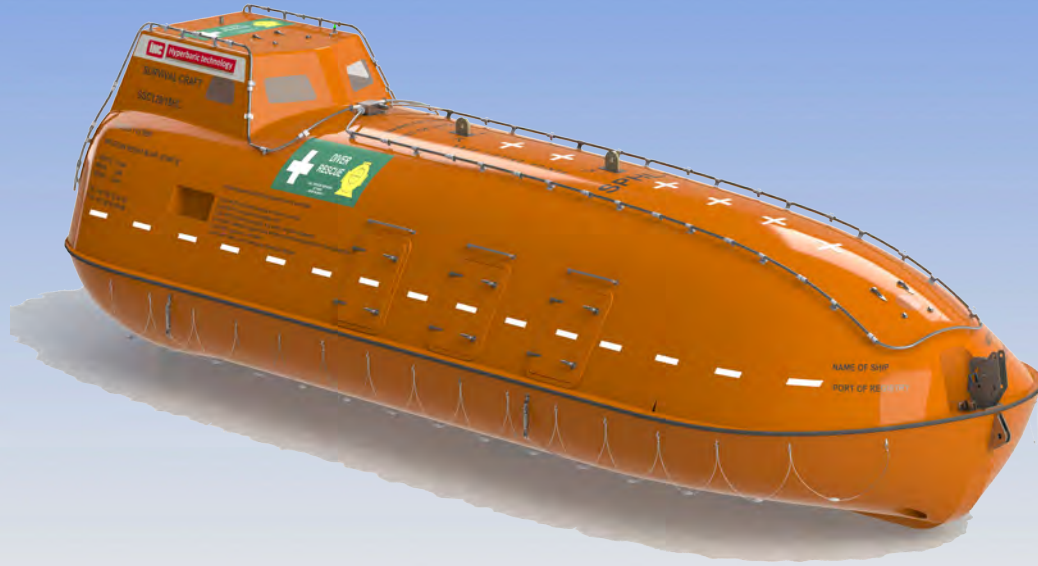


Self-Propelled Hyperbaric Lifeboats



Types of Self-Propelled Hyperbaric Lifeboats available:

- 12 persons SPHL with service hatch - 300 msw
- 18 persons SPHL with service hatch - 300 msw
- 18 persons SPHL with service hatch and extra supply lock - 350 msw
- 18 persons SPHL with service hatch - 350 msw
- 24 persons SPHL with service hatch and extra supply lock - 400 msw
- 24 persons SPHL with service hatch - 400 msw

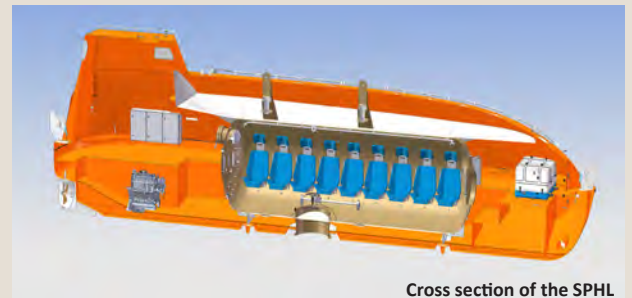
Together with Aberdeen based Survitec Survival Craft (Part of the Survitec Group), IHC Hytech is involved in the design and manufacturing of self-propelled hyperbaric lifeboats (SPHL), suitable for 12, 18 and 24 persons and for depth ranges up to 400 msw.

The 12, 18 and 24 persons are the standard SPHL's. As an option also SPHL's are available for 9 persons, 15 persons, with side entrance, extra supply lock etc. etc on request.

Survitec Survival Craft is responsible for manufacturing and outfitting the GRP hull with a main engine, bow thruster and all necessary navigation and propulsion equipment, as well as it's "Queens Awarded" Safelaunch Rocloc patented LRRS system, a truly EU product.

IHC Hytech builds the duplex evacuation chamber and its life-support equipment including cooling and hot water production plants, clamping systems and spool pieces.

The entire unit will be SOLAS and DNV-GL Class approved. The interior of the diver evacuation chamber as integrated in the SPHL includes a hyperbaric toilet, CO₂ scrubber systems, supply lock and a service hatch at the front.



