

LEWMAR®

Anchor | Hatch & Portlight | NAVTEC® Rigging and Hydraulics
Sail Control | Steering | Thruster | Winch | Windlass

New Products Supplement



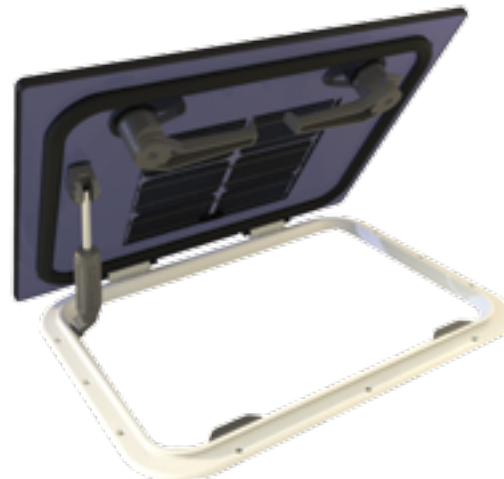
In Design

The Lewmar Design Team is constantly innovating and developing new products, as well as supporting existing lines. Customer feedback and market demands are translated into a comprehensive programme of new product development. The following pages showcase a few of the current concepts which are in design.

Solar Hatch

With concerns about how to recharge power-hungry modern devices while afloat at the forefront of their minds, the Lewmar Design Engineers have focused on how to generate sustainable energy on board. The Solar Hatch draws on a wealth of hatch design and in-house production experience to produce an attractive source of solar power.

- Keeps deck and coach roof clear of unsightly solar panel units
- Two Size 44 Solar Hatches will fully recharge 25% of a yacht's battery in 5 days. A weekend afloat typically uses 25% of a yacht's battery reserve
- One Size 44 Solar Hatch will fully recharge a flat smartphone battery in 5 hours – plug directly into the USB port on the hatch
- Trickle charge the boat's batteries
- A Solar Hatch acrylic lens can be effortlessly retrofitted to any model in the Lewmar Hatch Range
- Simple, intuitive hatch opening with the turn of a handle
- Simple, easy installation
- Delivered in packaging made from recycled cardboard



Technical Specification

HATCH SIZE	ESTIMATED WATTAGE
30	5.0
44	10.0
60	12.5
70	15.0

Example Installation

- Solar Hatch Installation on 37 foot boat in a parallel wiring layout
- 3 x Size 70 (697 x 697mm) Lewmar Solar Hatches
- 2 x Size 30 (527 x 397mm) Lewmar Solar Hatches
- Total Output: 55 Watts

NB Installation of Solar Hatches in a series wiring layout will increase the voltage output

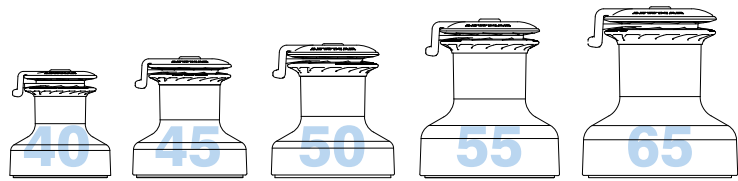
REVO™ Backwinding Winch

Lewmar introduces a complete range of electrically-operated, backwinding winches. With the touch of a button, sailors are able to trim sails both in and out. Push one button and the winch sheets in quickly to the Working Load Limit. A well-specified motor removes the added complication of switching between slow and fast forward gears. Simply push another button to electrically backwind the winch, while the insertion of a winch handle automatically changes to a familiar two-speed manual operation.

Available in Sizes 40 to 65, the versatile REVO™ winch is an effortless revolution in sail control!

Features

- Available in five sizes (40, 45, 50, 55, 65)
- No modification to the standard bolting pattern and deck cut-outs
- Direct size for size upgrade from a standard electric EVO® winch to a REVO™ winch
- Uses proven winch internals so retains all the benefits of the EVO® Winch
- Simple two button operation, one to pull rope in and another to pay rope out
- Operates as a normal two speed manual winch when a winch handle is inserted
- Four patents pending



Captive Reel Windlass

With completely remote control operation, the Captive Reel Windlass is designed to provide a full anchoring solution for vessels ranging from 5.5 – 10.5m (18-35ft). Supplied in one compact and simple to operate package, the Captive Reel Windlass is ideal for short-handed, smaller fishing boats where locker space is at a premium.

Features

- Rode stowage without the need for a locker
- Fully remote operation – can be deployed and retrieved from the helm
- High quality materials and construction
- Optional freefall deployment of anchor
- Optional line management system



In Production

As each new product moves from a design concept through to the final production model, the Engineering Development Team ensure that the most appropriate materials and processes are used, and that all Lewmar products deliver the very best in quality and performance. The following pages feature some of the latest new products available for the 2012 season.

