

AHC HOISTING WINCH 15T PRODUCT SHEETS

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Plug-and-play active heave compensated hoisting winch solution that can be applied to a wide range of offshore applications.

UNDERWATER SPECIALISTS

C DÉGRA seatools

GENERAL

Together with Degra, Seatools offers a range of Active Heave Compensated (AHC) hoisting winch solutions which are specifically designed for safe and controlled load handing in offshore conditions.

The winches, incorporate the HeaveMate AHC controller which, by automatically paying in or out the hoisting wire, compensates for the movement of the host vessel through which the load remains motionless with regard to the seabed or another fixed target. By compensating for vessel movement it allows operators to maximize workability as it enables for the performance of safe and efficient offshore hoisting operations, even in often encountered adverse weather conditions.

Our active heave compensated winch offering goes beyond the straightforward delivery of a winch. In addition to an AHC winch and together with our partner Degra, we can deliver all all kinds auxiliary system elements. This can be either by means of equipment rental or equipment sales.

The complete system configuration of an AHC hoisting arrangement contains the following system elements:

AHC hoisting winch.

B Hydraulic power unit (HPU). This can be either diesel or electrically driven unit. As an alternative, the winch could be powered from the hydraulic network from the vessel or platform.

Overboarding arrangement. Typically an A-frame with a sheave is used to guide the hoisting wire overboard.
Motion Reference Unit (MRU). A real-time motion sensor is required as an input to the HeaveMate control system.



Advanced AHC controller

Thanks to the intelligent control system which features a self-learning algorithm, on-site commissioning becomes a straightforward matter. After the operator enters only a limited number of situational parameters the intelligent control system will automatically configure and optimize itself. The obvious benefit being a minimum of commissioning time, in addition to high-performance and high-reliability heave compensated winch technology becoming widely accessible in the offshore market.

WINCH

The 15T AHC hoisting winch (item A) is a self-contained unit which, in its basic configuration, contains the following:

- Hydraulic winch including hoisting wire
- Electronics cabinet including pre-tuned HeaveMate® controller
- Remote controller
- Laptop with HMI

In addition to the delivery of auxiliary systems as listed above (items B till D), the winch itself can be further extended with the following offerings:

- Hydraulic hoses / deck cabling
- Ruggedized tablet
- Certification (either according to or certified)
- (critical) Spares package

At each AHC winch delivery Seatools and Degra provide an operator training program to familiarize and train clients' operators with the system. Optionally, Degra / Seatools operators can be provided which operate the winch throughout your entire offshore operation.



15T AHC HOISTING WINCH SPECIFICATIONS

GENERAL UNIT **15T AHC WINCH** Main dimensions winch (l x w x h) mm 1310 x 1261 x 1371 1126 x 807 x 1275 Main dimensions electronics cabinet (l x w x h) mm Weight excluding wire 2500 kg Drum wire storage capacity¹ (at Ø28 mm wire) 65 **Operational modes** Speed mode, CT, AHC, Render recover Maximum permitted fleet angle ± 2.5 degrees 0 - 60 Fly angle range degrees Drive type Hydraulic °C -10 to +40 Operating temperature range °C -10 to +50 Storage temperature range ¹ Greater storage capacities are available

HOISTING CAPABILITIES

Maximum line pull (2 nd Layer)	tons	15
Maximum speed (2 nd layer)	m/min	26
CT accuracy	kg	< 500
Heave compensation accuracy ²	cm	< 1 cm or 3% (whichever is worse)
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INTERFACING AND AUXILIARY EQUIPMENT REQUIREMENTS

Hydraulic power requirement Power input (for online UPS) Power input (for standstill heater electronics) Fluid connection P Fluid connection T Fluid connection DR Mechanical interfaces See table below 1Ph (180...265 VAC 45-65 Hz) - 400 W 1Ph (110...250 V AC 50-60 Hz) - 20 W SAE 1¹/₂" 6000 PSI SAE 2¹/₂" 3000 PSI 28L See drawings

HYDRAULIC POWER REQUIREMENT TABLE

Heave motion ³ (Hs) [m]	Wave period [s]	8			12			
	Load [mT]	5	10	15	5	10	15	
1	Power [kW] Pressure [bar] Flow [l/min]	40 150 160	70 220 170	90 310 170	30 140 110	50 210 120	60 300 120	
2	Power [kW] Pressure [bar] Flow [l/min]	90 150 330	130 220 330	180 310 340	60 140 220	80 210 220	110 300 220	
3	Power [kW] Pressure [bar] Flow [l/min]	130 160 470	190 230 470	260 320 480	80 140 320	120 220 320	170 310 320	
3 (with accu)	Power [kW] Pressure [bar] Flow [l/min]	100 210 290	150 250 360	200 320 380				

³ Heave as measured at hoisting point

DIMENSIONS

SIDE VIEW



FRONT VIEW



3D VIEW





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