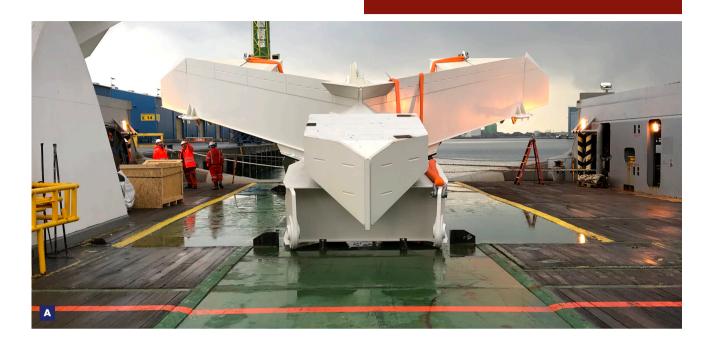


UIPMENT

BOULDER CLEARANCE TOOL XL



GENERAL DESCRIPTION

The T-Rex provides our customers an inhouse developed, designed, build, tested and operated Boulder Clearance tool. With a best in class mentality Boskalis started to create the T-Rex boulder clearance tool taking into account the requirements of clients, different geographical sites and a most cost effective overall solution towards our clients taking into consideration the full package and consequences of an installed product on the seabed over the design life time.

The T-Rex boulder clearance tool XL is specifically designed for the removal of boulders of 2 m maximum diameter size on longitudinal routes in shallow as well as deep waters while maintaining planned routings.

The tool features a unique design and a robust chassis that can withstand continuous tow forces up to 250 t, to permit boulder clearance capabilities in difficult seabed conditions. The width as well as the configuration of the T-Rex Boulder Clearance Tool XL can be adjusted in order to work efficient with the smallest environmental footprint in various types of soils and in boulder field with different characteristics. The T-Rex XL further has the capability of ripping the soils with the optional ripper configuration.

The T-Rex boulder clearance tool can be operated from a standard DPII anchor handing tug supply vessel equipped with various tow and anchor handling winches.

MAIN DATA	
Clearance width	12 m/15 m Pending on configuration
Design strength	Sustained pull load: 250 t Peak load: 500 t
Operating water depth	Minimum: Beach operations Maximum: 450 m

BOULDER CLEARANCE TOOL	
Width	12 m/15 m
Length	17 m/19 m
Height	5 m
Weight in air	75 t/92 t
Submerged weight	66 t/80 t

BOULDER CLEARANCE PERFORMANCE		
Boulder size	≤ ø2 m [Up to 25% submerged]	
Soil types	Suitable for a range of soil types, including sands and soft (>20 kPa) to hard clays	

RIPPER OPTION	
Depth	500 mm
Width	500 mm top, 300 m bottom of ripper



T-REX XL **BOULDER CLEARANCE TOOL XL**

SUPPORT EQUIPMENT	
Support equipment	1 x 20" Workshop container 1 x 20" Storage container
Portable equipment	3 x Stability fins [2 different heights] Height adjustable front support

OPERATIONAL AHTS REQUIREMENTS		
Tow/AH winches	1 x for pulling and launch and recovery BCT 2 x additional for launch and recovery BCT: 20 t	
Pulling winch capacity	Minimum SWL: 200 t/285 t Brake holding capacity 500 t	
Capacity pulling winch drum	Water depth 50 m: 400 m Water depth 100 m: 750 m Water depth 450 m: 2,500 m	
L&R winch capacity	Minimum SWL: 100 t	
Minimum free deck space area	Width: 18 m Length: 40 m	
Towing pin capacity	Minimum SWL: Bollard Pull	
Stern roller capacity	Minimum SWL: 250 t	
Karm Forks/Stopper pins	Minimum SWL: 100 t	

Remark: To determine whether the boulder clearance tool can be launched and recovered from an anchor handling vessel a geometric study of the tool on the vessel needs to be performed. Above values are only indicative for the dimensions of the AHTS.



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