

Job Information

Job #:	94498				Date:	July 11, 2018
Priority:	_	Authorized OT:	No	Authorized by:		

Customer Information

Name:	Ryerson		Reason:	
Contact:		Motor#:		PO#:
Application:	_	Special notes:		

Name Plate Information

Manufacturer:	Siemans	Enclosure :	Open Drop Proof (ODP)
Serial#:	E1107/81534402-00 1	Model#:	1LA5209-2AA99- ZT17
Service Factor:	1.15	Frame:	200L
Horsepower/kW:	37kw	Rated RPM:	3550
Rated Amps:	59	Rated Voltage:	460
Phase:	3	Cycles:	60
Special design:	No		

Enclosure Type image



Nameplate

DE

ODE

F1





Тор

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F2



Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?:	No	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):			0

Bearings DE:	Worn	Bearings DE make:	SKF
Insulated:	No	Bearing DE Size:	NU 6212
Bearings ODE:	Worn	Bearings ODE make:	SKF
Bearing Type:	Ball	Bearing ODE Size:	6212-2Z/C4
Bearings Retainer:	Yes	Thermal Protection:	No
Retainer condition:	Good	Thermal Protection Type:	_

Bearing Type Image



Bearing Make Image



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Bearing Retainer Image



Thermal Protection





Mechanical Inspection (Continued)

Lubrication Type:	Oil	Thermal Protection device DE:	_
Lubrication brand inbound:	Unknown	Thermal Protection device ODE:	_
Lubrication brand outbound:	Unknown		
Grease Amt DE:	N/A	Grease Cond. DE:	New
Grease Amt ODE:	0	Grease Cond. ODE:	Gritty
Seals DE type: Seals DE size: Seals DE (inbound) condition :	Slinger Worn	Seals Image:	
Seals ODE type: Seals ODE size: Seals ODE (inbound) condition :	N/A	Seals Image 2:	

Shaft damage cause:

Other

Shaft Image:



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Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:



Water jacket: N/A



Fan: Ok









Missing parts?

Other missing parts

J-Box cover	O-rings

HH cover

Glands None

J-Box



Single piece

Endbell Image:



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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:				
Length of leads:	4'	REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal Markings Identified By Color:				
Size of leads:		1-Blue 2-White 3-Orange	5-Black 6-No color assigned 7-No color assigned	P1-No color assigned P2-Brown		
Lead condition:	Good	4-Yellow	8-Red			
Lug type:		Connections As Received:				
Lug Condition:	_		Terminal	Lugs		
Lug size:						
Lug Attachment:	_					

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AC Electrical Inspection (Continued)



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AC Electrical Inspection (Continued)

Winding c	olor:	Dull black	Winding	g image	Winding Thermal I	Protection: No	
Winding condit	tion :	Solid					N. N. C.
Winding The Protection	rmal DE:	_					
Winding The Protection C	rmal DDE:	_					
Stator test res	sults:	Rewind					
Megs incoming:	Bad		Surge incoming:	Bad	Hi-pot inco	oming: Bad	
Winding Resist	ance In	coming					
	Phase	es A to B	Phases B to C	Phases	s C to A	Resistive imbalance	
Incoming	0.122	2	0.121	0.209		71.1	
				L a s d issue			
Lead	is/jumpe	ers: Ok		Lead jum	per image. :	The Advector 2 Control Advector	
If other, lead	ls/jumpe	ers:				Name Other Other Other Teacher Teacher Teacher Teacher	

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Conclusion

Component Failure

D.E. Bearing

Cause of Failure

Possible lack of lubrication on D.E. NU bearing.

Comments

The drive end bearing rollers were flattened completely around the bearing This indicates the bearing rollers locked in place while the rotor continued to turn resulting in motor failure. Lack of proper bearing lubrication is the most probable cause.

Service Tech name: Terrence Holland

Service Tech signature:

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