

# 12.300 Day Grab – 1000 cm<sup>2</sup>

## Manual



Research Equipment
Limnology • Oceanography • Hydrobiology

### **Day Grab - 1000 cm<sup>2</sup>**



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 by the winch.

Item	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 shovels arms towards the middle, and you must ensure, that both arms are secured by the releaser.	
2	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 losing 2 of the thimbles during operation; the grab will remain on the seabed!	

3	Mount the necessary number of lead weights on the platform and do not forget to secure the position by fastening the bolt on each bracket.  The number of weights must be equal to both weight stations to ensure a properly lowering and 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.	
4	The vertical side of the frames can hold a maximum of 8 lead weights. (2 on each frame).	
5	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 replacing it at least once a year. The shown polyester line is only for illustration purpose.  Inspection certificate of the shackle is shown on page 6.	
6	Before lowering the grab to the sea, close the 4 lids on top of the grab.	

7	Caution  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.	
8	Lower the grab to the sea; as soon as the deployment wire slackens, the mechanism becomes free allowing the release of the shovels.	
9	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

#### **Emptying the grab**



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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.



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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.

TESTET H-SJÆKEL OBJECT: MED ØJEBOLT SIZE: 3/8" STAMPING: WLL 1,00 T QUANTITY DATE OF TEST: WLL: 9,80 kN INVOICE NO. BL: CUSTOMER: Sanistål A/S 61 kN CUSTOMER ORDER NO.: MATERIAL REQUIREMENTS MATERIAL QUALITY HEAT TREATMENT C45 Bows 40 Cr Pins YIELD P N/MM2 TENSILE **ELONGATION** CONTRACTION STRENGTH % MIN % MIN C45 350 590 15 38 40 Cr 780 970 9,5 44 MATERIAL PROPERTIES ITEM CAST NO. YIELD P TENSILE ELONGATION N/MM2 STRENGTH N/MM2 BOWS 96-4-20 350 590 15 PINS 96-4-20 780 970 9,5 CHEMICAL COMPOSITION ITEM C SI Mn P NI S Cr BOWS 0,43 0,18 0,50 0,35 0,35 0,3 PINS 0,38 0,18 0,53 0,90

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#### **Storing and Maintenance**

All parts of the Day Grab can be rinsed using salt water or fresh water. Before storing, we recommend a thoroughly cleaning with fresh water.

#### **Safety Regulations**

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.

An expert maintenance technician fully familiar with the attendant hazards must only do all maintenance, inspection and repairs.

When working with the unit in areas, which are difficult to access or hazardous, ensure to take adequate safety precautions for the operator and others in compliance with the provisions of law on health and safety at work.

Replace worn component with original spare parts.

Technical Specifications		
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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