

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 one side cleat only) 4mm **Marlow** Excel Pro pre-stretch / **English Braids** Sprintline (Or - for dual-sided controls, 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

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

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

- 4.5 metres 5mm shockcord
- 2 - Bullseye fairleads, 9mm opening + 4 - 8x1" csk. self tapping screws
- 1 - 45mm SS ring
- 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 **Marlow** Excel Pro / **English Braids** Sprintline or 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
- 1x (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
- 4 - 13mm dia. heavy gauge deck clips & 8-rivets for attaching to top of crossbeam ends
- (n.b. Beam bolts:- Front (2½ dia. beam) M10 x 100mm. Rear (3" dia. beam) M10 x 120mm

Painter – Any Colour

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

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Rope Specifications & breaking strains

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	1413kg (8mm)
			250kg	420kg	600kg	880kg	1000kg (8mm)
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	
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	
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
Mainsheet	Excel Marstron 16-plait polypropylene	8-plait Polypropylene				700kg	850kg
						560kg	
Mainsheet	Rooster Polyprop inner, Polyester outer, non-kinking	8-plait matt Polyester				700kg	850kg
					300kg	560kg	
Shockcord	Marlow Shockcord	Shockcord					

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