Custom Winches

For the last 50 years, Lewmar has been at the forefront of winch design and manufacture, featuring on cruisers through to superyachts and Grand Prix racing boats. Using the latest finite element analysis and simulation software, we are able to optimise our designs to be the lightest and most efficient winch systems available.

Lewmar winches can be customised to suit individual aesthetic and functional requirements, with some of the many options including ceramic drum coatings, self-tailing jaws, custom top cleats, multiple speeds, free-spinning or ratcheting sheave base additions, and anticlockwise rotations. Each Lewmar winch is available in a choice of polished stainless steel, aluminium, or an individually-specified finish, subject to discussion with your Lewmar representative.

- Cutting edge performance combined with classic styling
- Choice of styles includes rolex, cleat, and flat top and bespoke engraving
- Individual functions to suit requirements, including sheave base
- Compatible with load-pin technology
- Ability to customise gear ratio and hydraulic motors to specific line requirements
- Electric or hydraulic operation options
- Available in bronze-effect finish
- Available in size 68 to size 150

New flat-top custom winches

As Superyacht design trends evolve, so too must the look and feel of the equipment fitted to them. With current design tastes in mind, Lewmar has redesigned its custom line-up of winches to offer a cleaner, more streamlined look.

To achieve this, the winches are flat-topped, with clever integration of the feeder arm into the self-tailing jaws themselves.

- Sleek, modern look
- Integrated stripper ring for easy rope handling
- Patterned top available on request
- New styling available from size 88 upwards

Custom Winch Specifications

PART NO	MODEL	FINISH	LINE SIZE	
			mm	in
49088104	88HST Ocean winch	Stainless Steel	12–25	½–1
49088248	88 Flat Top winch	Stainless Steel	12-25	½–1
49088109	88/3HST Ocean	Stainless Steel	12–25	½–1
49088252	88/3 Flat top	Stainless Steel	12–25	½–1
49111104	111HST Ocean	Stainless Steel	16–38	⅝–1½
49111259	111 Flat top	Stainless Steel	16–38	⅝–1½
49111109	111/3HST Ocean	Stainless Steel	16–38	⅝–1½
49111255	111/3 Flat top	Stainless Steel	16–38	⅝–1½
49122104	122HST Ocean	Stainless Steel	16–38	⅝–1½
49122121	122/3 Flat top	Stainless Steel	16–38	⅝–1½

The parts list table contains just a fraction of the custom winches available.

To assist with individual projects, our team of experts are on hand to help in selecting the perfect winch for the specific requirements.

Please email custom@lewmar.com with any enquiries.

ASTOR Custom Winches

- Drive train based upon the proven Lewmar Ocean Range
- Available in size 40 to size 111
- Electric and hydraulic options available
- Lightweight aluminium construction
- For further details contact custom@lewmar.com

