

#### **Job Information**

Job #: 140264 Date: July 25, 2019

Priority: Authorized OT: No Authorized by:

# **Customer Information**

Name: Nucor Reason:

Contact: Motor#: PO#:

Application: Special notes:

#### **Name Plate Information**

Manufacturer: P & H Harnischbeger Enclosure: Totally Enclosed **Enclosure Type image** 

Fan Cooled

0020C-1BAC-0088 Serial#: 96-1092A-4 Model#:

Service Factor: Frame: 184

Horsepower/kW: 2 Rated RPM: 1800 /14

Rated Amps: Rated Voltage: 460 3

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?: Contaminant(s): Water Yes

> Shaft rotation: Bi-directional Contaminant(s) Amt: Other

Shaft grounding device No

Contaminant Image: present?:

Shaft runout(TIR-Inbound):

Type of grounding device:

Bearings DE: Worn Bearings DE make: Koyo

Insulated: Bearing DE Size: 6205-2RS No

Bearings ODE: Worn Bearings ODE make: Koyo

Bearing Type: Bearing ODE Size: Ball 6205-2RS

Bearings Retainer: Thermal Protection: No No

Retainer condition: 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: 1/4 Grease Cond. DE: Watery

Grease Amt ODE: 0 Grease Cond. ODE: Other

Seals DE type: N/A Seals Image:

Seals DE (inbound) condition :

Seals Image 2:

Seals ODE size:

Seals ODE type:

N/A

Seals DE size:

Seals ODE (inbound) condition

Shaft damage cause: None Shaft Image:

WEST TENNESSEE 7030 Ryburn Drive Millington, TN 38053 Phone 901-873-5300

Fax 901-873-5301

CENTRAL ARKANSAS 6812 Lindsey Rd. Little Rock, AR 72206 Phone 501-375-9178 fax 501-375-4254



# **Mechanical Inspection (Continued)**

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A



Fan: N/A



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

Motor frame is cracked across j-box frame





#### **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: 3 Terminal Markings: 1,2,3,p1,p2

Length of leads: 6" REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal

Markings Identified By Color:

Size of leads: 18 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: Okay
Lug type: None

Lug Condition: — Terminal Lugs

Lug size:

Lug Attachment: —



Fax 901-873-5301



# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars: 46

0

Num broken bars:

Rotor



#### **Rotor Test Results**

**Rotor Condition:** 

Visual: Pass Growler: Pass Single phase: Pass

Stator type: Factory If other, stator type:

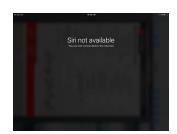
Stator condition: Ok If other, stator condition:

Failure location: Other If other, stator failure: No failure

Stator Image:



Failure Image:





### **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: Rewind





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 10.698 10.699 10.706 0.1

Leads/jumpers: Ok Lead jumper Image. :

If other, leads/jumpers:





#### Conclusion

**Component Failure** 

Bearings

**Cause of Failure** 

Water in grease.

**Comments** 

Service Tech name: Kelly Felts

Service Tech signature:

WEST TENNESSEE CENTRAL ARKANSAS
7030 Ryburn Drive 6812 Lindsey Rd.

Millington, TN 38053 Phone 901-873-5300 Fax 901-873-5301 6812 Lindsey Rd. Little Rock, AR 72206 Phone 501-375-9178 Fax 501-375-4254

Kellynd