#### **SIEMENS** Gamesa RENEWABLE ENERGY **Checklist 6Y PREVENTIVE MAINTENANCE WIK** ADIR017433 Code: Date 2024/04/10 Rev.: AW135505R01 Applicability FLAVIO.FC.CASTILLO.EXT\_WCH Author Reviewer **TSCHUETZE** ILUEBKEN Approver BEGINNING Date 2024/07/20 OPERATIONNAL HOURS 42.004,0 WK14 WTG: FINISH Date SHUT-DOWN HOURS 1st visit 2nd visit 3rd visit 4th visit Permit to work: Permit to work: Permit to work: Permit to work: Work order: Work order: Work order: Work order: Foreman 1 Foreman 2 Foreman 3 Foreman 4 Tech. 1: Tech. 10: Tech. 19: Tech. 28: Tech. 2: Tech. 11: Tech. 20: Tech. 29: Tech. 3: Tech. 12: Tech. 21: Tech. 30: Tech. 4: Tech. 13: Tech. 22: Tech. 31: Tech. 5: Tech. 14: Tech. 23: Tech. 32: Tech. 6: Tech. 15: Tech. 24: Tech. 33: Tech. 7: Tech. 16: Tech. 25: Tech. 34: Tech. 26: Tech. 27: Tech. 8: Tech. 17: Tech. 35: Tech. 9: Tech. 18: Tech. 36: 1st visit 2nd visit 3rd visit 4th visit Signature of Signature of Signature of Signature of SGRE DE SM: SGRE DE SM: SGRE DE SM: SGRE DE SM: Signature of Signature of Signature of Signature of 3<sup>rd</sup> party SM: 3<sup>rd</sup> party SM: 3<sup>rd</sup> party SM: 3<sup>rd</sup> party SM: Record of changes Rev. Author Date 2024/04/09 Initial version 0 FLAVIO.FC.CASTILLO.EXT\_WCH

Fromat of textboxes for sample codes corrected

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2024/04/10

## TOWER

# General House Keeping Tower platforms

Functionality, corrosion, cracks and/or deformations

ATD000615; ATD000312: Visually inspect the ligthing and the emergency lighting in the tower

Strange noises, damages, leakages:

ATD000429; ATD000704; ATD000395: Air treatment unit, trafo oil spill & tower

Dust, deformations, damages, signs of burnt, corrosion, loosen cables:

ATD000426; ATD000395: Visual inspection of the electrical cabinets

ATD000511: Heating/cooling systems

Comments:	MORS case ID	Measurement	Unit	Min	Max

TD code	Checkpoint	Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition CTV >	> TP / Techs & Tools							
ATD000313/ Tow	ver system - General - Visual inspection of the out	er platform				Tech:	2,3	
ADIR010254.1	Outer Platform S3 floor checked (top and bottom side)? (Look for corrosion signal, fitting marks, deformations, burrs, painting defects and malfunctions).	ок						
ADIR010254.2	Outer Platform S3 fences checked? (Look for corrosion signal, fitting marks, deformations, burrs, painting defects and malfunctions).	ОК						
ADIR010254.3	Outer Platform S3: Support steel structure checked? (Look for corrosion signal, fitting marks, deformations, burrs, painting defects and malfunctions).	ОК						
	overter system - Heating/cooling systems - sual inspection of the external cooler			l I		Tech:	2,3	
ADIR011695.0	External coolers visually checked?	ок						
ADIR011695.1	External coolers structure visually checked? (no damages, no corrosion, no loosen parts)	ок						
ADIR011695.2	External cooler fans operability checked? (n1 n2 n3 fan, operation, no abnormal noise)	ок						
ATD000311/ Wir Stop Buttons	nd Turbine System - General - Check Operability Er	nergency				Tech:	2,3	
ADIR010163.3	Emergency stop button at cabinet TBC00 checked. (Optimum condition and operability).	ОК						
ATD000319/ Tow meshes between	ver system - General - Visual inspection of the gro	unding				Tech:	2,3	
ADIR010269.0	Ground meshes between TP and S3 visually inspected? (no damages, corrosion, fitting marks, screws)	ОК						
•	protential bonding systems - General - Inspection current measurement	of the				Tech:	2,3	
ADIR011692.0	Lightning current measurement elements visually checked? (antennas and fixation system, no damages, no deformation no corrosion)	ОК						
Transition TP >	P7							
ATD000311/ Wir Stop Buttons	nd Turbine System - General - Check Operability Er	mergency				Tech:	2,3	
ADIR010163.7	Emergency stop button at cabinet TBC200 checked. (Optimum condition and operability).	ОК						
	ipotential bonding systems - General - Inspection current measurement	of the				Tech:	2,3	
ADIR011692.1	Control box visually checked? (battery on, LEDs, no damage)	ок						
ADIR011692.2	Lightning sensor system operability checked?	NOT DONE	Not tool					
ATD000496/ Tow	ver system - General - Visual inspection of the tow	ver				Tech:	2,3	
ADIR010676.0	Platform 7: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ок						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition P7 >	P6							
ATD000496/ Tov	ver system - General - Visual inspection of the tow	er				Tech:		
ADIR010676.1	Platform 6: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	NOT DONE	Not acces					
Transition P6 >	P5							
ATD000311/ Wir Stop Buttons	nd Turbine System - General - Check Operability Er	nergency				Tech:		
ADIR010163.5	Emergency stop button at converter cabinet checked? (Optimum condition and operability).	NOT DONE	Not acces					
ATD000496/ Tow	ver system - General - Visual inspection of the tow	er				Tech:	2,3	
ADIR010676.2	Platform 5: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ОК						
Transition P5> F	24							
ATD000319/ Tow meshes between	ver system - General - Visual inspection of the grount tower sections	unding				Tech:	2,3	
ADIR010269.1	Ground meshes between S3 and S2 visually inspected? (no damages, corrosion, fitting marks, loosen screws,)	ок						
ATD000311/ Wir Stop Buttons	nd Turbine System - General - Check Operability Er	nergency				Tech:	2,3	
ADIR010163.4	Emergency stop button at cabinet TBC202 checked? (Optimum condition and operability).	ОК						
ATD000719/ Ver	itilation Systems - General - Check The Ball Siphon	Valves				Tech:	2,3	
ADIR015152.0	Visually checked the condition of the ball siphon valves? (check their integrity with not damages and without leaks)	ок						
ADIR015152.1	Functionality of the balls in the siphons checked? (check they can move freely)	ОК						
ATD000427/ Ver	itilation systems - General - Check the antivibratio	n mounts				Tech:	2,3	
ADIR010235.0	Anti-vibration mounts visually checked? (Look for corrosion signs, cracks, deformations, breakages and/or signs of abnormal wear)	ОК						
ATD000429/ Ver	ntilation systems - General - Sound inspection of th	ne system				Tech:	1,2	
ADIR010679.2	Humidity of the air treatment intake air checked?	ОК			85.00	%	Around 60%	Around 60%
ADIR010679.3	Pressure differential with the state of the air treatment checked?	ОК			60.00	Pa	40	160

