

Hytech Launch and Recovery System (HLRS)



HLRS – Hytech Launch and Recovery System is designed for safe, high efficiency and automatic operations.

Hose Reel is designed for operation and use of 700 meters of 2" Black Eagle Hose.

The Main frame contain of main corner posts, lifting lugs, forklift pockets, drip tray and spill tray. Secondary structure will contain the main bearing, brackets for hydraulic motor and safety barrier & hatch at the connection point of the Black Eagle Hose.

The spooling device is mounted for Top Spooling in fixed position and has automatically spooling function with the possibility for manual override and overriding. Guiding rollers can be hydraulically opened – such that the Black Eagle hose fitting (10k flange) can be easily lifted in and out of the device.

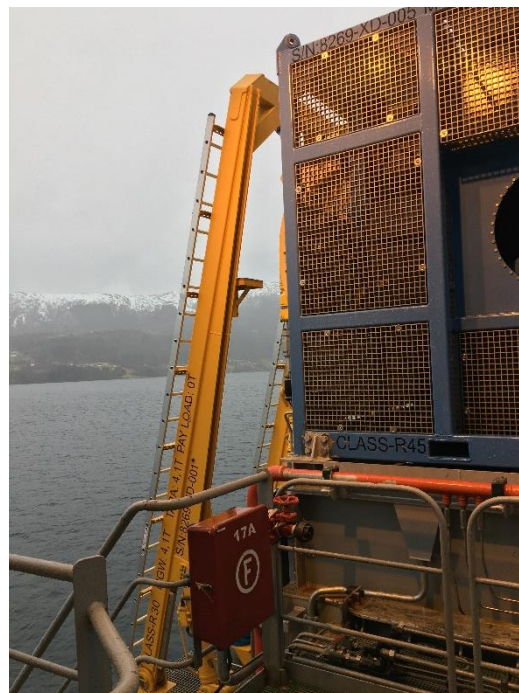
Hydraulic proportional valves are operating reel drum, both in and out, override & manually control position of the level wind, open/ close Level wind roller and control in/ out A-Frame.

The drum has one main bearing on one side and one main gearbox with hydraulic brake & hydraulic motor on the other side. In center there is a high-pressure swivel with interface and connected to the Black Eagle Hose on the drum.

Both the Hose Reel and A frame can be remote operated by using a Zone 1 Radio Remote Controller.

The A-Frame position is adjusted with hydraulic cylinders equipped with counterbalance valves.

On top of the A-Frame is install a banana sheave with lock hatch for side installation of the Black Eagle Hose.



HLRS – Features & Benefits:

- Atex Zone 1
- Lifting capacity: 11 mT
- Automatic and Manual operation mode
- Radio Remote Controller.
- 700 m of 2" Black Eagle
- Umbilical speed: 0,5 m/s
- Hydraulic operated Level wind roller for easy installation.
- A-Frame reaching distance: 4m.
- Banana sheave with hatch for side installation of the hose.



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Specifications:

Description	Data
Power Type	Hydraulic (Internal HPU)
Lifting Certification	DNVGL-ST-E273 and DNVGL-ST-E271
Operation Class – Umbilical Reel	R-45 type A
Operation Class – A-Frame	R-30 type C
ATEX / Ex Zone Classification	Zone 1
Umbilical Reel dimensions (L/W/H)	3500 x 3350 x 3373 mm
A-Frame dimensions (L/W/H)	2050 x 3295 x 6510
Weight – Umbilical Reel	16 000 kg
Weight – A-Frame	4 100 kg
Ambient temperature operation	- 10° to + 45° C
Design temperature	- 20° to + 45° C
Maximum humidity	95 %
Hose/ swivel connection	API 2 1/16 10k BX152
Electric supply	230 VAC
Umbilical Speed	0,5 m/s for first layer
Lifting Capacity	11 mT
A-Frame reaching distance	4 m
Hydraulic supply:	300 l/min @ 210 Bar (80 GPM @3000 PSI)



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Specifications: Applicable standards

Standard	Standard Nr	Standard Title
EU Directive	2006/42/EC	Machinery Directive
EU Directive	2014/34/EU	ATEX Directive
EU Directive	2009/104/EC	Use of Work Equipment Directive
EU Directive	2014/35/EC	Low Voltage Directive
EU Directive	2014/68/EU	Pressure equipment PED Directive
DNVGL-ST-E271		Offshore Containers
DNVGL-ST-E273		Portable Offshore Units
EN	1993-1-1:2005	Eurocode 3 – Design of steel structures, part 1
EN-ISO	80079-36:2016	Explosive atmospheres – Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements
EN	1127-1:2019	Explosive atmospheres – Explosion prevention and protection – Part 1: Basic concepts and methodology
EN	15198:2007	Methodology for the risk assessment of non-electrical equipment and components for intended use in potentially explosive atmospheres
EN-ISO	12100:2010	Safety of machinery – General principles for design – Risk assessment and risk reduction
ISO/TR	14121-2	Safety of machinery — Risk assessment — Part 2: Practical guidance and examples of methods
EN-ISO	4413:2010	Hydraulic fluid power — General rules and safety requirements for systems and their components
EN-ISO	4414:2010	Pneumatic fluid power – General rules and safety requirements for systems and their components
EN-ISO	14122:2016	Safety of machinery – Permanent means of access to machinery

