

#### **Job Information**

Job #: 94047 Date: March 7, 2018

Priority: Authorized OT: No Authorized by:

#### **Customer Information**

Name: Arkansas Industrial Machine Reason:

Contact: Motor#: PO#:

Application: Special notes:

#### **Name Plate Information**

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

Fan Cooled 1LA9209-2AA99-Serial#:

EN0116/514436 Model#: Z119

Service Factor: 200L Frame:

Horsepower/kW: 60 hp Rated RPM: 3570

Rated Amps: 72 Rated Voltage: 460

Phase: 3 Cycles: 60

Special design: Yes

> Nameplate DE ODE F1 F2 Top











Not Available

WEST TENNESSEE

Millington, TN 38053 Phone 901-873-5300 Fax 901-873-5301



## **Mechanical Inspection**

Type of grounding device:

Shaft runout(TIR-Inbound):

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: Yes Contaminant(s): None

Shaft rotation: — Contaminant(s) Amt: None

Shaft grounding device present?: No Contaminant Image:

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Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: NU212

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6212

Bearings Retainer: Yes Thermal Protection: No

Retainer condition: Good Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection

Not Available

Seals Image 2:



#### **Mechanical Inspection (Continued)**

Lubrication Type: Oil Thermal Protection device DE: —

Lubrication brand inbound: Unknown 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 ODE type: Slinger

Seals ODE size:

Seals ODE (inbound) condition

Seals DE (inbound) condition:

Shaft damage cause: None Shaft Image:

Not Available

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# **Mechanical Inspection (Continued)**

Brg. Image:



Bushings/sleeves image:



Water jacket:

N/A

Fan: (

Ok

Frame cond.:

Good

Not Available



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: 1-6

REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal Length of leads: 42"

Markings Identified By Color:

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

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: Terminal Lugs

Lug size:

Lug Attachment:



Not Available

Rotor



# **AC Electrical Inspection (Continued)**

Rotor Type: Cast Aluminum

Ok

Num rotor bars:

Num broken bars:



#### **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: Failure Image:







## **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: Rewind

Not Available

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 60.992 61.119 60.486 0.8

Leads/jumpers: Ok Lead jumper Image. :

Not Stable Not Available



#### **Conclusion**

**Component Failure** 

Cage failed on DE bearing

**Cause of Failure** 

Lack of lubrication

**Comments** 

Service Tech name: Lynn McDonald

Service Tech signature:

Zyn