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000701/ Ver treatment system	i Itilation systems - General - Visual inspection of th m structure	ne air		<u>I</u>		Tech:	2,3	
ADIR015018.0	Air treatment system housing's condition visually inspected? (No loosen parts, damages)	ок						
ADIR015018.1	Covers of the filters housing external condition visually inspected? (No loosened or damaged handles)	ОК						
ADIR015018.2	Integrity of the covers of the motors and the air ducts inspected?	ОК						
ATD000523/ Ver	ntilation systems - General - Visual inspection of th	ne filters				Tech:	2,3	
ADIR011286.0	Pockef filters checked? (Free of holes, tears, objects, dust, or swamped, thickness and condition of the seals)	ОК						
ADIR011286.1	Cassette filters checked? (Free of holes, tears, objects, dust, or swamped, thickness and condition of the seals)	ОК						
ADIR013140.2	Filters of the air treatment system replaced?	ОК						
ATD000496/ Tov	ver system - General - Visual inspection of the tow	ver				Tech:	2,3	
ADIR010676.3	Platform 4: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ок						
ATD000428/ Ver	ntilation systems - General - Check the compensati	ors		<u> </u>		Tech:	2,3	
ADIR010231.3	Inspect visually the compensator on P5 (S3). (Look for corrosion, breakages, deformations and/or lack of insulation).	ок						
Transition P4> F	23							
ATD000319/ Tow meshes between	ver system - General - Visual inspection of the grontower sections	unding				Tech:	2,3	
ADIR010269.2	Ground meshes between S2 and S1 visually inspected. (no damages, corrosion, fitting marks, loosen screws,)	ок						
ATD000496/ Tow	ver system - General - Visual inspection of the tow	ver				Tech:	2,3	ļ
ADIR010676.4	S2-Platform 3: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ок						
ATD000428/ Ver	ntilation systems - General - Check the compensat	ors				Tech:	2,3	
ADIR010231.2	Inspect visually the three compensators on P4 (S3). (Look for corrosion, breakages, deformations and/or lack of insulation).	ок						

						11-14		
TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition P2> I	21							
ATD000496/ Tov	ver system - General - Visual inspection of the tow	er				Tech:	2,3	
ADIR010676.5	S1-Platform 1: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ок						
ADIR010676.6	S1-Platform 2: Fences and the platform floor checked? (any corrosion, deformation, dirtiness, fitting marks, cracks, loosen and missing screws)	ОК						
ADIR010676.7	Seams of the entire tower (between the tower body and the flanges and between the different shells) visually checked? (no corrosion or damages, use binoculars if needed)	ОК						
ADIR010676.8	The entire tower visually checked? (no leakages (oil, water-glycol. grease or others))	ОК						
ATD000428/ Ver	ntilation systems - General - Check the compensat	ors				Tech:	2,3	
ADIR010231.0	Inspect visually, from the ladder, the compensator located between P1 & P2 (S1). (Look for corrosion, breakages, deformations and/or lack of insulation).	ОК						
ADIR010231.1	Inspect visually the compensator on P3 (52). (Look for corrosion, breakages, deformations and/or lack of insulation).	ОК						

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# General House Keeping LOWER DECK

### General cleaning

Corrosion, cracks, deformations, leakages, damages, wear, painting defects:

ATD000302; ATD000339; ATD000516; ATD000583: Lubrication storage tanks; oil suply system; yaw gear motors; lubrication system of the yaw gear

Functionality, corrosion, cracks and/or deformations:

ATD000615: Visually inspect the emergency lighting in the tower

Comments:	MORS case ID	Measurement	Unit	Min	Max

TD code	Checkpoint	Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition CTV	> TP > Lower Deck / Techs & Tools							
ATD000286/ Driv supply system	ve train system - Auxiliary systems - Oil sample of	the oil				Tech:	19,21	
ADIR010171.0	Gearbox oil sample taken (190.1)? (at 40°C and releasing 1 liter)	ОК				sample code		
ATD000311/ Wir Emergency Stop	nd Turbine System - General - Check Operability Buttons					Tech:	2,3	
ADIR010163.2	Emergency stop button at lat cabinet TBC300 checked?. (Optimum condition and operability).	ОК						
ATD000336/ Driv filter of the oil su	ve train system - Auxiliary systems - Replacement upply system	of the oil				Tech:	19,21	
ADIR010208.3	Oil filters 171.1, 171.2 and 171.3 (Hydac) or 170.1, 170.2 and 170.3 (Hydratech) replaced? (no oil spills remaining)	ОК						
ATD000337/ Driv filter of the oil su	ve train system - Auxiliary systems - Replacement upply system	of the air				Tech:	19	
ADIR010203.0	Air filter oil supply system replaced? (Hydac or Hydratec)	ОК						
ATD000341/ Driv level of the oil su	ve train system - Auxiliary systems - Maintenance upply system	of the oil				Tech:	19	
ADIR010694.0	Oil level between the established values?	ОК				Ι	875	1100
ATD000335/ Driv magnets	ve train system - Auxiliary systems - Visual inspect	ion of the				Tech:	19	
ADIR010152.0	Magnets visually checked?	ОК						
ATD000431/ Driv	ve train system- Auxiliary system- Apply DINITROL crane	coating to				Tech:		
ADIR010161.2	Did you apply the Dinitrol 977 (two different cases)?	NOT DONE	Boletín general tema task					
	I v system - Yaw drive system - Visual inspection of em of the yaw bearing	the				Tech:	19,20	
ADIR012971.2	Lubrication system (x2) visually checked? (no grease leaks, no parts damaged, joint elements not loosened, broken or damaged)	ок						
ADIR012971.3	Grease level checked? Write down the level (in %), correct level is up to 50% (distance between maximum and minimum marks) (refill the grease if necessary)	ОК						
ATD000300/ Yav bearings	v system - Yaw drive system - Visual inspection of	the				Tech:	19,20	
ADIR10160.2	Yaw bearing (inside) checked? (look for damages on the bearing seal like fitting marks, corrosion, deformations, burrs or grease leakages)	ОК						
ADIR10160.5	Yaw bearing (Outer side) checked? (look for fitting marks, damages on the bearing seal, corrosion, burrs or grease leakages)	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000292/ Yaw bearing	v system - Yaw drive system - Grease sample of the	e yaw				Tech:	19	
ADIR010213.0	Yaw bearing grease sample taken? (between 8 and 10gr)	ок				sample code		
	y system - Yaw drive system - Visual inspection of lubrication collection trays of the yaw gear and ya					Tech:	19,20	
ADIR010189.0	Lower deck: Yaw gear grease collection trays checked? (Look marks, corrosion, deformations, burrs and remove old grease)	ОК						
ADIR010189.1	Cellar platform: Yaw bearing grease collection trays checked? (Look marks, corrosion, deformations, burrs and remove old grease)	ОК						
	v system - Yaw drive system - Visual inspection of m of the yaw gear	the				Tech:	19,20	
ADIR012923.0	Foam rubber layers of the pinion lubricator inspected?	ок						
ADIR012923.1	condition of the lubrication system elements verified? (look for leaks, corrosion, loosen or breakage elements).	ОК						
ADIR012923.2	grease tank and pump inspected? (look for loosen elements, damage in cables, connections and contacts; inspect the mechanical campling system)	ОК						
ADIR012923.3	grease level checked? (refill the grease if necessary)	ОК						
ADIR012923.4	Pump auditively checked? (abnormal sounds)	ОК						
ADIR012923.5	Leakages inspected? (pump, hoses, connectors, distributor, tanks, collectors and joint elements)	ОК						
ADIR012923.6	Teeth of the lubrication pinion inspected? (check if they are worn)	ок						
ATD000721/ Yaw	v system - Yaw drive system - Inspection of the air	gap of the				Tech:	19	
,	Motor gear A: The gap of the motor brake checked?	ок			0.5	mm	0.5	0.8
ADIR015148.1	Motor gear B: The gap of the motor brake checked?	ОК			0.6	mm	0.5	0.8
ADIR015148.2	Motor gear C: The gap of the motor brake checked?	ок			0.6	mm	0.5	0.8
ADIR015148.3	Motor gear D: The gap of the motor brake checked?	ок			0.5	mm	0.5	0.8
ADIR015148.4	Motor gear E: The gap of the motor brake checked?	ОК			0.5	mm	0.5	0.8
ADIR015148.5	Motor gear F: The gap of the motor brake checked?	ОК			0.6	mm	0.5	0.8
ADIR015148.6	Motor gear G: The gap of the motor brake checked?	ок			0.5	mm	0.5	0.8
ADIR015148.7	Motor gear H: The gap of the motor brake checked?	NOT DONE	Is no posible open the coverter			mm	0.5	0.8

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000342/ Yaw	v system - Yaw brake system - Inspection of the tra ers	ays of the				Tech:	19,21	
ADIR010259.0	Yaw brake pads collector trays inspected? (no corrosion, deformations, craks, burrs,)	ок						
ADIR010259.1	Yaw brake collector trays cleaned?	ОК						
ATD000332/ Yaw seals	v system - Yaw brake system - Check brake linings,	lines and				Tech:	19,21	
ADIR010256.1	No oil at the brake disc area (to verify the seals are not damaged or broken)	ок						
ADIR010256.2	All hose and hose connections visually checked? (deformations, leakages, damages and/or his correct fixation)	ОК						
ADIR010256.4	Yaw brake callipers' pads visually checked? (according to ADWEN5-A-A3-20-0000-02AAA-913A-A)	ОК						
ATD000277/ Yaw	v system - Yaw drive system - Oil sample of the yax	w gear				Tech:	19,20	
ADIR010157.0	Yaw gear A oil sample taken? (write down the code)	ОК			5505152	sample code		
ADIR010157.2	Yaw gear B oil sample taken? (write down the code)	ОК			5505220	sample code		
ADIR010157.4	yaw gear C oil sample taken? (write down the code)	ок			5523630	sample code		
ADIR010157.6	Yaw gear D oil sample taken? (write down the code)	ок			5523535	sample code		
ADIR010157.8	Yaw gear E oil sample taken? (write down the code)	ок			5523495	sample code		
ADIR010157.10	Yaw gear F oil sample taken? (write down the code)	ок			5523329	sample code		
ADIR010157.12	Yaw gear G oil sample taken? (write down the code)	ок			5523605	sample code		
ADIR010157.14	Yaw gear H oil sample taken? (write down the code)	ок			5505162	sample code		

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000278/ Yaw on the yaw gears	v system - Yaw drive system - Visual inspection of	the oil level				Tech:	19,20	
ADIR010170.0	Yaw gear (A) oil level checked? Drain or refill oil if neccessary	ОК						
ADIR010170.1	Yaw gear (B) oil level checked? Drain or refill oil if neccessary	ок						
ADIR010170.2	Yaw gear (C) oil level checked? Drain or refill oil if neccessary	ок						
ADIR010170.3	Yaw gear (D) oil level checked? Drain or refill oil if neccessary	ОК						
ADIR010170.4	Yaw gear (E) oil level checked? Drain or refill oil if neccessary	ОК						
ADIR010170.5	Yaw gear (F) oil level checked? Drain or refill oil if neccessary	ок						
ADIR010170.6	Yaw gear (H) oil level checked? Drain or refill oil if neccessary	ОК						
ADIR010170.7	Yaw gear (I) oil level checked? Drain or refill oil if neccessary	ОК						
ATD000298/ Yaw brake disc	v system - Yaw brake system - Visual inspection of	the yaw				Tech:	11,12	
ADIR010230.0	Yaw brake disc inspected, no defects?	ОК						
ATD000726/ Yaw the yaw callipers	v system - Yaw brake system - Replacement of the circuit	filter of				Tech:	19	
ADIR015178.0	Both filters of the yaw caliper circuit replaced?	ОК						
	I iipotential bonding systems - General - Visual insp Il bonding of the yaw slip ring	ection of				Tech:	11,12	
ADIR010236.0	Carbon brushes #1 mechanical part visually checked? (structural body, spring, grounding strap, no corrosion, no cracks, no loosen connections)	ОК						
ADIR010236.1	Carbon brushes #2 mechanical part visually checked? (structural body, spring, grounding strap, no corrosion, no cracks, no loosen connections)	ОК						
ADIR010236.2	Carbon brushes #3 mechanical part visually checked? (structural body, spring, grounding strap, no corrosion, no cracks, no loosen connections)	ОК						
ADIR010236.3	Carbon brush #1 visually checked and wear measured? (replace if necessary, no corrosion, no dirt, in contact with yaw ring)	ОК			64	mm	26	-
ADIR010236.4	Carbon brush #2 visually checked and wear measured? (replace if necessary, no corrosion, no dirt, in contact with yaw ring)	ОК			64	mm	26	-
ADIR010236.5	Carbon brush #3 visually checked and wear measured? (replace if necessary, no corrosion, no dirt, in contact with yaw ring)	ОК			64	mm	26	-

