

LARS Heavy duty with 2 cages

Diver handling system



Ordering information

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General

To ensure the safe deployment of divers, IHC Hytech delivers several types of diver handling systems. Divers can be transported to and from subsea work site using the LARS. This type of LARS is specially designed for heavy duty operations.

The man rider winches are installed on top of the aft of the skid foundation, with underneath the electric driven hydraulic power units. (so everything is integrated on one frame in one unit).

Certification

This system is designed, manufactured and certified in compliance with the DNV Lifting Appliances June 2013 No.2.22 (pending). Reference is made to the DNV-DS-E403 / DNV-DSS-105 / IMCA DO18 Rev1 / IMCA D023 Rev1 (applicable sections only).

The IHC Hytech LARS is not only load test witnessed by DNV-GL but the total design is fully certified and covered by a certificate. Final certification in our workshop is included in the pricing.

This system is complete with:

- Skid frame. It has a footprint of 5315 mm by 2940 mm
- A-frame in sealoading position has a height of 2806 mm
- Hydraulic operated platform for easy access to the cages
- 2 x Hydraulic driven man rider winch for divers cage handling
- Hydraulic driven man rider winch for the clump weight
- Two Electric driven hydraulic power units with electro engines/with electrical starter boxes
- Steel wires certified for man riding operations
- Large Diving Cage dimensions (w x d x h) 1166 x 1166 x 2613 mm
- Small Diving Cage dimensions (w x d x h) 852 x 1166 x 2613 mm
- Radio controlled remote operated hydraulic controls

Configuration

The LARS system can be mounted / fastened on the deck of the ship / platform by twist locks.

The design of the skid frame with A-boom allows that the system can be transported on a standard truck, and this is excellent for rapid and cost effective mobilization.

Scope of delivery

The scope of supply for the system consists of:

- Skid mounted base frame, with on top of this the A-frame, ready to operate
- 2 x Hydraulic cage winch man rider type
- Hydraulic operated platform for easy access to the cages
- Hydraulic clump weight winch, man rider type
- Electrical Control boxes
- 2x Hydraulic cylinders for luffing out / in of the A-frame
- Dive cages for divers outfitted with 1 gas cylinder for the on-board gas
- 2 x Cage hoist wire and clump weight wire length approx. 110/220 m
- Clump weights of 600 kg
- 2 x Hydraulic power unit with hydraulic pumps / electro engines
- Hydraulic control panel, mounted on the skid frame
- Remote control
- Four (4x) corner blocks
- Four (4x) pad-eyes for single lift operations
- User and maintenance manual

Specification of the skid with A-frame

- Dimensions in stored position = : $\pm 5315 \times \pm 2940 \times \pm 2806$ mm (L x W x H)
- Weight is ± 8500 kg (with two hydraulic power units)
- Fixation on deck for example by means of the 4 corner blocks
- Ambient working conditions: -20°C till $+50^{\circ}\text{C}$
- 2 x main and clump winch are both: man-riding double system, primary – integrated on gear box, secondary – on drum
- Maximum total SWL (Clump weight, dive cage + payload) 1494 kg
- Maximum outreach from heel pin ± 1853 mm to center cage
- Wire length : 110 m of 13 mm rotation free cage wire and 220 m of 10 mm rotation free clump wire
- Speed : 0 – 15 m/min, for the cage wire and 0 – 30 m/min for the clump wire
- Use for open sea operations aboard ships-, or pontoons-, up to $H_s=1,6$ m conditions
- Large Diver cage dimensions : $\pm 1166 \times \pm 1166 \times \pm 2324$ mm (L x W x H)
- Small Diver cage dimensions : $\pm 852 \times \pm 1166 \times \pm 2324$ mm (L x W x H)
- Dimensions of the clump weight : $\pm 2360 \times \pm 400 \times \pm 235$ mm (L x W x H)
- Piping and fittings are stainless steel



The electrical driven hydraulic power packs

The LARS system is complete outfitted with an integrated electric driven double hydraulic power pack, with the following specifications:

- Two motors 3 phase 440 VAC - 60 Hz 11 kW – two starter boxes
- Hydraulic power 220 bar @ 32 L/min, maximum hydraulic power 275 bar @ 20 L/min, for each pump
- Load sensing hydraulic pumps
- Control valves for luffing, cage winch, clump winches and platform
- Hydraulic oil tank with two compartments 200 liters each, fitted in one joint housing, delivered complete with hydraulic synthetic oil, based on mineral oil ISO 6743-4 with anti corrosion and anti wear additives
- The entire system is foreseen with a heavy duty powder coating

Electrical cable connection:

- On the electric power distribution boards cables of 10 m are connected.
- Power to be provided: 2 x 440 VAC 60Hz 32A (LARS) , 1 x 230 VAC 50/60 Hz (Lighting)



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