CPX Vertical Windlass

Lewmar has developed a new range of lightweight vertical windlass to compliment the current V Range. Windlass is one of the largest divisions of Lewmar and we are in constant contact with boat designers, boat builders, and owner's associations to ensure that our products remain at the forefront of development. In response, Lewmar has developed the new CPX Range.

- 15% lighter than comparable all-stainless windlass
- New architecture with reduced parts
- Easier to service
- Alloy base
- New styling
- Dual size gypsy
- Customer-focused design
- Highly reliable, light weight, high performance windlass
- IP68 motor gearbox available on request



CPX Gypsy Only

CPX Gypsy/Drum

CPX1/2/3/4/5 Specifications

MODEL	MOTOR POWER Watt	MAX PULL		WORKING LOAD LIMIT		MAX LINE SPEED		NORMAL CURRENT DRAW	CIRCUIT BREAKER	APP WEIGHT GYPSY ONLY		APP WEIGHT GYPSY/DRUM	
		kg	lb	kg	lb	m/min	ft/min	Amp	Amp	kg	lb	kg	lb
CPX1 12v	700	454	1000	113	250	19	65	80	90	17.5	38.5	20.0	44.0
CPX2 12v	700	650	1433	163	358	21	69	80	90	17.5	38.5	20.5	45.1
CPX2 24v	900	760	1675	180	396	24	79	45	50	17.5	38.5	20.5	45.1
CPX3 12v	1000	890	1962	215	473	28	92	85	110	20.0	44.0	23.0	50.6
CPX3 24v	1000	1020	2248	243	535	30	98	60	90	20.0	44.0	23.0	50.6
CPX4 12v	1600	1250	2750	313	688	25	82	125	150	26.5	58.3	33.5	73.7
CPX4 24v	2000	1500	3300	375	825	27	90	70	110	26.5	58.3	33.5	73.7
CPX5 12v	2000	1450	3190	363	798	27	90	120	150	28.5	62.7	35.5	78.1
CPX5 24v	2000	1600	3520	400	880	29	97	60	110	28.5	62.7	35.5	78.1

Twist Portlight Handle

- The Twist handle makes the portlight easier to close by reducing the handle load.
- Ideal for hard to reach locations
- Styling matches existing Lewmar portlight ranges.



Atlantic Category A area 1 Portlight

- Addition to the renowned Atlantic Portlight range in production since 1994.
- Complies with the 'Small Craft- Stability & buyoancy assesment and categorisation'
- New Handle Solution allows portlight to close with more load on the seal



Lewmar Hardware Range Restyle

Due to an ever-greater focus upon style and aesthetics as well as performance, the Lewmar Design Engineers have restyled the popular Lewmar hardware ranges. With immediate effect, the Synchro, Synchro Control , Racing, NTR Size 3, and Ocean Size 0 Ranges are available in black. Complimenting the new HTX Range of blocks and travellers, Lewmar can now deliver a complete hardware package that is both suited for each functional requirement and delivers coordinated styling.



Synchro

Efficient, glass-fibre and stainless steel cruising blocks



Synchro Control

For control lines and hand loads



Ocean Size 0

Mainsheet systems ideal for boats up to 8.5m/28ft



NTR Size 3

Traveller systems ideal for boats up to 15m/49ft



HTX Blocks

Years of design and manufacturing experience, combined with collaboration with boat builders, designers, and sailors, has resulted in the new Lewmar HTX Hardware Range. Drawing upon the design of the racing range, the HTX blocks are constructed from a minimal number of alloy parts, providing enhanced reliability.

- Alloy cheeks
- High Load capacity and large line size
- Side thrust ball bearings
- Head design inspired by Lewmar racing range with swivel head mechanism locking through a grub screw



Single



Double Becket



Triple



HTX Footblock



Single Becket



HTX Size 1 & 2 Cars

Lewmar introduces the new HTX Traveller Range to complement the HTX Block Range. At the core of the HTX Traveller Range is the Captive Ball Traveller. Featuring the neat, stylish retention of the ball bearings within the car, the Captive Ball Traveller is simple to install and easy to remove for cleaning and maintenance without the risk of losing ball bearings.

- Ideal for boats up to 15 metres (49 foot)
- Minimalistic car body made of fewer parts
- Compact, one-piece aluminium body and composite end caps designed with smoother lines
- Available in multiple configurations, including single or double control line sheaves, becket, and cam cleat
- Compatible slide-rod Genoa car with stirrup
- Two individual ball races: the first allows fast movement of the car under vertical load, and the second, unique Lewmar feature allows smooth running of the car under deflection
- Larger balls means more ball surface exposure, increasing overall efficiency
- Ball bearings circulate through an open structure allowing easy cleaning when installed
- New dowel mechanism provides smooth ball circulation
- Upstand receives shackle or lashed rope, removing need for a becket above the control line sheaves
- Ball retention ensures simple installation
- Patent pending



Car with Shackle with Double CL Sheaves



Car with Shackle, Single CL Sheave and Becket



Short Car with Shackle



Car Upstand with Double CL Sheaves and Cam



Car with Shackle, Double CL Sheaves, Becket and Cam



Car Upstand with Double CL Sheaves

Navtec – the rigging solution of Lewmar

A heritage of proven performance and reliability has been tested to the extreme by generations of America's Cup contenders, the results of which are applied to the entire Navtec Range. Cutting edge research and component technology combine with close attention to detail, resulting in a durable, high quality, rigging and hydraulics solution. The following pages showcase the latest new production products from Navtec, the rigging solution of Lewmar.