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000551/ Yaw	v system - Yaw brake system - Measurement of th	e yaw pads				Tech:	2,3	
ADIR012468.0	PAD thickness caliper #1 measurement? (With Svendborg write down the measure); With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.52	mm/ Color	2	-
ADIR012468.1	PAD thickness caliper #2 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.17	mm/ Color	2	-
ADIR012468.2	PAD thickness caliper #3 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.54	mm/ Color	2	-
ADIR012468.3	PAD thickness caliper #4 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.66	mm/ Color	2	-
ADIR012468.4	PAD thickness caliper #5 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.28	mm/ Color	2	-
ADIR012468.5	PAD thickness caliper #6 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.38	mm/ Color	2	-
ADIR012468.6	PAD thickness caliper #7 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.04	mm/ Color	2	-
ADIR012468.7	PAD thickness caliper #8 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			7.94	mm/ Color	2	1
ADIR012468.8	PAD thickness caliper #9 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.37	mm/ Color	2	-
ADIR012468.9	PAD thickness caliper #10 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.62	mm/ Color	2	1
ADIR012468.10	PAD thickness caliper #11 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.54	mm/ Color	2	-
ADIR012468.11	PAD thickness caliper #12 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.11	mm/ Color	2	-
ADIR012468.12	PAD thickness caliper #13 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.61	mm/ Color	2	-
ADIR012468.13	PAD thickness caliper #14 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.40	mm/ Color	2	-

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ADIR012468.14	PAD thickness caliper #15 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.51	mm/ Color	2	-
ADIR012468.15	PAD thickness caliper #16 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.16	mm/ Color	2	-
ADIR012468.16	PAD thickness caliper #17 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			8.01	mm/ Color	2	1
ADIR012468.17	PAD thickness caliper #18 measurement? (With Svendborg write down the measure; With Stromag the visible colour of the feeler (Red=NOT OK)) Check the correct position of the pads.	ОК			7.94	mm/ Color	2	-
ATD000302/ Yaw storage tank of t	y system - Yaw drive system - Inspection of the lub he yaw bearing	orication				Tech:	20,21	
ADIR010165.0	All the lubrication stogare tanks of the yaw bearing checked? (under 75%, replaced if need, no damage)	ОК				%	75	-

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General House Keeping HUB					
General cleaning Corrosion, cracks, deformations, leakages, damages, wear, painting defects, strange noises: ATD000378; ATD000493; ATD000488: Outside the hub an lateral structure; Fan of the converter of the pitch drive; Central lubrication o ATD000695; ATD000382: Visual inspection of the pitch motor; blade bearing central lubrication system; hub lights Cable defects, functionality, corrosion, deformations or loosen parts	f the blade be	earing			
Comments:	MORS case ID	Measurement	Unit	Min	Max

TD code	Checkpoint	Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition CTV	> TP > Nacelle / Techs & Tools							
Lock Rotor / Ro	tor 120º / Blade1 facing down							
Transition Nace	lle > HUB / Rotor 120º / Blade1 facing down / T	echs & Tool	S					
ATD000609/ Rot the pitch gear	or system - Blades - Inspection of the general cond	dition of				Tech:	11,12	
ADIR013193	Blade1: Fill in Test Protocol ADIR013193	ОК						
ATD000642/ Rot	or system - Blades - Inspection of the angle encod	er				Tech:	10	
ADIR014073.0	Blade 1: Encoder, encoder support, wires, teeth and connector checked? (no damages, no dirt, no corrosion, no loosen bolts, correct position)	ОК						
ATD000692/ Rot the pitch motor	or system - Blades - Maintenance of the carbon br	ushes of				Tech:	11	
ADIR014925.0	Blade 1: Brushes visually inspected and smooth slide of the brushes in the brush-holder checked?	ОК						
ADIR014925.1	Blade 1: Measure the wear of the carbon brushes checked? (if it is out of tolerance replace it)	ОК			32	mm	13	-
ADIR014925.2	Blade 1: Slip ring traces checked? (signs of wear, dust and/or deformations, if necessary clean it)	ОК						
ATD000693/ Rot motor	or system - Blades - Clean the collector room of th	e pitch				Tech:	12	
ADIR014928.0	Pitch motor collector room #1 cleaned?	ОК						
ATD000720/ Rot motor brake	or system - Blades - Inspection of the air gap of th	e pitch				Tech:	10	
ADIR015145.0	Blade 1: Gap of the pitch motor brake checked?	ОК			0	mm	0	3
ATD000234/ Rot	or system - Blades - Extraction of oil sample of the	pitch gear				Tech:	10	
ADIR010159.0	Pitch gear 1: oil sample extracted? (100ml)	ОК			5523341	sample code		
ATD000233/ Rot	or system - Blades - Checking of the oil level of the	e pitch gear				Tech:	12	
ADIR010167.0	Pitch gear 1: oil level checked? (refill if necessary)	ОК				sample code		
ATD000236/ Rot pitch	or system - Blades - Inspection of the limit switche	es of the			<u> </u>	Tech:	10	
ADIR010173.0	Limit switches blade1 visually checked? (Correctly position and firmly fixed)	ОК						
ADIR010173.1	Activation plate blade1 visually checked? (Roller lever free)	ОК						
ADIR010173.2	Mechanical support blade1 visually checked? (Good aligned, rusty, cracks, deformation or loss of coating material/paint)	ОК						
ATD000243/ Rot	or system - Blades - Inspection of the cabinets of t	he pitch				Tech:	10,12	
ADIR010207	Fill in Test Protocol ADIR010207	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000241/ Rote bearing	or system - Blades - Extraction of grease sample o	f the blade				Tech:	12	
ADIR010188.0	Blade 1: Bearing grease sample position A taken? (write down the sample code)	ОК			5523597	sample code		
ADIR010188.1	Blade 1: Bearing grease sample position B taken? (write down the sample code)	ОК			5462595	sample code		
ADIR010188.2	Blade 1: Bearing grease sample position C taken? (write down the sample code)	ОК			5523671	sample code		
ATD000643/ Rote the pitch pinions	or system - Blades - Maintenance of the central lu	brication of				Tech:	29,30	
		ОК						
	Blade 1: Fill in Test Protocol ADIR014076							
ATD000488/ Rote the blade bearing	or system - Blades - Maintenance of the central lu g	brication of				Tech:	29,30	
ADIR010201.1	Blade1 bearing central lubrication level grease checked? (refilling if necessary)	ОК						
ADIR010201.2	Blade1 bearing central lubrication system operation checked? (VISU, proper operation, no noises or vibration)	ОК						
ADIR010201.3	Blade1 bearing central lubrication pinion shows grease externally checked?	ОК						
ADIR010201.4	Blade1 bearing pinions area of work is greased checked? (Positions between 0º and 90º approx.)	ОК						
ATD000242/ Rote of the blade bear	or system - Blades - Inspection of the lubrication s	torage tank				Tech:	11	
	Each blade has 32 grease storage tanks?	ОК						
ADIR010204.01	Bottles replaced in blade 1 due to breakage or filling	ок			1	Units		
ATD000700/ Rote	or system - Blades - Check the blade bearing seals					Tech:	12	
ADIR015001.6	Blade 1: Seal 1 (Sika 521 UV) inspected? (continuity, integrity, clean	ОК						
ADIR015001.0	Blade 1: Seal 2 (rubber) inspected? (continuity, integrity, clean, leaks)	ОК						
ADIR015001.7	Blade 1: Seal 3 (Sika 521 UV) inspected? (continuity, integrity, clean)	ОК						
ADIR015001.8	Blade 1: Seal 4 (Sika 521 UV) inspected? (continuity, integrity, clean)	ОК						
ADIR015001.1	Blade 1: Seal 5 (rubber) inspected? (continuity, integrity, clean, leaks)	ок						
ATD000446/ Equarresters	ipotential bonding systems - General - Check of th	ne surge				Tech:	11	
ADIR010241.0	All surge arresters in the UPS cabinet visually checked and not triggered?	ОК						
ADIR010241.2	VAL-MS 320/3+1/FM surge arrester in pitch1 cabinet visually checked and not triggered?	ОК						
ADIR010241.3	PT 3-PB-ST surge arresters (x2) in pitch1 cabinet visually checked and not triggered? (use CHECKMASTER tester)	NOT DONE	Not tool					

