

Turbine No./Id: 218237
Service Order: 62501323

PAD No.
CLUSSAIS CLU2

Turbine Type: V100
Start Date: 16.04.2024
End Date: 14.05.2024

Customer's
Ref./P.O.No.:
Vestas Ref.: IP1020231113
Date & Time of Receipt
13.11.2023 00:20:31

Customer's Address:

WPD II Poitou Charentes
29 rue des Rosati
F-62000 ARRAS

Site's Address:

F-

Reason for Call Out: Bal V100-2/2.2MW MK10C B-Service 6months

Bal V100-2/2.2MW MK10C B-Service 6months

Work Performed

Le 17/04/2024Pause à 9h00Pas de run Service OK --- Le 17/04/2024Pause à 9h00Pas de run Maintenance Ire effectuée ras

Specification of Item Consumption

Item	Description	Serial Number	Quantity	UoM
109113	FILTER,AIR INSERT		1.000	EA
149264	GREASE,KLUBERPLEX AG11 462,600G		2.000	EA
149266	GREASE,KLUBERPLEX BEM 41-132,540G		2.000	EA
198004	CLOTH,CLEANING,PAPER,355 mm,155 mm		1.000	EA
763607	GREASE COLLECTING CAN 1L 95		5.000	EA
14913950	GREASE,SKF LGWM 1,5KG		1.000	EA
S099128	FILTER 435x395 F. DOOR		2.000	EA

Specification of Time Consumption

Person Name	Date	Start	End	Hours	Activity type
MEGUI	16.04.2024	07:30:00	08:30:00	1.00	MOB / DE-MOB
MEGUI	16.04.2024	08:30:00	09:15:00	0.75	Travel Time
PAIFO	16.04.2024	08:30:00	09:15:00	0.75	Travel Time
MEGUI	16.04.2024	10:30:00	15:15:00	4.75	Work Time

Total Time Consumption: 14.92

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Person Name	Date	Start	End	Hours	Activity type
PAIFO	16.04.2024	10:30:00	15:15:00	4.75	Work Time
MEGUI	16.04.2024	15:35:00	16:15:00	0.67	Travel Time
MEGUI	16.04.2024	16:15:00	17:30:00	1.25	MOB / DE-MOB
MEGUI	14.05.2024	16:30:00	17:00:00	0.50	Work Time
PAIFO	14.05.2024	16:30:00	17:00:00	0.50	Work Time

Total Time Consumption:	14.92
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Turbine No./Id:
218237

Service order
62501323

Service Inspection Form

0010 6 months Service

0030 Maintenance LRE

0 eSIF

0.01 0. DMS: 0091-4845 V05

1 Prepare for service

1.01 Do a check of the warning log. OK

1.02 Tightening torque. OK

3 Safety equipment

3.01 Do a check of the emergency rescue equipment according to the checklist in the rescue box. OK

3.02 Examine the fire extinguishers. OK

3.03 Note the date for the next inspection of the fire extinguishers. Date of inspection: 08/2024

3.04 Service technician's initials: Megui

3.05 Do a check of the first-aid kits according to the procedure mentioned in the manual supplied along with the first-aid kits. OK

3.06 Do a check of the anchor points in the tower, nacelle, inside nacelle roof and hub. OK

4 Rotor

4.01 Pitch system: Do a visual check to make sure that the blade pitch lock is activated. OK

4.02 Visually examine the hub for leakage. OK

Turbine No./Id:
218237

Service order
62501323

4.03	Do a check of the nitrogen pre-charge pressure in the pitch accumulators.	OK		
4.04	Measured value:	107,000	bar	
4.05	New value after adjustment:		bar	
4.06	Measured value:	107,000	bar	Not Applicable
4.07	New value after adjustment:		bar	
4.08	Measured value:	105,000	bar	Not Applicable
4.09	New value after adjustment:		bar	
4.10	Measured value:	107,000	bar	Not Applicable
4.11	New value after adjustment:		bar	
4.12	To do a check of the cylinder holder bolts: Do a check of every third bolt on each cylinder holder.	OK		Not Applicable
4.13	Torque:	350,000	Nm	
4.14	Do a check of all the bolts in the rod-end flange.	OK		
4.15	Torque	90,000	Nm	
4.16	Do a check for the loose bolts in the wedge for automatic blade lock in all 3 blades.	OK		
4.17	Do a check of the hydraulic cylinder piston rod for wear and damage.	OK		
4.18	Do a check of the rod-protection covers on the piston rods for tear and holes	OK		

Turbine No./Id:
218237**Service order**
62501323

4.19 To do a check of the slide bushings for the cylinders: Do a visual and audio inspection of the axial clearance. OK

4.20 To do a check of the clearance in the bearing between the torque arm shaft and the hydraulic cylinder: Do a visual and audio inspection of the radial clearance. OK

5 Hydraulic systems

5.01 Nacelle hydraulics: Examine the hoses, the seals, the connections in the nacelle, the main shaft, the hydraulic pump for hydraulic oil leakage. OK

5.02 Examine the hydraulic oil level. OK

5.03 Replace the air breather filter element. OK

5.04 Brake system: Do a test of the brake. OK

5.05 To do a visual inspection of the brake callipers: Do a visual inspection of the brake callipers for cracks and other damage. OK

5.06 Do the visual inspection of the brake callipers, the pipes, and the hoses for oil leakage. OK

5.07 Visually examine all the hydraulic piping inlets and outlets. OK

5.08 Do a check of the brake pads for thickness of the brake lining. OK

5.09 Do a check to make sure that the wiring to the brake wear and heat sensors in the brake pads is not damaged. OK

6 Gearbox and gear oil system

6.01 Gearbox: Do a check of the gear oil level. OK

6.02 Do a check of the joints, seals (pitch tube, input shaft, and output shaft) and covers (including split line, ring gear flange on the rotor end side, and non-rotor end side) for leakage. OK

