

CHALLENGER CONTROL LINE SPECIFICATIONS

Halyard – any colour

- 12 metres 5mm 16-plait – **Marlow** Excel Racing / **English Braids** Dinghy Dyneema

Kicker (mast terminal entry to Kicker boom = 2060mm) - RED

- wire strop 3mm dia. 1x19 s.s. wire with T-terminal & hard eye 410mm overall
- Cascade rope – 6 metres 4mm 12 strand Dyneema D12 Max 78 or SK78/ Vectran V12
- 1 – Ronstan RF 30101 (30mm top block) & 3- Ronstan RF20101 20mm ball bearing blocks
- Bow shackle 12mm wide x 30mm long (for lower end)
- D shackle 12mm wide x 19mm long (for upper end)
- Control line 4760mm (deck to cleat) 4mm **Marlow** Excel Pro pre-stretch / **English Braids** Sprintline (for dual-sided control, cleat to cleat = 6160mm)

Outhaul (5350mm in-boom + 2800mm from 2nd underboom block to cleat) - BLUE

- Open Stainless S Hook 77mm long
- In-boom rope - 5350mm 3mm Dyneema D12 SK78 **Marlow** D12 / **English Braids** Dynamic Line
- Control line - 2800mm 4mm 16-plait pre-stretch. **Marlow** Excel Pro / **English braids** Sprintline
- Inhaul - 2000mm 5mm shockcord

Tack Downhaul (700mm mast-block + 2300mm block-cleat) - YELLOW

- 3.5 metres 4mm 16-plait pre-stretch. **Marlow** Excel Pro **English Braids** Sprintline

Centreboard up/downhaul (c/board nose to back of cockpit = 1540mm) – WHITE

- 4.5 metres 5mm shockcord **BLUE**
- 2 - Bullseye fairleads, 9mm opening + 4 - 8x1" csk. self tapping screws
- 1 - 45mm SS ring or Ronstan RF20101 20mm block
- 1metre - 4mm 16-plait pre-stretch (aft tensioner). **Marlow** Excel Pro **English Braids** Sprintline
- 3 metres 4mm 16-plait pre-stretch (uphaul) **Marlow** Excel Pro **English Braids** Sprintline
- 4 – Ronstan RF20101 20mm turning blocks (uphaul lead to cleats)
- 2 Cam cleats & 4 self tapping screws, attach to cockpit sides (if not fitted)

Gybing Lines - WHITE

- 8 metres, 4mm 8-plait burgee line or similar

Steering lines – WHITE

- 2 - 2400mm, 4mm braided 12 strand V12 or D12 (eye in one end fits D-shackle on rudder T-bar)
- 2 – ball ends, red & green (fitted to the tiller end of each line. Put loop of line through tiller eye then put ball through loop and pull tight. Makes quick release fastening).

Rudder up/downhaul – RED (Left) GREEN (Right)

- 1x (uphaul) 3700mm 4mm 16-plait polyester. **Marlow** Excel Pro **English Braids** Sprintline
- 1 – (downhaul 2:1) 4500mm 4mm 16-plait polyester. **Marlow** Excel Pro **English Braids** Sprintline

Mainsheet – Any Colour

- 14.5 metres 7mm Rooster Polilite, Excel Marstron, English Braids 8-plait matt Polyester or Polypropylene (line floats) or D-Racer 16-plait (1 strand over, 2 under = more flexible)

Sponson Grab-lines – Any Colour

- 2 x 1100mm 6mm **Marlow** Excel Marstron **English** Braids 8-plait matt polyester or similar
- 2 – Mast tangs to fit M10 bolts or 2 - 13mm dia. heavy gauge deck clips & 4-rivets

Painter – Any Colour

- 4 metres - 4mm 16-plait **Marlow** Excel Pro / **English braids** Sprintline or similar

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Rope Specifications & breaking strains (Average Price per metre 2015)

Use	Rope by Marlow	Rope by English Braids	3mm	4mm	5mm	6mm	7mm
Simple Control lines	8-plait pre-stretch polyester cover, polyester core	8-plait pre-stretch polyester cover & core		428kg	617kg	891kg	1,413kg (8mm)
			250kg	420kg	600kg	880kg	1,000kg (8mm)
Marlow				£1.14			
English Braids				£1.20 (Liros)			
Tight radius control lines	Excel Pro 16-plait polyester cover, polyester core	Sprintline 16-plait polyester cover, Polyester core		377kg	702kg	906kg	
			260kg	460kg	620kg	830kg	
Marlow			£0.72	£1.02	£1.38	£1.65	
English Braids							
High tension control lines, halyards kickers	Excel Racing 16-plait polyester cover, Dyneema SK78 core	Dinghy Dyneema 16 plait Polyester cover SK 75 Dyneema core	463kg	995kg	1434kg	2056kg	
			370kg	490kg	1200kg	1910kg	
Marlow			£1.42	£2.40	£3.38	£4.12	
English Braids				£2.00			
Kicker cascades steering lines	Marlow D12 braided.12-strand Dyneema SK78 hollow core	Braided 12 strand Dynamic Line Dyneema SK78	995kg	2056kg	2356kg	3980kg	5360kg
			916kg	1620kg	2340kg	2700kg	n/a
Marlow			£3.38	£4.31	£5.77		
English Braids							
Mainsheet	Excel Marstron 16-plait polypropylene	8-plait Polypropylene				700kg	850kg
						560kg	
Marlow						£1.07	
English Braids							
Mainsheet	Rooster Polyprop inner, Polyester outer, non-kinking	8-plait matt Polyester				700kg	850kg
					300kg	560kg	
Marlow						£1.23	£1.33
English Braids							
Shockcord	Marlow Shockcord	Shockcord					
Marlow			£0.94	£1.00	£1.18	£1.39	
English Braids							

Disclaimer: All information is given in good faith but no guarantee of accuracy is given or implied