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition HUB	> INSIDE BLADE1 / Rotor 240º / Blade2 facing d	own / Tech	s & Tools					
ATD000609/ Rot the pitch gear	or system - Blades - Inspection of the general cond	dition of				Tech:	11,12	
ADIR013193	Blade2: Fill in Test Protocol ADIR013193	ОК						
ATD000642/ Rot	or system - Blades - Inspection of the angle encod	er				Tech:	11	
ADIR014073.1	Blade 2: Encoder, encoder support, wires, teeth and connector checked? (no damages, no dirt, no corrosion, no loosen bolts, correct position)	ОК						
ATD000692/ Rot the pitch motor	or system - Blades - Maintenance of the carbon br	rushes of				Tech:	12	
ADIR014925.5	Blade 2: Brushes visually inspected and smooth slide of the brushes in the brush-holder checked?	ОК						
ADIR014925.6	Blade 2: Measure the wear of the carbon brushes checked? (if it is out of tolerance replace it)	ОК			31	mm	13	-
ADIR014925.7	Blade 2: Slip ring traces checked? (signs of wear, dust and/or deformations, if necessary clean it)	ОК						
ATD000693/ Rot motor	or system - Blades - Clean the collector room of th	e pitch				Tech:	11	
ADIR014928.1	Pitch motor collector room #2 cleaned?	ОК						
ATD000720/ Rot motor brake	or system - Blades - Inspection of the air gap of th	e pitch				Tech:	12	
ADIR015145.1	Blade 2: Gap of the pitch motor brake checked?	ОК			0	mm	0	3
ATD000234/ Rot	or system - Blades - Extraction of oil sample of the	pitch gear				Tech:	10	
ADIR010159.1	Pitch gear 2: oil sample extracted? (100ml)	ОК			5505192	sample code		
ATD000233/ Rot	or system - Blades - Checking of the oil level of the	e pitch gear				Tech:	12	
ADIR010167.1	Pitch gear 2: oil level checked? (refill if necessary)	ОК				sample code		
ATD000236/ Rot pitch	or system - Blades - Inspection of the limit switche	es of the				Tech:	10	
ADIR010173.3	Limit switches blade2 visually checked? (Correctly position and firmly fixed)	ОК						
ADIR010173.4	Activation plate blade2 visually checked? (Roller lever free)	ОК						
ADIR010173.5	Mechanical support blade2 visually checked? (Good aligned, rusty, cracks, deformation or loss of coating material/paint)	OK						
ATD000241/ Rot bearing	or system - Blades - Extraction of grease sample o	f the blade				Tech:	11	
ADIR010188.3	Blade 2: Bearing grease sample position A taken? (write down the sample code)	ОК			5505420	sample code		
ADIR010188.4	Blade 2: Bearing grease sample position B taken? (write down the sample code)	ОК			5523522	sample code		
ADIR010188.5	Blade 2: Bearing grease sample position C taken? (write down the sample code)	ОК			5505209	sample code		
ATD000643/ Rot the pitch pinions	or system - Blades - Maintenance of the central lu	brication of				Tech:	29,30	
ADIR014076	Blade 2: Fill in Test Protocol ADIR014076	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000488/ Rot the blade bearing	or system - Blades - Maintenance of the central lu	brication of				Tech:	29,30	
ADIR010201.6	Blade2 bearing central lubrication level grease checked? (refilling if necessary)	ОК						
ADIR010201.7	Blade2 bearing central lubrication system operation checked? (VISU, proper operation, no noises or vibration)	ОК						
ADIR010201.8	Blade2 bearing central lubrication pinion shows grease externally checked?	ОК						
ADIR010201.9	Blade2 bearing pinions area of work is greased checked? (Positions between 0º and 90º approx.)	OK						
ATD000242/ Rot of the blade bea	or system - Blades - Inspection of the lubrication s ring	torage tank				Tech:	12	
ADIR010204.02	Bottles replaced in blade 2 due to breakage or filling	ОК			1	Units		
ATD000700/ Rot	or system - Blades - Check the blade bearing seals					Tech:	11	
ADIR015001.9	Blade 1: Seal 1 (Sika 521 UV) inspected? (continuity, integrity, clean	ОК						
ADIR015001.2	Blade 1: Seal 2 (rubber) inspected? (continuity, integrity, clean, leaks)	ок						
ADIR015001.10	Blade 1: Seal 3 (Sika 521 UV) inspected? (continuity, integrity, clean)	ОК						
ADIR015001.11	Blade 1: Seal 4 (Sika 521 UV) inspected? (continuity, integrity, clean)	ОК						
ADIR015001.3	Blade 1: Seal 5 (rubber) inspected? (continuity, integrity, clean, leaks)	ОК						
Transition Inside	e blade1 > HUB / Rotor 0º / Blade3 facing down	/ Techs & 1	Foolss					
ATD000609/ Rot the pitch gear	or system - Blades - Inspection of the general cond	dition of				Tech:	29,30	
ADIR013193	Blade3: Fill in Test Protocol ADIR013193	ОК						
ATD000642/ Rot	or system - Blades - Inspection of the angle encod	er				Tech:	12	
ADIR014073.2	Blade 3: Encoder, encoder support, wires, teeth and connector checked? (no damages, no dirt, no corrosion, no loosen bolts, correct position)	ОК						
ATD000234/ Rot	or system - Blades - Extraction of oil sample of the	pitch gear				Tech:	10	
ADIR010159.2	Pitch gear 3: oil sample extracted? (100ml)	ОК			5523426	sample code		
ATD000233/ Rot	or system - Blades - Checking of the oil level of the	e pitch gear				Tech:	12	
ADIR010167.2	Pitch gear 3: oil level checked? (refill if necessary)	ОК				sample code		
ATD000236/ Rot pitch	or system - Blades - Inspection of the limit switche	es of the				Tech:	11	
ADIR010173.6	Limit switches blade3 visually checked? (Correctly position and firmly fixed)	ОК						
ADIR010173.7	Activation plate blade3 visually checked? (Roller lever free)	ОК						
ADIR010173.8	Mechanical support blade3 visually checked? (Good aligned, rusty, cracks, deformation or loss of coating material/paint)	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000241/ Rote bearing	or system - Blades - Extraction of grease sample o	f the blade				Tech:	12	
ADIR010188.6	Blade 3: Bearing grease sample position A taken? (write down the sample code)	ОК			5505461	sample code		
ADIR010188.7	Blade 3: Bearing grease sample position B taken? (write down the sample code)	ОК			5505207	sample code		
ADIR010188.8	Blade 3: Bearing grease sample position C taken? (write down the sample code)	ОК			5523470	sample code		
ATD000692/ Rote the pitch motor	or system - Blades - Maintenance of the carbon br	ushes of				Tech:	12	
ADIR014925.10	Blade 3: Brushes visually inspected and smooth slide of the brushes in the brush-holder checked?	ОК						
ADIR014925.11	Blade 3: Measure the wear of the carbon brushes checked? (if it is out of tolerance replace it)	OK			33	mm	13	-
ADIR014925.12	Blade 3: Slip ring traces checked? (signs of wear, dust and/or deformations, if necessary clean it)	OK						
ATD000693/ Rote motor	or system - Blades - Clean the collector room of th	e pitch				Tech:	12	
ADIR014928.2	Pitch motor collector room #3 cleaned?	ОК						
ATD000720/ Rote motor brake	or system - Blades - Inspection of the air gap of th	e pitch				Tech:	11	
ADIR015145.2	Blade 3: Gap of the pitch motor brake checked?	ОК			0	mm	0	3
ATD000643/ Rote the pitch pinions	or system - Blades - Maintenance of the central lu	brication of				Tech:	29,30	
ADIR014076	Blade 3: Fill in Test Protocol ADIR014076	ОК						
ATD000488/ Rote the blade bearing	or system - Blades - Maintenance of the central lu	brication of				Tech:	10	
ADIR010201.11	Blade 3 bearing pinions area of work is greased checked? (Positions between 0º and 90º approx.)	ОК						
ATD000242/ Rote of the blade bear	or system - Blades - Inspection of the lubrication s	torage tank				Tech:	11	
	Bottles replaced in blade 3 due to breakage or filling	ОК			0	Units		
ATD000700/ Rote	or system - Blades - Check the blade bearing seals					Tech:	12	
ADIR015001.12	Blade 1: Seal 1 (Sika 521 UV) inspected? (continuity, integrity, clean	OK						
ADIR015001.4	Blade 1: Seal 2 (rubber) inspected? (continuity, integrity, clean, leaks)	OK						
ADIR015001.13	Blade 1: Seal 3 (Sika 521 UV) inspected? (continuity, integrity, clean)	OK						
ADIR015001.14	Blade 1: Seal 4 (Sika 521 UV) inspected? (continuity, integrity, clean)	ОК						
ADIR015001.5	Blade 1: Seal 5 (rubber) inspected? (continuity, integrity, clean, leaks)	NOT OK	Grease leakage					