Turbine No./Id:
218237

Service order
62501323

6.03	Do an inspection of the gearbox for debris.	OK	
6.04	Gear oil system: Do a visual inspection of the gear oil hoses for damage or leakage.	OK	
6.05	Main shaft arrangement: Examine the bearing for unusual noise.	OK	
6.06	To lubricate the main bearings: Lubricate the main bearing without an automatic grease lubrication system.	OK	
6.07	Lubricate the main bearing with an automatic grease lubrication system.		
6.08	Torque arm system: Do a check of the 4 bolts in the integrated torque arm or gear connection on each side.		Not Applicable
6.09	Torque:	Nm	Not Applicable
6.10	Pressure:	bar	Not Applicable
6.11	Do a check of both the integrated torque arms for visible cracks.	OK	Not Applicable
6.12	Do a check of the upper and the lower rubber vibration elements or rubber dampers for visible cracks on both the torque arms.	OK	
6.13	Do a check for play in the vibration elements or the rubber dampers.	OK	
6.14	Visually examine to make sure that the earthing cables that connects the gearbox and main foundation not damaged.	OK	
7	Generator and coupling		
7.01	HS coupling: Do a check of the connecting tube.	OK	
7.02	Do a check of the discs.	OK	
7.03	Examine the tightness of all the bolts.	OK	

Turbine No./Id:
218237**Service order**
62501323**9 Nacelle**

- 9.01 Nacelle cover: Do a check of the bolts in the nacelle cover assembly for OK any loose or missing bolts.
- 9.02 Do a check of all the fittings to the nacelle cover for cracks. OK
- 9.03 Do a check of the fibreglass for cracks around the fittings. OK
- 9.04 Do a check of the fibreglass very carefully for cracks at points of attachment. OK
- 9.05 To do a check of the anchor points: Do a check of the anchor points. OK
- 9.06 Do a check of all the bolted connections of the outer anchor points. OK
- 9.07 Do a check of the anchor points for cracks. OK

10 Yaw system

- 10.01 Yaw bearing system: Do a check of spring packages on each yaw beam. OK
- 10.02 Do a check of the yaw teeth for wear and damage. OK
- 10.03 Yaw lubrication system: Manually lubricate the yaw sliding surface. OK
- 10.04 Do a check of the automatic lubrication of the yaw sliding surface.
- 10.05 To do the automatic lubrication of the yaw teeth: Fill the grease reservoir on the lubrication pump. OK
- 10.06 Do a check of the lubrication system. OK
- 10.07 Examine if all the lubrication wheels are in engagement with the yaw pinion or the yaw ring. OK
- 10.08 Yaw gear and motor: Do a check of the oil level in the planetary gears OK

Not Applicable

Turbine No./Id:
218237**Service order**
62501323

and in the worm gears.

10.09 Do a check and adjust the brake torque of 2 of the 6 yaw gear motors. OK

10.10 Measured value before adjustment: Left front 26,000

10.11 Measured value before adjustment: Right front 28,000

10.12 Measured value before adjustment: Left rear 25,000

10.13 Measured value before adjustment: Right rear 26,000

10.14 Measured value before adjustment: Left middle 29,000

10.15 Measured value before adjustment: Right middle 24,000

10.16 New value after adjustment: Left front

Not Applicable

10.17 New value after adjustment: Right front

Not Applicable

10.18 New value after adjustment: Left rear

Not Applicable

10.19 New value after adjustment: Right rear

Not Applicable

10.20 New value after adjustment: Left middle

Not Applicable

10.21 New value after adjustment: Right middle

Not Applicable

10.22 Do a check for noise or vibration from the yaw gear bearing. OK

10.23 Do a check if the yaw gears run smoothly. OK

Turbine No./Id:
218237

Service order
62501323

14 Tower

14.01 Tower: Visually examine the grout and concrete for cracks, scaling, and OK
such like on the outer and inner side of the tower.

14.02 To do a check of the anchor bolts in the anchor cage foundation: OK
Visually examine the bolt protection caps.

14.03 Visually examine all the anchor bolts for corrosion and/or visible OK
damage.

14.04 To do an inspection of the tower flange bolts: Visually examine for OK
missing, broken, or loose tower flange bolts, corrosion protection on the
tower flange bolts and in the tower flange area, and water leakage in
the tower flanges.

14.05 Do a visual check of the ventilation filter at the door of the tower. OK

14.06 Do a check of the tower inside and outside for damage. OK

14.07 To do a check of the functionality of the dehumidifier (optional): Do a
check of the function, filter, installation, and state of the connection hose
if the tower is installed with a dehumidifier.

Not Applicable

14.08 Do a check for possible corrosion and dust (in the steel components). OK

14.09 Tower surface treatment: Do a check of the surface protection of the OK
tower.

14.10 Cable and earthing system: Visually examine the cables for damage OK
and wear.

14.11 Do a check of the Vestas earthing system. OK

15 Finish work

15.01 Clean the cabinets, the covers, and the other surfaces for grease spots OK
and finger marks.

15.02 Clean grease from the checker plates and the other surfaces. OK

Turbine No./Id:
218237**Service order**
62501323

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|-------|---|----|
| 15.03 | Remove the collected grease from the yaw top teeth. | OK |
| 15.04 | Clean the tower basement and tower from inside. | OK |