

#### **Job Information**

Job #: 95871 Date: August 14, 2019

Priority: Authorized OT: No Authorized by:

## **Customer Information**

Name: Welspun Tubular LLC Reason:

Contact: Motor#: PO#:

Application: Special notes:

## **Name Plate Information**

Manufacturer: Baldor Enclosure: Totally Enclosed **Enclosure Type image** 

Fan Cooled

C1303190647 Serial#: Model#: cat#cem4110t

Service Factor: 324tc 1.15 Frame:

Horsepower/kW: 40 Rated RPM: 1775

Rated Amps: 96/48 Rated Voltage: 230/460

Phase: 3 Cycles: 60

Special design:

No

Nameplate DE ODE F1 F2 Top









Fax 901-873-5301



## **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?:

Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6312

Bearings ODE: Worn Bearings ODE make: NSK

Bearing Type: Ball Bearing ODE Size: 6311

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



Lubrication Type: Grease Thermal Protection device DE: -

Lubrication brand inbound: Unknown Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: 1/4 Grease Cond. DE: Other

Grease Amt ODE: Full Grease Cond. ODE: Charred

Seals DE type: N/A

Seals DE size:

Seals DE (inbound) condition:

Seals ODE type: N/A

Seals ODE size:

Seals ODE (inbound) condition

:

Shaft damage cause: None Shaft Image:





Brg. Image:



Water jacket: N/A Fan:



Ok

Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount Endbell type: Single piece

Missing parts? Endbell Image:

☐ J-Box cover ☐ O-rings ☐ J-Box

☐ HH cover ☐ Glands ☑ None





Other missing parts



Air Gap Meaurements (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: 9 Terminal Markings:

REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal Length of leads: 18inch

Markings Identified By Color:

P1-No color assigned 5-Black 1-Blue Size of leads: F1

P2-Brown 2-White 6-No color assigned

7-No color assigned 3-Orange

4-Yellow 8-Red Lead condition: Good

Connections As Received: Lug type:

Lug Condition: Good Terminal Lugs

Lug size:

Lug Attachment:





# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars: 40

Num broken bars: 0

Rotor



#### **Rotor Test Results**

**Rotor Condition:** 

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:





## **AC Electrical Inspection (Continued)**

Winding color: Still has color 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 0.00 0.00 0.00

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: Bearing DE Size: 6312

Shaft runout(TIR-Inbound): Bearing ODE Size: 6311

Retainer condition: Good

x 901-873-5301



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

4.7586 BAD

Endbell fits/damage: Good Foot/Flange condition: Ok

Endbell DE size: 5.1182 Foot flatness: Pass

Endbell DE insulated?: —

Does Air Gap Meet Customer or EASA spec(<10%

variation)?

Endbell ODE insulated?: -

Endbell ODE size:



#### **Conclusion**

**Component Failure** 

**Cause of Failure** 

#### **Comments**

Bearings show signs of frosting and the ODE end bell bearing fit is damaged. Recommend reconditioning and machine work on the ODE end bell.

Chris Eller

Service Tech name: Chris Wiley

Service Tech signature:

Fax 901-873-5301