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
Transition Nace	lle > HUB / Rotor 30º / Blade1 horizontal / Tech	s & Tools						
	ipotential bonding systems - General - Visual insp tection of the blade from inside	ection of				Tech:		
ADIR014727.0	Blade 1: The sheath of LPS cable checked (looking for any damage)?	NOT DONE	No material (Cable ties)					
ADIR014727.1	Blade 1: The connection point of the LPS cable in the bearing checked (looking for signs of overheating, deformation, discoloration)?	NOT DONE	No material (Cable ties)					
ADIR014727.2	Blade 1: The bolted joint of the electrical connections checked?	NOT DONE	No material (Cable ties)					
Transition HUB	> Inside blade3 / Rotor 150º / Blade2 horizonta	I / Techs &	Tools					
	ipotential bonding systems - General - Visual insp tection of the blade from inside	ection of				Tech:		
ADIR014727.3	Blade 2: The sheath of LPS cable checked (looking for any damage)?	NOT DONE	No material (Cable ties)					
ADIR014727.4	Blade 2: The connection point of the LPS cable in the bearing checked (looking for signs of overheating, deformation, discoloration)?	NOT DONE	No material (Cable ties)					
ADIR014727.5	Blade 2: The bolted joint of the electrical connections checked?	NOT DONE	No material (Cable ties)					
Transition Insid	e blade3 > HUB / Rotor 0º / Blade3 horizontal /	Techs & To	ols					
	ipotential bonding systems - General - Visual insp tection of the blade from inside	ection of				Tech:		
ADIR014727.6	Blade 3: The sheath of LPS cable checked (looking for any damage)?	NOT DONE	No material (Cable ties)					
ADIR014727.7	Blade 3: The connection point of the LPS cable in the bearing checked (looking for signs of overheating, deformation, discoloration)?	NOT DONE	No matería (Cable ties)					
ADIR014727.8	Blade 3: The bolted joint of the electrical connections checked?	NOT DONE	No material (Cable ties)					

