

Job Information

Job #: 140435

Date: August 19, 2019

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Nucor Yamato

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: P&H

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: 509377-692

Model#: 281M. 1020-E

Service Factor:

Frame: 284

Horsepower/kW: 15

Rated RPM: 1145

Rated Amps: 20.3

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): .0015

Bearings DE: Worn

Bearings DE make: SKF

Insulated: No

Bearing DE Size: 6210-2RS1/C3

Bearings ODE: Worn

Bearings ODE make: SKF

Bearing Type: Ball

Bearing ODE Size: 6209-2RS1/C3

Bearings Retainer: Yes

Thermal Protection: Yes

Retainer condition: Good

Thermal Protection Type: Thermocouple

Bearing Type Image



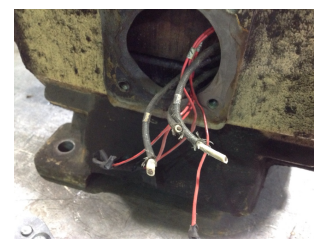
Bearing Make Image



Bearing Retainer Image



Thermal Protection



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)

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: Charred

Grease Amt ODE: 1/4

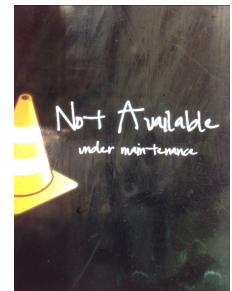
Grease Cond. ODE: Charred

Seals DE type: N/A

Seals Image:

Seals DE size:

Seals DE (inbound) condition :

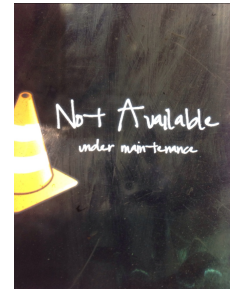


Seals ODE type: N/A

Seals Image 2:

Seals ODE size:

Seals ODE (inbound) condition :



Shaft damage cause: Extensions bent

Shaft Image:

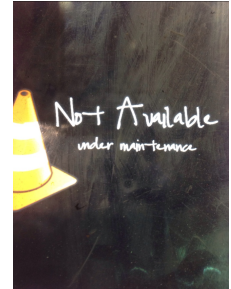


Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A



Fan: N/A



Frame cond.: Bad



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|--------------------------------------|----------------------------------|--------------------------------|
| <input type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover | <input type="checkbox"/> Glands | <input type="checkbox"/> None |

Other missing parts

Endbell Image:



Feet

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: 3

Terminal Markings: 1-3

Length of leads: 4"

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

Size of leads: 12

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: Bad

Lug type: Cut off

Connections As Received: Open

Lug Condition: Bad

Terminal

Lugs

Lug size:



Lug Attachment: Replace

AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor

Rotor Condition: Ok

Num rotor bars: 43

Num broken bars: 0



Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: HISI

If other, stator type:

Stator condition: Ok

If other, stator condition:

Failure location: Other

If other, stator failure: Feet broken

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: 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	0.8078	0.8082	0.8076	0.1

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:



Conclusion

Component Failure

Stator frame

Cause of Failure

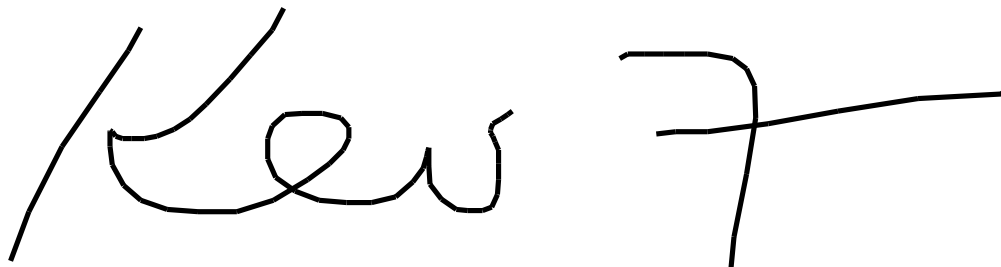
Feet broken spline shaft bent

Comments

Needs two feet fabricated and welded onto stator housing and splined shaft welded ,straightened and splines recut

Service Tech name: Kev f

Service Tech signature:

A handwritten signature in black ink, appearing to read 'Kev f', with a long horizontal stroke extending to the right.