

Inspection checklist

Check/inspect the entire deck machinery every 3 months in accordance with this inspection checklist, and keep the results/record to ensure the maintenance of the deck machinery.
Refer to each section or this manual for the inspection cycle of each device.
※The recommended replacement values / acceptable values in the table are only guidelines. This value does not guarantee safety.

Ship's name :

Date :

Check item			Interval Inspection/Overhaul (Reaplace) ※1	Importance / influence ※2	Winch						
					ITEM	ITEM	ITEM	ITEM	ITEM	ITEM	ITEM
Winch body (2)	Brake device (2.1)	Visual inspection / deterioration, damage	D/I	a/d,e							
		Grease up		c							
		Operating condition of brake device		b							
		Brake band support (Adjustment gap: Refer to AS manual attachment 1)		c							
		Condition of brake band (Wear limit: 20% reduction from original thickness)		a/d,e							
		Thickness of brake lining (Wear limit: Refer to AS manual attachment 1)	D/G	b							
		Threaded rod, turnbuckle (Remaining threads are 50 mm ※4)	D/H	b							
		Condition of brake adjustment (with hydraulic cylinder)	D/I	a							
	Clitch device (2.2)	Visual inspection / deterioration, damage	D/I	a/d,e							
		Grease up		c							
		Condition of stop pin		b							
		Operation of clutch / Distance between the surfaces of claw (within 5mm)		b							
	Coupling of main shaft connection (2.3)	Visual inspection / deterioration, damage	D/I	a/d,e							
		Flange bolted coupling									
		Flange bolted coupling									
		Claw coupling									
		Wear or deformed of the claw									
		Distance between the surfaces of claw couplings (within 5mm)									
	Bearings of main shaft (2.4)	Grease up	D/I	b/d,e							
		Abnormal noise or temperature raise while operating ※5									
		Decentering of main shaft									
	Gears (2.5)	Visual inspection / deterioration, damage	D/I	a/d,e							
		Wear of gear teeth (Wear limit: 2mm)									
		Gear rattling (wear of gear bushing)									
		Abnormal noise while operating									
		Open gear	D/I	c							
		Condition of gear compound		c							
		Grease up for needle bearing and bush		c							
		Oil level of gear oil	D/※3	c							
		Enclosed gear		c							
		Condition of gear oil		c							
		Air vent holes of air breather	D/I	c							
	Chain drum, Hawser drum (2.6)	Visual inspection / deterioration, damage	D/I	a/d,e							
		Grease up		c							
		Clearance between the chain drum and the chain guide (5mm～15mm)		c							
Hydraulic equipment (3)	Motor unit (3.1～3.4)	Visual inspection / deterioration, damage, oil leakage	D/G	b/e							
		Abnormal noise or temperature raise while operating (within 65℃)									
		Heaviness of handle									
		Hunting while operating									
		Can be used at rated speed									
	Remote control devices (3.6)	Visual inspection / deterioration, damage, oil leakage (only hydraulic type)	D/G	c/e							
		Phase difference. Operating condition of clutch and brake									

※1 A: Daily B: Before (after) use and every week C: Before (after) use and every month D: Before (after) use and every 3 months E: Every 6 months F: Every year G: Every 5 to 7 years H: Every 10 years I: When an failure is found by inspection
※2 a: Very important due to the possibility of human injuries b: Winches are likely to be out of service c: Potentially dysfunctional in the future d: In case of failure, need to be repaired at the shipyard e: In case of failure, long delivery parts need to be arranged
※3 An annual inspection by the hydraulic oil manufacturer is recommended.
※4 After replacing brake linings, adjust the brakes and measure the remaining length of the threads after brake tightening.
※5 Within 5℃ after 30 minutes of no-load operation.