### NACELLE

# General House Keeping NACELLE

## **General cleaning**

### Corrosion, cracks, deformations, leakages, damages, wear, painting defects:

ATD000638; ATD000394; ATD000391: Complete drive train; Cooling water system- Pipes, pumps, compensator, heat exchange, helihoist platform and fences

ATD000355; ATD000282; ATD000280, ATD000289: Drive train- Brake system, rotor lock, bearing pipelines

ATD000393; ATD000492: Visual inspection of the internal platform for roof access, Nacelle cover

#### Dust, deformations, damages, signs of burnt, corrosion, loosen cables:

ATD000425; ATD000398: Visual inspection of the electrical cabinets

## Functionality, corrosion, cracks and/or deformations:

ATD000615; ATD000387: Visually inspect the emergency lighting and the nacelle lights

Commander	140.DC ID		l lada	N.A.	Mari
Comments:	MORS case ID	Measurement	Unit	Min	Max

TD code	Checkpoint	Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000311/ Wir emergency stop	nd turbine system - General - Check the operabilit buttons	y of the				Tech:	1	
ADIR010163.0	Emergency stop button at cabinet NC300 checked. (Optimum condition and operability).	ОК						
ADIR010163.1	Emergency stop button at cabinet NC320 checked. (Optimum condition and operability).	ОК						
ATD000405/ Cer hydraulic accum	ntral hydraulic system - General - Maintenance of ulator	the				Tech:		
ADIR010279.0	acumulator rotor lock 570.1 precharge pressure checked (20°C)? (system depressurized)	ок			50.0	bar	47.5	52.5
ADIR010279.2	acumulator rotor lock 570.2 precharge pressure checked (20°C)? (system depressurized)	ок			50.0	bar	47.5	52.5
ADIR010279.4	acumulator yaw brake 740.1 precharge pressure checked (20°C)? (system depressurized)	NOT DONE	It is no posible to put the adapter			bar	117.5	122.5
ADIR010279.6	acumulator yaw brake 740.2 precharge pressure checked (20°C)? (system depressurized)	ок			120.0	bar	117.5	122.5
ADIR010279.8	acumulator yaw brake 740.3 precharge pressure checked (20°C)? (system depressurized)	ок			120.0	bar	117.5	122.5
ADIR010279.10	acumulator yaw brake 740.4 precharge pressure checked (20°C)? (system depressurized)	ок			120.0	bar	117.5	122.5
ADIR010279.12	acumulator rotor brake 920.1 precharge pressure checked (20°C)? (system depressurized)	ок			90.0	bar	87.5	92.5
ADIR010279.14	acumulator rotor brake 920.2 precharge pressure checked (20°C)? (system depressurized)	ок			90.0	bar	87.5	92.5
ADIR010279.16	No leakages at the o-ring and/or the connections verified?	ОК						
ADIR010279.17	Presence of the following damages checked? (Gas leakages at the precharge valve; Corrosion at the accumulators' body and its connections; Degradation at the coating protection; Mechanical damages at the accumulators' body, poppet valve and/or connections)	ок						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000361/ Cer elements	itral hydraulic system - General - Replacement of t	the filter				Tech:	10	
ADIR010271.0	Tank breather filter (x1) replaced? (spin-on air filter in case of Hydratech)	ОК						
ADIR010271.1	Pressure filters (x2) replaced?	ок						
ADIR010271.2	Return line filter (x1) replaced?	NOT DONE	No have filter					
ATD000362/ Cer hydraulic oil leve	tral hydraulic system - General - Visual inspection	of the				Tech:	30	
ADIR010276.0	Oil level checked and under stablished values?	ОК			195.0	I	160	200
ATD000357/ Driv the seal of the ro	ve train system - Rotor bearing system - Visual inspotor bearing	pection of				Tech:	29,30	
ADIR010183.0	All bearing seals checked? (no leaks, no deformations, no cuts, no defects)	ОК						
ATD000297/ Driv of the brake disc	ve train system - Brake system drive train - Visual i :	nspection				Tech:	11,12	
ADIR010178	Fill in Test Protocol ADIR010178	ОК						
	ve train system - Brake system drive train - Visual i he drainage circuit/ reservoir of the rotor caliper	nspection				Tech:	29, 30	
ADIR010158.0	Drainage pipes checked, no defects?	ОК						
ADIR010158.1	Oil presence inside the pipes detected?	ОК						
	ve train system - Brake system drive train - Visual i ne brake pads of the rotor brake callipers	nspection				Tech:	29, 30	
ADIR010211.0	Functionality of the calipers checked?	ОК						
ADIR010211.1	Rotor brake pads checked?	ок						
ATD000283/ Driv of callipers	ve train system - Brake system drive train - Visual i	nspection				Tech:	19,20	
ADIR010197.0	Check the brake calipers: look for painting defects, loosen components, external leakages, deformations, fitting marks, signals of hot points, joint bolts movement and corrosion.	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000614/ Driv	ve train system - Brake system drive train - Measu rotor brake pads	rement of				Tech:	1,2	
ADIR016787	Fill in Test Protocol ADIR016787	ок						
ATD000638/ Driv of the complete	ve train system - Speed conversion system - Visual drive train	inspection				Tech:	29, 30	
ADIR014030.5	Surface of the hollow shaft inspected from the hub? (Look for damages, dirtiness, corrosion or leakages).	ОК						
ADIR014030.12	The rotor hollow shaft and the center tube interface visually checked? (no leakages)	ОК						
ADIR014030.7	O-ring between the gearbox housing and the calipers plate inspected? (Look for leakages).	NOT DONE	MV task					
ADIR014030.8	O-ring between the brake disc and the calipers plate inspected? (Look for leakages).	ОК						
ATD000359/ Cer	ntral hydraulic system - General - Inspection					Tech:	1	
ADIR010250.0	All hoses and fittings of the hydraulic system checked? (no leaks, no corrosion, no painting defects, no damage)	ОК						
ADIR010250.1	All mechanical components (metallic structure, lower tray) checked? (no damages, no corrosion, no painting defects)	ОК						
ADIR010250.2	All hydraulic components (accumulators, filter cover, oil tank etc.) checked?	ОК						
ATD000360/ Cer	ntral hydraulic system - General - Oil sample					Tech:	10	
ADIR010251.0	Hydraulic system oil sample taken? (100ml sample; write down the sample code)	ОК			5505442	sample code		
	lipotential bonding systems - General - Visual insp Il bonding of the brake disc	ection of				Tech:	29, 30	
ADIR014922.0	Upper grounding reels checked? (grounding cable and connections, contact with disc, spring functionality)	ОК						
ADIR014922.1	Right grounding reels checked? (grounding cable and connections, contact with disc, spring functionality)	ОК						
ADIR014922.2	Left grounding reels checked? (grounding cable and connections, contact with disc, spring functionality)	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
ATD000401/ Obstacle warning systems - General - Maintenance/visual inspection of the helicopter beacon				_		Tech:	29, 30	
ADIR010257.0	Helicopter beacon #1, checked? (no dirt, damages, humidity)	ОК						
ADIR010257.1	Helicopter beacon #2 checked? (no dirt, damages, humidity)	ОК						
ADIR010257.2	Helicopter beacon #1 lights operation checked? (use visu-parameters 15018, 15019)	NOT OK	Collective alarm					
ADIR010257.3	Helicopter beacon #2 lights operation checked? (use visu-parameters 15018, 15019)	NOT OK	Collective alarm					
ATD000402/ Obstacle warning systems - General - Maintenance of the navigational lighting						Tech:	29, 30	
ADIR010253.0	Inspect the navigational lights of both masts. (Look for damages, broken parts and/or dirt).	ОК						
ADIR010253.1	Lightening is working properly?	NOT DONE	Collective alarm					
	nmon cooling systems - General - Maintenance of k generator of the cooling water system	the				Tech:	1,2,3	
ADIR010673.0	Equalization tank visually checked? (no damages, no anomalies, no deformation)	ОК						
ADIR010673.1	Check and write down the nitrogen charging pressure value? (no tension, tank drained)	ОК			1.3	bar	0	1.5
ADIR010673.2	Refilling the nitrogen pressure ? (IF APPLY)	ОК			1.5	bar	1.5	1.5
ADIR010673.4	Concentration of the lubricant checked?	ок			43.0	%	40	60
ADIR010673.3	Refilling cooling water done?	ок			22.0	bar	1.8	2.2
ATD000723/ Environmental measuring system - General - Replacement of the sinter filter				Tech:	11,12			
ADIR015161.0	Sinter filter properly replaced?	ОК						
ATD000436/ Nacelle system - Main frame and nacelle - Inspection of the roof sealing						Tech:	30	
ADIR010272.0	Rear transversal roof seals visually inspected? (head bolts sealed, no cracks, no deformations, no loosen parts, adjust if it is necessary)	ОК			1	mm	0	5
ADIR010272.1	Front transversal roof seals visually inspected? (head bolts sealed, no cracks, no deformations, no loosen parts, adjust if it is necessary)	ОК			1	mm	0	5
ADIR010272.2	Corner roof seals visually inspected? (no gaps, in case of no conformity report to supervisor)	ОК						
ADIR010272.3	Flaps seals visually inspected? (no gaps, position, orientation)	ок						
ADIR010272.4	Longitudinal flaps seals visually inspected? (check gaps, position, orientation)	ОК						
ATD000389/ Nacelle system - General - Check the fences for access to the brake disc area						Tech: 30		
ADIR010266.0	Sides drivetrain fences and bolts checked? (no corrosion, no damage, no loose parts, clean)	ОК						
ADIR010266.1	Upper drivetrain fences and bolts checked? (no corrosion, no damage, no loose parts, clean)	ОК						
ADIR010266.2	Correct performance of the security fence checked? (rotor locked and the safety valve 590 opened)	ОК						

