

Field Service Report (FSR)

Report No: FSR 2012-12_GMD Mec_SAGMill1

Doc No: 3BHS306305_Rev.

Dept/Loc:

ATBDFM3

Prepared by:

H. Moser

Approved by:

St. Basler

Released by:

H.R. Fuchs

Revision:

Date:

22.12.2012

Site Information

Customer:

xxxxxxx

Country name:

Indonesia

Customer Representative:

xxxxxxx

Site:

xxxxxxx

Unit:

SAG Mill 1

Plant:

xxxxxxx

Plant Type:

☐ Copper☐ GMD☐ Transformer☐ E-House☐ Mine☐ Drive☐ Cyclo☐ Motor

System/Machine:

Ringmotor

Type:

WAZ 1380/88/72

Serial Number:

G0B059

Year of delivery/Com:

2011

Opening hours:

11,200

Service Information

Service Type:

☐ New Plant☐ Upgrade / Modification☐ Trouble shooting☐ Others☐ First Installation
(Stator in op. Pos.)☐ Minor Inspection
(Stator in op. Pos.)☐ Major Overhaul
(Stator in Maint. Pos.)

Service Task:

☐ Installation (Assembly)☐ Commissioning☐ Test / Assessment☐ Others☐ Overhaul works☐ Re-Commissioning☐ Diagnostics☐ Factory Insp.☐ Repair☐ Investigation☐ Inspection☐ Motor Insp. Inside☐ Motor Insp. External

Description of Services performed: 18 months inspection

Stator

– Inspection

– Retorquing of all core pressing bolts

Rotor Poles

– Inspection

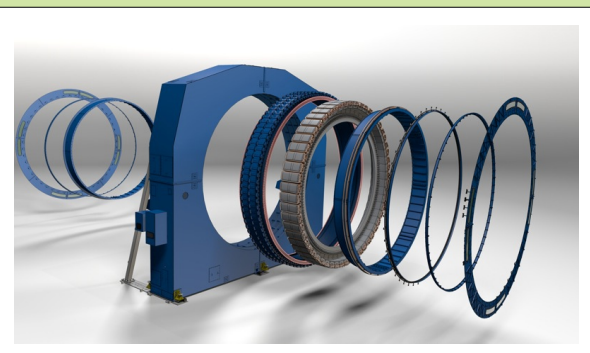
Motor Auxiliaries

– Inspection

Additional works

– Installation of new power supply for Gap Watch system

– Replacement of UPS



List of Distribution

Loc	Dept. / Loc.	Surname, Name	Remarks:	Loc	Dept. / Loc.	Surname, Name	Remarks:
Dä	ATBDFM1	C. Vincclair					
Dä	ATBDFM3	S. Basler					
Dä	ATBDFM4	H. Moser					

Distribution to customer

Send by	To	Date	Comments from customer	Comments integrated

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Summary of inspection

Work Performed during shutdown

- Checking and retightening of all core press bolts
- Checking of brush holders, brushes and slip rings
- Cleaning of insulation bolts at slip rings
- Visual check of holding plates, key bars, stator core and lamination
- Visual check of the dust seal system
- Visual checks of sole plates and stator stop blocks
- Checking make up fan filters
- Checking cooling system and sealing
- Replacement of Gap Watch power supply
- Replacement of UPS

Main difficulties

- Customer people had low knowledge about GMD's
- No access on bottom of GMD because of re-lining (safety reason)

Recommendations (further action required)

- Next inspection after 6 months according maintenance manual including complete retorquing of core press bolts
- Two mech. supervisors have to be on site for two shifts
- Cleaning Stator core from abrasion powder (vibrations dust) and dust by vacuum cleaner
- The water at bottom of cooling boxes must be removed immediately.
For safety reason this was not possible during re-lining
- Slurry (sludge) around GMD should be cleaned up before shut down start, special at bottom side
- To have access to bottom of GMD, scaffoldings must be installed for protection of falling parts
- To increase customer knowledge for GMD's, same maintenance team should be at site for further services

Site storage conditions

Store cleanliness/condition and localization	Checked	Date	Remarks
– Tools and material stored well in containers	mech.	20.12.2012	

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Service information

N°	Description	From	Until	Remarks:
1	ABB at site - Briefing with customer	12:00	14:00	
2	Start of service and inspection works	14:00	15:00	
3	Finished shut down	15:00	16:00	

Personnel involved from ABB

N°	Surname, Name	Cat	Function	Arrival date	Departure date	Dept. / Loc.
1	C. Vinclair	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3
2	S. Basler	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3
3	H. Moser	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3

Personnel involved from client and/or consultant

N°	Surname, Name	Cat	Function	Arrival date	Departure date	Dept. / Loc.
1	C. Vinclair	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3
2	S. Basler	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3
3	H. Moser	5	Mech. Supervisor	6/6/2012	8/6/2012	ATBDFM3

Main motor data

N°	Description	Data	Remarks
1	Type	WAZ 1380/88/72	
2	Serial Number	G0B059	
3	Rated Apparent Power	15250 kVA	
4	Rated Active Power	14400 kW	
5	Rated Speed	9.77 rpm	
6	Max. Speed	10.29 rpm	
7	Rated Cos phi	0.97	
8	Rated Frequency	5.86 Hz	
9	Rated Voltage	3660 V +/- 5%	
10	Rated Current	2405.6 A	
11	Excit. Current at rated speed	505 A	
12	Excit. Voltage at rated speed	367 V	
13	Excit. Current at Start-up		
14	Excit. Voltage at Start-up		
15	Cooling type	Water / Air Heat Exchanger	
16	Altitude above sea level	170m	
17	Air gap (nominal)	16 mm	
18	Type of winding	VPI	

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Specific motor data

N°	Description	Data			Remarks
1	Quantity of stator winding slots	540			
2	Quantity, size & torque of pressing bolts	Qty 268	Size M16	kN 76	
3	Quantity, size & torque of foundation bolts	Qty	Size	Nm	
4	Quantity & size of dowel pins	Qty	Size		
5	Quantity, size & torque of partition bolts	Qty	Size	Nm	
6	Quantity & Type of brushes	Qty 2x6		Type E486	
7	Quantity & Type of earthing brushes	Qty 2		Type AG2	
8	Quantity, size & Type of dust seal	Qty	Size	Type	
9	Quantity, size & Type of flat springs	Qty	Size	Type	
10	Quantity, size & Type of pressure springs	Qty	Size	Type	

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Inspection of GMD : Stator

Stator foundation and stator frame

- The stator foundation and the stator frame was found in dirty condition regarding cleanliness and corrosion
- The air gap of the central sole plate has to be cleaned every 6 months
- No cracks have been observed at the stator foundations.
- Stator covers and their fixations were checked, where it was accessible and found in good condition.



Picture Number: 1

Pedestal sole plate

Must be protected against corrosion



Picture Number: 2

Pedestal sole plate

Must be protected against corrosion



Picture Number: 3

Stator fixation bolts

Must be protected against corrosion



Picture Number: 4

Central sole plate

Air gap is free of slurry

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