

# HPS

HYBRID POWERED SAILING



 **SELDÉN**



- 1 CXe, ELECTRIC CODE 0 FURLER
- 2 FURLEX ELECTRIC
- 3 HYDRAULIC VANG
- 4 HYDRAULIC SHEET CYLINDER
- 5 HYDRAULIC HALYARD TENSIONER

- 6 HYDRAULIC OUTHAUL CYLINDER
- 7 ELECTRIC FURLING MAST
- 8 E40 rev - REVERSIBLE ELECTRIC WINCH
- 9 TOUCH CONTROL
- 10 HYDRAULIC BACKSTAY TENSIONER

# HPS

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## The future of sail handling

Imagine trimming your sails, reefing the mainsail or deploying your Code 0 without leaving the helm. No grinding winches. No wrestling loaded lines. No shouting commands across the cockpit. Just smooth, controlled sailing at the touch of a button. That is HPS — Hybrid Powered Sailing.

Developed by Seldén group, HPS combines intelligent electric furling systems with powerful hydraulic technology to transform the way modern yachts are sailed. It brings together performance, comfort and safety in one fully integrated system, designed for sailors who want complete control with minimal effort.

### Set sail

All sails are operated using electric powered furling systems designed to work in perfect synchronization with the yacht's trim functions.



### Mainsail

The electric motor inside the furling mast is synchronized with a hydraulic outhaul tensioner integrated inside the boom. Press OUT and the mainsail unfurls smoothly while the boom automatically tensions the outhaul for the correct sail shape. Press IN and the system reefes the sail in a controlled manner or furls it completely back into the mast.

Fast, smooth and effortless sail handling allows you to adapt instantly as conditions change.

### Headsail

The jib or genoa is handled by an electric Furlex system synchronized with reversible electric winches. Unfurl, trim and furl your sail without touching a line or leaving the helm. The system delivers precise sail control while reducing physical effort and crew workload.

### Downwind sail

Your Code 0 or top-down gennaker is deployed using CXe — Seldén's electric high-speed furler. When the wind opens, unfurl the sail in seconds and transform light-air sailing into pure pleasure while maintaining full control directly from the cockpit.



# Trim your sails to perfection

All trim functions are handled by hydraulic high-pressure cylinders powered by an electric pump system.

## Halyard tensioners

The jib and main halyards are connected to hydraulic tensioners at the side of the mast, allowing fine adjustment of halyard tension for optimized sail trim.

## Mainsheet

A hydraulic cylinder and a tackle are integrated inside the boom. All you see is a single sheet line entering an inlet in the boom. The HPS tensions the sheet in a controlled manner and releases it rapidly to prevent possible overpowering of the sail.



## Boom vang

Controls the boom angle in both directions. Pull the boom down and enjoy a controlled broad reach, always with the option of instant depowering by means of a dump valve.

## Backstay tensioner

The tension of the forestay and the shape of the mainsail are easily adjusted to achieve a fuller sail shape in light winds and choppy seas, or a tighter setup in heavier winds.

## E40 rev

An electric winch operating in both directions allows you not only to tension, but also to ease a sheet from your control panel. Use it synchronized with a Furlex Electric system or independently for precise sail trim.



## Touch control

In addition to the button controls, the various functions can also be operated from a MFD plotter. Simply slide your finger across the screen to unfurl the jib or activate any other function. In the event of an error, the system performs a self-diagnosis and displays troubleshooting information directly on the screen.

## What's going on below deck?

A hydraulic cylinder operates using pressurized oil. It retracts when pressure increases and extends when the pressure is released. A backstay tensioner or halyard tensioner is pulled out by the cylinder, whereas a hydraulic vang, which carries the weight of the boom, requires up to 25 kN of return force to extend and lift the boom. This force is provided by gas pressure inside the cylinder.

The heart of the HPS is the hydraulic pump system located below deck. It consists of a 42V electric pump, valves for the various functions, and oil reservoirs.

Seldén's 42V power supply system enables an efficient and compact design for all electric functions from Seldén. A dedicated CAN system, SEL-Bus, provides system intelligence for synchronization, load control, and troubleshooting.



Furlina Technical Guide



HPS manual



SEL-Bus manual

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