TD code		Result	Comment (absloute necessary if NOK)	MORS case ID	Measurement	Unit	Min	Max
	TD000480/ Wind turbine system - General - Check the operability of the					Tech:	28	
switchgear of the safety sensors for overspeed				T				
ADIR010168.0	Overspeed sensor of rotor operability checked? (reaching 4rpm, safety chain opens and the blades drive to end position 90.5º)	ОК						
ADIR010168.2	Error list for status code "Rotor over speed, safety chain" checked? (no deviations, no abnormalities)	ОК						
ADIR010168.1	Overspeed sensor of generator operability checked? (reaching 40rpm, safety chain opens and the blades drive to end position 90.5°)	ок						
ADIR010168.3	Error list for status code "Rotor over speed, safety chain" checked? (no deviations, no abnormalities)	ок						
ATD000375/ Power generation system - Generator cooling system -						Tech:	29	
Maintenance/vis	ual inspection of the generator					Tech.	23	
ADIR010227.0	Check the fans and their damper actuators: look for damages, dirtiness or corrosion signs.	ОК						
ADIR010227.1	Check the ventilation flaps in the air conduct of both fans (A&C): look for damages or corrosion signs.	ок						
ADIR010227.2	Any unusual noise? (in VISU select "Generator Nacelle ventilation" and press over fans A).	ок						
ADIR010227.3	Any unusual noise? (in VISU select "Generator Nacelle ventilation" and press over fans C).	ок						
ATD000445/ Equipotential bonding systems - General - Visual inspection of						Took	20 20	
the grounding sy	ystem (external nacelle and heli hoist)					Tech:	29, 30	
ADIR010226.0	Handrail visually inspected? (no damages, corrosion, dents, craks)	ОК						
ADIR010226.1	Nacelle's grounding straps inspected? no corrosion, burnts	ОК						
ADIR010226.2	Upper nacelle lightning rods inspected? (no corrosion, burnts)	ок						
ADIR010226.3	Lateral nacelle lightning rods inspected? (no corrosion, burnts)	ОК						
ADIR010226.4	Lower nacelle lightning rods inspected? (no corrosion, burnts)	ОК						
ADIR010226.5	Nacelle's back side lightning rods? (no corrosion, burnts)	ок						
ADIR010226.6	Cellar platform lightning rods inspected? (no corrosion, burnts)	ок						
ADIR010226.7	Grounding strap bolted connection visually inspected? (no corrosion, bolted connections lost and/or loosen)	ОК						
ATD000839/ Drive train system - Speed conversion system - Replacement of the air filter of the gearbox						Tech:	12	
ADIR016544.0	Air filter of the gearbox replaced?	ок						