Navtec TFC™ Rigging

Navtec Thermo Fused Carbon Rigging is the latest innovation in carbon fibre rigging. Fabricated from an advanced, flexible, high-modulus carbon composite material with a thermoplastic base, Navtec TFC™ allows new options and enhancements that are currently unavailable with other rigid and flexible, thermo-set, carbon-fibre, composite rigging products.

Navtec TFC™ can be used with existing rod rigging deck, mast and spreader interfaces, making conversion from rod rigging easy. Equipment upgrades using titanium fittings can further optimize the existing rigging package.



- Advanced high modulus thermoplastic carbon fibre composite material
- Discontinuous elements for easy re-fit to existing rod rigs
- High strength, interlocking termination geometry moulded and fused of 100% carbon fibre thermoplastic composite
- NO glue, adhesives or other added materials allows for smaller end fitting geometries
- One third the weight of equivalent rod rigging
- Extended life span and increased durability
- Compact, optimized terminations to reduce weight and windage
- Patent pending



The TFC™ shroud is fabricated using a unique process to form a method of termination using 100% carbon fibre composite material. The same high modulus thermoplastic carbon fibre composite material that forms the structural rigging mid-span is moulded and fused into a configuration that physically interlocks into the titanium end fittings. This high strength termination requires no addition of epoxy or other adhesive materials permitting the use of smaller fitting to minimise weight and optimise shape to reduce windage.



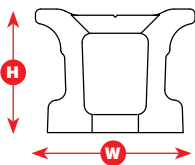
Navtec TFC™ weighs approximately one third the weight of equivalent rod rigging and offers a long life span, as well as improved durability. Shrouds can be covered with a choice of protective covers to prevent sail damage and chafe at deck level, or can be loosely compacted at higher locations to reduce weight and windage.



HTX Track

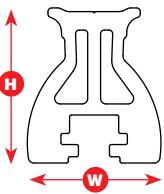
Drilled Track

Commonly used and particularly useful where through deck fixing is not possible, such as in double skinned boats, where fixing bolts are trapped into a plate in the deck.



Beam track

Beam track is used when spanning cockpits and across companion way hatches. Three fixing bolts should always be used either side of the span and washers fitted under the head of the bolt and between track and deck.



**Car Genoa Stirrup,
1 CL Sheave**



**End Stop with Double CL
Sheave and Becket and Cleat
Assembly**



**End Stop with Single CL
Sheave and Becket**



Impact End Stop



Cleat Assembly for End Stop

Navtec Rigging

High-Torque Anti-Torsion Cable

- Torque transfer at least twice as efficient as standard AT cable, and can be improved significantly further with customisation
- Two to four times stiffer compared to standard resin impregnated braided options
- Hi strength, low stretch PBO fibers to transmit torque loading
- Socket ends with custom eye fittings for terminations
- No resin in midspan, therefore no loss in torsional stiffness is seen with use
- Can be coiled in sailbag with out damaging or degrading performance
- Kevlar or PBO core can be customized for axial and torsional loads based on application needs



Custom eye fitting



Asymmetric toggle

- Ideal for runner application
- Low maintenance
- Garage tang or cantilever configurations
- Longer life span than T-terminal style fittings



Super Yacht PBO

Navtec has increased its size range to accommodate mega yachts with rigging sizes -640 and larger with cables as long as 65 M being produced regularly.



Navtec Hydraulics

Inner Forestay Cylinder

- Flush sleek design does not clutter deck when not in use
- Hydraulically driven via standard cylinder
- Soft stop terminations to inner forestay
- Standard sizes -30 to -60 with custom sizes upon request



High Flow System VIII Cam Valve

- High flow valve
- Improved pressure drop
- Upgraded System 8 valve
- High flow for powered systems
- Can be pedestal driven via a rotary pump



4 Bank Rotary Hydraulic Pump

- Higher flow rates with smoother flow output
- Efficient cam driven piston pump
- Available in 2 and 4 bank
- Shift points can be adjusted to suit the user preference
- Built in relief valve
- Adapts to any winch package
- Adaptable to overdrive box with input capable of 200rpm



Mini 50 Hydraulic Panel

- 35% smaller face plate with 40% less mounting depth
- Entry level hydraulic panel with flow rates needed for smaller racing boats
- Simple solution for OEM applications
- Adjustable relief valve
- Sleek one function panel



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LEWMAR®

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