<Note>

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【Sample】

Check item			Interval Inspection/Overhaul (Reaplace) ※1	Importance / influence ※2	Winch										
					ITEM	ITEM	ITEM	ITEM	ITEM	ITEM	ITEM	ITEM			
					10	11	12	13	14	15	16	17			
Winch body (2)	Brake device (2.1)	Visual inspection / deterioration, damage		D/I	a/d,e	○	×	×	×	○	×	×	○		
		Grease up			c	○	○	○	○	○	○	○	○		
		Operating condition of brake device			b	○	○	×(HD1)	○	○	○	○	○		
		Brake band support (Adjustment gap: Refer to AS manual attachment 1)			c	○	○	○	○	○	○	○	○		
		Condition of brake band (Wear limit: 20% reduction from original thickness)			a/d,e	○	○	×(HD1)	○	○	○	○	○		
		Thickness of brake lining (Wear limit: Refer to AS manual attachment 1)		D/G	b	○	○	×(HD1)	○	○	×(HD2)	○	○		
		Threaded rod, turnbuckle (Remaining threads are 50 mm ※4)		D/H	b	○	○	○	○	○	○	○	○		
		Condition of brake adjustment (with hydraulic cylinder)		D/I	a	○	×(CD)	○	○	○	○	○	○	○	
	Clitch device (2.2)	Visual inspection / deterioration, damage		D/I	a/d,e	○	○	○	×(HD2)	○	○	×(HD2)	○		
		Grease up			c	○	○	○	○	○	○	○	○		
		Condition of stop pin			b	○	○	○	○	○	○	○	○		
		Operation of clutch / Distance between the surfaces of claw (within 5mm)			b	○	○	○	×(HD2)	○	○	×(HD2)	○		
	Coupling of main shaft connection (2.3)	Visual inspection / deterioration, damage		D/I	a/d,e	○	○	-	-	-	-	○	○		
		Flange bolted coupling	Flange bolted coupling			○	○	-	-	-	-	○	○		
		Claw coupling	Wear or deformed of the claw			○	○	-	-	-	-	○	○		
			Distance between the surfaces of claw couplings (within 5mm)			○	○	-	-	-	-	×	×		
	Bearings of main shaft (2.4)	Grease up		D/I	b/d,e	○	○	○	○	○	○	○	○		
		Abnormal noise or temperature raise while operating ※5				○	○	○	×	○	○	○	○		
		Decentering of main shaft				○	○	○	○	○	○	○	○		
	Gears (2.5)	Visual inspection / deterioration, damage		D/I	a/d,e	○	○	○	○	○	○	○	○		
		Wear of gear teeth (Wear limit: 2mm)				×(1st pinion)	○	○	○	×	pinion)	○	×(wheel gear)	○	
		Gear rattling (wear of gear bushing)				×	○	○	○	×	○	×	○		
		Abnormal noise while operating				×	○	○	○	×	○	×	○		
		Open gear	Condition of gear compound	D/I	c	×	×	×	×	×	×	×	×		
			Grease up for needle bearing and bush			○	○	○	○	○	○	○	○		
		Enclosed gear	Oil level of gear oil			D/※3	c	-	-	○	○	○	○	○	○
			Condition of gear oil	D/I	c			-	-	○	○	○	○	○	○
			Air vent holes of air breather												
	Chain drum, Hawser drum (2.6)	Visual inspection / deterioration, damage		D/I	a/d,e	○	○	○	○	○	○	○	×(HD3)		
		Grease up			c	○	○	○	○	○	○	○	○		
		Clearance between the chain drum and the chain guide (5mm～15mm)			c	○	×	-	-	-	-	-	-		
Hydraulic equipment (3)	Motor unit (3.1～3.4)	Visual inspection / deterioration, damage, oil leakage		D/G	b/e	○	×	×	×	○	×	×	○		
		Abnormal noise or temperature raise while operating (within 65°C)				○	○	○	○	×	○	○	○		
		Heaviness of handle				○	○	○	○	○	○	○	○		
		Hunting while operating				○	○	○	○	○	○	○	○		
		Can be used at rated speed				○	○	○	○	×	○	○	○		
	Remote control devices (3.6)	Visual inspection / deterioration, damage, oil leakage (only hydraulic type)		D/G	c/e	○	×	○	○	○	○	○	○		
		Phase difference. Operating condition of clutch and brake				○	×	○	○	○	○	×	○		

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※3 An annual inspection by the hydraulic oil manufacturer is recommended.
※4 After replacing brake linings, adjust the brakes and measure the remaining length of the threads after brake tightening.
※5 Within 5℃ after 30 minutes of no-load operation.

<Note>

※A The bearing metal between HD1 and HD2 has a temperature rise of 25 degrees in about 5 minutes after no-load operation.

Inspection checklist

Attachment2

Check/inspect the entire deck machinery every 3 months in accordance with this inspection checklist, and keep the results/record to ensure the maintenance of the deck machinery.

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Check item			Interval Inspection/Overhaul (Reaplace)	Importance / influence	Pump unit			
					ITEM	ITEM	ITEM	ITEM
					※1	※2		
Hydraulic equipment (3)	Pump unit (3.5)	Visual inspection / deterioration, damage, oil leakage / Oil level is proper	D/G	b/e				
		Abnormal noise or temperature raise while operating (within 65℃)						
		Looseness or damage of coupling	D/H	b				
		Clogging of return and suction filters	C/F	b				
		Operating condition of on-load solenoid valve	D/G	b				
		Clean condition of oil cooler		c				
		Condition of zinc bar for oil cooler	C/F	c				
	Other valves (3.7)	Visual inspection / deterioration, damage, oil leakage / No malfunctions	D/G	b/e				
	Working oil (3.8)	Condition of working oil / deterioration, cloudiness, discoloration	D/※3	c				

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※3 An annual inspection by the hydraulic oil manufacturer is recommended.

※4 After replacing brake linings, adjust the brakes and measure the remaining length of the threads after brake tightening.

※5 Within 5°C after 30 minutes of no-load operation.

<Note>

[illegible]

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					ITEM	ITEM	ITEM	ITEM
					30	31	32	33
Hydraulic equipment (3)	Pump unit (3.5)	Visual inspection / deterioration, damage, oil leakage / Oil level is proper	D/G	b/e	○	○	×(※B)	○
		Abnormal noise or temperature raise while operating (within 65°C)			○	○	×(No.2)	○
		Looseness or damage of coupling	D/H	b	×(No.1)	○	○	○
		Clogging of return and suction filters	C/F	b	×	○	○	×
		Operating condition of on-load solenoid valve	D/G	b	○	○	○	○
		Clean condition of oil cooler		c	○	○	○	○
		Condition of zinc bar for oil cooler	C/F	c	×	○	○	○
	Other valves (3.7)	Visual inspection / deterioration, damage, oil leakage / No malfunctions	D/G	b/e	○	×(※A)	○	○
	Working oil (3.8)	Condition of working oil / deterioration, cloudiness, discoloration	D/※3	c	○	○	○	×

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<Note>

※A Oil leakage from stop valve used for pump unit.

※B Oil leakage from No. 1 pump.