

Mainsail	
P	3520 mm
E	2950 mm
Head	2810 mm
Leech	6120 mm
Diagonal Throat to Clew	4435 mm
Area	10.900 m <sup>2</sup>

Mizzen	
Luff	1000 mm
Foot	1360 mm
Head	1900 mm
Leech	2670 mm
Diagonal Throat to Clew	1765 mm
Area	2.350 m <sup>2</sup>

Working Jib	
Luff	6260 mm
Foot	3595 mm
Leech	4905 mm
LP	2810 mm
Area	8.800 m <sup>2</sup>

Staysail	
Luff	4755 mm
Foot	2020 mm
Leech	3775 mm
LP	1539 mm
Area	3.660 m <sup>2</sup>

100% FT	
I	6050 mm
J	2920 mm
Area	8.833 m <sup>2</sup>

Yankee	
Luff	6260 mm
Foot	3245 mm
Leech	4600 mm
LP	2310 mm
Area	7.228 m <sup>2</sup>

Ghofter	
Luff	6260 mm
Foot	4430 mm
Leech	5575 mm
LP	3840 mm
Area	12.010 m <sup>2</sup>

	Dyneema (Preferred)	1 x 19 S/s Wire
Masthead (swifter) shrouds	6 mm	4 mm
Lower shrouds	6 mm	4 mm
Bowsprit shrouds	4 mm	3 mm
Masthead forestay	6 mm	4 mm
Intermediate forestay	6 mm	4 mm
Bobstay	6 mm	4 mm

Note: Dyneema is 12-strand braided and is sized for stretch (creep) rather than strength.

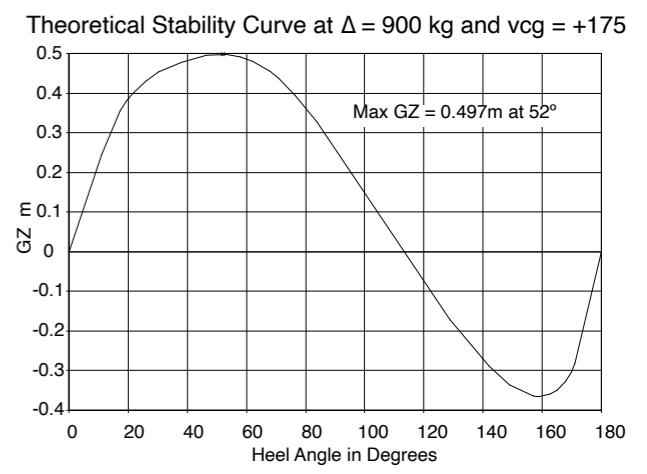
Shrouds & stays with hard eye (s/steel rope thimble) top & bottom, set up on 4mm braided polyester lanyards, minimum 4 turns, preferably 6 turns.

Top ends shackled to mast fittings with 8mm s/steel "D" shackles.

8mm s/steel "Bow" shackles in shroudplates and stay fittings to take lanyards. 6mm shackles for bowsprit shrouds.

For designing standing rigging and termination types other than specified consider the following breaking loads:

Masthead (swifter) shrouds	8300 N
Lower shrouds	8240 N
Bowsprit shrouds	3500 N
Masthead forestay	8120 N
Intermediate forestay	8440 N
Bobstay	10300 N



GZ at 30° = 0.451 m  
RM at 30° = 3982 Nm  
RM max = 4388 Nm

Typical Moments of Inertia for Mainmast at 30°:

Aluminium alloy:

I<sub>xx</sub> = 33 cm<sup>4</sup>  
I<sub>yy</sub> = 49 cm<sup>4</sup>

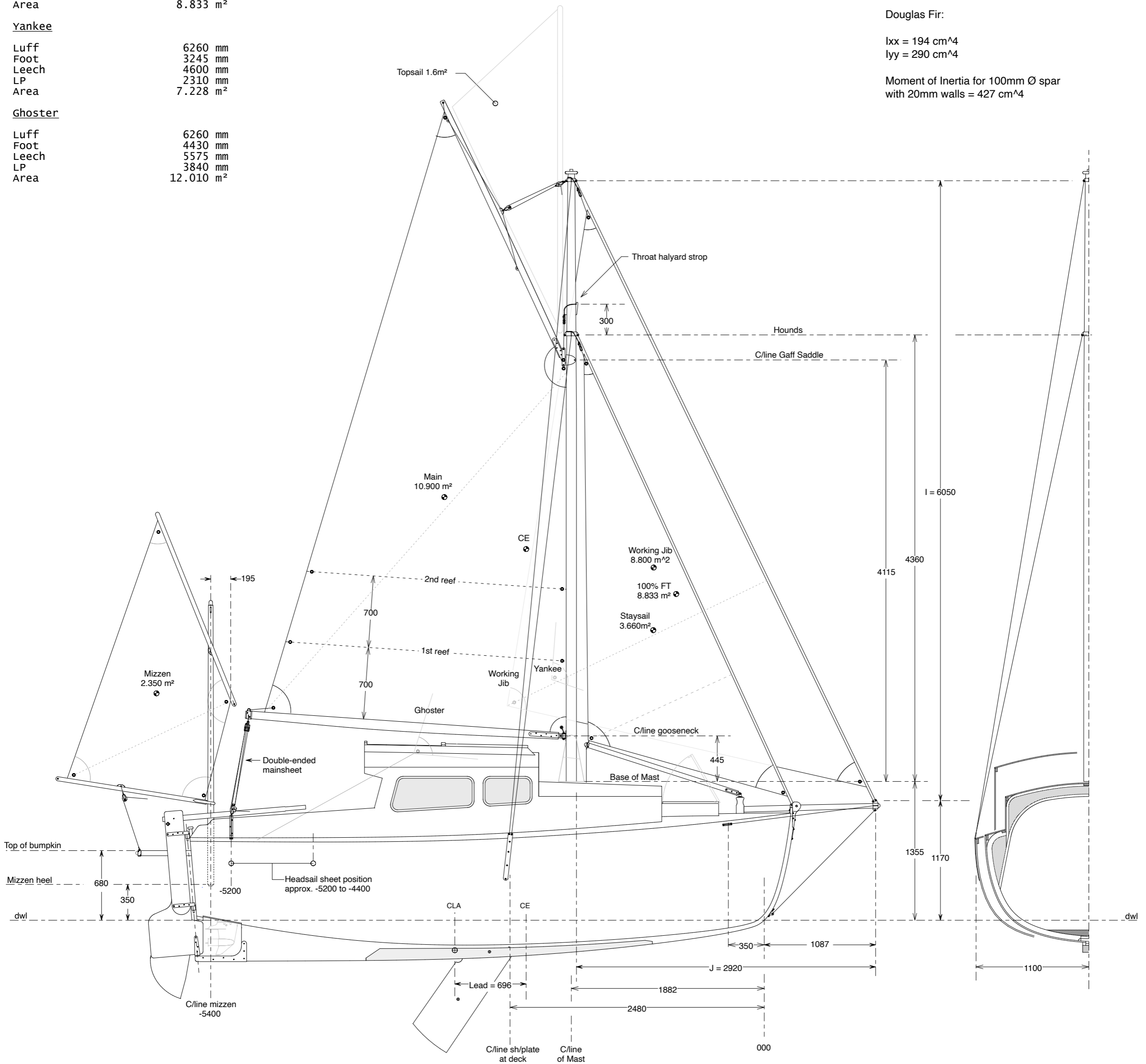
Spruce:

I<sub>xx</sub> = 238 cm<sup>4</sup>  
I<sub>yy</sub> = 356 cm<sup>4</sup>

Douglas Fir:

I<sub>xx</sub> = 194 cm<sup>4</sup>  
I<sub>yy</sub> = 290 cm<sup>4</sup>

Moment of Inertia for 100mm Ø spar with 20mm walls = 427 cm<sup>4</sup>



Notes:

Working jib and yankee are set on hanks on masthead forestay.

If replacing jib and yankee with a single furl-reefing headsail, consult sailmaker for optimum dimensions.

Ghofter can be set on hanks or set flying on bowsprit traveler if a furl-reefing headsail is present.

Boom staysail will need jackline on lower part of luff (up to LP).

<b>Whisstock</b> boats and boat plans support@whisstock.com	Scale	1/33.333
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<b>Design 165</b> <b>Sail Plan</b> <b>Gaff Cutter Headed</b> <b>Yawl</b>		<small>All dimensions in millimetres unless otherwise noted</small>
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