

Job Information

Job #: 96867

Date: May 18, 2020

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Future fuel

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

Name Plate Information

Manufacturer: Reliance

Enclosure : Totally Enclosed
Fan Cooled

Enclosure Type image

Serial#:

Model#:

Service Factor: 1.15

Frame: 364TS

Horsepower/kW: 60

Rated RPM: 3565

Rated Amps: 66.3

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):

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6313 2Z

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6313 2Z

Bearings Retainer: Yes Thermal Protection: 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: Unknown

Thermal Protection device ODE: —

Lubrication brand outbound: Unknown

Grease Amt DE: Full

Grease Cond. DE: Gritty

Grease Amt ODE: Full

Grease Cond. ODE: Gritty

Seals DE type: N/A

Seals DE size:

Seals DE (inbound) condition :

Seals ODE type: N/A

Seals ODE size:

Seals ODE (inbound) condition :

Shaft damage cause: None

Shaft Image:



Mechanical Inspection (Continued)

Brg. Image:



Water jacket: N/A

Fan: Ok

Frame cond.: Good



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- | | | |
|---|----------------------------------|--------------------------------|
| <input checked="" 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 |

Endbell Image:



Other missing parts

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:

Length of leads: 15"

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

Size of leads:

1-Blue	5-Black	P1-No color assigned
2-White	6-No color assigned	P2-Brown
3-Orange	7-No color assigned	
4-Yellow	8-Red	

Lead condition: Good

Lug type:

Connections As Received:

Lug Condition: Good

Terminal

Lugs

Lug size:

Lug Attachment: Acceptable



AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor Condition: Ok

Num rotor bars:
Num broken bars:

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:



AC Electrical Inspection (Continued)

Winding color: Still has color

Winding image

Winding Thermal Protection: No

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

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Good

Bearings Retainer: Yes

Type of grounding device: None

Bearing DE Size: 6313 2Z

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6313 2Z

Retainer condition: Good



Mechanical Inspection (Continued)

Seals DE condition :	None	Brg. Seats DE:	Good
Seals DE type:	N/A	If DE undersized, amt.:	
Seals DE size:		Brg. Seats ODE:	Good
Seals DE (inbound) condition :		If ODE undersized, amt.:	
Seals ODE condition :	Worn	Shaft damage:	OK
Seals ODE type:	Slinger		
Seals ODE size:		Bushings/sleeves DE:	Ok
Seals ODE (inbound) condition :		Bushings/sleeves ODE:	Ok
Endbell fits/damage:	Good	Foot/Flange condition:	Ok
Endbell DE size:	5.5118	Foot flatness:	Pass
Endbell DE insulated?:	No	Does Air Gap Meet Customer or EASA spec(<10% variation)?	
Endbell ODE size:	Lip worn (bad)		
Endbell ODE insulated?:	—		

Conclusion

Component Failure

Bearings. O.d.e housing fit.

Cause of Failure

O.D.E. Bearing has metal fatigue. O.D.E. Housing fit has massive lip worn in and needs to be re-sleeved.

Comments

Windings check good. O.D.E. End bell housing has 2ea. fan cover mount bolts broken off and needs to be drill and tapped.

Service Tech name: Terrence Holland

Service Tech signature:

