



## 8. Hardware

From the plain bearing Synchro range to our High Load Racing blocks, machined from solid-billet aluminium, every Lewmar product benefits from our many years of experience in both cruising and racing boats. The range has evolved to offer solutions from a small 20ft cruising or racing boat up to some of the world's leading superyachts.

## 8. Hardware

### Lewmar Block Range



#### Page 277 Control Blocks – Control lines & hand loads

- Long glass-fibre reinforced composite cheeks
- Stainless steel ball bearings



#### Page 282 Synchro Cruising blocks

- Stainless steel straps and glass-fibre reinforced cheeks
- High density, free-spin plain bearing
- Easy to use, patented shackle post lock
- Sheave / bearing / pin & line size optimised for efficiency



#### Page 287 HTX Range – Racing and Cruising Blocks

- Alloy cheeks
- Side thrust ball bearings
- Head design inspired by racing blocks
- High load capacities
- Stainless Steel Range Available



#### Page 293 Racing Range

- Monocoque alloy construction
- Ball and roller bearings
- Light weight - High strength to weight ratio
- High level of type optimisation – webbing, runner: Halyard blocks etc



#### Page 302 Special Application Blocks

- Snatch Blocks
- Pivoting Lead Blocks
- Loop Blocks



#### Page 303 Custom Hardware for Superyacht Projects

- Performance hardware suitable for high loads generated on superyachts
- Customised to blend with overall design aesthetic
- Designed to meet individual functional specification



#### Page 306 Soft Loop Blocks

- Lightweight, ultra-tough continuous loop blocks
- Designed for high-performance sailing

Note: Lewmar blocks are intended for sail control line handling on sail boats only.  
Buyers intending to use them for any other purpose should seek independent professional advice as to their suitability. Lewmar accepts no liability arising from such other uses.



## Technical Reference – Choosing the right purchase system

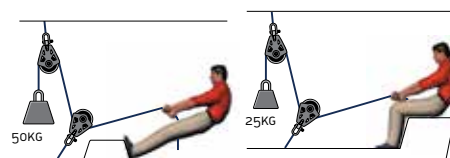
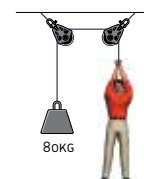
Lewmar manufactures a diverse range of blocks to suit all marine applications. This guide aims to help you to choose the best purchase system and the appropriate Lewmar products to suit your application.

### Why do we need purchase systems?

As a guide, the average person can:

- Pull vertically down a force equivalent to their body weight (for a short period)
- Adjust control lines frequently loaded to 25kg
- When fully braced, pull intermittently sideways with one hand to 25kg and with two hands to 50kg
- Exert 15kg single-handed and 25kg double-handed on a winch handle

Human force can be multiplied through a purchase system made up of block systems and/or winches, enabling comfortable operation of high-loaded sailboat controls.



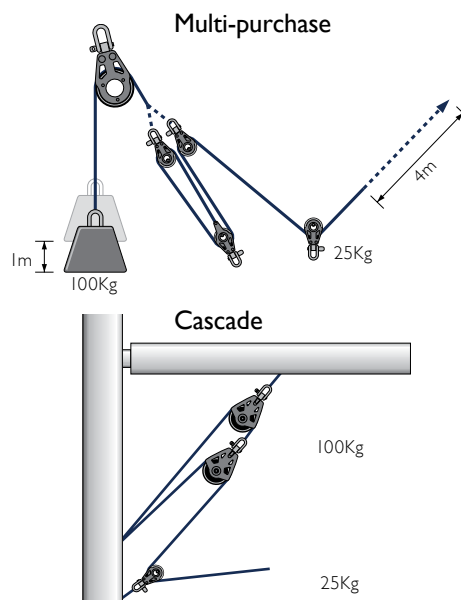
### Which purchase system?

#### Multi-Purchase System

- Ideal for mainsheet traveller systems
- Provides full range of adjustment

#### Cascade System

- Ideal for a vang, backstay or outhaul
- Achieves a smaller range of adjustment
- Provides high purchase with minimum blocks
- Line type and diameter can be specified in line with load on each part of system
- Enables control lines to be led to either side of the boat, for example, with a backstay adjuster
- All blocks must be free to travel their full working length without danger of catching



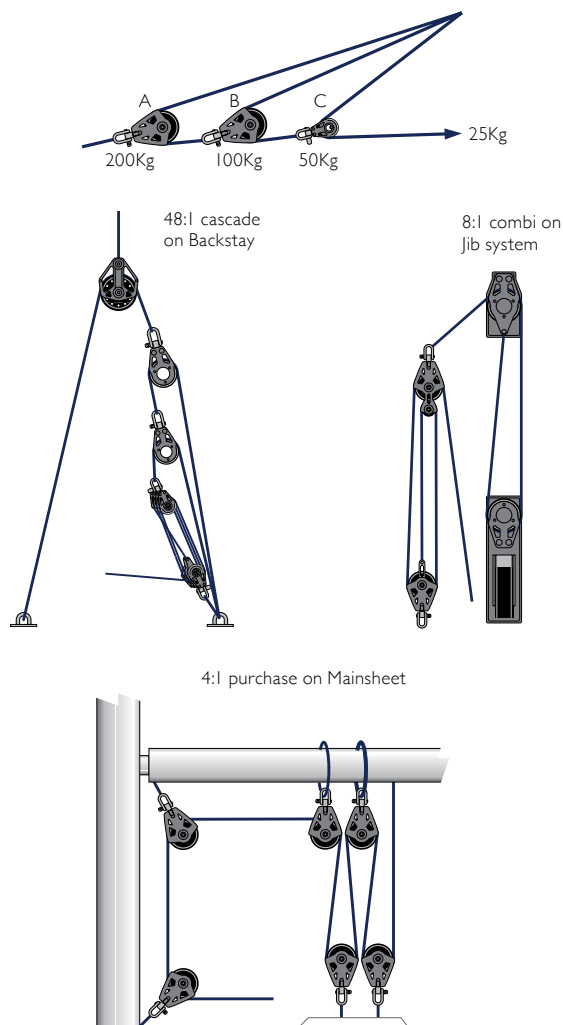
### Some typical systems in use on current boats

	BACKSTAY	MAINSHEET TRAVELLER	MAINSHEET COARSE TUNE	EXTRA PURCHASE FOR MAINSHEET FINE TUNE	JIB TRAVELLER	VANG	CUNNINGHAM
RACING DAYBOAT	16:1 CASCADE	2:1	2:1	4:1 MULTI-PURCHASE	PLUNGER	8:1 COMBINATION	4:1 CASCADE
SMALL CRUISER	FIXED	2:1	4:1 MULTI-PURCHASE	—	PLUNGER	4:1 MULTI-PURCHASE	N/A
SMALL RACING YACHT	16:1 COMBINATION	8:1 MULTI-PURCHASE	6:1 MULTI-PURCHASE	4:1 MULTI-PURCHASE	8:1 COMBINATION	20:1 COMBINATION	4:1 CASCADE
MEDIUM CRUISER	FIXED	4:1	4:1	N/A	2:1 WITH PLUNGER	5:1	N/A
MEDIUM RACING YACHT	HYDRAULIC	12:1 COMBINATION	2:1 WINCHED	N/A	12:1 COMBINATION	36:1 COMBINATION	6:1 COMBINATION
LARGE CRUISER	HYDRAULIC	6:1	4:1 WINCHED	N/A	2:1 WITH PLUNGERS	8:1	4:1
LARGE RACING YACHT	HYDRAULIC	2:1 WINCHED	2:1 WINCHED	N/A	2:1 WINCHED	HYDRAULIC	6:1 COMBINATION

## 8. Hardware

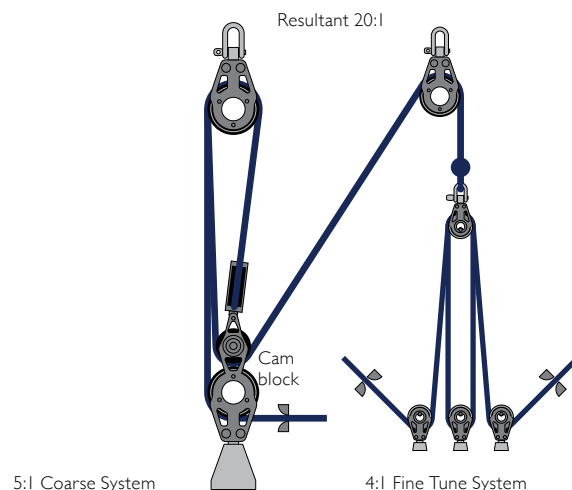
### Combination Cascade/Multi-Purpose System

- Achieves compromise between power and range requirements
- Ideal for use on backstay, jib, and mainsheet controls



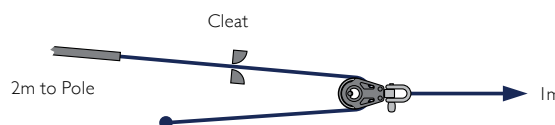
### Coarse/Fine Tune System

- Coarse purchase ideal for racing mainsheet systems
- Combination fine purchase perfect for playing the mainsheet when beating
- Used for moving large amounts of unloaded mainsheet during mark rounding



### Reverse Purchase

- Ideal for an asymmetric pole launch system
- Offers fast movement and a greater range on lightly-loaded systems
- Cleat is located on control line, which is loaded to twice the pole launch rope



### How much purchase power is needed?

To identify the amount of purchase power required, carry out the following calculation:

$$\frac{\text{Output Force}}{\text{Input from Control Line/Winch}} = \text{Purchase Required} \quad \frac{200\text{kg}}{25\text{kg}} = 8:1$$

The table gives some examples of typical purchases used by Lewmar customers.

### Typical purchase systems

BOAT SIZE	4M/13FT	6M/20FT	8M/26FT	10M/33FT	12M/39FT	14M/45FT	16M/53FT
MAINSHEET – HAND	3:1	4:1	4:1	5:1–10:1	8:1–24:1	–	–
MAINSHEET – WINCHED	–	–	–	3:1	4:1	4:1	4:1
VANG – CRUISING	4:1	4:1	4:1	6:1	8:1	10:1	10:1
VANG RACING	5:1	6:1	8:1	12:1	24:1	36:1	48:1
CAR TOW – CRUISING	–	–	2:1	2:1	2:1	3:1	3:1
CAR TOW – RACING	–	2:1	3:1	6:1	10:1	2:1 (WINCH)	2:1 (WINCH)

### Winched purchases

To identify the amount of purchase power required in winched purchase, first calculate the winch output:

$$\frac{\text{Winch Model Number} \times 15\text{kg (single-handed operation)}}{\text{Output Force}} = \text{Purchase Required}$$

$$\frac{\text{Winch Model Number} \times 25\text{kg (double-handed operation)}}{\text{Winch Output}} = \text{Output}$$

The table suggests the pulling power that can be generated.

### Typical winch output loads

WINCH SIZE	30	40	45	50	55
ONE HANDED INPUT – 15 KG ON HANDLE = WINCH OUTPUT LOAD	450KG	600KG	660KG	720KG	–
TWO HANDED INPUT – 25 KG ON HANDLE = WINCH OUTPUT LOAD	–	–	1100KG	1200KG	1350KG

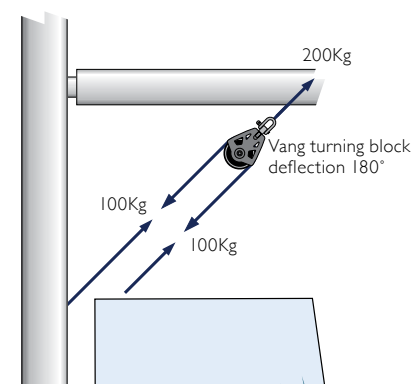
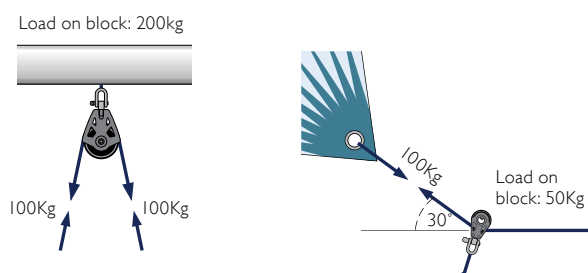
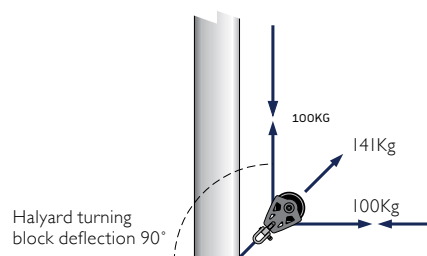
## Which Bearing?

APPLICATION	BEARING	RECOMMENDED LEWMAR RANGE
FREQUENTLY ADJUSTED, FREE, FAST-RUNNING SYSTEMS SUCH AS SHEETS OR CONTROL LINES	BALL BEARING SHEAVE	CONTROL BLOCK
HIGH-STATIC LOADINGS, ADJUSTED LESS FREQUENTLY AND MAINLY CLEATED, SUCH AS HALYARDS	FREE SPIN BEARING	SYNCHRO BLOCK
FREQUENTLY ADJUSTED, HIGH LOADED SYSTEMS, USING MODERN LINE TECHNOLOGY WITH HIGH LOAD ON REDUCED LINE DIAMETERS.	FREE SPIN BEARING WITH BALL BEARING SIDE THRUST.	HTX BLOCK
A COMBINATION OF THE ABOVE	TORLON ROLLER BEARING	RACING BLOCK

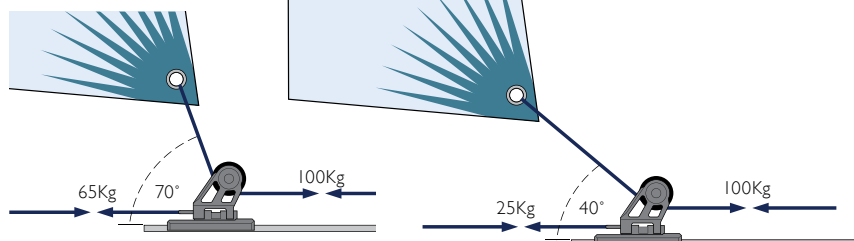
## Which Size/Load Block?

- Each Lewmar block has a specified Working Load Limit (WLL), listed in the product specification table
- Match the input from Control Line/Winch to the WLL of the block
- Note that the line's angle of deflection around the sheave affects the load exerted on the block (see table below)

CHANGE OF ANGLE	BLOCK LOAD AS % OF LINE LOAD	CHANGE OF ANGLE	BLOCK LOAD AS % OF LINE LOAD
180°	200%	90°	141%
170°	199%	80°	129%
160°	197%	70°	115%
150°	193%	60°	100%
140°	187%	50°	84%
135°	184%	45°	76%
130°	181%	40°	68%
120°	173%	30°	52%
110°	164%	20°	35%
100°	153%	10°	17%
		0°	0%



VERTICAL GENOA SHEET ANGLE	TOW LOAD AS % OF SHEET LOAD
70°	65%
60°	50%
50°	35%
40°	25%
MAINSHEET TRAVELLER TOWING LOAD	
GUIDE % OF MAINSHEET LOAD	25%



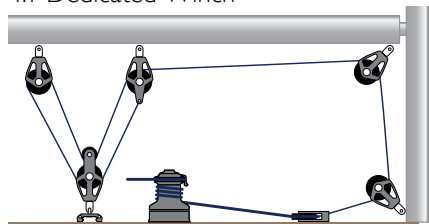
## Additional Recommendations

- Always choose a sheave diameter at least 7x the line diameter.
- Ensure that blocks are always fitted so they align with the lines passing through them, particularly on multiple blocks and where lines are periodically slack.
- All Lewmar products have been designed, tested, and developed to achieve best possible efficiency; however, no purchase system is 100% efficient. The force achieved at the working end of the purchase will be slightly less than the human load multiplied by the purchase. When calculating the purchase required to achieve a known load, we would recommend allowing a factor of 1.05 per block. Multiply by the number of 180° turns in the rope make in a system to be certain of 'fingertip' control.

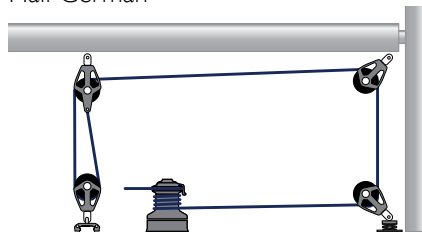
## 8. Hardware

### Mainsheet Systems – Typical Arrangement

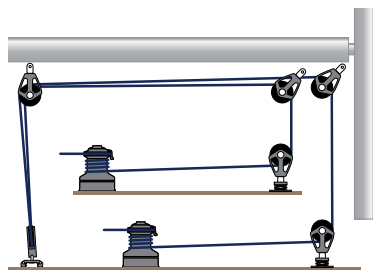
4:1 Dedicated Winch



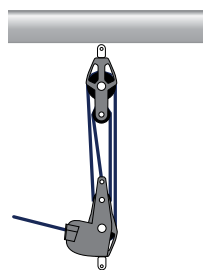
Half German



Double German



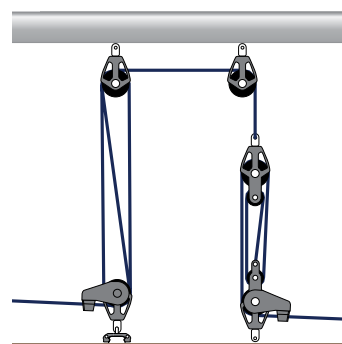
4:1 Fiddle



6:1 Triple

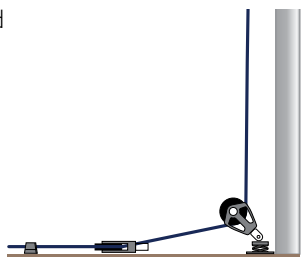


6:1/24:1

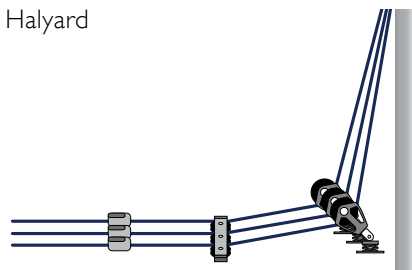


### Halyards

Single Halyard

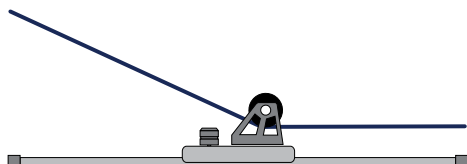


3 Halyard

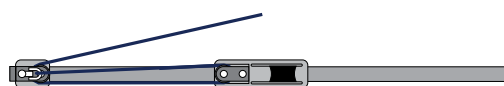


### Genoa Systems

Plunger Car



2:1



3:1

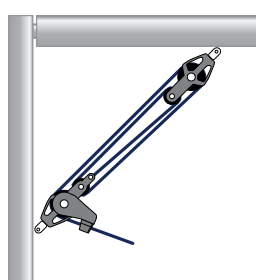


8:1

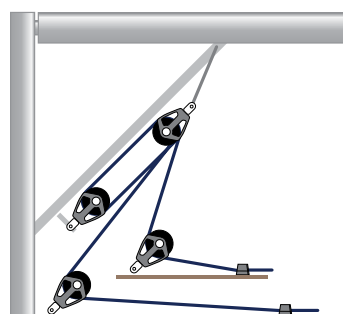


### Boom Vang

4:1 Fiddle

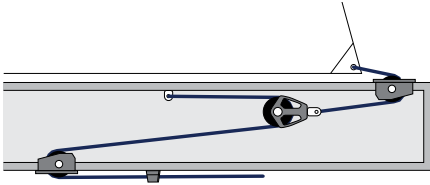


6:1 Double Ended

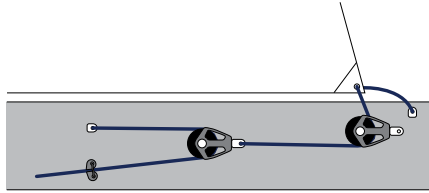


## Outhaul

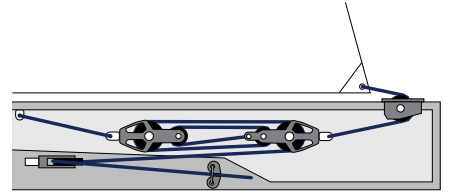
2:1 Internal Cascade



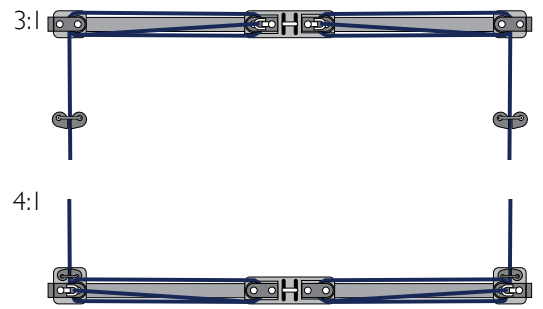
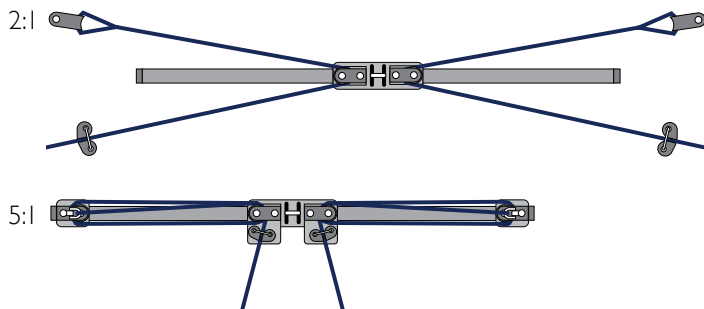
4:1 External Cascade



4:1 Internal Cascade

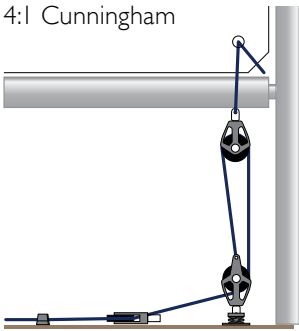


## Traveller Systems

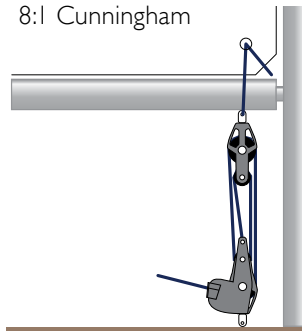


## Cunningham

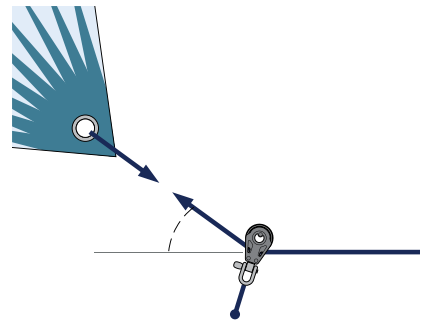
4:1 Cunningham



8:1 Cunningham

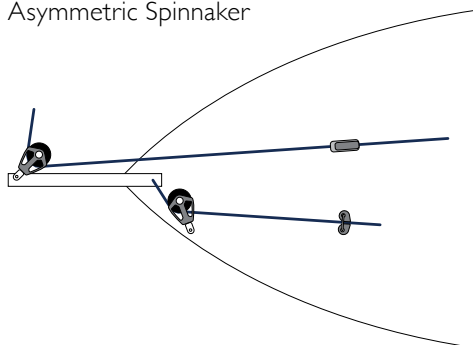


## Barber Hauler



## Miscellaneous

Asymmetric Spinnaker



48:1 cascade on Backstay



6:1 Right Angle Backstay





# 8. Hardware

## Blocks – Selection Guide

BLOCK TYPE	APPLICATION	BOAT LENGTH												
		M FT	16	6.1 20	7.3 24	8.5 28	9.7 32	11 36	12.2 40	13.4 44	14.6 48	15.8 52	17.1 56	18.3 60
CONTROL BLOCKS	MAIN SHEET - END BOOM SINGLE/FIDDLE BLOCKS		30 CONTROL	40 CONTROL										
	MAIN SHEET - END BOOM DOUBLE/TRIPLE BLOCKS		30 CONTROL	40 CONTROL										
	HALYARD BLOCKS		30	40 CONTROL										
	MAST BASE AND GENERAL CONTROL BLOCKS		30 CONTROL	40 CONTROL										
SYNCHRO	MAIN SHEET - END BOOM				50 SYNCHRO	60	72 SYNCHRO	90 SYNCHRO						
	MAIN SHEET - MID BOOM				50 SYNCHRO	60	72 SYNCHRO	90 SYNCHRO	105 SYNCHRO					
	MAIN & GENOA HALYARDS			60 SYNCHRO	72 SYNCHRO	90 SYNCHRO	105 SYNCHRO							
	SPINNAKER MAST TOP BLOCKS		50 SYNCHRO	60 SYNCHRO	72 SYNCHRO	90 SYNCHRO	105 SYNCHRO							
	SPINNAKER SHEET			50 SYNCHRO	60 SYNCHRO	72 SYNCHRO	90 SYNCHRO	105 SYNCHRO						
	SPINNAKER GUY		50 SYNCHRO	60 SYNCHRO	72 SYNCHRO	90 SYNCHRO	105 SYNCHRO							
	SPINNAKER DOWNHAUL			50 SYNCHRO	60 SYNCHRO	72 SYNCHRO	90 SYNCHRO							
	BOOM VANGS			50 SYNCHRO	60 SYNCHRO	72 SYNCHRO	90 SYNCHRO							
	BACKSTAY TENSIONERS		50 SYNCHRO	60 SYNCHRO	72 SYNCHRO									
HTX	MAIN SHEET - END BOOM			50 HTX	60 HTX	72 HTX	90 HTX							
	MAIN SHEET - MID BOOM			50 HTX	60 HTX	72 HTX	90 HTX							
	MAIN & GENOA HALYARDS		50 HTX	60 HTX	72 HTX	90 HTX								
	SPINNAKER MAST TOP BLOCKS		50 HTX	60 HTX	72 HTX	90 HTX								
	SPINNAKER SHEET		50 HTX	60 HTX	72 HTX	90 HTX								
	SPINNAKER GUY		50 HTX	60 HTX	72 HTX	90 HTX								
	SPINNAKER DOWNHAUL			50 HTX	60 HTX	72 HTX								
	BOOM VANGS			50 HTX	60 HTX	72 HTX								
	BACKSTAY TENSIONERS		50 HTX	60 HTX										
RACING	MAIN SHEET - END BOOM SINGLES			60 HL RACING	80 RACING	80 HL RACING								
	MAIN SHEET - END BOOM DOUBLE/TRIPLE BLOCKS			60 HL RACING	80 RACING	80 HL RACING								
	MAIN SHEET - MID BOOM SINGLES		60 HL RACING	80 RACING	80 RACING									
	MAIN SHEET - MID BOOM DOUBLE/TRIPLE BLOCKS		60 HL RACING	80	80 HL RACING									
	HALYARD (BLOCK & PADEYE AT MAST BASE)		60 HL RACING	80	80 HL RACING									
	SPINNAKER MAST TOP BLOCKS		60 HL RACING	80 RACING	80 HL RACING									
	SPINNAKER MAST SHEETS BLOCKS / GUY BLOCKS		60 HL RACING	80 RACING	80 HL RACING									
	BOOM VANG (FIRST BLOCK IN CASCADE)		60 HL RACING	80 RACING										

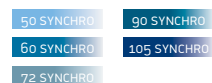
## Footblock – Selection Guide

BLOCK TYPE	SHEET DEFLECTION	HAND LOAD	WINCH SIZE									
			8	15/16	30	40	45	50	55	65	70	80
SYNCHRO	90°		60 SYNCHRO	72 SYNCHRO	90 SYNCHRO							
	180°		60 SYNCHRO	72 SYNCHRO	90 SYNCHRO							
RACING	90°		80 RACING	60 HL RACING	80 HL RACING	105 HL RACING						
	180°		80 RACING	60 HL RACING	80 HL RACING	105 HL RACING	130 HL RACING	155 HL RACING				

### Control Blocks



### Synchro Blocks



### HTX Blocks



### Racing Blocks







## Control Blocks

Ideal for use with hand-held loads, Lewmar's Control Blocks feature lightweight, performance load-bearing capacity. MRT (Metal Replacement Technology) and a stainless steel central race and balls provide a weight advantage, while Long Fibre Technology offers exceptional strength and durability. The open design allows sand and salt to be flushed out easily, keeping maintenance simple.

- Lightweight
- Very high strength
- Impact resistant
- Reduced friction
- Easy maintenance
- Optimised for hand control

- A** Long fibre cheek
- B** High strength glass-filled sheave
- C** Marked sheave - Showing line size and safe working load
- D** Stainless steel balls and ball groove - Avoids deformation and loss of performance



### Applications

Ball bearing blocks are typically used for medium and dynamic loads in:

- Control line applications
- Mainsheets for dinghies and keelboats
- Spinnaker sheets, barber haulers
- Genoa sheets
- Dinghy applications



# 8. Hardware



## Control Blocks

### Single Stand Up



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901320BK	30	200	440	30	1
29901420BK	40	240	528	54	1.9

### Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901321BK	30	200	440	28	1
29901421BK	40	240	528	52	1.83

### Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901322BK	30	300	660	47	1.65
29901422BK	40	480	1056	112.5	3.97

### Triple



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901323BK	30	500	1100	85	3
29901423BK	40	720	1584	187.5	6.61

### Single & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901324BK	30	200	440	33	1.16
29901424BK	40	240	528	56.5	1.99

### Double & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901325BK	30	300	660	50	1.76
29901425BK	40	480	1056	116.5	4.11

## Control Blocks

## Triple &amp; Becket



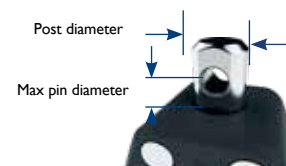
PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901326BK	30	500	1100	90	3.17
29901426BK	40	720	1584	192.5	6.79

## Single Fixed Strap



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901341BK	30	200	440	26	0.92
29901441BK	40	240	528	44	1.55

## Shackle Post Dimensions



	POST DIAMETER		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
30MM SINGLE / DOUBLE	7.1	2/7	4	5/32
30MM TRIPLE	9.25	3/8	5	3/16
40MM SINGLE / DOUBLE	8.0	5/16	4	5/32
40MM TRIPLE	11.5	7/16	6	1/4

## Line Size



	MAX LINE SIZE	
	MM	IN
30MM CONTROL	8	5/16
40MM CONTROL	10	3/8

## Suitable Block Upstand

30 and 40mm Control blocks fit block upstand part no 29904046  
For more info refer to p. 301



## Fit Snap Shackle



	FIT SNAP SHACKLE
30MM CONTROL SINGLE / DOUBLE	29925040
30MM CONTROL TRIPLE	29926040
40MM CONTROL SINGLE / DOUBLE	29925040
40MM CONTROL TRIPLE	29927240

For more info refer to p. 302

## Cleat Used

Control blocks with cam use the following cleats



	USE CLEAT	WORKING LOAD LIMIT	
		KG	LB
30 / 40MM CONTROL	29104100BK	120	264

## Pad Eyes



Wide range of pad eyes available, refer to page 306 for more information

## Single Fixed Strap - St. Steel Sheave



DESIGNED FOR USE WITH WIRE.

30MM SUITS MAX 3MM (1/8") WIRE

40MM SUITS MAX 6MM (1/4") WIRE

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901301BK	30	240	528	36	1.2
29901401BK	40	400	890	76	2.5

## Single Fixed Strap &amp; Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901314BK	30	200	440	31	1.09

## Triple &amp; Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901328BK	30	500	1100	135	4.76
29901429BK	40	720	1584	247.5	8.73

\* Block WLL, cleat WLL 120kg

## Single with Becket &amp; Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901428BK	40	240	528	56.5	1.99

\* Block WLL, cleat WLL 120kg

## 8. Hardware

### Control Blocks

#### Triple with Becket & Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901330BK	30	500	1100	140	5
29901430BK	40	720	1584	252.5	8.91

#### Single Web



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901447BK	40	240	528	39.5	1.39

#### Thru-Deck Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901361BK	30 SINGLE	200	440	26	0.92
29901362BK	30 TANDEM	200	440	45	1.59

\* Block WLL, cleat WLL 120kg

#### Cheekblock



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901360BK	30	200	440	18.5	0.65
29901460BK	40	240	528	43	1.52

#### Vertical Lead Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901363BK	30	200	440	48	1.69
29901463BK	40	240	528	70	2.4

#### Pivoting Exit Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901365BK	30	200	440	80	2.82

\* Block WLL, cleat WLL 120kg

#### Linked Blocks



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901411BK	40	240	528	88	3.1

#### Footblock



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29194061	40 SINGLE	750	1653	66	2.33
29194062	40 DOUBLE	750	1653	121	4.27

COMES WITH A STAINLESS STEEL BASE PLATE AND CAN BE USED AS  
MINIATURE ORGANISERS OR DEFLECTORS FOR LINES BEING RETURNED  
TO THE COCKPIT.  
USE M8 (5/16) FIXINGS - NOT INCLUDED

#### Tweaker Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29900240	30	120	265	28	1
29900340	40	140	309	76	3

## 60mm Ratchet Blocks

Only suitable to use with hand loads. For winched loads, refer to the Synchro, HTX or Racing ranges.

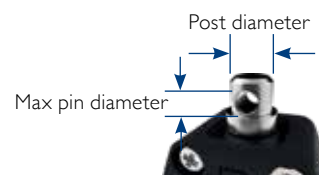


Single Ratchet



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901661BK	60	400	882	126	4.3

Shackle Post Dimensions



	POST DIAMETER		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
60MM RATCHET SINGLE	9.5	3/8	5	3/16
60MM RATCHET TRIPLE	10.0	2/5	6	1/4

Line Size



	MAX LINE SIZE	
	MM	IN
60MM RATCHET	10	3/8

Single Ratchet & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901665BK	60	400	882	141	4.8

Single Ratchet & Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901667BK	60	400	882	288	10.1

\* Refers to block WLL, cleat WLL 180kg

Fit Snap Shackle

	FIT SNAP SHACKLE
60MM RATCHET SINGLE	29926040
60MM RATCHET TRIPLE	29927240



For more info refer to p. 302

Fit Traveller Upstand



	FIT TRAVELLER UPSTAND
60MM SINGLE RATCHET	SIZE 1 NTR
60MM TRIPLE RATCHET	SIZE 2 NTR & HTX

Triple Ratchet & Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901668BK	60	1000	2204	524	17.7

\* Refers to block WLL, cleat WLL 180kg

Triple Ratchet, Becket & Cleat



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29901670BK	60	1000	2204	538	18.2

\* Refers to block WLL, cleat WLL 180kg

Suitable Block Upstand

60mm triple ratchet blocks fit upstand part no 29904050  
For more info refer to p. 301



Cleat



	USE CLEAT	WORKING LOAD LIMIT	
		KG	LB
60MM RATCHET BLOCK	29104110BK	180	396

Pad Eyes



Wide range of pad eyes available, refer to page 306 for more information



## 8. Hardware



### Synchro Blocks

Lewmar Synchro blocks are engineered for speed, efficiency and superior handling. We use a combination of scientifically optimised block geometry, a Free-Spin bearing and self-aligning head to reduce friction and increase efficiency by up to 40% over budget blocks on mainsheet systems.

Each component is perfectly synchronised with the movement of the rope, providing you with an easier, smoother transfer of power from deck to sail and less wear on your rope.

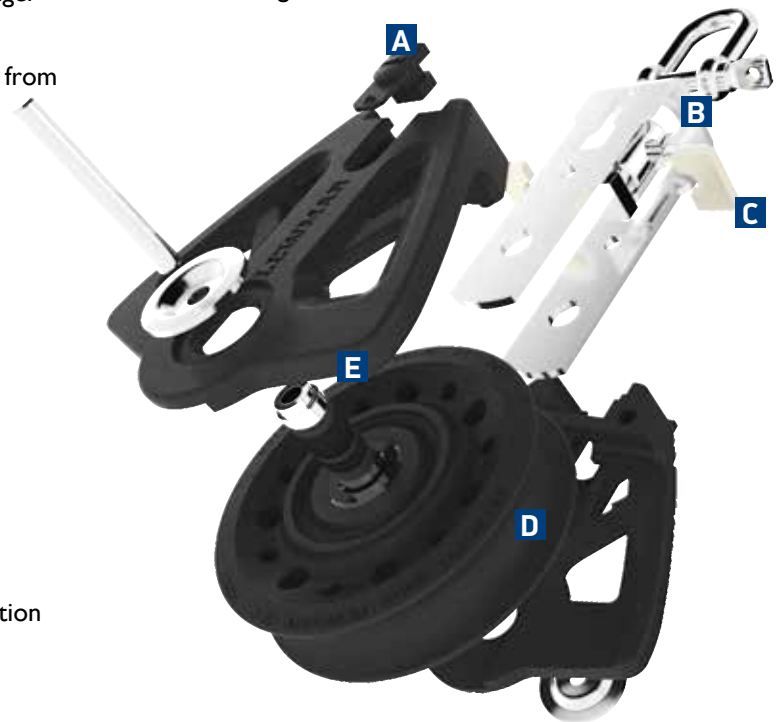
- Stainless steel strap for improved strength and longer service life
- Stiff glass fibre reinforced cheeks to prevent lines from wedging
- Simple switch to change from swivelling to fixed shackle

#### Applications

Plain bearing blocks are typically used for heavy and static loads in:

- Halyard tuning
- Mainsheet systems
- Mast foot blocks
- Mast head blocks
- Boom vang

- **A** Easy to use shackle post lock
- **B** Shackle post – Fits travellers
- **C** Lock mechanism enables 30° float
- **D** Larger sheave diameter – Minimises rope friction
- **E** High density free-spin bearing - reduces axle diameter for superior efficiency



## Synchro Blocks

### Head Design

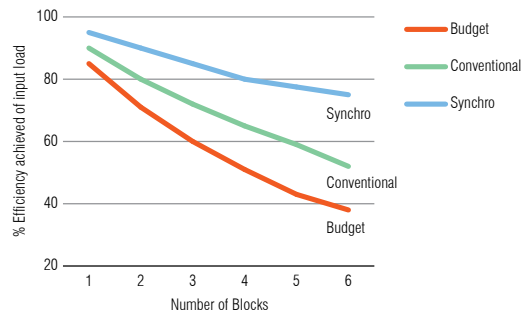
Head can be positioned for use in line or at 90 degrees – or left to rotate freely when in unlocked position. When locked allows 30° “float” on shackle post to improve alignment of block.



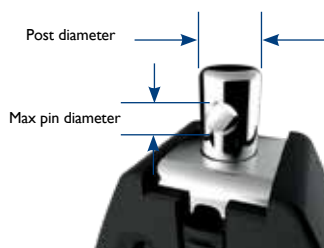
### Higher efficiency – for faster sail handling and less rope wear

Independent tests show Synchro blocks offer increased efficiency over conventional designs. Calculations over a 6-block mainsheet system, indicated Synchro blocks can deliver up to 40% greater efficiency than budget products – resulting in better responsiveness and improved sailing performance.

### Efficiency improvements in multi block systems



### Shackle Post Dimensions



	POST DIAMETER		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
50MM SYNCHRO	7.9	5/16	4	5/32
60MM SYNCHRO	9.4	3/8	5	3/16
72MM SYNCHRO	11.9	15/32	6	1/4
90MM SYNCHRO	16.5	21/32	9.8	3/8

### Suitable Traveller Upstand



#### FIT TRAVELLER UPSTAND

50MM SYNCHRO	
60MM SYNCHRO	SIZE 1 NTR
72MM SYNCHRO	SIZE 1 HTX/ SIZE 2 NTR
90MM SYNCHRO	SIZE 2 HTX/ SIZE 3 NTR

### Suitable Snap Shackles



#### FIT SNAP SHACKLE

50MM SYNCHRO	29925040
60MM SYNCHRO	29926040
72MM SYNCHRO	29927240
90MM SYNCHRO	29929040

### Cleat Used



	USE CLEAT	WORKING LOAD LIMIT	
		KG	LB
50MM SYNCHRO	29104100BK	120	264
60MM SYNCHRO	29104110BK	180	396
72MM SYNCHRO	29104110BK	180	396

### Line Size



	OPTIMUM LINE SIZE		MAX LINE SIZE	
	MM	IN	MM	IN
50MM SYNCHRO	6	1/4	10	3/8
60MM SYNCHRO	8	5/16	10	3/8
72MM SYNCHRO	10	3/8	12	1/2
90MM SYNCHRO	12	1/2	14	9/16

### Suitable Block Upstands



Rubber boot upstand kit  
29195065 fits 60mm Synchro  
29196065 fits 72mm Synchro  
29197265 fits 90mm Synchro



Spring upstand  
29904050 fits 50mm Synchro

### Pad Eyes



Wide range of pad eyes available, refer to page 306 for more information

For information about block upstand refer to p 301



## 8. Hardware

### Synchro Blocks

#### Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925001BK	50	450	990	67	2.36
29926001BK	60	800	1760	115	4.06
29927201BK	72	1100	2420	190	6.69
29929001BK	90	2000	4400	413	14.57

#### Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925002BK	50	450	990	142	5.01
29926002BK	60	800	1760	251	8.84
29927202BK	72	1100	2420	406	14.29
29929002BK	90	2000	4400	966	34.00

#### Triple



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925003BK	50	450	990	226	7.96
29926003BK	60	800	1760	371	13.06
29927203BK	72	1100	2420	618	21.75
29929003BK	90	2000	4400	1389	48.89

#### Single & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925004BK	50	450	990	81	2.85
29926004BK	60	800	1760	127	4.48
29927204BK	72	1100	2420	210	7.41
29929004BK	90	2000	4400	458	16.15

#### Double & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925005BK	50	450	990	164	5.77
29926005BK	60	800	1760	261	9.19
29927205BK	72	1100	2420	415	14.61

#### Single Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925009BK	50	450	990	123	4.30

\* Block WLL, cleat WLL shown p283

#### Triple, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
29925010BK	50	450	990	282	9.93
29926010BK	60	800	1760	447	15.73
29927210BK	72	1100	2420	820	28.86

\* Block WLL, cleat WLL shown p283

#### Single Fiddle



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925031BK	50	450	990	94	3.31
29926031BK	60	800	1760	156	5.50
29927231BK	72	1100	2420	250	8.80
29929031BK	90	2000	4400	544	19.19

## Synchro Blocks

### Single Fiddle & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29925034BK	50	450	990	98	3.45
29926034BK	60	800	1760	166	5.85
29927234BK	72	1100	2420	275	9.70
29929034BK	90	2000	4400	589	20.77

### Single Fiddle & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29925037BK	50	450	990	139	4.89
29926037BK	60	800	1760	221	7.78
29927237BK	72	1100	2420	339	11.93

\* Block WLL, cleat WLL shown p.283

### Single Fiddle, Becket & Cam



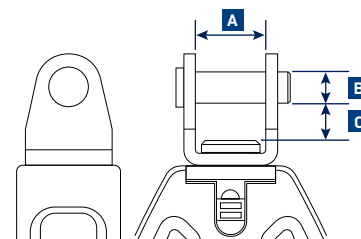
PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29925039BK	50	450	990	145	5.10
29926039BK	60	800	1760	234	8.24
29927239BK	72	1100	2420	356	12.53
29929039BK	90	2000	4400	879	27.12

\* Block WLL, cleat WLL shown p.283

## Halyard Block



The toggle head of the halyard blocks is designed to fit on the studs commonly found at mast bases – check the diameter of the stud against the width of the block jaws (A) and pin diameter (B)



PART NO	SHEAVE DIAMETER	WORKING LOAD LIMIT		WEIGHT		HEAD DETAILS					
						A WIDTH	B PIN	C SPACE TO PIN			
								MM	IN	MM	IN
29925021BK	50	450	990	73	2.57	13	1/2	5	3/16	8.2	5/16
29926021BK	60	800	1760	122	4.29	15	37/64	6	7/32	6.9	9/32
29927221BK	72	1100	2420	198	6.98	18	45/64	8	5/16	9.6	3/8
29929021BK	90	2000	4400	414	14.57	23	29/32	10	25/64	13.9	17/32



# 8. Hardware

## Synchro Footblocks

Synchro Footblocks feature alloy cheeks, fixing isolators, and a moulded base plate to prevent sealant ingress into the sheave.

- Standard and jammer options can be double stacked
- Two-step jammer action keeps lever close to side of the block
- Optimised jammer shape holds line central on the sheave
- Tough alloy cheeks
- Synchro sheave loads match the same sized blocks

Jamming footblocks are designed to hold light hand loads only.

- Twin fixings with inserts
- Wide head for a solid base, block will not “roll” on the deck
- Moulded base plate with recess to hold sealant around fixing screws and prevent ingress onto the bearing and sheave

## Aluminium Footblock



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29926061BK	60	800	1764	162	5.70
29927261BK	72	1200	2645	229	8.10
29929061BK	90	2000	4409	430	15.20

USE M8 (5/16) FIXINGS FOR THE 60/72MM SHEAVES  
AND M10 FOR THE 90MM SHEAVES - NOT INCLUDED

## Aluminium Footblock with Jammer

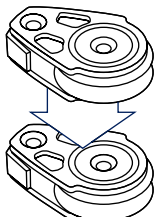
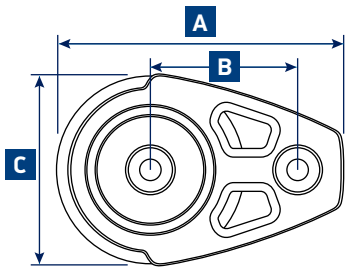


PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29926064BK	60	800	1764	190	6.70
29927264BK	72	1200	2645	250	8.80
29929064BK	90	2000	4409	480	16.90

USE M8 (5/16) FIXINGS FOR THE 60/72MM SHEAVES  
AND M10 FOR THE 90MM SHEAVES - NOT INCLUDED

## Synchro Footblock Footprint

PART NO	A		B		C	
	MM	IN	MM	IN	MM	IN
60MM FOOTBLOCK	98.0	3 7/8	51.0	2	59	2 5/16
72MM FOOTBLOCK	110.6	4 5/16	58.0	2 5/16	71	2 13/16
90MM FOOTBLOCK	134.0	5 4/16	69.0	2 11/16	89	3 1/2



STANDARD AND JAMMER OPTIONS  
CAN BE DOUBLE STACKED  
THE UPPER SHEAVE SHOULD NOT BE  
LOADED BEYOND 60% OF WLL



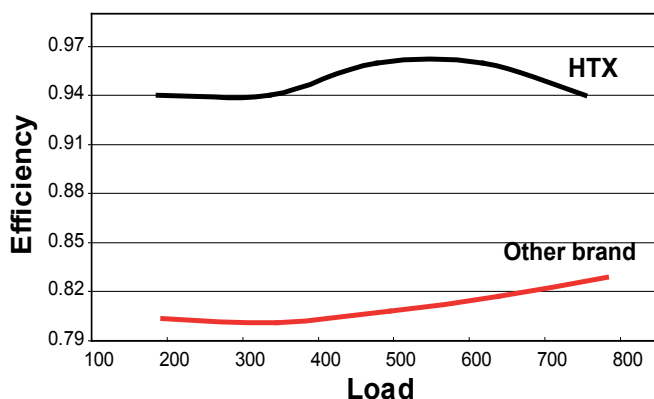
## HTX Blocks

Years of design and manufacturing experience, combined with collaboration with boat builders, designers, and sailors, has resulted in the Lewmar HTX Hardware Range. Drawing upon the design of the racing range, the HTX blocks are constructed simply from high quality materials, providing enhanced reliability. Ideal for frequently adjusted, highly loaded systems using modern line technology and reduced line diameters.

- Strong aluminium side cheeks
- Central plain bearing for efficiency at high loads
- Side thrust Delrin ball bearings
- Head design inspired by Lewmar Racing Range, complete with grub screw swivel head locking mechanism



- A** Alloy cheeks
- B** Side thrust ball bearings
- C** Central plain bearing
- D** Head pin design inspired by Lewmar Racing series block
- E** High Load capacity and large line size



Higher efficiency – for faster sail handling and less rope wear.

HTX blocks are more efficient than alternative brand using similar material due to machined bearing pin surface.

HTX block efficiency improves above 450kg as acetal sheaves become self-lubricating at this point.

## 8. Hardware

### HTX Blocks

#### Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195001	50	800	1762	135	4.7
29196001	60	1100	2422	215	7.5
29197201	72	2000	4405	445	15.6
29199001	90	3500	7709	735	25.8

#### Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195002	50	800	1762	217	7.6
29196002	60	1100	2422	331	11.6
29197202	72	2000	4405	552	19.3

#### Triple



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195003	50	800	1762	305	10.7
29196003	60	1100	2422	426	14.9

#### Single & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195004	50	800	1762	150	5.3
29196004	60	1100	2422	226	7.9
29197204	72	2000	4405	482	16.9
29199004	90	3500	7709	936	32.8

#### Double & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195005	50	800	1762	232	8.1
29196005	60	1100	2422	319	11.2

#### Single Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29195009	50	800	1762	320	11.2
29196009	60	1100	2422	414	14.5

\* Block WLL, cleat WLL shown p.289

#### Triple, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
29195010	50	800	1762	511	17.9
29196010	60	1100	2422	710	24.9

\* Block WLL, cleat WLL shown p.289

#### Web Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195047	50	800	1762	80	2.8
29196047	60	1100	2422	148	5.2
29197247	72	2000	4405	283	9.9



## HTX Blocks

## Fiddle



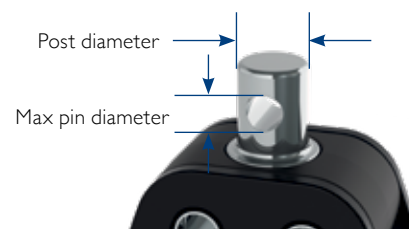
PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195031	50	800	1762	165	5.8
29196031	60	1100	2422	257	9.0
29197231	72	2000	4405	530	18.5

## Fiddle &amp; Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195034	50	800	1762	175	6.1
29196034	60	1100	2422	269	9.4
29197234	72	2000	4405	560	19.6

## Shackle Post Dimensions



	POST DIAMETER		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
50MM HTX	9.4	3/8	5	3/16
60MM HTX	11.9	15/32	6	1/4
72MM HTX	16.5	21/32	9.8	3/8
90MM HTX	19.8	25/32	10	25/64

## Line Size



	MAX LINE SIZE	
	MM	IN
50MM HTX	10	3/8
60MM HTX	12	1/2
72MM HTX	14	9/16
90MM HTX	16	5/8

## Fiddle &amp; Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
29195037	50	800	1762	335	11.7
29197237	72	2000	4405	748	26.2

\* Block WLL, cleat WLL shown on the right

## Fiddle, Becket &amp; Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
29195039	50	800	1762	346	12.1
29196039	60	1100	2422	460	16.1
29197239	72	2000	4405	776	27.2

\* Block WWL, cleat WLL shown on the right

## Cleat Used



	USE CLEAT	WORKING LOAD LIMIT	
		KG	LB
50MM HTX	29104100BK	120	264
60MM HTX	29104110BK	180	396
72MM HTX	-	230	507

## Suitable Traveller Upstand



	FIT TRAVELLER UPSTAND	
	SIZE	
50MM HTX	SIZE 1 NTR	
60MM HTX	SIZE 1 HTX	
72MM HTX	SIZE 2 NTR AND SIZE 2 HTX	
90MM HTX	SIZE 3 NTR	

## Pad Eyes



Wide range of pad eyes available, refer to page 306 for more information

## 8. Hardware

### HTX Blocks

#### Single Stand-Up Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT		OVERALL DIAMETER		BASE DETAILS		FIXINGS TYPE
	MM	KG	LB	G	OZ	MM	IN	FIXINGS DIAMETER		
29195011	50	800	1762	280	10	58	2 5/16	40	1 37/64	4 X M6 (1/4")
29196011	60	1100	2422	350	12.4	58	2 5/16	40	1 37/64	4 X M6 (1/4")
29197211	72	2000	4405	645	22.8	73	2 7/8	50	1 31/32	4 X M8 (5/16")
29199011	90	3500	7709	1115	39.3	76	3"	55	2 11/64	4 X M8 (5/16")

#### HTX Footblock



Use M8 (5/16") fixings for the 60/72mm sheaves and M10 (3/8") for the 90mm sheaves (not included)

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195061	50	800	1762	145	5.1
29196061	60	1100	2422	158	5.5
29197261	72	2000	4405	283	9.9
29199061	90	3500	7709	672	23.5

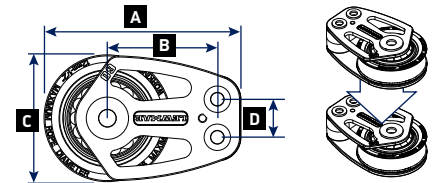
#### HTX Footblock With Jammer



\*Jammer intended to hold hand loads only  
Use M8 (5/16") fixings for the 60/72mm sheaves and M10 (3/8") for the 90mm sheaves (not included)

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29195064	50	800	1762	107	3.7
29196064	60	1100	2422	170	6.0
29197264	72	2000	4405	320	11.2

#### HTX Footblock Footprint



STANDARD AND JAMMER OPTIONS CAN BE DOUBLE STACKED  
THE UPPER SHEAVE SHOULD NOT BE LOADED BEYOND 60% OF WORKING LOAD LIMIT (WLL)

SHEAVE Ø	A	B	C	D
	MM	MM	MM	MM
50	78.7	44	50	16
60	93.2	52	60	18
72	111.2	62	72	22
90	140.5	78	90	24

#### Suitable Block Upstand



Rubber boot upstand kit:

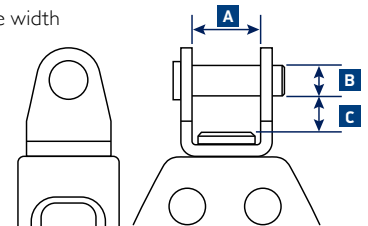
29195065 fits 50mm HTX  
29196065 fits 60mm HTX  
29197265 fits 72mm HTX

For more info refer to page 301

#### Halyard Block



The toggle head is designed to fit on the studs commonly found at mast bases.  
Check the diameter of the stud against the width of the block jaws (A) and pin diameter (B)



#### Fit Snap Shackle



FIT SNAP SHACKLE	
50MM HTX	29926040
60MM HTX	29927240
72MM HTX	29929040

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT		HEAD DETAILS					
		KG	LB	G	OZ	A WIDTH		B PIN		C SPACE TO PIN	
29195021	50	800	1762	160	5.6	15	37/64	6	7/32	8	5/16
29196021	60	1100	2422	227	7.9	18	45/64	8	5/16	10	37/94
29197221	72	2000	4405	410	14.4	23	67/74	10	37/94	9.5	3/8

For more info refer to page 302





## HTX Stainless Steel Blocks

Following the popularity of the HTX blocks, Lewmar have responded to market trends by developing a high-polished, stainless steel edition of the range. Providing a stylish alternative to ubiquitous Lewmar hardware, HTX Stainless Steel Blocks feature all the performance characteristics of the standard range while carrying additional glamour.

### Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27196001	60	1100	2422	270	9.5
27197201	72	2000	4405	560	19.8
27199001	90	3500	7709	920	35.5

### Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29196002	60	1100	2422	415	14.6
29197202	72	2000	4405	690	24.3

### Web Single



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27195047	50	800	1762	100	3.5

### Single Stand-Up Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT		BASE DETAILS				
						OVERALL DIAMETER		FIXINGS DIAMETER		FIXINGS TYPE
						MM	IN	MM	IN	
27196011	60	1100	2422	440	15.5	58	2 5/16	40	1 37/64	4 X M6 (1/4")
27197211	72	2000	4405	810	28.6	73	2 7/8	50	1 31/32	4 X M8 (5/16")

## 8. Hardware

### HTX Stainless Steel Blocks

#### Single & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27196004	60	1100	2422	285	10.1
27197204	72	2000	4405	605	21.5

#### Fiddle



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27196031	60	1100	2422	325	11.5

#### Fiddle & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
27196038	60	1100	2422	500	17.6

\* Block WWL, cleat WLL shown on p289

#### Fiddle, Becket & Cam



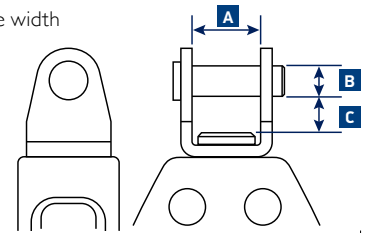
PART NO	SHEAVE Ø	WORKING LOAD LIMIT *		WEIGHT	
		KG	LB	G	OZ
27196039	60	1100	2422	575	20.3

\* Block WWL, cleat WLL shown on p289

#### Halyard Block



The toggle head is designed to fit on the studs commonly found at mast bases. Check the diameter of the stud against the width of the block jaws (A) and pin diameter (B).



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT		HEAD DETAILS					
						A		B		C	
		WIDTH		PIN		SPACE TO PIN					
		MM	KG	LB	G	OZ	MM	IN	MM	IN	MM
27196021	60	1100	2422	285	10.1	18	45/64	8	5/16	10	37/94
27197221	72	2000	4405	515	18.2	23	67/74	10	37/94	9.5	3/8

#### HTX Footblock



Use M8 (5/16") fixings for the 60/72mm sheaves.

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27196061	60	1100	2422	200	7.1
27197261	72	2000	4405	355	12.5

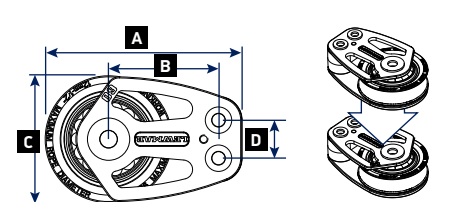
#### HTX Footblock With Jammer



\*Jammer intended to hold hand loads only  
Use M8 (5/16") fixings for the 60/72mm sheaves

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
27197264	72	2000	4405	480	16.8

#### HTX Footblock Footprint



STANDARD AND JAMMER OPTIONS CAN BE DOUBLE STACKED  
THE UPPER SHEAVE SHOULD NOT BE LOADED BEYOND 60% OF WORKING LOAD LIMIT (WLL)

SHEAVE Ø	A	B	C	D
	MM	MM	MM	MM
60	93.2	52	60	18
72	111.2	62	72	22



## Racing Blocks

Lewmar Racing Blocks represent the pinnacle of Lewmar's standard block range. Manufactured from the best materials, they offer incredible strength to weight ratios.

- Lockable head pin
- Highly efficient central bearing
- Delrin thrust balls
- Ratchet fiddle blocks feature alloy ratchet sheaves and recessed ratchet lever



Single



Single & Becket



Single Stand Up



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901611BK	60	800	1763	162	5.7
29901811BK	80	1000	2204	251	8.8

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901614BK	60	800	1763	170	6.0
29901814BK	80	1000	2204	278	9.8

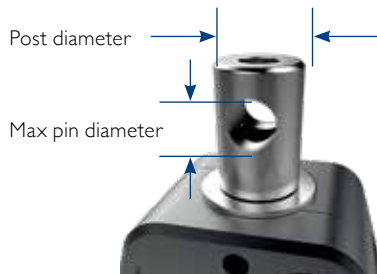
PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901600BK	60	800	1763	283	10.0
29941800BK	80	2400	5280	518	18.0

For fixing details refer to the website

## 8. Hardware

### Racing Blocks

#### Shackle Post Dimensions



	POST Ø		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
60MM FIDDLES	10.0	3/8	5	3/16
60MM SINGLES	11.0	3/8	6	1/4
60MM DOUBLES	13.8	1/2	8	5/16
80MM SINGLES/ FIDDLES	12.5	1/2	6	1/4
80MM DOUBLE/ TRIPLE	14	9/16	8	5/16
175MM	31.8	1 1/4	16	5/8
200MM	34.7	1 3/8	16	5/8
225MM	38	1 1/2	20	3/4
250MM	46	1 3/4	24.5	1

#### Line Size



	MAX LINE SIZE	
	MM	IN
60MM FIDDLE	10	3/8
60/ 80MM	12	1/2
175MM	22	7/8
200MM	22	7/8
225MM	24	15/16
250MM	26	1

#### Single Ratchet



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901821BK	80	800	1764	291	10.3

#### Single Ratchet & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901825BK	80	800	1764	318	11.2

#### Single Ratchet, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901829BK	80	800	1764	503	17.7

#### Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901612BK	60	1440	3175	291	10.3
29901812BK	80	1800	3968	487	17.2

\* Block WWL, cleat WLL shown on p342

#### Double & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901615BK	60	1440	3175	299	10.5
29901815BK	80	1800	3968	514	18.1

#### Triple



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901813BK	80	2200	4849	724	25.5

#### Triple Ratchet & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901828BK	80	2200	4849	949	33.5

\* Block WWL, cleat WLL shown on p342



## Racing Blocks

### Triple & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901816BK	80	2200	4849	751	26.5

### Triple Ratchet, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901830BK	80	2200	4849	976	34.4

\* Block WWL, cleat WLL shown on p342

### Fiddle



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901631BK	60	400	882	174	6.1
29901831BK	80	1000	2204	356	12.6

### Fiddle Ratchet & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901822BK	80	1000	2204	567	20.0

\* Block WWL, cleat WLL shown on p342

### Fiddle Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901634BK	60	400	882	190	6.7
29901834BK	80	1000	2204	382	13.5

### Fiddle, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901639BK	60	400	882	353	12
29901839BK	80	1000	2204	567	20

\* Block WWL, cleat WLL shown on p342

### Fiddle Ratchet, Becket & Cam



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901624BK	60	400	882	362	13.0
29901824BK	80	1000	2204	356	21.0

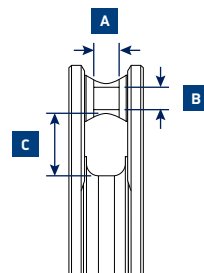
\* Block WWL, cleat WLL shown on p342

### Halyard Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29942601BK	60	1400	3080	146	5.2
29942801BK	80	2500	5500	274	9.7

### Halyard Block Head Details



	A		B		C	
	MM	IN	MM	IN	MM	IN
60MM HALYARD	12.8	1/2	6.0	1/4	26.5	1 1/16
80MM HALYARD	14.4	9/16	8.0	5/16	29.5	1 1/4

# 8. Hardware

## Racing Blocks

### Delrin Balls (Bag of 100)



PART NO	WHERE USED	DIAMETER	
		MM	IN
29170022	60 +105 +130 BLOCKS/ FOOTBLOCKS	4.6	3/16
29171022	80 +155 +175 BLOCKS/ FOOTBLOCKS	6.4	1/4

### Footblock Single



FIXINGS SUPPLIED (MAX 35MM DECK THICKNESS):  
 SIZE 60 : 3XM6, SIZE 80 : 3XM8  
 SIZE 175 : 2XM12/3XM16, SIZE 250 : 4XM16/2XM20

PART NO	SHEAVE Ø	WLL		WEIGHT	
		KG	LB	G	OZ
29906601BK	60	400	882	160	5.6
29906801BK	80	1000	2204	279	9.8
29906171BK	175	10000	22043	2634	92.9

### Footblock Single With Jammer



RH VERSION PICTURED

FIXINGS SUPPLIED (MAX 35MM DECK THICKNESS):  
 SIZE 60 : 3XM6, SIZE 80 : 3XM8  
 \*JAMMER WORKING LOAD LIMIT: 300 KG / 661LB

PART NO	SHEAVE Ø	WLL*		WEIGHT	
		KG	LB	G	OZ
29906604BK	60 LEFT HAND	400	882	181	6.3
29906606BK	60 RIGHT HAND	400	882	181	6.3
29906814BK	80 LEFT HAND	1000	2204	299	11.0
29906816BK	80 RIGHT HAND	1000	2204	299	11.0

### Footblock Single With Ratchet



FIXINGS SUPPLIED (MAX 35MM DECK THICKNESS):  
 SIZE 60 : 2XM6/1XM10, SIZE 80 : 2XM8/1XM12

PART NO	SHEAVE Ø / RATCH. DIR.	WLL		WEIGHT	
		KG	LB	G	OZ
29906621BK	60 CCW (PORT)	400	882	160	5.6
29906622BK	60 CW (STBD)	400	882	160	5.6
29906821BK	80 CCW (PORT)	1000	2204	341	12
29906822BK	80 CW (STBD)	1000	2204	341	12

### Footblock Double



FIXINGS SUPPLIED (MAX 35MM DECK THICKNESS):  
 SIZE 60 : 3XM6, SIZE 80 : 3XM8  
 SIZE 175 : 2XM12/3XM16, SIZE 250 : 4XM16/2XM20  
 \*TOP SHEAVE SHOULD NOT BE LOADED ABOVE 60% OF WLL

PART NO	SHEAVE Ø	WLL*		WEIGHT	
		KG	LB	G	OZ
29906602BK	60	400	882	258	9.1
29906802BK	80	1000	2204	415	15.0
29906172BK	175	10000	22043	11271	397.6

### Footblock Double With Jammer



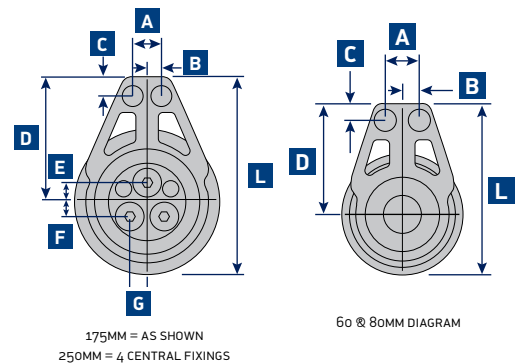
RH VERSION PICTURED

FIXINGS SUPPLIED (MAX 35MM DECK THICKNESS):  
 SIZE 60 : 3XM6, SIZE 80 : 3XM8  
 SIZE 175 : 2XM12/3XM16, SIZE 250 : 4XM16/2XM20  
 \*JAMMER DESIGNED TO HOLD HAND LOADS ONLY. TOP SHEAVE  
 SHOULD NOT BE LOADED ABOVE 60% OF WLL

PART NO	SHEAVE Ø	WLL*		WEIGHT	
		KG	LB	G	OZ
29906605BK	60 LEFT HAND	400	882	258	9.1
29906607BK	60 RIGHT HAND	1000	2204	415	15.0
29906815BK	80 LEFT HAND	10000	22043	11271	397.6
29906817BK	80 RIGHT HAND	19000	41881	11271	397.6

### Racing Footblock Footprint Details

SIZE	L		A		B		C		D		E		F		G	
	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
60MM	85	3 1/3	20	4/5	10.0	2/5	16	5/8	55	2 1/6	-	-	-	-	-	-
80MM	111	4 3/8	26	1	13.0	1/2	20	4/5	71	2 4/5	-	-	-	-	-	-
175MM	243	9 4/7	33	1 2/7	16.5	2/3	23	1	152	6	25	1	12.5	1/2	26	1
250MM	348	13 5/7	44	1 3/4	22	6/7	29	1 1/7	210	8 1/4	28	1 1/9	28	1 1/9	28	1 1/9





## High Load Racing Blocks

Lewmar High Load Racing Blocks are designed to compete at the highest level. Using cutting-edge materials, the blocks minimise friction to an infinitesimal degree without compromising on load strength.

- A result of extensive testing and innovation
- High-strength alloy construction
- Delrin thrust balls and torlon rollers for supreme performance

Single



Single Stand Up



Single & Becket

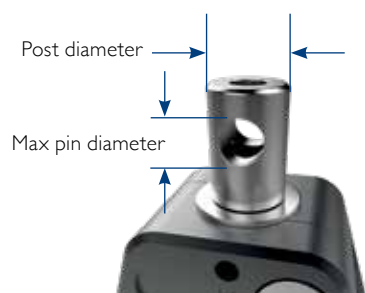


PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941611BK	60	1200	2640	281	9.9
29941801BK	80	2400	5280	337	12
29941101BK	105	3750	8250	605	21.4
29941131BK	130	5000	11000	952	33.6
29941151BK	155	7500	16500	1810	64

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941600BK	60	1200	2640	281	9.9
29941800BK	80	2400	5280	518	18
29941100BK	105	3750	8250	727	25.7
29941130BK	130	5000	11000	1404	49.6
29941150BK	155	7500	16500	2396	84.7

PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941614BK	60	1200	2640	174	6.1
29941804BK	80	2400	5280	358	13
29941104BK	105	3750	8250	640	22.6
29941134BK	130	5000	11000	986	34.8
29941154BK	155	7500	16500	1737	61.4

### Shackle Post Dimensions



BLOCKS	POST DIAMETER		TO FIT MAX PIN Ø	
	MM	IN	MM	IN
60MM SINGLE	11	3/8	6	1/4
60MM OTHER	13.8	1/2	8	5/16
80MM SINGLE	15	9/16	8	5/16
80MM OTHER	19.8	3/4	10	3/8
105MM SINGLE	19.8	3/4	10	3/8
105MM OTHER	21.8	7/8	12	1/2
130MM BLOCKS	21.8	7/8	12	1/2
155MM BLOCKS	25.8	1	14	9/16

### Line Size



	MAX LINE SIZE	
	MM	IN
60MM BLOCKS	12	1/2
80MM BLOCKS	14	9/16
80MM FIDDLES	12	1/2
105MM BLOCKS	14	9/16
130MM BLOCKS	16	5/8
155MM BLOCKS	18	11/16



## 8. Hardware

### High Load Racing Blocks

Single with Snap Shackle



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941808BK	80	2000	4400	496	18

Double



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941612BK	60	2000	4400	320	11.3
29941802BK	80	3400	7480	655	23

Double & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941615BK	60	2000	4400	343	12.1
29941805BK	80	3400	7480	685	24

Triple



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941613BK	60	2500	5500	428	15.1

Fiddle



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941831BK	80	2400	5280	441	16

Fiddle & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941834BK	80	2400	5280	471	17

Web Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29901647BK	60	1400	3086	120	4.2
29901807BK	80	2400	5280	242	8.6
29901107BK	105	3750	8250	417	14.7

Delrin Balls (Bag of 100)



PART NO	WHERE USED	DIAMETER	
		MM	IN
29175022	60HL FOOTBLOCKS	3.2	1/8
29170022	60LL+80HL+105+130 BLOCKS/FOOTBLOCKS	4.6	3/16
29171022	80LL+105+155+175 BLOCKS/FOOTBLOCKS	6.4	1/4

Torlon Rollers for Racing  
Blocks

PART NO	BAG QTY	BLOCK SIZE
		MM
29900010	22	60
29900011	24	80
29900012	35	105
29900013	47	130
29900014	50	155
29900015	59	175
29900016	68	200
29900017	78	225

## High Load Racing Blocks

### Single Footblock



FIXINGS NOT SUPPLIED:  
SIZE 60MM 2XM6 / 1XM10  
SIZE 80MM 2XM8 / 1XM12

SIZE 105MM 2XM10 / 1XM12  
SIZE 130MM 4XM12  
SIZE 155MM 2XM12 / 2XM16

### Double Footblock



FIXINGS NOT SUPPLIED:  
SIZE 60MM 2XM6 / 1XM10  
SIZE 80MM 2XM8 / 1XM12

SIZE 105MM 2XM10 / 1XM12  
SIZE 130MM 4XM12  
SIZE 155MM 2XM12 / 2XM16

### Shackle Posts

Designed to fit Racing halyard and runner blocks.

Can be used with shackle in-line or at 90° to sheave.



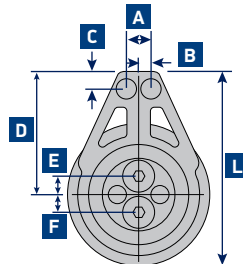
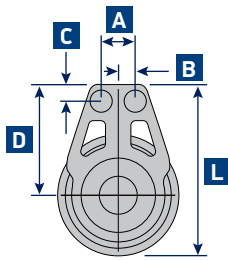
PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29946611BK	60	1400	3080	132	4.7
29946801BK	80	2400	5280	268	9.5
29946101BK	105	3750	8250	490	17.3
29946131BK	130	5500	12100	732	25.9
29946151BK	155	7500	16500	1476	52.2

PART NO	SHEAVE Ø	WORKING LOAD LIMIT*		WEIGHT	
		KG	LB	G	OZ
29946612BK	60	1400	3080	252	8.9
29946802BK	80	2400	5280	500	17.7
29946102BK	105	3750	8250	873	30.8
29946132BK	130	5500	12100	1301	46.0
29946152BK	155	7500	16500	2675	94.5

\*TOP SHEAVE SHOULD NOT BE LOADED ABOVE 60% OF WLL

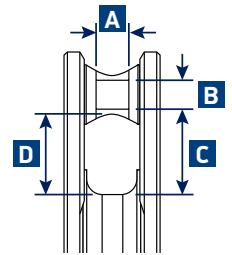
PART NO.	SUITS	POST DIA.		PIN DIA.		BREAKING LOAD	
		MM	IN	MM	IN	KG	LB
29942606	60MM	17.5	11/16	8	5/16	2800	6170
29942806	80MM	23.75	7/8	10	3/8	5000	11000
29942106	105MM	24	1	10	3/8	6400	14100
29942136	130MM	28	1 1/8	12	1/2	10000	22050
29942156	155MM	36	1 3/8	16	5/8	15000	33050

### Racing Footblock Footprint Details



SIZE	L		A		B		C		D		E		F	
	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
60MM	85	3 1/3	20	4/5	10.0	2/5	16	5/8	55	2 1/8				
80MM	111	4 3/8	26	1	13.0	1/2	20	4/5	71	2 7/8				
105MM	148	5 7/8	35	1 3/8	17.5	2/3	27	1	95	3 3/4	14	1/2	13.6	1/2
130MM	181	7 1/8	40	1 1/2	20.0	4/5	33	1 1/4	111	4 1/3	18	5/7	18	5/7
155MM	216	8 1/2	54	2 1/8	27.0	1	50	2	138	5 3/7	20	4/5	20	4/5

### Halyard and Runner Block Head Details



BLOCK	A		B		C		D	
	MM	IN	MM	IN	MM	IN	MM	IN
60MM HL HALYARD	12.8	1/2	8.5	21/64	25.3	1	24.0	15/16
80MM HL HALYARD	14.4	9/16	11.0	7/16	28.0	1 3/4	27.4	1 3/32
80MM RUNNER	11	7/16	11	7/16	28.6	1 9/64	27.8	1 3/32
105MM RUNNER	13	33/64	13	33/64	34.0	1 11/32	32.0	1 1/4
130MM RUNNER	16	5/8	16	5/8	34.0	1 11/32	32.0	1 1/4

### Fixed Halyard Block



PART NO	SHEAVE Ø	WLL		WEIGHT	
		KG	LB	G	OZ
29902800BK	80	2500	5500	300	10.6
29902100BK	105	4000	8817	629	22.2

### Halyard Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29942601BK	60	1400	3080	252	8.9
29942801BK	80	2400	5280	500	17.7
29902101BK	105	3200	7054	457	16.1
29902131BK	130	5000	11021	839	29.6
29902151BK	155	7500	16500	1545	54.5

## 8. Hardware

### High Load Racing Runner Blocks

- Sheaves run on an impregnated composite bearing with dual side thrust bearings for free-running at initial load.
- Optimised cheek design with non-snag bails.
- Also available in Titanium - contact your dealer.
- Breaking load of runner blocks is 2.5 x WLL

#### Runner Block



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29902808BK	80	2000	4409	256	9
29902108BK	105	2560	5643	448	15.8
29902138BK	130	4000	8817	776	27.4
29902158BK	155	6000	13226	1418	50
29902178BK	175	8400	18516	2074	73.2
29902208BK	200	10000	22043	4003	141

#### Runner Block & Becket



PART NO	SHEAVE Ø	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29902809BK	80	2000	4409	265	9.4
29902109BK	105	2560	5643	474	16.7
29902139BK	130	4000	8817	842	29.7
29902159BK	155	6000	13226	1569	55.3
29902179BK	175	8400	18516	2544	89.7
29902209BK	200	10000	22043	4620	163

### Snatch Blocks

Ideal for general spinnaker use, the Snatch Block features the Lewmar snap shackle and soft, synthetic rubber cheeks to handle rough treatment. Where a snatch block is attached in a situation which does not permit full movement, such as through some toe rails, a shackle must be used to ensure full articulation.

Designed for line handling on sail boats only.



19820600  
SIZE 2 SNATCH BLOCK



19830500  
SIZE 3 SNATCH BLOCK



19810600  
SIZE 1 SNATCH BLOCK

PART NO	SIZE	BEARING	SHEAVE MATERIAL	WORKING LOAD LIMIT		BREAKING LOAD		SHEAVE Ø		SHEAVE WIDTH		LINE SIZE		WEIGHT	
				KG	LB	KG	LB	MM	IN	MM	IN	MM	IN	G	OZ
19810600	1	STAINLESS STEEL	DELIN	1135	2500	2270	5000	66	2 5/8	20	3/4	14	9/16	480	17.0
19820600	2	STAINLESS STEEL	DELIN	1590	3500	3180	7000	80	3 1/8	20	3/4	16	5/8	880	31.0
19830500	3	NEEDLE ROLLER	ALUMINIUM	2155	4750	4310	9500	80	3 1/8	20	3/4	16	5/8	1040	36.5

## High Load Racing Runner Blocks

### Block Upstands

Lewmar block upstands are designed to hold a block to the deck in a vertical direction for sail control in leisure marine application only.

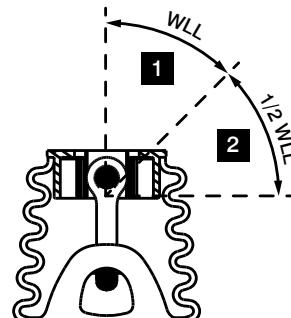
Their performance depends heavily on the specific application and suitability of installation.

Care must be taken during installation that the block upstand is suitably aligned to the expected load.

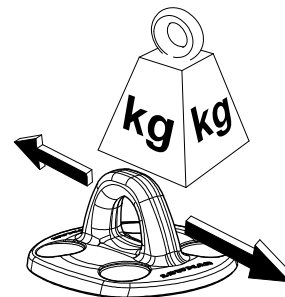
The load direction should be as close to perpendicular with the base as possible (as shown on the Alignment illustration). This will maximise the working load of the pad eye.

In addition, the load should be as close to parallel with the bail as possible. The Working Load Limit (WLL) Zones illustration shows the recommended WLL relative to the applied force.

#### Working Load Limit (WLL) Zones



#### Alignment



### Spring Block Upstand



PART NO	TO SUIT BLOCK	WORKING LOAD LIMIT ZONE 1		WORKING LOAD LIMIT ZONE 2		WEIGHT		BASE DIA	
		KG	LB	KG	LB	KG	LB	MM	IN
29904046	30 @ 40MM CONTROL	400	990	200	495	24	0.8	1 3/16	1/8
29904050	60MM RATCHET TRIPLE @ 60MM SYNCHRO	400	990	200	495	24	0.8	1 3/4	3/16

### Rubber-Boot Block Upstand with Pad Eye



PART NO	TO SUIT BLOCK	WORKING LOAD LIMIT ZONE 1		WORKING LOAD LIMIT ZONE 2		WEIGHT		BASE DIA	
		KG	LB	KG	LB	G	OZ	MM	IN
29195065	50MM HTX 60MM SYNCHRO 60MM RATCHET SINGLE / FIDDLE	800	1760	400	990	105	3.7	58	2 1/4
29196065	60MM HTX 72MM SYNCHRO 60MM RACING LOW LOAD SINGLE	1100	2420	550	1211	105	3.7	58	2 1/4
29197265	72MM HTX 90MM SYNCHRO	2000	4400	1000	2200	210	7.4	73	2 7/8

## 8. Hardware

### Pivoting Lead Blocks

Lead blocks are a low profile solution for leading halyards or other rig sail controls back to cleats or jammers. Maintains alignment with a variable line entry-angle. The line passes through the centre of the pivot support, remaining as close to the deck as possible.

- Alloy sheave / Alloy cheeks
- Black carbon Acetal ball bearings
- Torlon® ratchet pawl



Pivoting low lead



Pivoting low lead ratchet



Pivoting low lead ratchet with cleat

PART NO	DESCRIPTION	SHEAVE Ø	MAX ROPE Ø		WORKING LOAD LIMIT		WEIGHT		FASTENER Ø		FASTENING CENTRE WIDTH		FASTENING CENTRE LENGTH	
			MM	IN	KG	LB	G	OZ	MM	IN	MM	IN	MM	IN
29196012	PIVOTING LOW LEAD HIGH LOAD	60	14	9/16	1500	3310	341	12.0	6.0	3/16	45	1 3/4	112.5	4 7/16
29196014	PIVOTING LOW LEAD RATCHET	60	10	3/8	250	550	147	5.2	5.0	3/16	35	1 3/8	105.5	4 5/32
29196013	PIVOTING LOW LEAD RATCHET WITH CLEAT	60	10	3/8	250	550	285	10.1	5.0	3/16	35	1 3/8	105.5	4 5/32

\* Block WWL, cleat WLL shown on p342

### Lewmar Synchro Snap Shackles



29925040



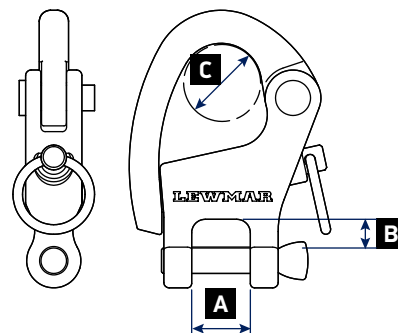
29926040



29927240

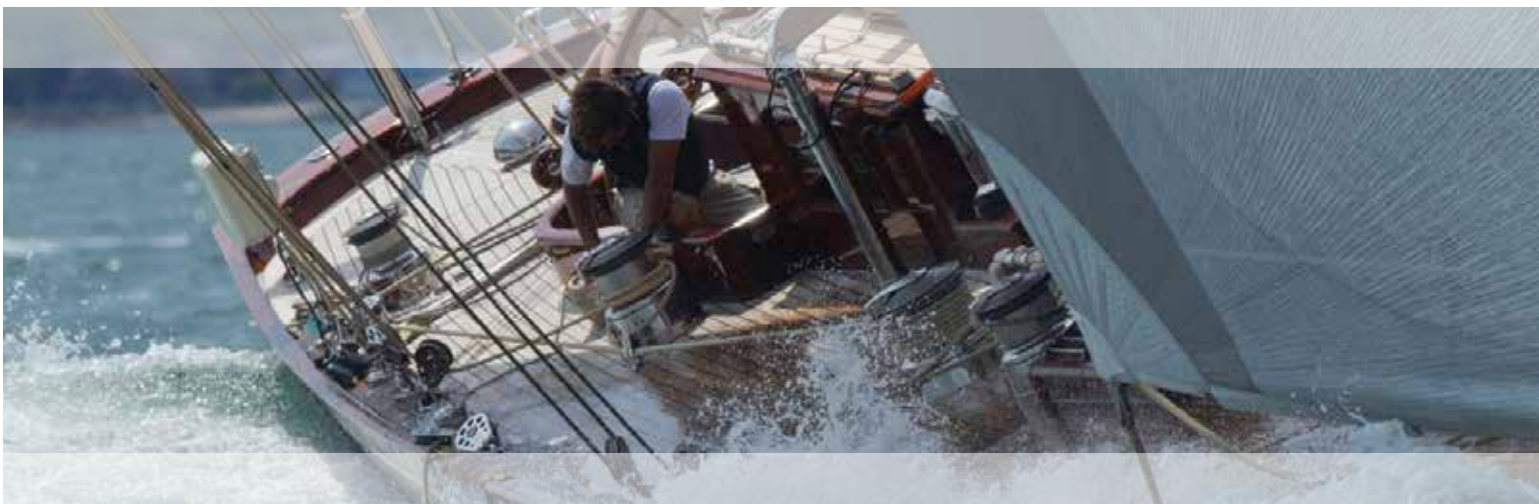


29929040



PART NO	FIT BLOCKS	WORKING LOAD LIMIT		BREAKING LOAD		PIN DIA		A		B		C	
		KG	LB	KG	LB	MM	IN	MM	IN	MM	IN	MM	IN
29925040	50 SYNCHRO / 30 Ø 40 CONTROL SINGLE / DOUBLE	450	990	900	1980	4	1/8	9.0	3/8	4.5	3/16	12	1/2
29926040	60 SYNCHRO / 50 HTX / 30 CONTROL TRIPLE	800	1760	1600	3520	5	3/16	12.0	1/2	6.0	1/4	14	9/16
29927240	72 SYNCHRO / 60 HTX / 40 CONTROL TRIPLE	1100	2420	2200	4840	6	1/4	13.0	1/2	6.5	1/4	18	11/16
29929040	90 SYNCHRO / 72 HTX	2000	4400	4000	8800	9.5	3/8	17.5	11/16	7.5	5/16	22	7/8





## Custom Blocks

With a wide range of experience across both the race boat and superyacht sectors, Lewmar can offer custom blocks for any situation. Over 70 years of practical knowledge, combined with the latest FEA techniques enables us to optimise each block for its intended application.

Structural loads found in the head of the block are routed through the side cheeks while non-load bearing material is sculpted out. Our team designs and specifies each block to the project's bespoke requirements with typical finishes including highly polished stainless steel, blasted aluminium, titanium or wood.

Lewmar hardware was used aboard Gypsy Moth IV's circumnavigation and has been used to win numerous America's Cups. In recent years, much of our custom block development has been focused on the stunning J-Class fleet. These beautiful classics demand the optimum combination of performance, reliability and style, and are the ultimate proving ground for our current range of custom blocks.

With all the blocks assembled and tested in our Havant, UK facility, our engineering team is able to quickly implement any lessons learnt from testing.



## 8. Hardware



### Soft Loop Blocks

Reaching new standards of innovation, Lewmar-Equiplite® Soft Loop Blocks are designed to be mobile, lightweight and robust with a highly flexible range of uses.

The Soft Loop Blocks feature a continuous rope loop, removable for easy and quick attachment. Ultra-lightweight alloy and carbon fibre construction ensures that the strength-to-weight ratio is unequalled in modern hardware. Combined with our specially designed range of lightweight cars, the Soft Loop Blocks are a formidable component in race systems.

The Soft Loop Blocks are a true performance product, designed for high-level sail handling.

- High-strength alloy and carbon construction
- Detachable rope loop provides incredible flexibility
- Velcro retention strap and shaped side plates prevent accidental release
- Low-friction carbon bearing provides high working loads and performance under pressure
- Disassembles for easy maintenance
- Up to 75% weight saving over traditional systems

### Core Block

The central platform of the Soft Loop Block range, the Core Block is a highly versatile component in a wide variety of applications.

- Central carbon bearing provides very little friction and unparalleled load efficiency
- Continuous fibre loop provides strength and flexibility
- Advanced materials reduce weight

PART NO	SHEAVE Ømm	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29940487	48	4000	8818	160	5.6
29940707	70	8500	18740	460	16.2
29941207	120	15000	33070	1695	59.8
29395000	135	20000	44100	1950	68.8







## In-Hauler

Developed specifically for barber hauler applications, the In-Hauler packages the principles of the Core Block into a refined, purpose-driven component.

- Ultimately simple design reduces weight and enhances utility
- Designed for use with barber haulers/tweakers
- Ease of use enables quick changes of sheeting configurations

PART NO	SHEAVE Ømm	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29941408IF	16	2000	4410	42	1.5
29942010IF	30	8000	17640	280	9.9
29943012IF	35	12000	26460	350	12.3



## Core Block Cars

To maximise the weight-saving gains of the Core Blocks, Lewmar have designed specialised genoa and mainsheet cars to work in harmony with the loop blocks.

- Machined from extrusion for optimum strength-to-weight ratio
- Control ends accept dead end or control blocks
- Double ball race provides innovative low friction design
- Available in various configurations for genoa and mainsheet - contact your Lewmar representative for more information
- Designed to be mounted on NTR track

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29331153BK	1	2500	5510	150	5.9	66	2.6	288	10.2
29332259BK	2	8000	17640	256	10.1	80	3.1	1662	58.6



## 8. Hardware

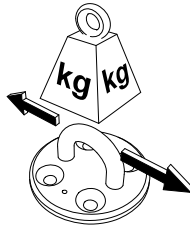
### Pad Eyes

Lewmar pad-eyes are designed for leisure marine use and for fixing blocks or similar equipment to the deck.

Their performance depends heavily on the specific application and suitability of installation.

Care must be taken during installation that the pad eye is suitably aligned to the expected load.

#### Alignment



The load direction should be as close to perpendicular with the base as possible. This will maximise the working load of the pad eye.

In addition, the load should be as close to parallel with the bail as possible.

For more information on the deflection effect on force applied refer to the product manuals.



29904060



29192105



29904054



29904040



29904041

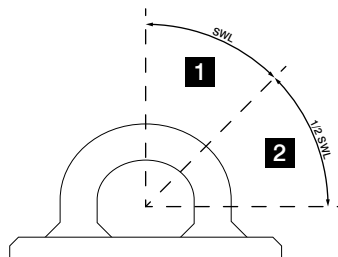


29165066

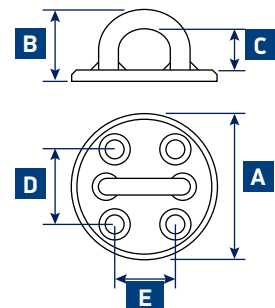


29197266

#### Working Load Limit (WLL) Zones



#### Dimension diagram



#### Pad Eye Specifications

PART NO	DESCRIPTION	WLL ZONE 1		WLL ZONE 2		WEIGHT		BAR DIA		A		B		C		D		E		FIXINGS NOT SUPPLIED	
		KG	LB	KG	LB	G	OZ	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
29904060	60/80MM PAD EYE	3200	7055	1600	3527	154	5.4	10.0	3/8	66	2 19/32	33	1 19/64	18	23/32	34	1 11/32	28	1 3/32	4XM8	4X 5/16
29192105	105MM PAD EYE	5000	11023	2500	5512	435	15.3	12.7	1/2	98	3 27/32	48	1 57/64	28	13/32	50	2 31/32	42	1 21/32	4XM12	4X 7/16
29904054	130MM PAD EYE	7500	16535	3750	8267	787	27.8	15.8	5/8	115	4 17/32	58	2 5/16	34	15/16	60	2 11/32	48	1 7/8	4XM12	4X 7/16
29165066	SMALL CAST PAD EYE	2500	5511	1250	2756	104	3.7	8.0	5/16	58	2 9/32	27	1 1/16	14	9/16	40	1 37/64	40	1 37/64	4XM6	4X 1/4
29197266	MEDIUM CAST PAD EYE	4500	9921	2250	4960	212	7.5	10.0	3/8	73	2 7/8	35	1 3/8	17	43/64	50	1 31/32	50	1 31/32	4XM8	4X 5/16
29904040	DIAMOND PAD EYE	1135	2502	567	1250	45	1.6	6.0	7/32	38	1 1/2	24	15/16	14	9/16	23	15/16	46	1 13/16	4XM5	4X 3/16
29904041	SQUARE PAD EYE	3180	7011	1590	3505	227	8.0	9.0	5/16	70	2 3/4	37	1 57/64	21	7/8	38	1 1/2	38	1 1/2	4XM8	4X 5/16

# Traveller Systems



## Page 310 Ocean Size 0

- Ideal for cruising yachts up to 8.5 m (28ft)
- Internal control sheave prevents snagging
- Proven performance
- Ocean Car can be adapted to run on curved track



## Page 312 NTR Size 1, 2 & 3

- Popular choice for cruising and racing yachts
- Modular system suits any configuration
- Compatible with Ocean range track
- Larger sheaves results in efficient rope handling



## Page 323 HTX Size 1 & 2

- Ideal for cruiser/racer yachts
- Complements HTX Block Range
- Unique triple ball race for reduced friction
- Minimal parts enhance performance and reliability
- Captive balls ensure easy maintenance



## Page 330 T-Track

- Specialised genoa systems
- Recently restyled to enhance strength and performance
- Available in 25mm through to 65mm
- Choice of wide range of end stops



## Page 331 Size 4 track and cars

- High-load control line sheaves
- Torlon balls running in fully machined ball races
- Machined weight reducing slots
- End stops fixed through deck and track



## Page 332 Custom/Racing

- Custom hardware for yachts up to 67m (220ft)
- Ideal for high-performance racing yachts
- Features patented double ball race
- Carries high load with low friction
- Tailored to specific applications
- Choice of finishes to suit individual requirements



## Page 334 Overside Working System

- Designed to conform to CE EN 975
- Range of options available
- Based on proven technology

## 8. Hardware

### Traveller Systems – Selection Guide

This selection guide is designed to be used as a quick reference only. For more detailed product information visit [www.lewmar.com](http://www.lewmar.com). Calculations are based on the average modern cruising yacht. Sail area, different rigs, heavy or light displacement, multihull or monohull, are all factors which affect a yacht's specifications. Loadings should be obtained from the designer and matched to the safe working load of the hardware. Please contact your Lewmar agent if you have any questions regarding the correct hardware for your boat.

#### Cars Selection Guide

APPLICATION & SHEETING POSITION	SIZE	TOWING PURCHASE (MAXIMUM AVAILABLE PURCHASE)	M FT	7.3 24	8.5 28	10.3 34	11.5 38	13.4 44	14.6 48	16.4 54	18.2 60	21.3 70	
GENOA	0	2:1											
END BOOM MAINSHEET	0	2:1											
MID BOOM OR MULTIHULL	0	2:1											
GENOA	1	4:1 OR 2:1 TO WINCH											
END BOOM MAINSHEET	1	4:1											
MID BOOM OR MULTIHULL	1	4:1											
GENOA	2	4:1 OR 2:1 TO WINCH											
END BOOM MAINSHEET	2	5:1											
MID BOOM OR MULTIHULL	2	5:1											
GENOA	3	5:1 OR 2:1 TO WINCH											
END BOOM MAINSHEET	3	5:1 OR 2:1 TO WINCH											
MID BOOM OR MULTIHULL	3	5:1 OR 2:1 TO WINCH											



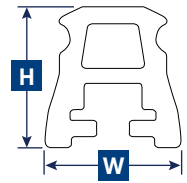
© 2013, Oyster Marine



# Ocean/NTR Tracks

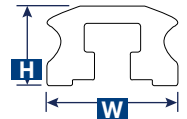
## BeamTrack

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. Some beam track can only use metric fasteners  
Made of Aluminium 6082T6 extrusion.



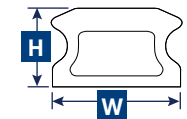
## Sliding Bolt Track

Sliding bolt track has a smooth clean profile with no visible fixings and can be retro-fitted using original bolt holes – no need to worry about old track pattern holes matching up with a new track. The track is designed to permit a washer to fit on each bolt between the track and deck to ensure a secure seal.



## Drilled Plunger Track

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



## Ocean/NTR Track Specifications and Fixing Details

PART NO	DESCRIPTION	TRACK SIZE	LENGTH		HEIGHT		WIDTH		WEIGHT (per metre)		MAX SPAN BETWEEN FIXINGS / CENTRE HOLE DIM		FIXINGS	
			M	FT	MM	IN	MM	IN	G	OZ	MM	IN	METRIC	IMPERIAL
29160315BK	BEAM TRACK	0	1.5	4'11"	24.7	0.97	24	0.44	954	33.65	400	16	HEX HD M6	1/4"
29162315BK	BEAM TRACK	2	1.5	4'11"	35	1.38	35	1.38	1560	54.91	800	31 1/2	HEX HD M10	-
29162320BK			2	6'7"										
29163315BK	BEAM TRACK	3	1.5	4'11"	55	2.16	50	1.97	3640	128.13	900	35 7/16	HEX HD M12	-
29163320BK			2	6'7"										
29163330BK			3	9'10"										
29161510BK	HD BEAM TRACK	1	1	3'3"	42	1.75	32	1.25	1770	62.4	900	35 7/16	HEX HD M8	5/16"
29161515BK			1.5	4'11"										
29161520BK			2	6'7"										
29162515BK	HD BEAM TRACK	2	1.5	4'11"	51	2	51	2	3000	105.82	900	35 7/16	HEX HD M10	3/8"
29162520BK			2	6'7"										
29162115BK	SLIDING BOLT TRACK	2	1.5	4'11"	18	0.71	30	1.18	839	29.56	800	31 1/2	HEX HD M8	5/16"
29162120BK			2	6'7"										
29162130BK			3	9'10"										
29160405BK	DRILLED PLUNGER TRACK	0	0.5	1'8"	11.0	0.43	19	0.75	342	12.06	80	3.1	CSK HD M5	-
29160410BK			1.0	3'3"										
29160414BK			1.4	4'7"										
29160415BK			1.5	4'11"										
29161415BK	DRILLED PLUNGER TRACK	1	1.526	5'	13	0.5	23	0.9	530	18.65	100	3 15/16	HEX HD M6	1/4"
29161420BK			2.026	6'8"										
29161430BK			3.026	9'11"										
29162415BK	DRILLED PLUNGER TRACK	2	1.532	5'	15	0.56	30	1.18	764	26.95	100	3 15/16	HEX HD M8	5/16"
29162420BK			2.032	6'3"										
29162430BK			3.032	10'										
29163615BK	DRILLED PLUNGER TRACK	3	1.548	5'1"	21	0.84	35	1.38	968	33.88	100	3 15/16	HEX HD M10	3/8"
29163620BK			2.048	6'9"										
29163630BK			3.048	10'1"										



## 8. Hardware



### Size 0 Ocean Cars

Despite being the smallest range Lewmar produce, Size 0 Ocean hardware is strong, durable and efficient, providing excellent performance and reliability.

- For boats up to 8.5m/28ft.
- Use 50mm/60mm blocks.
- Suitable for 6mm (1/4") control line.

#### Short Car with Delrin Balls & Shackle



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29020701BK	200	440	71	2.79	51	2	142	5.59

#### Short Car with Delrin Balls, Loop & Single Sheaves



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29330105BK	200	440	73	2.87	51	2	150	6

#### Car with Delrin Balls, Shackle & Single Sheaves



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29030100BK	450	990	123	4.83	51	2	210	7.39

#### Car with Delrin Balls, Pivoting Loop & Single Sheaves



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29330107BK	450	990	124	4.88	51	2	250	8.5

#### Car with Slide Rods, Shackle & Plunger



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29030600BK	450	990	123	4.83	51	2	225	7.92

## Genoa Car with Slide Rods &amp; Plunger



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29040600BK	600	1325	123	4.83	51	2	427	15.03

## Genoa Car with Delrin Balls &amp; Single Sheave



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29040100BK	600	1325	123	4.83	51	2	427	15.03

## Size 0 Ocean End Stops

## Control Line End Stop with Single Sheave



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29170030BK	200	440	58	2.3	51	2	78	2.75

## Control Line End Stop with Sheave, Becket &amp; Cam



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29170033BK	200	440	65	2.3	51	2	397	13.97

\* Car WWL, cleat WLL shown on p340

## Simple Track End



PART NO	WEIGHT	
	G	OZ
29170040BK	10	.35

## Size 0 Ocean Traveller Kit - 2:1 Purchase System

Lewmar makes selecting your mainsheet system simple - with complete Mainsheet System Kits. Lewmar's Size 0 Ocean Mainsheet System is a complete kit made specifically for yachts up to 28 feet (8.5m).

PART NO	DESCRIPTION
29060152	SIZE 0 OCEAN TRAVELLER SYSTEM
COMPRISES:	
29030100	1 X MAINSHEET CAR
29170040	2 X SIMPLE END STOP
29160112	1 X 1.2M SLIDING BOLT TRACK
29171010	1 X SIZE 1 DEAD EYE
29904100	2 X SMALL COMPOSITE CLEAT
29904104	2 X SMALL CAM FAIRLEAD

BOAT SIZE	UP TO 8.5M	UP TO 28FT
MAX MAINSAIL AREA (END BOOM):	16M <sup>2</sup>	170FT <sup>2</sup>
MAX MAINSAIL AREA (MID BOOM):	12M <sup>2</sup>	130FT <sup>2</sup>
SAFE WORKING LOAD:	400KG	990LBS

## 8. Hardware



### NTR Cars Size 1 - 2 and 3

The NTR range is the foundation of Lewmar's traveller systems. Found on production yachts across the world, NTR is reliable, seaworthy and designed to perform.

A modular design, NTR cars can be built from components into any configuration, with simple maintenance and servicing. This flexible platform means that every sailor's needs and preferences can be catered for without expensive alterations. Backwards compatibility with our Ocean range ensures the longevity of existing and new systems.

- Popular choice for cruising and racing yachts
- Modular system suits any configuration
- Compatible with Ocean Range track
- Larger sheaves result in efficient rope handling

NTR cars are available with two friction-reducing systems:

#### Torlon Balls (TB)

- Continuous ball race
- High-strength Torlon ensures optimum performance and load management
- Innovative arrangement provides car movement at a range of load angles
- Replacement balls available

#### Slide Rods (SR)

- Simpler, fixed system
- Rods are easy to maintain and replace
- Suitable for more static applications where movement is less vital
- Durable materials





## NTR Mainsheet Traveller Systems

Traveller kits are made up of all the necessary components to assemble a standard system. Each one comes with Lewmar's sliding bolt track, which allow you to retrofit the new track to your deck using the original bolt holes.



### Size 1 Mainsheet System

In the Size 1 kit, you'll find all the components necessary to assemble a standard system.

- For boats up to 11m (36ft)
- Suitable for 8mm (5/16") control line

### Size 2 Mainsheet System

Like the size 1 system, the Size 2 Mainsheet system comes with everything you need for a complete standard system, including the sliding bolt track.

- For boats up to 15m (49ft)
- Suitable for 10mm (3/8") control line

### Size 1&2 Traveller Kit 4:1 Purchase System

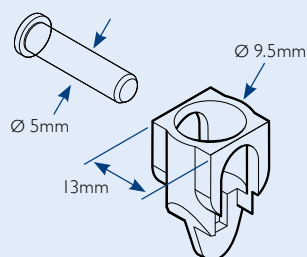
	SIZE 1	SIZE 2
TRAVELLER SYSTEM	29461354BK	29462354BK
COMPRISES:		
1 X MAINSHEET CAR SHACKLE WITH DOUBLE CONTROL LINE SHEAVES, CLEATS & BECKETS	29431916BK	29432916BK
2 X END STOP WITH DOUBLE CONTROL LINE SHEAVES	29471032BK	29472032BK
1 X SLIDING BOLT TRACK	29161115BK	29162118BK
TRACK LENGTH	1.5M	1.8M

TRACK SIZE	SIZE 1	SIZE 2
BOAT SIZE	UP TO 11M (36FT)	UP TO 14.6M (48FT)
MAX. MAINSAIL AREA:		
END BOOM:	34M <sup>2</sup> (366FT <sup>2</sup> )	46M <sup>2</sup> (495FT <sup>2</sup> )
MID BOOM:	21M <sup>2</sup> (226FT <sup>2</sup> )	38M <sup>2</sup> (410FT <sup>2</sup> )
SAFE WORKING LOAD:	900KG (1980 LB)	1000KG (2000 LB)

## 8. Hardware

### NTR Cars Size 1 - 2 and 3

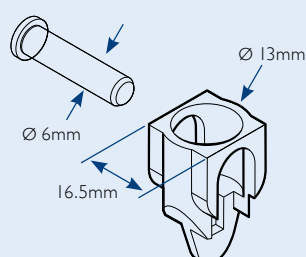
#### Size 1 Ustand Cup Detail



Size 1 upstand fits the following blocks:

- 60 synchro blocks
- 50 HTX blocks

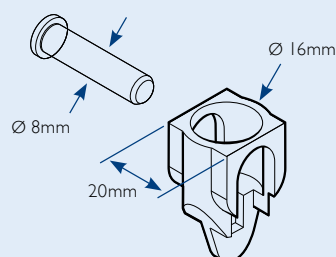
#### Size 2 Ustand Cup Detail



Size 2 upstand fits the following blocks:

- 72 synchro blocks
- 60 HTX blocks
- 60 / 60HL and 80 Racing blocks

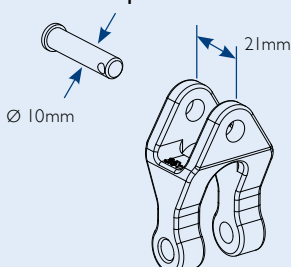
#### Size 3 Ustand Cup Detail



Size 3 upstand fits the following blocks:

- 90 synchro blocks
- 72 HTX blocks
- 80HL Racing blocks

#### Size 3 HL Ustand Link Detail



Size 3 upstand fits the following blocks:

- 105 synchro blocks
- 90 HTX blocks
- 105 Racing blocks

### NTR Torlon Ball (TB) Mainsheet Cars Size 1, 2 and 3

#### TB Short Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29421300BK	1	600	1329	107	4 3/16	71	2 3/4	228	8.00
29422300BK	2	1100	2420	140	5 1/2	92	3 5/8	386	13.6
29423301BK	3	2000	4400	150	5 15/16	88	3 1/2	680	24.0

#### TB Short Car with Upstand



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29421400BK	1	600	1329	107	4 3/16	71	2 3/4	241	8.50
29422400BK	2	1100	2420	140	5 1/2	92	3 5/8	397	14
29423400BK	3	2000	4400	150	5 15/16	88	3 1/2	781	27.3

#### TB Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431300BK	1	900	1980	162	6 3/8	71	2 3/4	313	11.0
29432300BK	2	1500	3300	210	8 5/16	92	3 5/8	639	22.5
29433300BK	3	2500	5500	215	8 1/2	88	3 1/2	924	32.3

#### TB Car with Upstand



\* 29432420 fitted with size 3 upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431400BK	1	900	1980	162	6 3/8	71	2 3/4	364	12.8
29432400BK	2	1500	3300	210	8 5/16	92	3 5/8	767	27
29432420BK*	2*	2000	4400	210	8 5/16	92	3 5/8	839	33
29433400BK	3	2500	5500	215	8 1/2	88	3 1/2	743	26.0



## NTR Torlon Ball (TB) Mainsheet Cars Size 1, 2 and 3

## TB Car with Shackle and Single Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431311BK	1	900	1980	162	6 3/8	71	2 3/4	374	13.2
29432311BK	2	1500	3300	210	8 5/16	92	3 5/8	747	26.3

## TB Car with Upstand and Single Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431411BK	1	900	1980	162	6 3/8	71	2 3/4	421	14.8
29432411BK	2	1500	3300	210	8 5/16	92	3 5/8	875	30.9
29433602BK	3*	3500	7700	270	10 5/8	88	3 1/2	1595	55.8

## TB Car with Shackle, Single CL Sheaves &amp; Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431315BK	1	900	1980	162	6 3/8	71	2 3/4	378	13.2
29432315BK	2	1500	3300	210	8 5/16	92	3 5/8	867	34.1

## TB Car with Upstand, Single CL Sheaves &amp; Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431415BK	1	900	1980	162	6 3/8	71	2 3/4	472	16.6
29432415BK	2	1500	3300	210	8 5/16	92	3 5/8	993	35

## TB Car with Shackle and Double Control Line Sheaves



\* 29432372BK fitted with double ball bearing control line sheaves

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431312BK	1	900	1980	162	6 3/8	71	2 3/4	435	15.3
29432312BK	2	1500	3300	210	8 5/16	92	3 5/8	871	30.7
29432372BK	2*	1500	3300	210	8 5/16	92	3 5/8	880	34.6
29433314BK	3	2500	5500	215	8 1/2	88	3 1/2	993	34.8

## TB Car with Upstand and Double Control Line Sheaves



\* 29431712BK fitted with size 2 upstand

\* 29432424BK fitted with size 3 upstand

\* 29443604BK fitted with size 3 HL upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431412BK	1	900	1980	162	6 3/8	71	2 3/4	486	17.1
29431712BK	1*	900	1980	162	6 3/8	71	2 3/4	486	17.1
29432412BK	2	1500	3300	210	8 5/16	92	3 5/8	997	35.1
29432424BK	2*	2000	4400	210	8 5/16	92	3 5/8	1050	37
29433414BK	3	2500	5500	215	8 1/2	88	3 1/2	1200	42
29433604BK	3*	3500	7700	270	10 5/8	88	3 1/2	1610	56.8

## 8. Hardware

### NTR Torlon Ball (TB) Mainsheet Cars Size 1, 2 and 3

#### TB Car with Shackle, Double CL Sheaves & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431316BK	1	900	1980	162	6 3/8	71	2 3/4	390	13.7
29432316BK	2	1500	3300	210	8 5/16	92	3 5/8	991	39

#### TB Car with Upstand, Double CL Sheaves & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431416BK	1	900	1980	162	6 3/8	71	2 3/4	540	19.0
29432416BK	2	1500	3300	210	8 5/16	92	3 5/8	1117	39.4
29433416BK	3	2500	5500	215	8 1/2	88	3 1/2	1790	62.6

#### TB Car with Shackle and Plunger



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431337BK	1	900	1980	162	6 3/8	71	2 3/4	364	12.8

#### TB Car, 2 x Sz3 Upstand, Double CL Sheaves, Becket & Cam



\* 29432836BK fitted with size 3 upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432836BK	2*	2800	6160	307	12 1/16	120	4 3/4	2173	85.5

\* Car WWL, cleat WLL shown on p340

#### TB Car with Shackle, Double CL Sheaves & Cam (4:1)



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431834BK	1	900	1980	162	6 3/8	97	3 3/4		

\* Car WWL, cleat WLL shown on p340

#### TB Car with Upstand, Double CL Sheaves & Cam (4:1)



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431814BK	1	900	1980	162	6 3/8	97	3 3/4	759	26.7
29432814BK	2	1500	3300	210	8 5/16	120	4 3/4	1496	52.7

\* Car WWL, cleat WLL shown on p340

#### Radius Cars

Radius cars available upon request for all size 1, 2 and 3.

Please contact your Lewmar representative and specify your track Vertical or Horizontal radius.

#### Spare Bearings: Torlon Balls for Ocean & NTR Cars

PART NO	DESCRIPTION	WHERE USED	DIAMETER		
			MM	IN	
29171021	TORLON BALLS (PER 100)	SZ1 OCEAN AND NTR CARS	6.4	1/4	
29172021	TORLON BALLS (PER 100)	SZ2 OCEAN AND NTR CARS	7.8	5/16	

## NTR Torlon Ball (TB) Mainsheet Cars Size 1, 2 and 3

## TB Car with Shackle, Double CL Sheaves, Becket &amp; Cam (5:1)



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431916BK	1	900	1980	162	6 3/8	97	3 3/4	799	28.2
29432916BK	2	1500	3300	210	8 5/16	120	4 3/4	1730	68.1

\* Car WWL, cleat WLL shown on p340

## TB Car with Upstand, Double CL Sheaves, Becket &amp; Cam (5:1)



\* 29432838BK  
fitted with size 3  
upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432816BK	2	1500	3300	210	8 5/16	120	4 3/4	1610	56.7
29432838BK	2*	3500	7700	307	12 1/16	120	4 3/4	1786	70.3

\* Car WWL, cleat WLL shown on p340

## TB Car Long, 2x Upstand, Double CL Sheaves



\* 29432832BK  
fitted with size 3  
upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432822BK	2	1800	3960	307	12 1/16	92	3 5/8	1460	51.5
29432832BK	2*	2800	6160	307	12 1/16	92	3 5/8	1560	55
29433832BK	3	3500	7700	270	10 5/8	88	3 1/2	1810	63.8

## TB Car Long, 3x Upstand, Double CL Sheaves



\* 29432833BK  
fitted with size 3  
upstand

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432823BK	2	3000	6600	307	12 1/16	92	3 5/8	1460	51.5
29432833BK	2*	3500	7700	307	12 1/16	92	3 5/8	1560	55
29433833BK	3	4000	8800	300	11 3/4	88	3 1/2	2190	77.2

## NTR Torlon Ball (TB) Genoa Cars Size 1, 2 and 3

## TB Short Genoa Car with Tow Point



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29421366BK	1*	600	1320	107	4 3/4	71	2 3/4	521	18.3

\* Limiter supplied non-assembled for a port or starboard application

## TB Genoa Car with Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441301BK	1*	900	1980	162	6 3/8	71	2 3/4	577	20.3
29442301BK	2*	1800	3960	210	8 5/16	120	4 3/4	1327	46.8

\* Limiter supplied non-assembled for a port or starboard application

## 8. Hardware

### NTR Torlon Ball (TB) Genoa Cars Size 1, 2 and 3

#### TB Genoa Car with Single Control Line Sheave



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441311BK	1"								
29441321BK	1 PORT	900	1980	162	6 3/8	71	2 3/4	560	19.8
29441331BK	1 STBD								
29442311BK	2"								
29442321BK	2 PORT	1800	3960	210	8 5/16	120	4 3/4	1330	46.9
29442331BK	2 STBD								
29443311BK	3	3500	7700	215	8 1/2	88	3 1/2	1565	54.8
29443611BK	3	5000	11000	320	12 5/8	88	3 1/2		

\* Limiter supplied non-assembled for a port or starboard application

#### TB Genoa Car with Double Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441312BK	1"								
29441322BK	1 PORT	900	1980	162	6 3/8	71	2 3/4	566	19.9
29441332BK	1 STBD								
29442312BK	2"								
29442322BK	2 PORT	1800	3960	210	8 5/16	120	4 3/4	1354	47.7
29442332BK	2 STBD								

\* Limiter supplied non-assembled for a port or starboard application

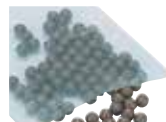
#### TB Car Genoa stirrup, single CL sheave and becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441345BK	1"	900	1980	162	6 3/8	71	2 3/4	566	19.9
29442345BK	2"	1800	3960	210	8 5/16	120	4 3/4	1359	47.9

\* Limiter supplied non-assembled for a port or starboard application

#### Spare Bearings: Torlon Balls for Ocean & NTR Cars



PART NO	DESCRIPTION	WHERE USED	DIAMETER	
			MM	IN
29171021	TORLON BALLS (PER 100)	SZ1 OCEAN AND NTR CARS	6.4	1/4
29172021	TORLON BALLS (PER 100)	SZ2 OCEAN AND NTR CARS	7.8	5/16

#### Expert advice

Current Lewmar track is NTR specification.

If retrofitting check your track using the following:

- Size 3 NTR tracks have 12mm Ø plunger holes
- Size 3 Ocean tracks have 9.5mm Ø plunger holes

### NTR Slide Rod (SR) Cars Size 1, 2 and 3

#### SR Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29431500BK	1	1000	2200	162	6 3/8	50	2	230	8.11
29432500BK	2	2000	4400	210	8 5/16	65	2 5/8	559	19.7

#### SR Car with Shackle and Plunger Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441723BK	1	1000	2200	162	6 3/8	50	2	264	9.3
29442723BK	2	2000	4400	210	8 5/16	65	2 5/8	577	19.6

## NTR Slide Rod (SR) Cars Size 1, 2 and 3

## SR Car with Shackle and Single Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432511BK	2	2000	4400	210	8 5/16	65	2 5/8	667	23.5

## SR Car with Shackle and Double Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29432512BK	2	2000	4400	210	8 5/16	65	2 5/8	791	27.9

## SR Car with Upstand and Double Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29442412BK	2	2000	4400	210	8 5/16	65	2 5/8	795	8

## SR Genoa Car



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441500BK	1*	1000	2200	162	6 3/8	50	2	480	16.8
29442500BK	2*	1800	3960	194	7 5/8	65	2 5/8	1100	38.8

\* Limiter supplied non-assembled for a port or starboard application

## SR Genoa Car with Plunger Stop



## SR Genoa Car with Single Control Line Sheaves



PART NO	SIZE / DESCRIPTION	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
294417**BK	1	1000	2200	162	6 3/8	50	2	480	16.8
294427**BK	2	1800	3960	194	7 5/8	65	2 5/8	1201	42.4
29443700BK	3 (NTR TRACK)	3500	7700	180	7 1/16	70	2 13/16	1410	49.4
29443700CBK	3 (OCEAN TRACK)	3500	7700	180	7 1/16	70	2 13/16	1410	49.4
29443702BK	3 (NTR COMPOSITE SHEAVE)	2250	4950	180	7 1/16	70	2 13/16	1079	37.8

\*\* Insert 00 for limiter non-assembled, 20 for port limiter and 30 for starboard limiter

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441513BK	1*	1000	2200	162	6 3/8	50	2	484	17

\* Limiter supplied non-assembled for a port or starboard application



## 8. Hardware

### NTR End Stops Size 1, 2 and 3

Sz1 Impact End Stop



PART NO	WORK- ING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29905105BK	500	1100	40	1 1/2	46	1 3/4	24	0.8

Sz2 Impact End Stop



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29905200BK	1250	2755	114	4 1/2	80	3 1/8	158	5.6

REQUIRES EXTRA DRILLING IN THE TRACK

Sz3 Impact End Stop



PART NO	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
	KG	LB	MM	IN	MM	IN	G	OZ
29473030BK	2200	4840	93	3 11/16	70	2 13/16	247	8.7

Bare End Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471030BK	1	585	1287	47	1 7/8	29	1 1/8	99	3.5
29472030BK	2	750	1650	105	4 1/8	65	2 5/8	238	8.4

Mid Track Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29472501BK	2	750	1650	105	4 1/8	65	2 5/8	238	8.4

Mid Track Stop with Single CL Sheave & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29472535BK	2	750	1650	105	4 1/8	65	2 5/8	338	11.9

Friction Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29472038BK	2	975	2145	87	3 3/8	65	2 5/8	261	9.2

End Stop with Single CL Sheave



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471031BK	1	585	1287	75	1 45/64	50	2	140	4.9
29472031BK	2	750	1650	105	4 1/8	65	2 5/8	301	10.6

End Stop with Single CL Sheave and Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471035BK	1	585	1287	47	1 55/64	29	1 9/64	165	5.8
29472035BK	2	750	1650	105	4 1/8	65	2 5/8	331	11.7
29473035BK	3	800	1760	93	3 11/16	70	2 13/16	381	13.3
29473135BK	3 (HL)	3000	6600	140	5 1/2	70	2 13/16	537	18.8

## NTR End Stops Size 1, 2 and 3

### End Stop with Double CL Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471032BK	1	585	1287	75	1 <sup>45</sup> / <sub>64</sub>	50	2	172	6.1
29472032BK	2	750	1650	105	4 <sup>1</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	363	12.8
29473032BK	3	800	1760	93	3 <sup>11</sup> / <sub>16</sub>	70	2 <sup>13</sup> / <sub>16</sub>	390	13.7

### End Stop with Double CL Sheaves and Becket



\* Fitted with ball bearing control line sheaves



\*\* Fitted with HDI control line sheaves

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471036BK	1	585	1287	47	1 <sup>55</sup> / <sub>64</sub>	29	1 <sup>9</sup> / <sub>64</sub>	185	6.5
29472036BK	2	750	1650	105	4 <sup>1</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	393	13.8
29472076BK	2*	750	1650	105	4 <sup>1</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	400	14.1
29472616BK	2**	750	1650	105	4 <sup>1</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	400	14.1
29473036BK	3	800	1760	93	3 <sup>11</sup> / <sub>16</sub>	70	2 <sup>13</sup> / <sub>16</sub>	460	16.1
29473136BK	3 (HL)	3000	6600	140	5 <sup>1</sup> / <sub>2</sub>	70	2 <sup>13</sup> / <sub>16</sub>	769	27.1

### End Stop with Double CL Sheaves, Becket & Cam (pair)



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471836BK	1	585	1287	75	2 <sup>61</sup> / <sub>64</sub>	78	3 <sup>5</sup> / <sub>64</sub>	258	9.1
29472836BK	2	750	1650	105	4 <sup>1</sup> / <sub>8</sub>	112	4 <sup>5</sup> / <sub>8</sub>	602	21.2

\* End stop WWL, cleat WLL shown on p340

### End Stop Sheet Lead



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29441701BK	1	1000	2200	162	6 <sup>3</sup> / <sub>8</sub>	50	2	480	16.8
29442701BK	2	1800	3960	194	7 <sup>5</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	1134	40
29443701BK	3	2000	4400	140	5 <sup>1</sup> / <sub>2</sub>	70	2 <sup>13</sup> / <sub>16</sub>	885	31

### Plunger Stop



#### \*Size 3 plunger stop:

If retrofitting check your track :

- 29473037BK fits size 3 NTR tracks (12mm Ø plunger holes)
- 29473037CBK fits size 3 Ocean tracks (9.5mm Ø plunger holes)

PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29471037BK	1	650	1430	43	1 <sup>11</sup> / <sub>16</sub>	50	2	83	2.9
29472037BK	2	975	2145	87	3 <sup>3</sup> / <sub>8</sub>	65	2 <sup>5</sup> / <sub>8</sub>	261	9.2
29473037BK	3*	2000	4400	80	3 <sup>3</sup> / <sub>16</sub>	70	2 <sup>13</sup> / <sub>16</sub>	298	10.4
29473037CBK	3*	2000	4400	80	3 <sup>3</sup> / <sub>16</sub>	70	2 <sup>13</sup> / <sub>16</sub>	298	10.4

### Track End



PART NO	SIZE	WEIGHT	
		G	OZ
29171040BK	1	22	0.77
29172040BK	2	30	1.1
29173040BK	3	42	1.5

## NTR Car Links

### Short Car Link



PART NO	SIZE
29471063BK	1
29472063BK	2
29473063BK	3

### Car Link with Sz3 Upstand



PART NO	SIZE
29472062BK	2

## 8. Hardware

### NTR Spares and Accessories

Beam Track End Cover (Pair)



PART NO	SIZE	WEIGHT	
		G	OZ
29471041BK	1	12	0.4
29472041BK	2	26	0.9
29473041BK	3	42	1.5

HD Beam Track End Cover (Pair)



PART NO	SIZE	LENGTH		WIDTH		WEIGHT	
		MM	IN	MM	IN	G	OZ
29471042BK	1	13	1/2	50	2	18	0.6
29472042BK	2	22	7/8	65	2 5/8	40	1.4

Single Control Line Sheaves (Pair)



PART NO	SIZE	SHEAVE Ø		WEIGHT	
		MM	IN	G	OZ
29471011BK	1	29	1 1/8	82	2.9
29472011BK	2	63	2 1/2	137	4.8

Double Control Line Sheaves (Pair)



PART NO	SIZE	SHEAVE Ø		WEIGHT	
		MM	IN	G	OZ
29471012BK	1	29	1 1/8	148	5.2
29472012BK	2	63	2 1/2	261	9.2

Double Control Sheaves & Cleats (Pair)



PART NO	SIZE	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29471018BK	1	180	396	180	6.3
29472018BK	2	180	396	625	22

Cleat Assembly for End Stop (Pair)



PART NO	SIZE	WORKING LOAD LIMIT		WEIGHT	
		KG	LB	G	OZ
29471015BK	1	180	396	123	4.3
29472015BK	2	180	396	368	12.9

Genoa Stirrup Assembly



PART NO	SIZE	WORKING LOAD LIMIT		WIDTH		WEIGHT	
		KG	LB	MM	IN	G	OZ
28003225BK	1	1000	2200	45	1 3/4	227	8
28003226BK	2	1800	3960	60	2 3/8	620	21.9

Uprand Assembly



PART NO	SIZE
29171024	1
29172024	2
29473024	3

For uprand cup dims and block compatibility see P. 159

Becket Assembly (Pair)



PART NO	SIZE	WEIGHT	
		G	OZ
29471010	1	51	1.7
29472010	2	114	4.2

Slide Rods



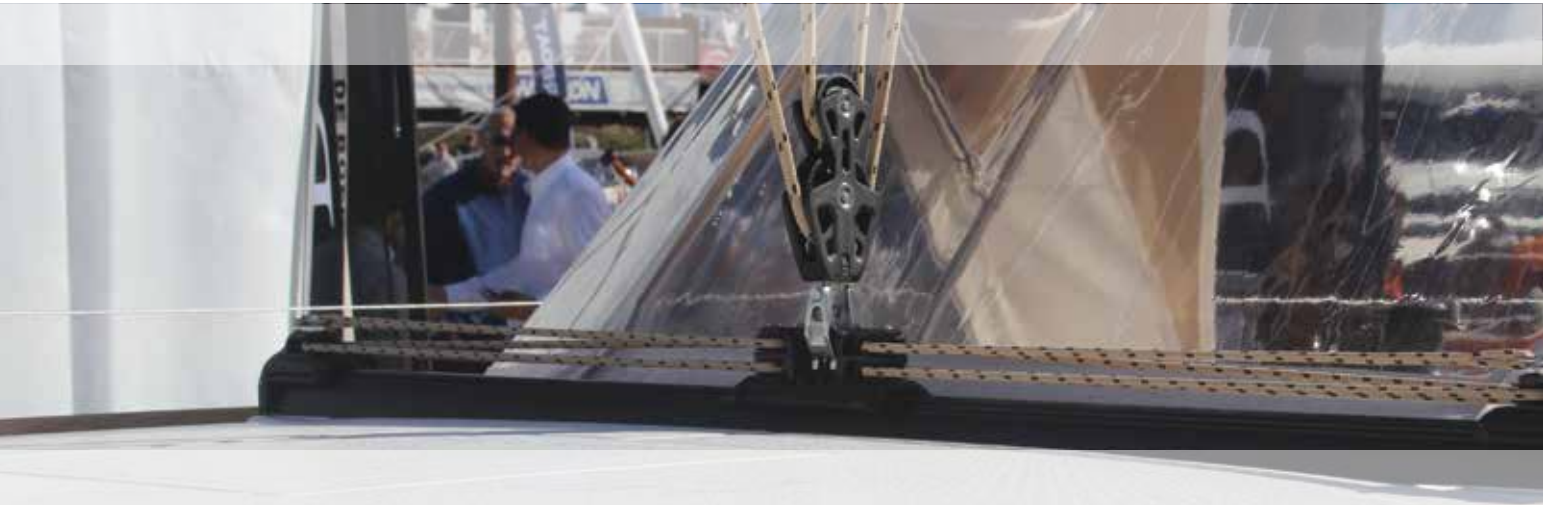
PART NO	SIZE
25002920	1
25003438	2
25003969	3

Rubber Buffer Kit



PART NO	SIZE
29171046BK	1
29172046BK	2
29173046BK	3

To fit end stops and slide rod cars



## HTX Size 1 & 2 Cars

Lewmar has developed the HTX Traveller Range to complement the HTX Block Range. This range of travellers has come from many years of design and manufacturing experience and collaboration with boat builders, designers, and sailors. 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 ft)
- 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
- Three individual ball races: the first two allow fast movement of the car under vertical load, and the third 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
- Proprietary dowel mechanism provides smooth ball circulation
- Upstand receives shackle or lashed rope, removing need for a becket above the control line sheaves

# 8. Hardware



## HTX Mainsheet Traveller Systems

Traveller kits are made up of all the necessary components to assemble a standard system. Each one comes with Lewmar's sliding bolt track, which allow you to retrofit the new track to your deck using the original bolt holes.



### Size 1 Mainsheet System

In the Size 1 kit, you'll find all the components necessary to assemble a standard system.

- For boats up to 11m (36ft)
- Suitable for 8mm (5/16") control line

### Size 2 Mainsheet System

Like the size 1 system, the Size 2 Mainsheet system comes with everything you need for a complete standard system, including the sliding bolt track.

- For boats up to 15m (49ft)
- Suitable for 10mm (3/8") control line

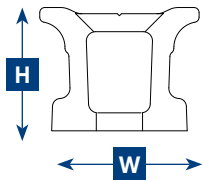
### Size 1&2 Traveller Kit 4:1 Purchase System

	SIZE 1	SIZE 2
TRAVELLER SYSTEM	29961534	29962534
COMPRISES:		
1 X MAINSHEET CAR SHACKLE WITH DOUBLE CONTROL LINE SHEAVES, CLEATS & BECKETS	291213315	291223415
2 X END STOP WITH DOUBLE CONTROL LINE SHEAVES	291218806	291228806
1 X SLIDING BOLT TRACK	29181415	29182420
TRACK LENGTH	1.5M	2.0M



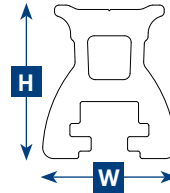
## HTX Size 1 & 2 Tracks

### Drilled Plunger 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. Some beam track can only use metric fasteners

- Made of Aluminium 6082T6 extrusion

### HTX Track Specifications and Fixing Details

PART NO	DESCRIPTION	TRACK SIZE	ACTUAL LENGTH		HEIGHT		WIDTH		WIDTH (OVERALL)		WEIGHT (per metre)		MAX SPAN BETWEEN FIXINGS / CENTRE HOLE DISTANCE		FIXINGS	
			M	FT	MM	IN	MM	IN			G	OZ	MM	IN	METRIC	IMPERIAL
29181415	DRILLED PLUNGER TRACK	1	1.526	5'												
29181420			2.026	6'8"	20	0.78	22.0	0.86	25	0.98	658	23.21	100	3 15/16	M6	1/4"
29181430			3.026	9'11"												
29182415	DRILLED PLUNGER TRACK	2	1.532	5'												
29182420			2.032	6'3"	24	0.94	26.4	1.04	31	1.22	933	32.91	100	3 15/16	M8	5/16"
29182430			3.032	10'												
29181315	BEAM TRACK	1	1.5	4'11"												
29181320			2.0	6'7"	31	1.22	27.8	1.09			1092	38.52	700	27 9/16	M8	5/16"
29182315	BEAM TRACK	2	1.5	4'11"												
29182320			2.0	6'7"	40	1.57	35.1	1.38			1697	59.86	800	31 1/2	M10	3/8"

### HTX Size 1 & 2 Cars

#### Size 1 Traveller System

For boats up to 11m (36ft)

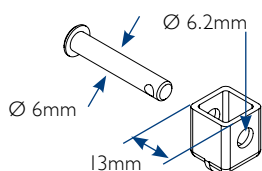
Suitable for 8mm (5/16") control line

#### Size 2 Traveller System

For boats up to 15m (49ft).

Suitable for 10mm (3/8") control line.

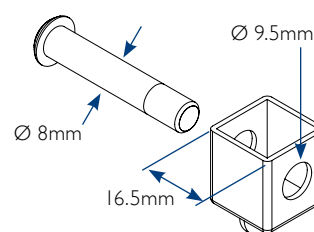
### HTX Size 1 Upstand Cup Detail



Size 1 upstand fits the following blocks:

- 72 Synchro blocks
- 60 HTX blocks
- 60 Single Racing blocks

### HTX Size 2 Upstand Cup Detail



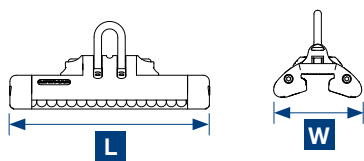
Size 2 upstand fits the following blocks:

- 90 Synchro blocks
- 72 HTX blocks
- 80 Triple Racing blocks

## 8. Hardware

### HTX Size 1 & 2 Torlon Ball (TB) Mainsheet Cars

#### Mainsheet Car – Dimension Diagram



#### Size 1 Traveller System

For boats up to 11m (36ft)

Suitable for 8mm (5/16") control line

#### Size 2 Traveller System

For boats up to 15m (49ft).

Suitable for 10mm (3/8") control line.

#### TB Short Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291222301	2	1500	3300	140	5 1/2	85	3 3/8	525	18.5

#### TB Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213301	1	1100	2420	160	6 5/16	71	2 13/16	427	15.1
291223301	2	2200	4850	205	8 1/16	85	3 3/8	772	27.2

#### TB Car with Shackle and Single Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213305	1	1100	2420	160	6 5/16	71	2 13/16	450	15.9
291223305	2	2200	4850	205	8 1/16	85	3 3/8	880	31.0

#### TB Car with Shackle and Double Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291223306	2	2000	4400	205	8 1/16	85	3 3/8	980	34.6

#### TB Car with Shackle, Single Control Sheaves & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213308	1	1100	2420	160	6 5/16	71	2 13/16	510	18.0
291223308	2	2200	4850	205	8 1/16	85	3 3/8	1156	40.8

#### TB Car with Upstand, Single Control Sheaves & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213408	1	800	1764	160	6 5/16	71	2 13/16	545	19.2
291223408	2	2200	4850	205	8 1/16	85	3 3/8	1310	46.2

## TB Car with Upstand, Double Control Sheaves &amp; Cleat



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213412	1	800	1600	167	6 <sup>9</sup> / <sub>16</sub>	98	3 <sup>7</sup> / <sub>8</sub>	780	27.5
291223412	2	2200	4850	225	8 <sup>7</sup> / <sub>8</sub>	132	5 <sup>3</sup> / <sub>16</sub>	1690	59.6

\* Car WWL, cleat WLL shown on p340

## TB Car with Upstand and Double Control Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213406	1	800	1600	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	627	22.1
291223406	2	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	1250	44.1

## TB Car with Shackle, Double Control Sheaves, Becket &amp; Cleat



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213315	1	1100	2420	167	6 <sup>9</sup> / <sub>16</sub>	98	3 <sup>7</sup> / <sub>8</sub>	750	26.5
291223315	2	2200	4850	225	8 <sup>7</sup> / <sub>8</sub>	132	5 <sup>3</sup> / <sub>16</sub>	1580	55.7

\* Car WWL, cleat WLL shown on p340

## TB Car with Upstand, Double Control Sheaves, Becket &amp; Cleat



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291223415	2	2000	4400	225	8 <sup>7</sup> / <sub>8</sub>	132	5 <sup>3</sup> / <sub>16</sub>	1880	66.3

\* Car WWL, cleat WLL shown on p340

## HTX Size 2 Double Upstand Torlon Ball (TB) Mainsheet Cars

## TB Car with Double Upstand



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291223601	2	2600	5732	305	12	85	3 <sup>3</sup> / <sub>8</sub>	1920	67.7

## TB Car with Double Upstand and Double Control Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291223606	2	2600	5732	305	12	85	3 <sup>3</sup> / <sub>8</sub>	2249	79.3

## HTX Size 1 &amp; 2 Slide Rod (SR) Cars

## SR Car with Shackle



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213501	1	1100	2420	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	310	10.9
291223501	2	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	730	25.8

## SR Car with Shackle and Plunger



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291213537	1	1100	2420	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	365	12.9
291223537	2	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	790	27.9

## 8. Hardware

### HTX Size 1 & 2 Genoa Cars

#### SR Genoa Car with Plunger



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291214537	1 PORT	1100	2420	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	630	22.2
291215537	1 STBD								
291224537	2 PORT	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	1500	52.9
291225537	2 STBD								

#### TB Genoa Car with Single Control Line Sheave



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291214305	1 PORT	1100	2420	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	650	22.9
291215305	1 STBD								
291224305	2 PORT	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	1600	56.4
291225305	2 STBD								

#### TB Genoa Car with Single Control Line Sheave & Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291214308	1 PORT	1100	2420	160	6 <sup>5</sup> / <sub>16</sub>	71	2 <sup>13</sup> / <sub>16</sub>	650	22.9
291215308	1 STBD								
291224308	2 PORT	2200	4850	205	8 <sup>1</sup> / <sub>16</sub>	85	3 <sup>3</sup> / <sub>8</sub>	1600	56.4
291225308	2 STBD								

### HTX Size 1 & 2 End Stops

#### Impact End Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218818	1	500	1100	83	3 <sup>1</sup> / <sub>4</sub>	71	2 <sup>13</sup> / <sub>16</sub>	190	6.7
291228818	2	1000	2200	103	4 <sup>1</sup> / <sub>16</sub>	85	33/8	350	12.3

#### Plunger Stop



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218837	1	500	1100	83	3 <sup>1</sup> / <sub>4</sub>	71	2 <sup>13</sup> / <sub>16</sub>	245	8.6
291228837	2	1000	2200	103	4 <sup>1</sup> / <sub>16</sub>	85	33/8	475	16.8

#### End Stop with Single Control Line Sheave



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218805	1	500	1100	83	3 <sup>1</sup> / <sub>4</sub>	71	2 <sup>13</sup> / <sub>16</sub>	210	7.4
291228805	2	1000	2200	103	4 <sup>1</sup> / <sub>16</sub>	85	33/8	400	14.1

#### End Stop with Double Control Line Sheaves



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218806	1	500	1100	83	3 <sup>1</sup> / <sub>4</sub>	71	2 <sup>13</sup> / <sub>16</sub>	240	8.5
291228806	2	1000	2200	103	4 <sup>1</sup> / <sub>16</sub>	85	33/8	450	15.9

## End Stop with Single Control Line Sheave &amp; Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218808	1	500	1100	83	3 1/4	71	2 13/16	240	8.5
291228808	2	1000	2200	103	4 1/16	85	3 3/8	450	15.9

## End Stop with Double Control Line Sheaves &amp; Becket



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218809	1	500	1100	83	3 1/4	71	2 13/16	270	9.5
291228809	2	1000	2200	103	4 1/16	85	3 3/8	500	17.6

## End Stop with Double Control Line Sheaves, Becket &amp; Cleat



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291214815	1 PORT	500	1100	83	3 1/4	98	37/8	365	12.9
291215815	1 STBD								
291224815	2 PORT	1000	2200	103	4 1/16	132	5 3/16	740	26.1
291225815	2 STBD								

## End Stop Sheet Lead



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
291218817	1	500	1100	160	6 5/16	71	2 13/16	600	21.2
291228817	2	1000	2200	205	8 1/16	85	3 3/8	1400	49.3

\* End stop WWL, cleat WLL shown on p340

## HTX Track End



PART NO	SIZE	LENGTH		WIDTH		WEIGHT	
		MM	IN	MM	IN	G	OZ
291219907	1	40	1 5/8	57.5	2 1/4	20	0.7
291229907	2	45	1 3/4	65	2 1/2	40	1.4

## Sz 1 &amp; 2 HTX Spares and Accessories

## Cleat Assembly for End stop (Pair)



PART NO	SIZE	WORKING LOAD LIMIT	
		KG	LB
291219905	1	200	440
291229905	2	300	660

## Spare Slide Rods Kit



PART NO	SIZE
291219910	1
291229910	2

## Spare Rubber Buffer Kit



PART NO	SIZE
291219911	1
291229911	2

## HTX Upstand Kit



PART NO	SIZE
291219901	1
291229901	2



## 8. Hardware



### Genoa T-Track Cars

T-Track is widely used on cruising boats where car sheeting positions change frequently.

All Lewmar T-Track cars fit the industry standard: 32mm (1 1/4"). The cars are available in three styles and cover three different loading levels to suit boats from 9m (30ft) up to 15.5m (50ft).

- Precision Workmanship
- Simple to fit
- Three Styles
- Low Maintenance

#### Car with Shackle and Plunger



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29172117	2	1500	3300	120	4 11/16	56	2 1/4	480	17.0

#### Genoa Plunger Car



PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29041700	1	900	1980	111	4 3/8	56	2 1/4	540	19.1
29042700	2	1500	3300	120	4 11/16	56	2 1/4	719	25.3
29043702	3	2350	5170	170	6 3/4	56	2 1/4	1199	47.3

#### Tri-Roller Genoa Car



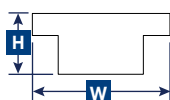
PART NO	SIZE	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29442705	2	1500	3300	147	5 3/4	64	2 1/2	767	27.1

#### Track End Stop

PART NO	WEIGHT	
	G	OZ
29172016	19	0.7



#### T-Track Specification



PART NO	NOMINAL LENGTH		H HEIGHT		W WIDTH		WEIGHT (PER METRE)		CENTRE HOLE		FIXINGS	
	M	FT	MM	IN	MM	IN	MM	IN	G	OZ	METRIC	IMPERIAL
29166215	1.5	4'11"										
29166225	2.5	8'2"	15	5/8	32	1 1/4	865	30.5	100	3 15/16	CSK M8	5/16"
29166230	3.0	9'10"										

## Size 4 Cars and Accessories

For offshore yachts 60ft and over and the performance sailor.

- High load 80mm (3 1/8") control line sheaves for 14mm (9/16") line.
- 12mm (1/2") torlon balls running in fully machined ball races.
- Additional weight reducing slots machined along the top of the return ball race
- End stops fixed through deck and track
- Custom variants available - contact custom@lewmar.com

### Size 4 Racing Mainsheet car



29903402

PART NO	DESCRIPTION	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29903401	SINGLE UPSTAND AND SINGLE CONTROL LINE SHEAVES	8000	17634	465	18 3/8	113	4 7/16	5195	183.2
29903402	TWIN UPSTAND AND SINGLE CONTROL LINE SHEAVES	8000	17634	465	18 3/8	113	4 7/16	5195	183.2

### Size 4 Racing Genoa car



29903451/2

PART NO	DESCRIPTION	WORKING LOAD LIMIT		LENGTH		WIDTH		LINE EXIT HEIGHT		WEIGHT	
		KG	LB	MM	IN	MM	IN	MM	IN	G	OZ
29903451	GENOA STIRRUP & DEAD EYE- PORT	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5
29903452	GENOA STIRRUP & DEAD EYE- STARBOARD	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5
29903453	GENOA STIRRUP WITH SINGLE CL SHEAVE- PORT	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5
29903454	GENOA STIRRUP WITH SINGLE CL SHEAVE- STBD	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5
29903457	GENOA STIRRUP WITH SLIDE ROD PLUNGER- PORT	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5
29903458	GENOA STIRRUP WITH SLIDE ROD PLUNGER- STBD	6000	13225	385	15 1/8	113	4 7/16	137	5 3/8	6740	236.5

### Size 4 Racing End Stop



29905400



29905401



29905412



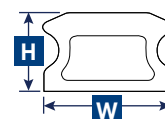
29905414

PART NO	DESCRIPTION	WORKING LOAD LIMIT		LENGTH		WIDTH		WEIGHT	
		KG	LB	MM	IN	MM	IN	G	OZ
29905400	HIGH LOAD IMPACT END STOP	4000	8817	185	7 1/4	113	4 7/16	1040	36.7
29905401	TRACK END	1000	2204	110	4 5/16	113	4 7/16	580	20.5
29905410	CONTROL LINE END STOP	6000	13225	185	7 1/4	113	4 7/16	1500	52.9
29905412	PLUNGER STOP	3000	6613	110	4 5/16	113	4 7/16	897	31.6
29905414	TRACK PLUG							36	1.3

### Size 4 Tracks

#### Size 4 Drilled plunger track Specifications & Fixing Details

PART NO	LENGTH		H HEIGHT		W WIDTH		WEIGHT (per metre)		MAX SPAN BETWEEN FIXINGS / CENTRE HOLE		FIXINGS	
	M	FT	MM	IN	MM	IN	G	OZ	MM	IN	METRIC	IMPERIAL
29917420BK	2	6'7"										
29917430BK	3	9'10"										
29917440BK	4	13'1"										
29917450BK	5	16'5"										
			29	1 1/8	50	2	2228	78.6	100	3 15/16	CSK M12	1/2



## 8. Hardware



### Lewmar Custom Yacht Systems

#### On Deck Control Systems

Custom yacht have individual requirements for sail control equipment, from application and loads to the profile of the deck on which the equipment will be installed. Each Lewmar track is designed with these specific requirements in mind.

Recent innovations included track that can be curved to bespoke dimensions, including multidirectional compound curves. The high load double ball race (DBR) profile offers a stronger, deeper section for use with high load cars, while T-track and DBR track feature machined track ends for a lightweight, low-profile car retention solution.

Lewmar Custom Mainsheet and Genoa systems are ideal for yachts from 21m (70ft) to 70m (230ft) in length. Each car is available with a choice of recirculating Torlon balls or the shorter, stronger Double Ball Race (DBR) configuration. Styled with snag-free soft edges, Lewmar cars are machined from solid to individual specifications. A full range of end stops are available, including high-load impact, plunger, and control line models.

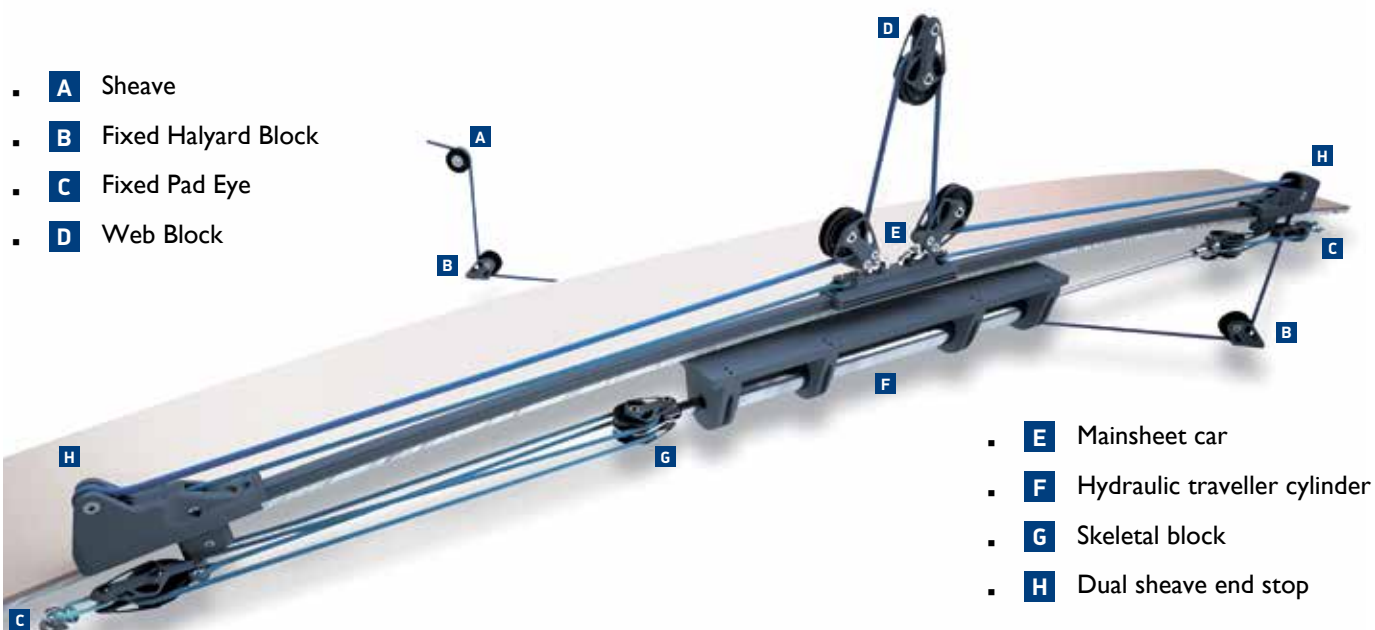




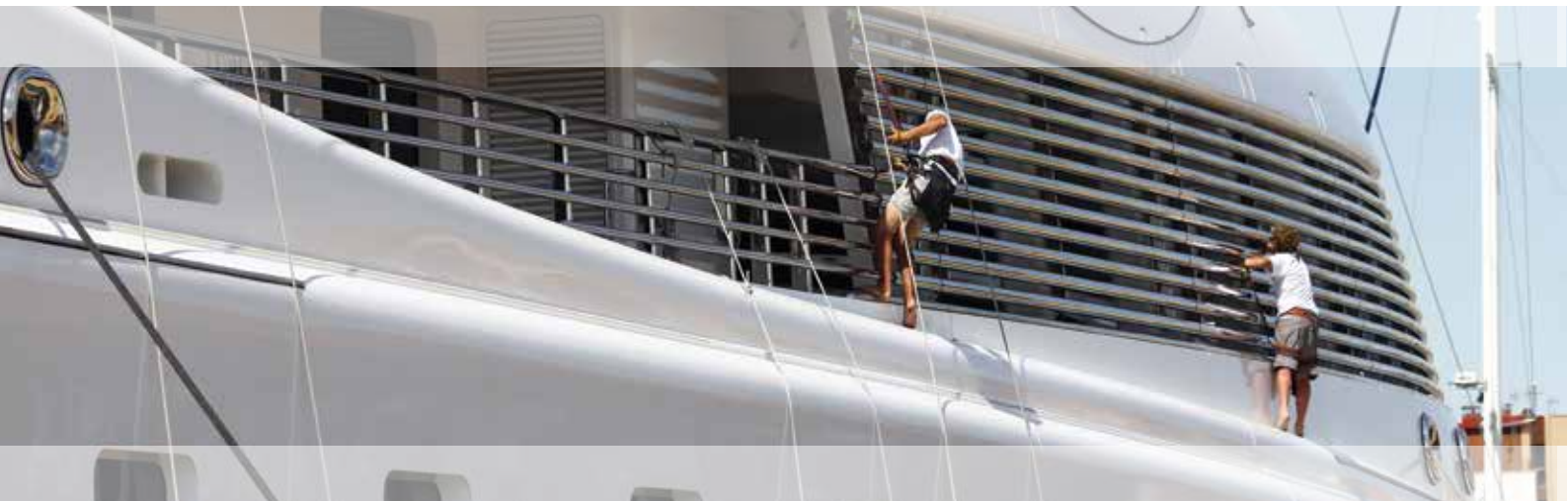


## Below Deck Sheeting System

Each element of the Lewmar Custom Hardware Range is compatible with its counterparts, resulting in the ability to supply a complete, bespoke sail control system. For example, an increasing emphasis on beautiful, sleek, minimalistic lines has resulted in the below-deck sheeting system, which offers a light-weight, fully-optimised system that does not clutter the clean lines of the deck. With a choice of configurations and finishes available, Lewmar can provide a system suited to your individual requirements.



## 8. Hardware



### Overside Work Rail System

Lewmar's Overside Work Rail System is designed to provide access to difficult areas at height. As a solution to a problem found across the marine sector and wider industry, our Overside System is well-designed and practical, conforming to necessary regulations.



#### 1. Safety Harness

- Use a full body safety harness attached to the plunger pin stop car slider.
- Full body harness must meet CE/ANSI support standards.

#### 2. Working Car

- Use a working harness or chair attached to access car.
- Working harness or chair must meet CE/ANSI standards.

#### 3. Tool Service Car (Optional)

- Attach an optional car and joiner link for use as a tool carrier



CE standard certification EN 795.





### Design

Two car system with lock plunger mechanism. The plunger feature allows movement along the track while open but can lock to position on the track while working. Offering ease of movement and strong stability when locked.

### Ball Bearings

Torlon® ball bearings handle high loads, reducing friction offering smooth operation along the track. Ball bearings circulate through open structure allowing easy cleaning when installed.



### Materials

Black Compact, one-piece aluminium body, Torlon® ball bearings & black anodized aluminium track.

PART NO. BLACK	DESCRIPTION	SWL (KG)	LENGTH (MM)	WIDTH (MM)	WEIGHT (G)
29913313BK	SZ1 O/S WORK CAR DOUBLE	125	265	66	966
29913310BK	SZ1 O/S WORK CAR SINGL SHACKLE PLUNGER	125	130	66	476
29913311BK	SZ1 O/S WORK CAR SINGLE SHACKLE	125	130	66	402
29915075BK	SZ1 O/S RAIL IMPACT END		66	66	125
29913316	SZ1 O/S CAR LINK PLATE KIT	-	-	-	88
29915076	SZ1 JOINER INSERT HD	-	-	-	29
293712320BK	SZ1 O/S RAIL TRACK 2 MTR JOIN X2		2000	23	518
293712321BK	SZ1 O/S RAIL TRACK 2 MTR ENDX1 JOIN X1		2000	23	518
293712322BK	SZ1 O/S RAIL TRACK 2 MTR END X2		2000	23	518
293712330BK	SZ1 O/S RAIL TRACK 3 MTR JOIN X2		3000	23	1038
293712331BK	SZ1 O/S RAIL TRACK 3 MTR ENDX1 JOIN X1		3000	23	1038
293712332BK	SZ1 O/S RAIL TRACK 3 MTR END X2		3000	23	1038
293712340BK	SZ1 O/S RAIL TRACK 4 MTR JOIN X2		4000	23	2081
293712341BK	SZ1 O/S RAIL TRACK 4 MTR ENDX1 JOIN X1		4000	23	2081
293712342BK	SZ1 O/S RAIL TRACK 4 MTR END X2		4000	23	2081



### Certification

CE certified and tested under certification EN 795.

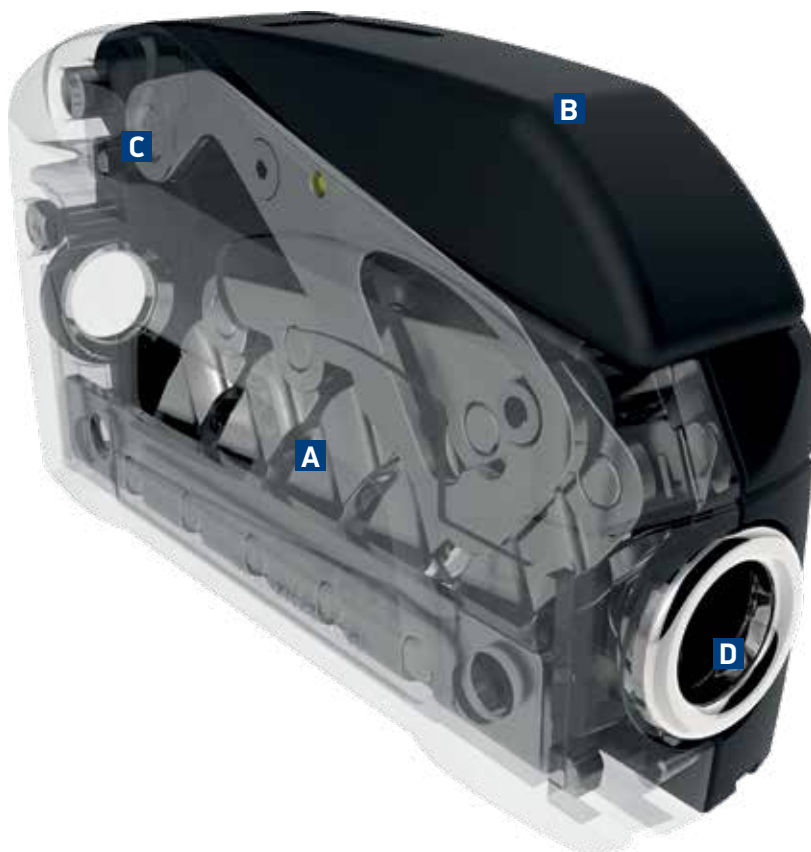
## 8. Hardware



### Clutches

Lewmar continues to define rope clutch technology with a variable geometry handle and unique grip pattern of dominos that prevent rope fray. This revolutionary system has been independently tested time and again and has won awards for its innovative framework.

- A** Domino Cluster and longer holding pattern holds line under load without fraying the rope
- B** Controlled Release – Pull back handle combined with patented clutch and release mechanism provides controlled release even at full holding load
- C** Handle has a solid link to the domino cluster
- D** Line Size – Clutches capable of holding lines from 6mm (1/4") to 14mm (9/16")



Instead of just jamming the rope...



... Lewmar's Domino mechanism flexes it for better grip and less rope wear.



## DC Rope Clutches



DC1 Single



DC1 Double



DC1 Triple



DC2 Single



DC2 Double



DC2 Triple

### DC1 Rope Clutch Specifications

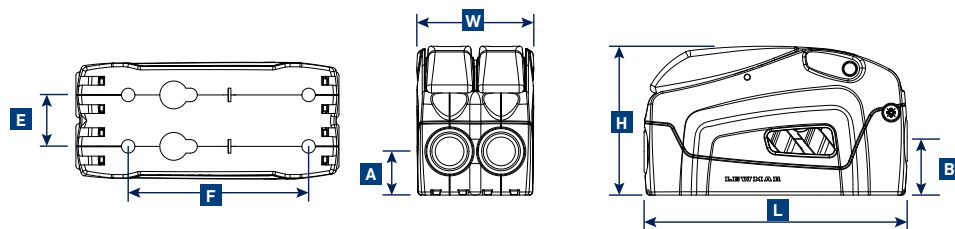
PART NO	DESCRIPTION	LINE SIZE		MIN HOLDING LOAD		APPROX WEIGHT		WLL	
		MM	IN	KG	LB	G	OZ	KG	LB
29101108BK	6-8 MM DC1 SINGLE	6-8	$\frac{1}{4}$ - $\frac{5}{16}$	300	661	330	12	500	1100
29101208BK	6-8 MM DC1 DOUBLE	6-8	$\frac{1}{4}$ - $\frac{5}{16}$	300	661	650	23	500	1100
29101308BK	6-8 MM DC1 TRIPLE	6-8	$\frac{1}{4}$ - $\frac{5}{16}$	300	661	850	30	500	1100
29101110BK	8-10 MM DC1 SINGLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	400	880	330	12	500	1100
29101210BK	8-10 MM DC1 DOUBLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	400	880	650	23	500	1100
29101310BK	8-10 MM DC1 TRIPLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	400	880	850	30	500	1100
29101112BK	10-12 MM DC1 SINGLE	10-12	$\frac{3}{8}$ - $\frac{7}{16}$	500	1100	330	12	500	1100
29101212BK	10-12 MM DC1 DOUBLE	10-12	$\frac{3}{8}$ - $\frac{7}{16}$	500	1100	650	23	500	1100
29101312BK	10-12 MM DC1 TRIPLE	10-12	$\frac{3}{8}$ - $\frac{7}{16}$	500	1100	850	30	500	1100
29100010BK	DC1 HANDLE KIT								
25002323	CLUTCH LABEL KIT								

### DC2 Rope Clutch Specifications

PART NO	DESCRIPTION	LINE SIZE		MIN HOLDING LOAD		APPROX WEIGHT		WLL	
		MM	IN	KG	LB	G	OZ	KG	LB
29101410BK	8-10MM DC2 SINGLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	500	1102	650	23	1200	2650
29102410BK	8-10MM DC2 DOUBLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	500	1102	1216	43	1200	2650
29103410BK	8-10MM DC2 TRIPLE	8-10	$\frac{5}{16}$ - $\frac{3}{8}$	500	1102	1216	43	1200	2650
29101412BK	10-12MM DC2 SINGLE	10-12	$\frac{3}{8}$ - $\frac{1}{2}$	700	1550	650	23	1200	2650
29102412BK	10-12MM DC2 DOUBLE	10-12	$\frac{3}{8}$ - $\frac{1}{2}$	700	1550	1216	43	1200	2650
29103412BK	10-12MM DC2 TRIPLE	10-12	$\frac{3}{8}$ - $\frac{1}{2}$	700	1550	1216	43	1200	2650
29101414BK	12-14MM DC2 SINGLE	12-14	$\frac{1}{2}$ - $\frac{9}{16}$	1000	2204	650	23	1200	2650
29102414BK	12-14MM DC2 DOUBLE	12-14	$\frac{1}{2}$ - $\frac{9}{16}$	1000	2204	1216	43	1200	2650
29103414BK	12-14MM DC2 TRIPLE	12-14	$\frac{1}{2}$ - $\frac{9}{16}$	1000	2204	1216	43	1200	2650
29101501BK	DC2 HANDLE KIT								
25002323	CLUTCH LABEL KIT								

## 8. Hardware

### DC1 & DC2 Rope Clutch Dimensions



Notes:

Line entry and exit angle should not exceed 15° from the rope clutch centre line

DC1 : Use pan head M6 – 1/4" fixings – do not tighten beyond 10 Nm torque

DC2 : Use pan head M8 – 5/16" fixings – do not tighten beyond 22Nm torque

SIZE	L LENGTH		W WIDTH		H HEIGHT		A LINE ENTRY		B LINE EXIT		E FIXINGS WIDTH		F FIXINGS LENGTH	
	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
D1 SINGLE			32	1 5/16							–	–		
D1 DOUBLE	126	5	57.85	2 5/16	72	2 13/16	27	1 1/8	29	1 3/16	26	1	79	3 1/8
D1 TRIPLE			83.7	3 5/16							26	1		
D2 SINGLE			38.0	1 1/2							–	–		
D2 DOUBLE	156	6 1/8	68.5	2 1/16	88	3 3/8	26	1	32	1 5/16	30.5	1 3/16	107	4 1/4
D2 TRIPLE			99	3 7/8							30.5	1 3/16		

### Clutch Selection Guide

APPLICATION		M FT	BOAT LENGTH OVERALL										
			7.6 25	8.8 29	10.1 33	10.7 35	11.3 37	11.9 39	12.5 41	14.6 48	16.8 55	18.9 62	21.5 70
HALYARDS	MAIN												
	GENOA												
	SPINNAKER												
GOOSENECK	REEF LINES												
	OUTHAIL												
	FLATTENER												
POLE/BOOM LIFT	SPIN POLE UPHAIL												
	SPIN POLE DOWN HAUL												
	HEEL LIFT												
	MAIN BOOM TOPPING LIFT												
FURLING LINES	GENOA												
	MAIN												
SHEETS	MAINSHEET 4:1 PURCHASE												
CONTROL LINES	MAINSHEET CAR (2:1 PURCHASE)												
	GENOA CAR (2:1 PURCHASE)												
	POLE OUTHAIL												
	KICKING STRAP/VANG												

DC1 ROPE CLUTCH DC2 ROPE CLUTCH



## Organisers

All organisers have space to pass two lines between each sheave

### Flush fixings Synchro Organiser

- Bushed sheaves with side thrust ball bearings
- Wide rope entry



PART NO	SHEAVE Ø		NO OF SHEAVES	WORKING LOAD LIMIT		MAX WORKING LOAD OF SHEAVE		MAX LINE SIZE		LENGTH		WEIGHT		FIXINGS (NOT SUPPLIED)	
	MM	IN		KG	LB	KG	LB	MM	IN	MM	IN	G	OZ	MM	IN
29916042BK	60	2 3/8	6	3700	8156	1100	2420	12	1/2	256	10 1/16	602	21.2	M10	3/8
29916060BK	60	2 3/8	3	2550	5500	1100	2420	12	1/2	256	10 1/16	329	12.9	M10	3/8

### 40 and 60mm Bushed Sheaves Organiser

- Tough interchangeable acetal or alloy sheaves (40mm only)
- Stackable



PART NO	SHEAVE Ø		NO OF SHEAVES	WORKING LOAD LIMIT		MAX WORKING LOAD OF SHEAVE		MAX LINE SIZE		LENGTH		WEIGHT		FIXINGS (NOT INCLUDED)		SHEAVE CENTRES	
	MM	IN		KG	LB	KG	LB	MM	IN	MM	IN	G	OZ	MM	IN	MM	IN
29139122BK	40	1 5/8	2	1005	2215	750	1654	10	3/8	142	5 5/8	123	271	M8	5/16	47	1 7/8
29139123BK	40	1 5/8	3	1507	3322	750	1654	10	3/8	189	7 3/8	206	454	M8	5/16	47	1 7/8
29139124BK	40	1 5/8	4	2010	4431	750	1654	10	3/8	236	9 1/3	275	606	M8	5/16	47	1 7/8
29139125BK	40	1 5/8	5	2512	5537	750	1654	10	3/8	283	11 1/8	352	776	M8	5/16	47	1 7/8
29139126BK	40	1 5/8	6	3015	6646	750	1654	10	3/8	330	13	425	937	M8	5/16	47	1 7/8
29139112BK	60	2 3/8	2	2400	5290	1200	2645	14	9/16	231	9 1/8	325	11.46	M10	3/8	72	2 7/32
29139113BK	60	2 3/8	3	3000	6613	1200	2645	14	9/16	303	12	435	15.34	M10	3/8	72	2 7/32
29139114BK	60	2 3/8	4	3600	7935	1200	2645	14	9/16	375	14 3/4	551	19.43	M10	3/8	72	2 7/32
29139115BK	60	2 3/8	5	4200	9258	1200	2645	14	9/16	447	17 5/8	637	22.46	M10	3/8	72	2 7/32
29139116BK	60	2 3/8	6	4800	10580	1200	2645	14	9/16	519	20 1/2	775	27.33	M10	3/8	72	2 7/32

### Stainless Steel Bushed Sheaves Organiser

To complement our HTX Stainless Steel Block range, Lewmar have developed a stainless steel organiser to complete the installation.

- Same technical specifications as alloy versions, but with additional aesthetic appeal
- Machined from marine-grade stainless steel

Contact your Lewmar representative to find out more information.





## 8. Hardware

### Cleats

Made from state-of-the-art materials developed by the automotive industry and refined for the marine market, Lewmar cleats enhance performance in durability, strength and lubrication.

#### Features

- Low line entry load
- High holding load
- Constant tension springs
- Wash-out bearing slots
- Split base fairlead to facilitate continuous line installations

#### Cam Cleats

PART NO	DESCRIPTION	WLL		LINE SIZE		FIXING PITCH		FIXING SIZE		WEIGHT	
		KG	LB	MM	IN	MM	IN	MM	IN	G	OZ
29104100BK	SMALL COMPOSITE CLEAT	120	264	2-8	$\frac{5}{64}$ - $\frac{5}{16}$	27	$1\frac{1}{16}$	M4	$\frac{5}{32}$	17.5	0.6
29104110BK	MEDIUM COMPOSITE CLEAT	180	396	4-12	$\frac{5}{32}$ - $\frac{1}{2}$	38	$1\frac{1}{2}$	M5	$\frac{3}{16}$	48.5	1.7



#### Fairlead

PART NO	DESCRIPTION	LINE SIZE		WEIGHT	
		MM	IN	G	OZ
29104104BK	TO FIT 29104100	2-8	$\frac{5}{64}$ - $\frac{5}{16}$	6.0	0.2
29104114BK	TO FIT 29104110	4-12	$\frac{5}{32}$ - $\frac{1}{2}$	14.0	0.5



#### Feeder Loop

PART NO	DESCRIPTION	LINE SIZE		WEIGHT	
		MM	IN	G	OZ
29104115	SMALL	2-8	$\frac{5}{64}$ - $\frac{5}{16}$	6.0	0.2
29104116	MEDIUM	4-12	$\frac{5}{32}$ - $\frac{1}{2}$	10.0	0.35



#### Eye Strap (Pair)

PART NO	DESCRIPTION	LINE SIZE		FIXING PITCH		FIXING SIZE		WEIGHT	
		MM	IN	MM	IN	MM	IN	G	OZ
29104103	SMALL	2-8	$\frac{5}{64}$ - $\frac{5}{16}$	27	$1\frac{1}{16}$	M4	$\frac{5}{32}$	6.0	0.2
29104113	MEDIUM	4-12	$\frac{5}{32}$ - $\frac{1}{2}$	38	$1\frac{1}{2}$	M5	$\frac{3}{16}$	18.0	0.6



#### Bulls-Eyes

PART NO	DESCRIPTION	MAX LINE SIZE		FIXING PITCH		FIXING SIZE		WEIGHT	
		MM	IN	MM	IN	MM	IN	G	OZ
29904117	MEDIUM	12	$\frac{1}{2}$	25	1	M4	$\frac{5}{32}$	12.0	0.4
29904118	LARGE	18	$\frac{3}{4}$	32	$1\frac{1}{4}$	M5	$\frac{3}{16}$	32.0	1.1



#### Swivel Cam Base for 60/80mm Blocks

PART NO	WLL		LINE SIZE		FIXING PITCH		FIXING SIZE		WEIGHT	
	KG	LB	MM	IN	MM	IN	MM	IN	G	OZ
29904126	300	661	4-10	$\frac{5}{32}$ - $\frac{7}{16}$	4X19	4X3/4	M5	$\frac{3}{16}$	302	10.7



#### Swivel Small Cam with Bull's Eye

PART NO		LINE SIZE		HOLE CENTRES		WEIGHT	
		MM	IN	MM	IN	G	OZ
29904105	SMALL	2-6	$\frac{5}{64}$ - $\frac{1}{4}$	3 X 27	3 X $1\frac{1}{16}$	114	4
29904115	MEDIUM	4-10	$\frac{5}{32}$ - $\frac{3}{8}$	3 X 27	3 X $1\frac{1}{16}$	168	5.9



GREY CLEAT AND FAIRLEAD ALSO AVAILABLE