Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound): .002

Bearings DE: Worn

Bearings DE make: Other

Insulated: No

Bearing DE Size: 6318 2Z/C3

Bearings ODE: Worn

Bearings ODE make: Other

Bearing Type: Ball

Bearing ODE Size: 6316 2Z/C3

Bearings Retainer: Yes

Thermal Protection: No

Retainer condition: Good

Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection

## 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: Other

Seals Image:

Seals DE size:

Seals DE (inbound) condition : Good

Seals ODE type: Other

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition : Good

Shaft damage cause: None

Shaft Image:



## Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A

Fan: Ok

Frame cond.: Good



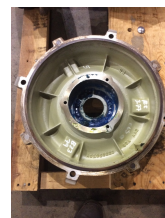
Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

☐ J-Box cover ☐ O-rings ☐ J-Box☐ HH cover ☐ Glands ☐ None

Endbell Image:



Other missing parts



## 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: 6

Terminal Markings:

Length of leads:

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-Yellow

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

P1-No color assigned  
P2-Brown

Lead condition: Good

Lug type:

Connections As Received:

Lug Condition: —

Terminal

Lugs

Lug size:

Lug Attachment: —



## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:

Num broken bars:

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:



#### WEST TENNESSEE

7030 Ryburn Drive  
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## AC Electrical Inspection (Continued)

Winding color: Like new

Winding image

Winding Thermal Protection: No

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

Leads/jumpers: Ok

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: 6318 C3

Shaft runout(TIR-Inbound): .002

Bearing ODE Size: 6316 C3

Retainer condition: Good



MILLINGTON, TN

LITTLE ROCK, AR

## Mechanical Inspection (Continued)

Seals DE condition : Other

Brg. Seats DE: Good

Seals DE type: Other

If DE undersized, amt.:

Seals DE size:

Brg. Seats ODE: Good

Seals DE (inbound) condition :

If ODE undersized, amt.:

Seals ODE condition : Other

Shaft damage: OK

Seals ODE type: Other

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: 7.4809

Foot flatness: Pass

Endbell DE insulated?: No

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

Endbell ODE size: 6.6935

—

Endbell ODE insulated?: No

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MILLINGTON, TN

LITTLE ROCK, AR

## Conclusion

### Component Failure

### Cause of Failure

### Comments

All 3 O.D.E bearing cap bolts were fully backed out. Both bearings show signs of frosting.

Service Tech name: Terrence Holland

Service Tech signature:

A handwritten signature in black ink that reads 'Terrence Holland'.

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