

# Day Grab Model 12.300

## Manual



Research Equipment
Limnology • Oceanography • Hydrobiology

## Manual for Day Grab

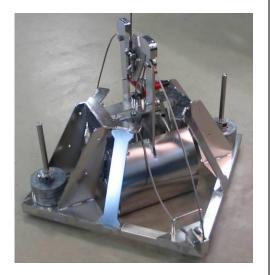
## Model no. 12.300



This Day Grab is very dangerous in unskilled hands and you must take serious precautions to avoid accidents.

KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.

Never walk under the Day Grab, when lifted up by the winch.



### **Preparation:**



1

Place the grab on a stable pallet or deck.

Check up that the safety clamp is placed correctly at the top of the rack. The clamp will only fit with the arms in correct position.

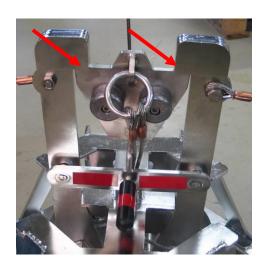
Force the arms on the shovels towards the middle, and you must ensure, that both arms are secured by the releaser.

Always mount the clamp when possible to avoid any accident.

Inspect all (4) talurit ferrules and thimbles very carefully and replace if any damage or corrosion is visible. Also inspect the shackle; we recommend replacing it at least once a year.

Any damage might cause injury to people and by loosing 2 of the thimbles during operation; the grab will remain on the seabed!





Mount the necessary amount of lead weights on the platform and do not forget to secure the position by fastening the bolt on each bracket. The amount of weights must be equal to both weight stations to ensure a properly lowering and 2 penetration of the seabed. Maximum mounting: 110 kg (22 weights, each 5 kg distributed on 2 weight stations capable of holding 2 x 7 pcs, and a maximum of 8 weights mounted on the sloping frame, see next photo. Standard delivery includes 4 pcs lead weights. The 4 frames can hold a maximum of 8 pcs 3 weights. (2 on each frame). Attach the wire for the winch to the shackle and secure the crossbar. Recommended steel wire: Min. Ø6 mm. Also inspect the shackle; we recommend re-4 placing it at least once a year. The shown polyester line is only for illustration purpose. Inspection certificate of the shackle is shown on page 5.

5	Before lowering the grab to the sea, close the 4 lids on top of the grab.	
6	Before lowering the grab to the sea, you must keep the deployment wire taut while removing the safety clamp. For maximum safety remove the clamp when the grab is outside the rail.	
7	Lower the grab to the sea; as soon as the deployment wire slackens, the mechanism becomes free allowing the release of the shovels.	
8	The grab is now released and upon raising the grab, the steel wire "A" is drawn upwards, at the same time forcing the arms "A" and "B" to be pulled apart so the shovel closes.	B



9

When the sampling is finished, and you raise the Day Grab, the arms will be wide open. You can empty the grab by pressing the arms towards the middle.

It is very important to mount the safety clamp as soon as possible after removing the sample.

For emptying the grab, you may consider the 12.304 rack with funnel; it has a very strong grating and room for 3 stackable sieves.

All parts are manufactured from AISI 316 stainless steel.



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Always remember to mount the safety clamp during transport or working with the Day Grab.

### Inspection certificate for the shackle



#### INSPECTION CERTIFICATE NO.

ОВЈЕСТ:			TESTET H-S MED ØJEBO				
SIZE:			3/8"		STAMPING:	WLL 1,00 T	
QUANTITY					DATE OF TEST:		
INVOICE NO.					WLL: 9,80 kN		
CUSTOMER:			Sanistål A/S		BL:	61 kN	
CUSTOM	IER ORDER	R NO.:					
MATERI	IAL REQUIF	REMENTS					
MATERIAL QUALITY					HEAT TREATMENT		
C45	21	Bows					
40 Cr		Pins					
YIELD P	N/MM2	TENSILE STRENGTH			ELONGATION % MIN	CONTRACTION % MIN	
C45	350	590	1		15	38	
40 Cr	780	970	1		9,5	44	
MATERI	IAL PROPEI	RTIES				-	_
ITEM	CAST NO.	YIELD P N/MM2			TENSILE STRENGTH N/MM2	ELONGATION	
BOWS	96-4-20	350			590	15	
PINS	96-4-20	780			970	9,5	
СНЕМІС	CAL COMPO	SITION	1		1	L	_
ITEM	С	SI	Mn	P	S	Cr	NI
BOWS	0,43	0,18	0,50	0,35	0,35	-	0,3
PINS	0,38	0,18	0,53	- d-	-	0,90	-

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#### **Maintenance**

All parts of the Day Grab can be rinsed using salt water or fresh water. We recommend regular cleaning with fresh water, and all moveable parts must be moved forth and back to ensure all dirt has been removed.

Technica	Technical information			
Materials:				
All metal parts:	AISI 316 stainless steel. Finish: Electro polish.			
Measurements:				
Length x width x height:	70 x 70 x 70 cm.			
Weight, standard delivery: (inclusive 4 weights, each 5 kg).	106 kg.			
Weight, maximum, inclusive 14 pcs of weights, each 5 kg:	196 kg.			
Sample:				
Sample area:	1000 cm <sup>2</sup> .			
Sample volume	Approx. 15 L.			
Lids for examining the sample	4 pcs, each 120 x 120 mm			
Operational depth:				
Full oceanographic depth	>6000 m (no limits).			

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