Cross section of the SPHL



Self-propelled hyperbaric lifeboat	12 persons	18 persons	24 persons
Manufacturer	IHC Hytech B.V.		
Drawingnumber	1.80.4754	1.80.4755	1.80.4756
Classification Society	Det Norske Veritas (D.N.V.) approved according to the latest SOLAS/LSA Regulations		
Designcode	- EN 13455-3 : 2011, Unfired pressure vessels part 3 : design - DNV-OS-E402, Offshore standard for diving systems sec. 3, B303, B304, sec 7 DNV-OS-E305, Rules for certification and verification of diving systems - DNV-RP-E403, Recommended practice sec. 7, B409		
NDT	100 % X-ray		
Corrosion Allowance	0 mm		
CE Marking	PED2014/68/EU		
Code Calculations	EN 13445		
Manufacturing Tolerances	EN 13445		
Design Temperature	-10 / +55 °C		
Design Pressure	31.4 bar	31.4 bar	42 bar
Hydrostatic Test Pressure	47.1 bar	47.1 bar	63 bar
Testpressure under mixed gas/helium	31.4 bar	31.4 bar	42 bar
Maximum Diving operation depth	300 msw	300 msw or 350 msw	400 msw
Maximum Life-support time in unit	72 hours		
Weight of Decompression vessel	3,200 kg	4,300 kg	6,200 kg
Weight of Decompression vessel filled with water	11,600 kg	16,300 kg	22,200 kg
Supplier hull/canopy	Survitec Survival Craft		
Construction hull/canopy	Fire retardant Glass Fibre Reinforced Polyester		
Type Number canopy	SSC95/12HL	SSC110/18HL	SSC127/24HL
Dimensions (LxWxH)	9.5 m x 3.6 m x 3.5 m	11.0 m x 3.6 m x 3.5 m	12.7 m x 3.6 m x 3.5 m
Weight (empty)	16,000 kg	18,000 kg	21,000 kg
Release Hook	12.3 TN Safe launch each		
Hook Distance	8.70 m	10.20 m	11.90 m
Total Davit Load	18,000 kg	20,000 kg	23,500 kg
Maximum Capacity	12 divers / 4 crew	18 divers / 4 crew	24 divers / 4 crew
Communication System	Fathom Systems - DDCS		
Critical Systems Monitoring and Tracking System*	Fathom Systems - CSMTS		
Colour	Safety Orange		

* = CSMTS – Critical System Monitoring and Tracking System is a stand-alone data acquisition, recording, communications and transmission product developed by Fathom Systems.



The technology innovator.



Internal Coxswain position



Internal Coxswain position

General

IHC Hytech strives to deliver the best value to its customers. It is a partner of choice for innovative, sustainable and integrated hyperbaric systems and saturation diving equipment such as Self-Propelled Hyperbaric Lifeboats. IHC Hytech's solutions are reliable, efficient and flexible to the demands of challenging hyperbaric diving projects. With its extensive knowledge and in-house design capabilities, IHC Hytech ensures compliance with the latest technological developments, strictest safety regulations and most stringent environmental standards.

It is mandatory for Diving Support Vessels (DSV) to be equipped with adequate and dedicated safety equipment to allow for the evacuation of divers under pressure in life-threatening situations. The principle of the SPHL is the installation of an independent autonomous saturation system chamber, i.e. a saturation diving evacuation chamber, in a standard self-propelled and SOLAS-approved GRP hull that is otherwise normally equipped with a propulsion system, cooling system, hot water plant, navigation control and monitoring equipment, food/water supply and medical aid kits. The evacuation chamber, suitable for 12, 18 or 24 divers at working pressures specified up to 400 metres of seawater, is accessible through a lock in the bottom of the lifeboat. This lock normally connects the SPHL to the vessel's saturation diving chamber system and is kept under system pressure to allow immediate deployment.

In compliance with IMO regulations and on the basis of the presumption that some means of rescue will arrive within that time span, the SPHL is capable to offer autonomy for the evacuated divers for 72 hours. The heliox and oxygen supplies needed for that period are stored in gas cylinders in the boat. The CO₂ produced by the divers metabolic oxygen consumption is filtered by CO₂ removal scrubbers, containing exchangeable canisters with soda lime granulate. Once saturated the canisters are exchanged with fresh unused ones through a so-called 'supply lock', which also serves for the exchange of other supplies.

A contamination scrubber and a hyperbaric toilet completes the outfit.

The outside of the evacuation chamber, accessible through the lifeboat's passageway, is crammed with control and monitoring equipment by which the crew can tend the divers and operate the chamber. To guarantee simplicity, safety and reliability, it consists of auxiliary redundant independent valves, pressure regulators, manometers, couplings and so on – highly appealing to those who grew up before the computer games' era. It's testament to the quality of IHC Hytech that every component as depicted in this picture is documented, certified, approved and traceable during its whole lifetime.

A life-support package (fly-away package) for a SPHL provides the essential services to a hyperbaric rescue chamber/SPHL when evacuated from the mother vessel (DSV). For more information about these packages, contact IHC Hytech for further information.

Safelaunch Lifeboat Release and Retrieval Systems (LRRS)



The lifeboat is equipped with a LRRS.

Safelaunch: a safe and easy way of launching and retrieving conventional davit-launched lifeboats and rescue boats.

The award-winning, IMO-compliant Safelaunch release and retrieval system - designed, developed and manufactured by Survitec Survival Craft - features visual indicators, integrated fall prevention device (FPD), and more. Safelaunch has been specifically designed so it can be easily retrofitted to any lifeboat or rescue boat.



Safelaunch lifeboat release & retrieval system (LRRS)



Gas control panel located in front of the chamber



Clamping system



Cockpit view



Interior of the SPHL evacuation chamber

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