ASTOR Winch Specifications

PART NO	MODEL	FINISH	GEAR RATIO				POWER RATIO				WEIGHT		D DRUM DIA		B BASE DIA		H HEIGHT		L LINE ENTRY		LINE SIZE	
			1st	2nd	3rd	4th	1st	2nd	3rd	4th	kg	lb	mm	in	mm	in	mm	in	mm	in	mm	in
49040050	40STR	Black	1.9:1	5.8:1	-	-	13.2:1	40.2:1	-	-	3.4	7.5	74	2 15/16	148	5 13/16	173	6 13/16	80	3 1/8	8-12	5/16-1/2
49044050	44STR	Black	2.4:1	7.6:1	-	-	13.9:1	44.8:1	-	-	4.9	10.8	87	3 7/16	168	6 5/8	192	7 9/16	84	3 5/16	8-14	5/16-9/16
49044014	44/3AOR	Grey	1:1	3:1	8.7:1	-	5.1:1	15.2:1	44:1	-	5.5	12.1	100	3 15/16	184	7 1/4	169	6 5/8	83	3 1/4	8-14	5/16-9/16
49048050	48STR	Black	2.6:1	9:1	-	-	13.9:1	48.6:1	-	-	5.9	13.0	93	3 11/16	181	7 1/8	208	8 3/16	86	3 3/8	8-14	5/16-9/16
49048015	48/3AOR	Black	1:1	3.6:1	10.6:1	-	4.5:1	16.3:1	48:1	-	6.8	14.9	112	4 7/16	207	8 1/8	196	7 3/4	102	4	8-14	5/16-9/16
49050050	50STR	Black	2.8:1	10.5:1	-	-	13.8:1	50.6:1	-	-	7.8	17.2	105	4 1/8	200	7 7/8	238	9 3/8	106	4 3/16	8-16	5/16-5/8
49050015	50/3AOR	Black	1:1	5.4:1	12.8:1	-	31.1:1	20.9:1	49.9:1	-	8.4	18.4	130	5 1/8	225	8 7/8	223	8 3/4	120	4 3/4	8-16	5/16-5/8
49054050	54STR	Black	2.8:1	11.2:1	-	-	13.8:1	54:1	-	-	8.3	18.3	105	4 1/8	205	8 1/16	250	9 13/16	115	4 1/2	8-16	5/16-5/8
49058050	58STR	Black	3.1:1	13.5:1	-	-	13.5:1	58.1:1	-	-	10.2	22.4	118	4 5/8	228	9	266	10 1/2	118.5	4 11/16	8-18	5/16-11/16
49060015	60/3AOR	Black	1:1	5.4:1	9:1	-	3.1:1	16.7:1	59.4:1	-	13.6	26.9	162	6 3/8	238	9 3/8	315	12 3/8	164	6 7/16	8-18	5/16-11/16
49062050	62STR	Black	3.1:1	14.5:1	-	-	13.5:1	62.6:1	-	-	10.8	23.8	118	4 5/8	231	9 1/8	271	10 11/16	121.5	4 3/4	8-18	5/16-11/16
49077035	77/3STR	Grey	2.8:1	8:1	27:1	-	7.9:1	23:1	77:1	-	22.3	49.1	178	7	294	11 9/16	348	8 3/4	174	6 7/8	12-22	1/2-7/8
49088245	88/3STR	Grey Flat Top	3.8:1	8:1	40:1	-	8.4:1	17.8:1	89:1	-	24.7	54.5	228	9	324	12 3/4	333	13 1/8	151	5 15/16	12-25	1/2-1
40000900	111/3STR	Grey	3.6:1	8:1	45.2:1	-	6.5:1	14.6:1	82.2:1	-	29.8	65.7	260	11	404	15 15/16	367	14 7/16	163	6 7/16	12-25	1/2-1
40000901	111/4AOR	Grey	1:1	3.6:1	8:1	45.2:1	1.8:1	6.5:1	14.6:1	89.2:1	29.1	64.2	280	11	404	15 15/16	317	12 1/2	163	6 7/16	12-25	1/2-1

Case study - Hetairos

Lewmar manufactured cutting edge carbon winches for Hetairos, a 67 metre yacht in which ultra modern features and technical innovation are combined with classical looks.

Lewmar was keen to meet the multiple challenges, amongst which were designing, engineering and manufacturing a complete set of on deck winches and under deck line management systems to control the 4000 square meters of main sail, mizzen and blade sails. Special attention had to be paid to the fact that modern sails and sheets have virtually no stretch and exercise enormous shock loads as the yacht travels through the sea.

As a result the biggest, most powerful drum winch ever produced was born, namely the hydraulically driven Lewmar 150 self tailing winch. This winch operates at a massive 15 tonnes with a strong heart made of steel and aluminium with highly rigid Torlon® roller bearings. Keeping the weight down on Hetairos has been a major issue, Lewmar designed winch drums with specially milled surfaces to increase the grip required for the Mathioli and Dyneema sheets and halyards used. The weight was brought down to 150 Kg - a figure approximately 30% lighter than a traditionally built winch of alloy and steel.

Lewmar Racing Winches

Lewmar Racing Winches have been at the forefront of the world's premier races for the last 60 years, including the America's Cup, Vendee Globe, MedCup, and the Volvo Ocean Race. Features such as aluminium and carbon fibre construction, Torlon® polymer bearings, and optional titanium gears are all the result of close relationships with race crews and cutting edge research and design. Lewmar Racing Winches are the first choice for lightweight performance boats that want a winch they can rely on, whether round the cans or around the world!

Grand Prix racing winches can be driven by grinding pedestals or by hydraulic or electric motors. With modern racing rules evolving all the time, the Lewmar winch range has evolved to meet these challenges.

Pedestal-drive winch systems are used for applications demanding speed and power. One or more crew can grind from a powerful optimised standing position.
Pedestal systems are customised to meet the specific needs of each boat.

- Latest Finite Element Analysis (FEA) and simulation software ensures designs are the lightest and most efficient winch systems
- Carbon power range available in Size 50 GPST through to the Size 120-4 GPST, with patented integral four-speed system
- Available with electric or hydraulic operation
- Operated by top handle or bottom pedestal drive
- Many custom options available, including ceramic drum coatings, custom top cleats, and free-spinning or ratcheting sheave base additions.
- Range available in 2 or 3 speed, or with Lewmar's patented integral 4-speed system
- State of the art carbon fibre finish offers weight saving
- Internal components crafted from aerospace industry materials
- Superior strength
- Developed through extensive research and development
- Speed and Power ratios for ultimate flexibility
- Wavespring Self-Tailer
- Extensive range — Self-tailing, cleat top, sheave base combinations
- Easy to service
- Needle Peen Drum

A Slam down 1:1 first speed button

B Carbon Tops & Skirts - Reducing weight

C Torlon Balls – More balls than any other winch!

D Wave Grip self-tailer – Proven, simple & effective design

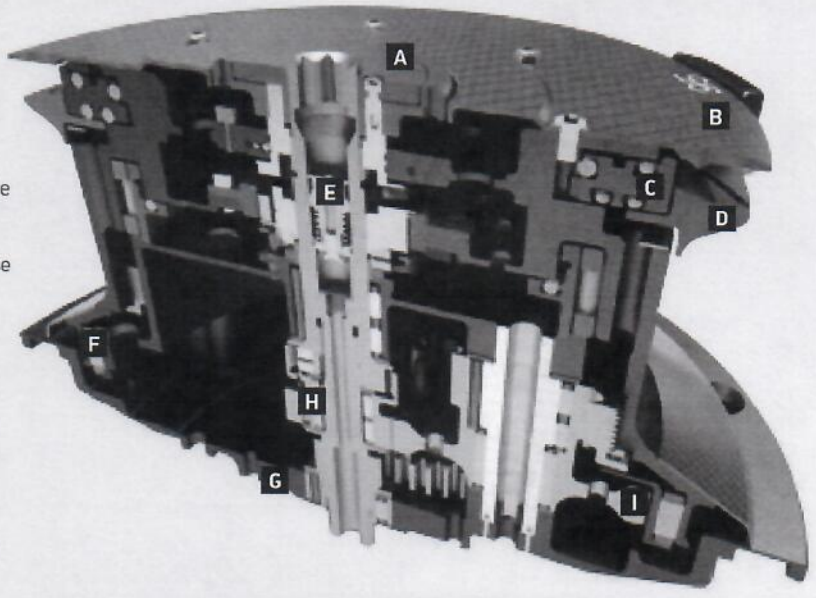
E Drum Release – Unique single release button, for quick maintenance and servicing

F Large Torlon Bearings

G Sunk Base Option — For lower windage and flusher decks

H Internal Roller Bearings – For maximum efficiency

I Optimised Gear Design – Skeletal but strong



Grand Prix Racing Winches

What's inside makes all the difference. In every Lewmar Carbon Fibre Winch, you will find materials developed for the aerospace industry, precision CNC machined for maximum efficiency, durability and strength-to-weight ratio. Once the winch is assembled, we use an aggressive in-house testing program to ensure maximum performance on the world's toughest racecourses.

- Developed in conjunction with some of the top racing classes including GP42, Class 40, TP52, Open 60, Volvo 70, IACC, 100ft - Supermaxi + offshore Maxi-Multihulls
- Range available in 2, 3 or with Lewmar's - Patented Integral four-speed system available on larger winch models
- Self-Tailing, optional cleat top
- Top handle driven or bottom pedestal drive with electric or hydraulic options available
- Carbon and painted finishes

Light, fast and strong!

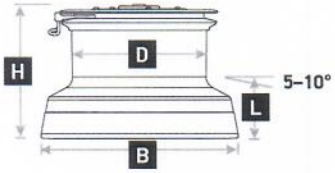
Lightweight and strong, Lewmar's racing winches offer the serious racer outstanding performance and power. Using the best features of our standard range combined with the technology used on America's Cup, Volvo 70's, Vendée Globe etc.

60/3GPST (Self-Tailing)

115/3 GPST

All 3-Speed Grand Prix winches are available in either Self-Tailing, Cleat Top or Sheave Base

Dimensions Diagram Grand Prix Racing Winch



Grand Prix Racing Winch Specifications

PART NO	MODEL	GEAR RATIO				POWER RATIO				WEIGHT		D DRUM DIA		B BASE DIA		H HEIGHT		L LINE ENTRY		LINE SIZE		MOUNTING INSTRUCTIONS
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	kg	lb	mm	in	mm	in	mm	in	mm	in			
49050120	50GPST	3.4:1	11.3:1			15.2:1	50:1			4.7	10.3	115	4½	188	7⅜	168	6⅝	62	2½	8–14	5/16–9/16	5 x M8 (5/16 in) c'sk head screws on 170mm (6⅝ in) PCD
49050130	50GPST SR	3.4:1	11.3:1			15.2:1	50:1			5.1	11.2	115	4½	217	8½	168	6⅝	62	2½	8–14	5/16–9/16	5 x M8 (5/16 in) c'sk head screws on 170mm (6⅝ in) PCD
49060000	60/3GPST	1:1	4.3:1	15.4:1		3.9:1	16.8:1	60.2:1		7.8	17.2	130	5⅛	214	8½	186	7⅜	67	2⅝	8–14	5/16–9/16	6 x M8 (5/16 in) c'sk head screws on 195mm (7⅝ in) PCD
49060009	60/3GP SB	1:1	4.3:1	15.4:1		3.9:1	16.8:1	60.2:1		8.2	18	130	5⅛	236	9 5/16	186	7⅜	67	2⅝	8–14	5/16–9/16	6 x M8 (5/16 in) c'sk head screws on 195mm (7⅝ in) PCD
49068001	68ACSTR	3.5	19.2:1			12:1	67:1			9.5	20.9	150	5⅞	250	9 13/16	213	8⅜	99	3⅞	8–14	5/16–9/16	6 x M10 (⅜ in) c'sk head screws on 200mm (7⅞ in) PCD
49068002	68/3ACSTR	1:1	3.4:1	19.2:1		3.5:1	12:1	67:1		10.6	23.3	146	5¾	250	9 13/16	227	8 15/16	97	3⅞	8–14	5/16–9/16	6 x M10 (⅜ in) c'sk head screws on 200mm (7⅞ in) PCD
49068021	68/3GP SB	1:1	3.5:1	19.3:1		3.5:1	12:1	67:1		10.5	23.1	146	5¾	275	10 13/16	227	8 15/16	95	3¾	8–14	5/16–9/16	6 x M10 (⅜ in) c'sk head screws on 200mm (7⅞ in) PCD
49082000	82GPST	1:1	8.5:1	29:1		2.5:1	24:1	82:1		14.7	32.4	182	7⅛	290	11 7/16	215	8 7/16	79.5	3⅛	12–16	½–⅝	8 x M10 (⅜ in) c'sk head screws on 266mm (10½ in) PCD
49099000	99/3GPST	1:1	9.4:1	40.9:1		2.5:1	23:1	101:1		17.5	38.5	204	8	320	12⅝	234	9¼	90	3½	10–16	⅜–⅝	8 x M10 (⅜ in) c'sk head screws on 296mm (11⅝ in) PCD
49099009	99/3GP SB	1:1	9.4:1	40.9:1		2.5:1	23:1	101:1		19.2	42.2	204	8	328	12 15/16	234	9¼	92	3 9/16	12–16	½–⅝	8 x M10 (⅜ in) c'sk head screws on 281mm (11 1/16 in) PCD
49095001	95/4GPST	1:1	3.8:1	8:1	40:1	2:1	7.6:1	16:1	80:1	20.5	45.1	254	10	370	14⅝	225	8⅞	98	3⅞	10–16	⅜–⅝	6 x M12 (½ in) c'sk head screws on 288mm (11 3/32 in) PCD
49095004	95/4GPST SB	1:1	3.8:1	8:1	40:1	2:1	7.6:1	16:1	80:1	21.8	48	254	10	370	14⅝	225	8⅞	98	3⅞	10–16	⅜–⅝	6 x M12 (½ in) c'sk head screws on 288mm (11 3/32 in) PCD
40005066	105/3STR	1:1	8.3:1	39.6:1		1.6:1	13.6:1	64.8:1		18.5	40.7	280	11	360	14 9/32	225	8⅞	93.7	3 11/16	8–14	5/16–9/16	6 x M12 (½ in) c'sk head screws on 288mm (11 3/32 in) PCD
49105002	105/4GPST	1:1	3.8:1	8:1	40:1	1.8:1	6.9:1	14.5:1	72.6:1	21.6	47.5	280	11	370	14⅝	237	9⅜	90	3½	10–16	⅜–⅝	6 x M12 (½ in) c'sk head screws on 288mm (11 3/32 in) PCD
49105006	105/4GP SB	1:1	3.8:1	8:1	40:1	1.8:1	6.9:1	14.5:1	72.6:1	23.4	51.5	280	11	370	14⅝	220	8⅝	90	3½	10–16	⅜–⅝	6 x M12 (½ in) c'sk head screws on 288mm (11 3/32 in) PCD
49115000	115/3ACSTR	1:1	8:1	45.2:1		1.8:1	14.8:1	82.2:1		39.3	86.5	282	11⅛	432	17	327	12⅞	152	5 5/16	12–18	½–¾	10 x M12 (½ in) c'sk head screws on 365mm (14⅜ in) PCD
49120001	120/4ACSTR	1:1	3.6:1	8:1	45.2:1	1.7:1	6:1	13.5:1	75.3:1	47.3	104.1	305	12	450	17¾	312	12¼	143	5⅝	14–20	9/16–¾	10 x M12 (½ in) c'sk head screws on 365mm (14⅜ in) PCD

SR - Speed Ring | ST- Self Tailing | SB - Sheave Base

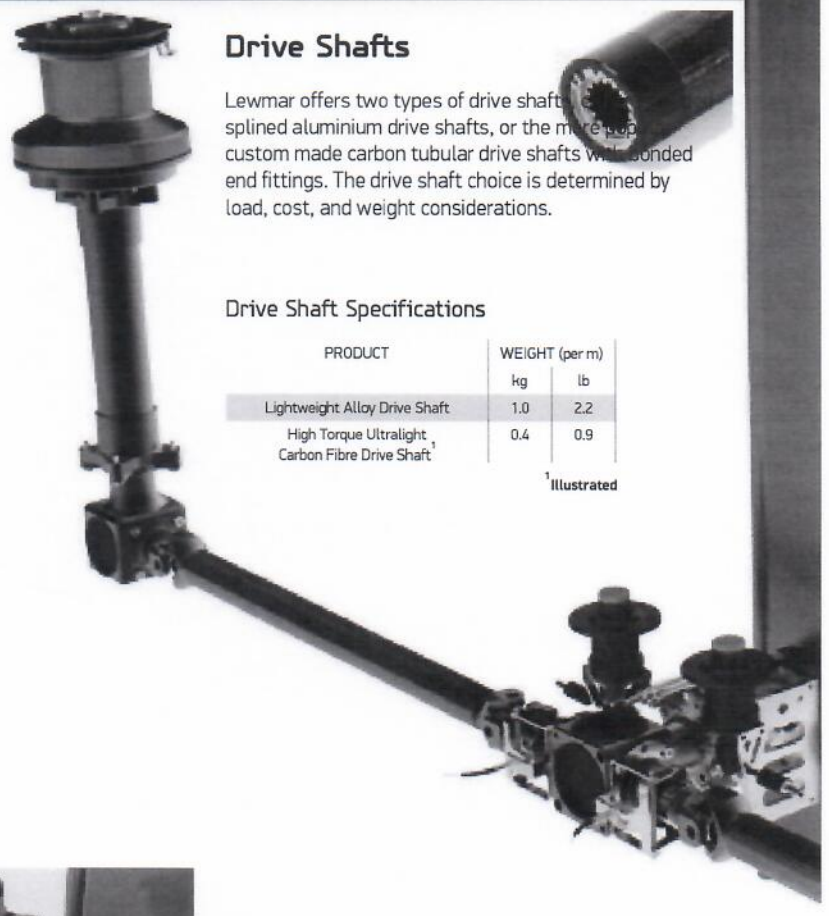
Lewmar Pedestal Systems

Lewmar has been making pedestal systems for over 40 years. Working closely with some of the best teams and sailors over this time has given Lewmar a great pedigree and understanding – we know what it takes to get you over the line. Our design engineers can develop bespoke tailored systems to your exact requirements.

- Unique I-Beam pedestal moulded in carbon fibre
- Optimised layup schedule ensures maximum stiffness and efficiency
- Pedestals available in straight or twisted configuration
- Fat grip racing handles ideal for strong grinders
- Pedestals can be customised to crew strength
- Drive components manufactured in hard anodised aluminium and titanium or 17-4 PH stainless steel
- Ceramic and Torlon® bearings along with carbon-reinforced drive belts provide lightweight, maximum efficiency
- Removable option available to open up cockpit for long-distance racing and cruising

Disconnect Foot Switches

Pedestal system disconnects can be activated with either levers, control lines or a two-position push button. The most popular method is operation via a foot switch.



Drive Shafts

Lewmar offers two types of drive shaft splined aluminium drive shafts, or the m custom made carbon tubular drive shafts w bonded end fittings. The drive shaft choice is determined by load, cost, and weight considerations.

Drive Shaft Specifications

PRODUCT	WEIGHT (per m)	
	kg	lb
Lightweight Alloy Drive Shaft	1.0	2.2
High Torque Ultralight Carbon Fibre Drive Shaft[1]	0.4	0.9

[1] Illustrated

Clutches

The unique Lewmar dog drive clutches ensure consistent and smooth operation this allows engagement and disengagement even while the grinders are hard at work spinning the handles.

Clutch Specifications

PRODUCT	WEIGHT	
	kg	lb
Modular Self Seeking Clutch[1]	2.4	5.3
Integrated Self Seeking Clutch	0.75	1.6

[1] Illustrated

Pedestals

- Lightweight Carbon Shell
- Developed using high-strength low-weight pre-preg carbon fibre composites from the F1 industry
- Twist or straight pedestal options
- Dual output also available
- Clear coat UV stable protective lacquer is standard (painted options available)
- Internal composite bearing systems
- Double bearing systems on handle housing
- Custom Fat Racing grip handles
- Removable Pedestal options for fast cruising market

Pedestal Specifications

PRODUCT	WEIGHT	
	kg	lb
Carbon Fibre Drive Belt Pedestal – Max Height	5.5	12.1

Note: Weight Includes Double Grip Handles

Overdrive Box

The overdrive box can be used to speed up line speeds or increase power, ideal for fast leeward mark rounding, or short handed sailing if you need more power. The Lewmar overdrive box is modular and can be fitted to any pedestal drive system.

Overdrive Box Specifications

PRODUCT	WEIGHT	
	kg	lb
Overdrive Box	3.1	6.8

CV Joints

The Lewmar constant velocity joint can replace universal joints reducing weight in the system as well as increasing drive train efficiency for more effective power transfer.

Universal Joints

Gear boxes are connected to other gear boxes and pedestals by drive shafts fitted with either a universal joint or a coupling at each end. Our CV couplings are extremely light but may only be used where the shafts are in-line. Our high angle universal joint is made of aluminium with 17-4 stainless pins, making it very strong and able to operate efficiently at shaft angles up to 15 degrees.

Bevel box

The bevel gear box is the core building block of the Lewmar drive system. The bevel gear box housings are made of a high-strength aluminium alloy that is Hardkote-anodized for maximum durability. The optimised gears, shafts, and rollers are 17-4 PH stainless steel.

Bevel Box Specifications

PRODUCT	WEIGHT	
	kg	lb
Alloy Bevel Gearbox	4.5	10
Lightweight 4 Man Alloy Bevel Gearbox	2.5	5.5
High Torque Ultralight Carbon Fibre Bevel Gearbox	2.0	4.4