

#### **Job Information**

Job #: 94156 Date: April 6, 2018

Priority: Authorized OT: No Authorized by:

#### **Customer Information**

Name: Horseless foods Reason:

Contact: Motor#: PO#:

Application: Special notes:

#### **Name Plate Information**

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

Fan Cooled

Serial#: Model#:

Service Factor: 1.15 Frame: 447Ty

Horsepower/kW: 250 Rated RPM: 3575

Rated Amps: 228 Rated Voltage: 460

Cycles: Phase: 3 60

Special design:

No

Nameplate DE ODE F1 F2 Top









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## **Mechanical Inspection**

Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE:

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 No Contaminant Image:

Other

present?:

Insulated: No Bearing DE Size: NU 313ECM/C3

Bearings ODE: Other Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6313-2Z/C3GJN

Bearings Retainer: Yes Thermal Protection: Yes

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image

Bearings DE make:

SKF

Thermal Protection



## **Mechanical Inspection (Continued)**

Lubrication Type: Oil Thermal Protection device DE: -

Lubrication brand inbound: Unknown Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: N/A Grease Cond. DE: Other

Grease Amt ODE: 1/4 Grease Cond. ODE: Charred

Seals DE type: Slinger Seals Image:

Seals DE size:

Seals ODE type: Slinger

Seals ODE size:

Seals ODE (inbound) condition

Seals DE (inbound) condition:

Shaft damage cause: None

Shaft Image:



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# **Mechanical Inspection (Continued)**

Brg. Image:



Bushings/sleeves image:



Water jacket:

Ok

Fan: C

Ok

Frame cond.:

Good



Motor Mount Position:

Horizontal/Foot mount

Endbell type:

Endbell Image:

Single piece

Missing parts?

☐ J-Box cover

O-rings

☐ J-Box

☐ HH cover

Glands

☐ None

Other missing parts





## **Mechanical Inspection (Continued)**

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: 6 Terminal Markings:

Length of leads: 20" REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal

Markings Identified By Color:

Size of leads: 1/0 awg 200c 1000v 1-Blue 5-Black P1-No color assigned

2-White 6-No color assigned P2-Brown

3-Orange 7-No color assigned

Lead condition: Good 4-Yellow 8-Red

Connections As Received: Lug type:

Lug Condition: — Terminal Lugs

Lug size:

Lug Attachment: —





# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars:

Num broken bars:

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: Coil head If other, stator failure:

Stator Image: Failure Image:







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

Winding color: Dull black Winding image Winding Thermal Protection: Yes

Winding condition: Solid

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:





### Conclusion

**Component Failure** 

#### **Cause of Failure**

Windings shorted coil to coil.

#### Comments

Disassembly of motor revealed two major problems. 1) The primary cause of failure was a coil to coil short on the drive end side of the motor. 2) The opposite drive end bearing housing apparently contained old grease and was not greased on a regular basis.

Service Tech name: Terrence Holland

Service Tech signature: