Job Information

Job #: 94763

Date: September 27, 2018

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Flakeboard

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer:	Reliance	Enclosure :	Totally Enclosed Fan Cooled
Serial#:	43MN360319G001XX	Model#:	P36G0319K
Service Factor:	1.15	Frame:	364T
Horsepower/kW:	60	Rated RPM:	1775
Rated Amps:	144/72.4	Rated Voltage:	230/460
Phase:	3	Cycles:	60
Special design:	No		

Enclosure Type image

Nameplate

DE

ODE

F1

F2

Not Available

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):	.001		

Bearings DE:	Worn	Bearings DE make:	NACHI
Insulated:	No	Bearing DE Size:	6313/2z
Bearings ODE:	Worn	Bearings ODE make:	NACHI
Bearing Type:	Ball	Bearing ODE Size:	6313/2z
Bearings Retainer:	Yes	Thermal Protection:	No
Retainer condition:	Good	Thermal Protection Type:	—

Bearing Type Image

Bearing Make Image

Bearing Retainer Image

Thermal Protection

[redacted]

Not Available

[redacted]

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:	Full	Grease Cond. DE:	Other
Grease Amt ODE:	Full	Grease Cond. ODE:	Other
Seals DE type:	Slinger	Seals Image:	[redacted]
Seals DE size:			Not Available
Seals DE (inbound) condition :			[redacted]
		Seals Image 2:	[redacted]
Seals ODE type:	N/A		Not Available
Seals ODE size:			
Seals ODE (inbound) condition :			[redacted]
Shaft damage cause:	None	Shaft Image:	

Mechanical Inspection (Continued)

Brg. Image:

Bushings/sleeves image: [redacted]

Not Available

[redacted]

Water jacket: N/A

[redacted]

Not Available

[redacted]

Fan: Ok

Frame cond.: Good

Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- ☐ J-Box cover
- ☐ O-rings
- ☐ J-Box
- ☐ HH cover
- ☐ Glands
- ☐ None

Endbell Image:

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: 9

Length of leads:

Size of leads:

Lead condition: Good

Lug type:

Lug Condition: —

Lug size:

Lug Attachment: Acceptable

Terminal Markings:

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

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

Connections As Received:

Terminal

[redacted]

Not Available

[redacted]

Lugs

AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:	47
Num broken bars:	0

Rotor

Rotor Test Results

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:

[redacted]

Not Available

[redacted]

AC Electrical Inspection (Continued)

Winding color: Painted

Winding condition : Solid

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Salvageable

Winding image

Winding Thermal Protection: Yes

[redacted]

Not Available

[redacted]

Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Good

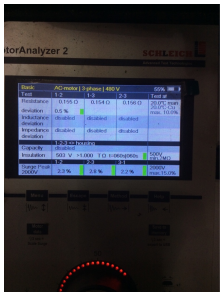
Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming	0.155	0.154	0.156	0.5

Leads/jumpers: Ok

If other, leads/jumpers:

Lead jumper Image. :



Conclusion

Component Failure

Bearings

Cause of Failure

Electrical discharge due to shaft current flow.

Comments

Motor assembly test ran good on initial run. However subsequent disassembly of motor revealed signs of electrical discharge which caused the grease to become discolored. To confirm this both bearings were cut in half which showed definite signs of fluting in both bearings. To solve this problem I recommend electrical shaft isolation procedures be implemented in the form of Aegis ring/Inso-coat style bearing.

Service Tech name: Terrence Holland

Service Tech signature: