Job Information

Job #:	94842			Date:	October 30, 2018
Priority:	—	Authorized OT:	No	Authorized by:	

Customer Information

Name:	Almatis Inc			Reason:	
Contact:		Motor#:		PO#:	
Application:	—	Special notes:			

Name Plate Information

Manufacturer:	US Motors	Enclosure :	Totally Enclosed Fan Cooled
Serial#:		Model#:	GC03
Service Factor:	1.15	Frame:	324T
Horsepower/kW:	40	Rated RPM:	1786
Rated Amps:	94/46	Rated Voltage:	230/460
Phase:	3	Cycles:	60
Special design:	No		

Enclosure Type image

Nameplate

DE

ODE

F1

F2

Top

Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?:	No	Contaminant(s):	None
Shaft rotation:	—	Contaminant(s) Amt:	None
Shaft grounding device present?:	No		
Type of grounding device:			
Shaft runout(TIR-Inbound):			

Bearings DE:	Worn	Bearings DE make:	Other
Insulated:	No	Bearing DE Size:	6311 ZZ
Bearings ODE:	Worn	Bearings ODE make:	Other
Bearing Type:	Ball	Bearing ODE Size:	6211 ZZ
Bearings Retainer:	No	Thermal Protection:	No
Retainer condition:	—	Thermal Protection Type:	—

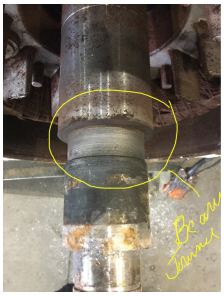
Bearing Type Image

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:	1/4	Grease Cond. DE:	Other
Grease Amt ODE:	1/4	Grease Cond. ODE:	Other
Seals DE type:	Slinger		
Seals DE size:			
Seals DE (inbound) condition :			
Seals ODE type:	Slinger		
Seals ODE size:			
Seals ODE (inbound) condition :			
Shaft damage cause:	Other	Shaft Image:	

Mechanical Inspection (Continued)

Brg. Image:

Bushings/sleeves image:

Water jacket: N/A

Fan: Ok

Frame cond.: Good

Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- [x] 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: 12

Length of leads: 10”

Size of leads:

Lead condition: Worn

Lug type:

Lug Condition: —

Lug size:

Lug Attachment: —

Terminal Markings:

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

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	

Connections As Received: 460 volts

Terminal Lugs

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: Ground If other, stator condition:

Failure location: In slot 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

Megs incoming: Bad

Surge incoming: Bad

Hi-pot incoming: Bad

Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming				

Leads/jumpers: Ok

If other, leads/jumpers:

Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Damaged

Bearings Retainer: No

Type of grounding device:

Bearing DE Size: 6311 ZZ

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6211 ZZ

Retainer condition: —

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:	Undersized
Seals DE (inbound) condition :		If ODE undersized, amt.:	>.050”
Seals ODE condition :	None	Shaft damage:	Replace
Seals ODE type:	N/A		
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:	4.7250	Foot flatness:	Pass
Endbell DE insulated?:	No		
Endbell ODE size:	3.9378	Does Air Gap Meet Customer or EASA spec(<10% variation)?	
Endbell ODE insulated?:	No	—	

Conclusion

Component Failure

Windings grounded, ODE Bearing journal Worn

Cause of Failure

Windings failed when ODE bearing spun on the shaft wearing the shaft and letting the rotor rub the stator core

Comments

Look at replacing the motor

Service Tech name: Lynn McDonald

Service Tech signature: