

BLUESTORM



Sailboat designs by Keith Callaghan

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BLUESTORM is a slightly larger (4 berth) version of *Blue Lightning*, at 7metres LOA. With her vertical stem, she uses her full length when sailing, and should be a match for sportsboats like the Hunter 707. Though she has only 70% of the sail area, she has the same sail area to displacement ratio (24) and a much lower displacement/length ratio (84 vs 126). Unlike the 707, she can be towed behind a Volkswagen Golf!

She promises to be an exciting development of the original *Blue Lightning* concept. A German company - [Tischlerei Förster GmbH](#) - is building several boats to this design. The newly opened-up regions of the former East Germany and Poland contain vast areas of forest lagoons and lakes which are ideal for the trailer-sailer. The first boat, named 'Antje' was completed at the works of Tischlerei Förster GmbH in Wardenburg, Germany. She was launched in early 2004, and had her first sailing trials at the end of April 2004, in company with 'Blue Lightning', on the Baltic coast around Stralsund.

PRINCIPAL DIMENSIONS

Length Overall	7.00m
Length Waterline	7.00m
Beam	2.34m
Draft (board up)	.20m
Draft (board down)	1.60m
Sail Area	22.0 sq m
Displacement inc 2 crew	995kg
Towing Weight inc trailer	1175kg

Fully detailed PLANS of *BLUESTORM*, consisting of about 50 sheets, are available from the designer, Price £275.00 (€390.00, \$525.00).

(Approximately 40-50 man/weeks build time).

Price includes royalty for one boat, and free of charge comprehensive support for you during the planning and building of your boat

Support Policy

1. *Support is included as part of the package that you purchase with the boat plans.*
2. *I will answer all reasonable questions about how to build my design. As the builder, you are responsible for acquiring sufficient general knowledge about boatbuilding before you start your project. Many good books and other sources of information are available, and I can recommend such information sources.*
3. *The plans and other documentation that I supply are very detailed and contain a great deal of information. You do not get a step-by-step set of building instructions, however.*

It will be useful for you to go through the data thoroughly before you start the project. This will help to minimise mistakes and will speed up the actual construction. If you cannot find the answers in the documentation and drawings, I'm here to help, so please ask me.

4. *I will endeavour to respond promptly to your enquiries. However, I cannot undertake to be available at all times.*

Contact Information

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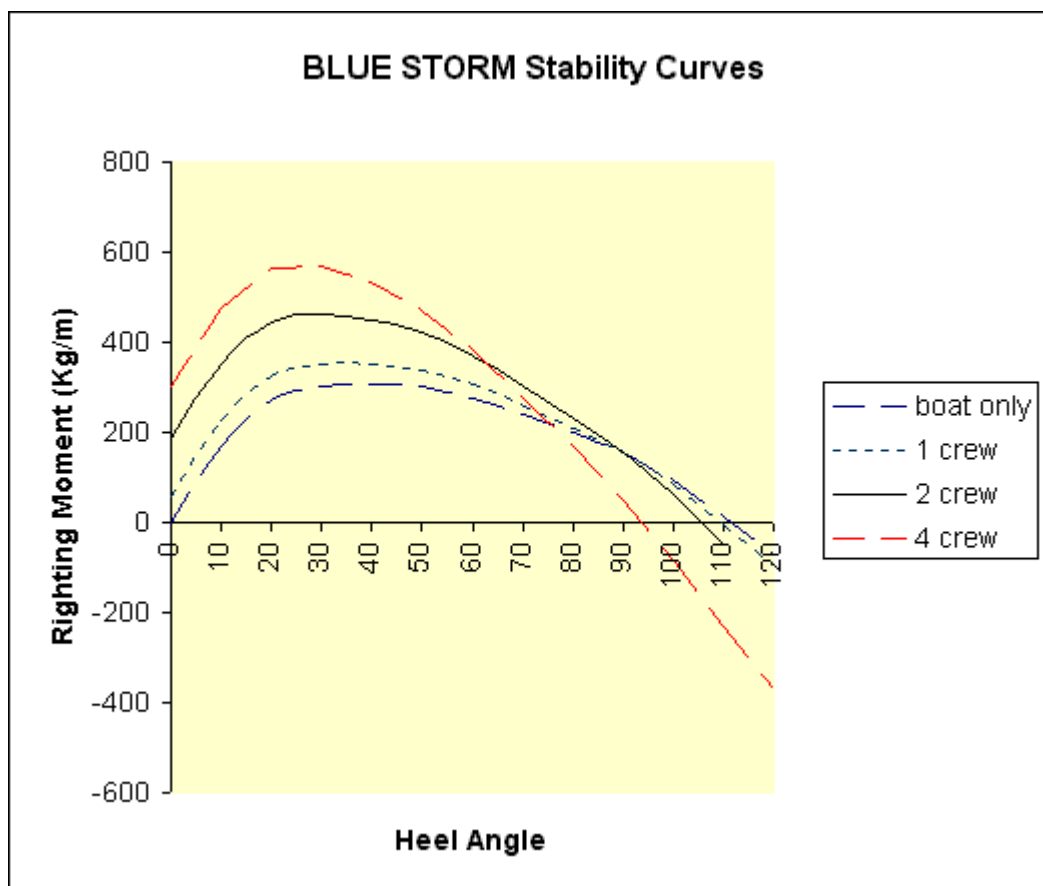
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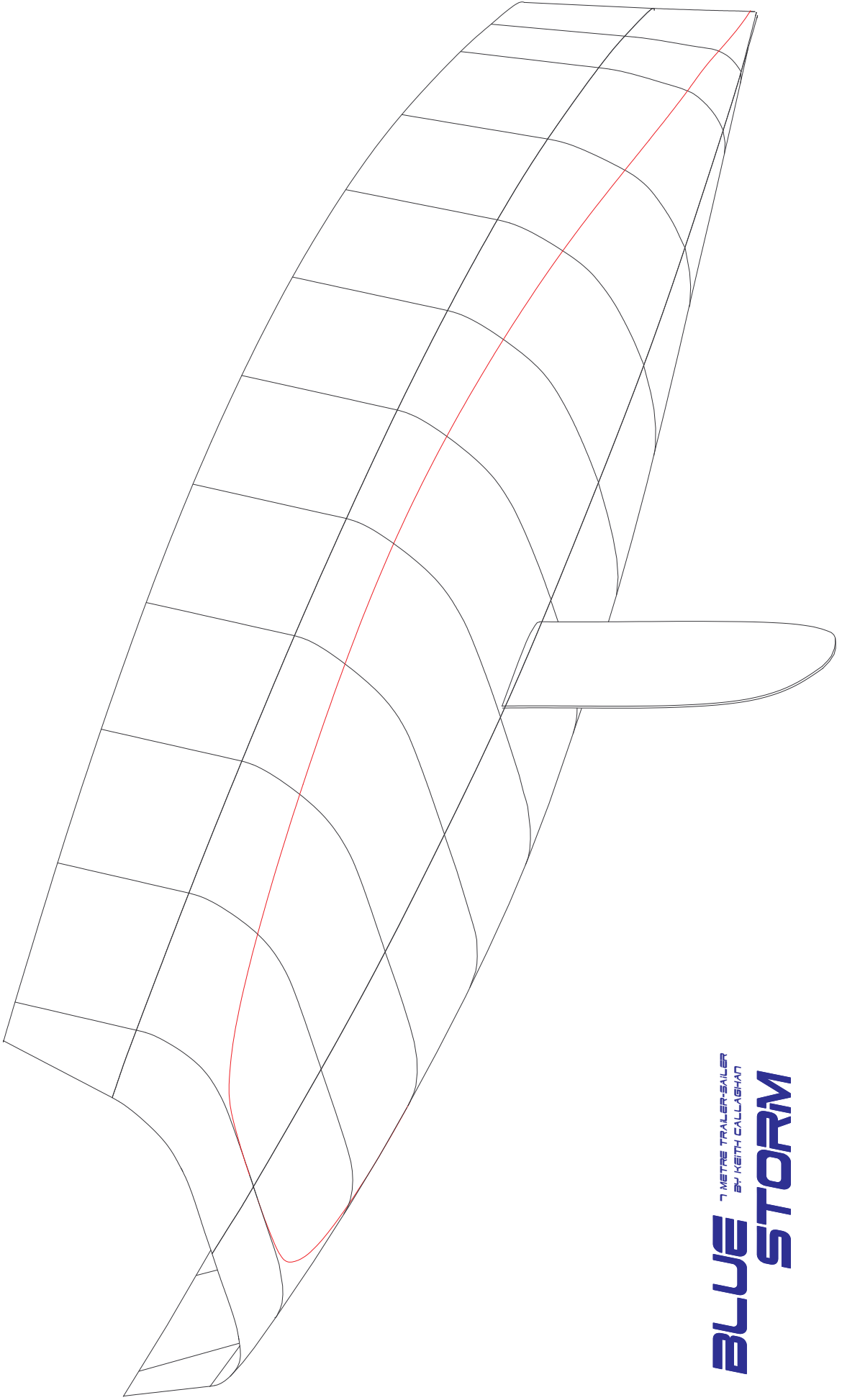
email keith@bluelightning.co.uk

Main website: www.bluelightning.co.uk



Blue Storm - Stability Curve





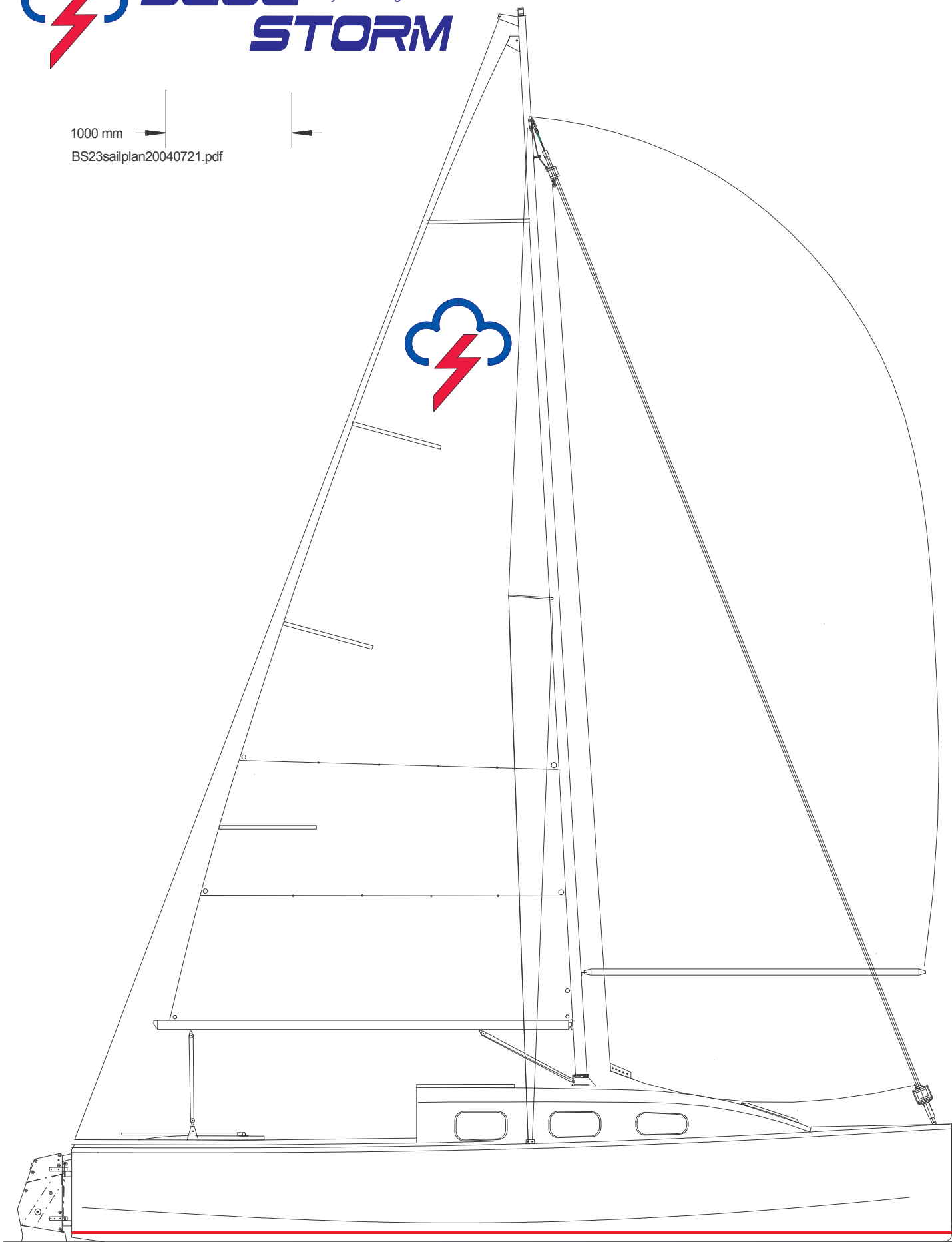
BLUE 7 METRE TRALER-SAILER
BY KEITH CALLAGHAN
STORM



BLUE 7 metre trailer-sailer
by keith callaghan
STORM

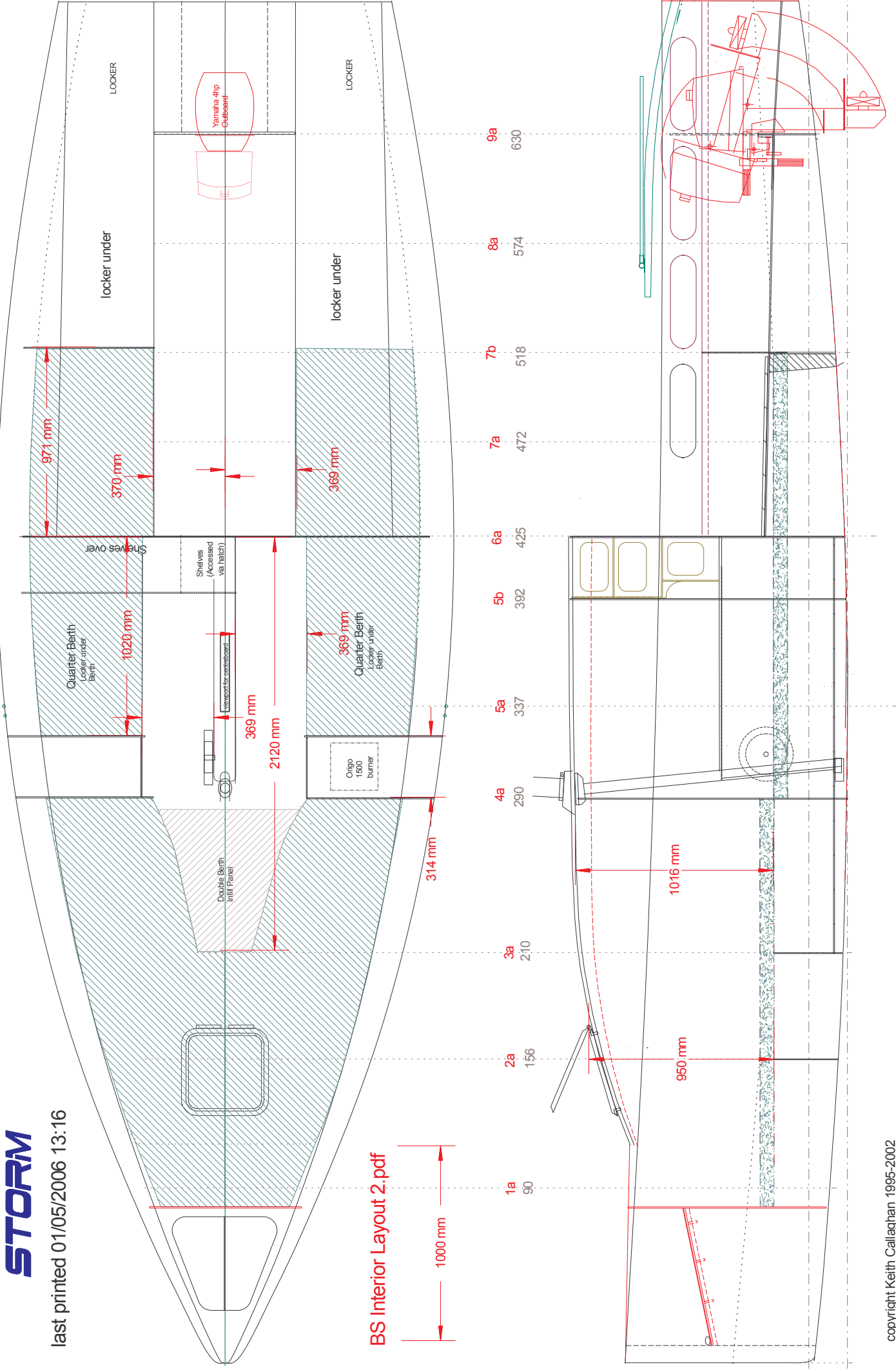
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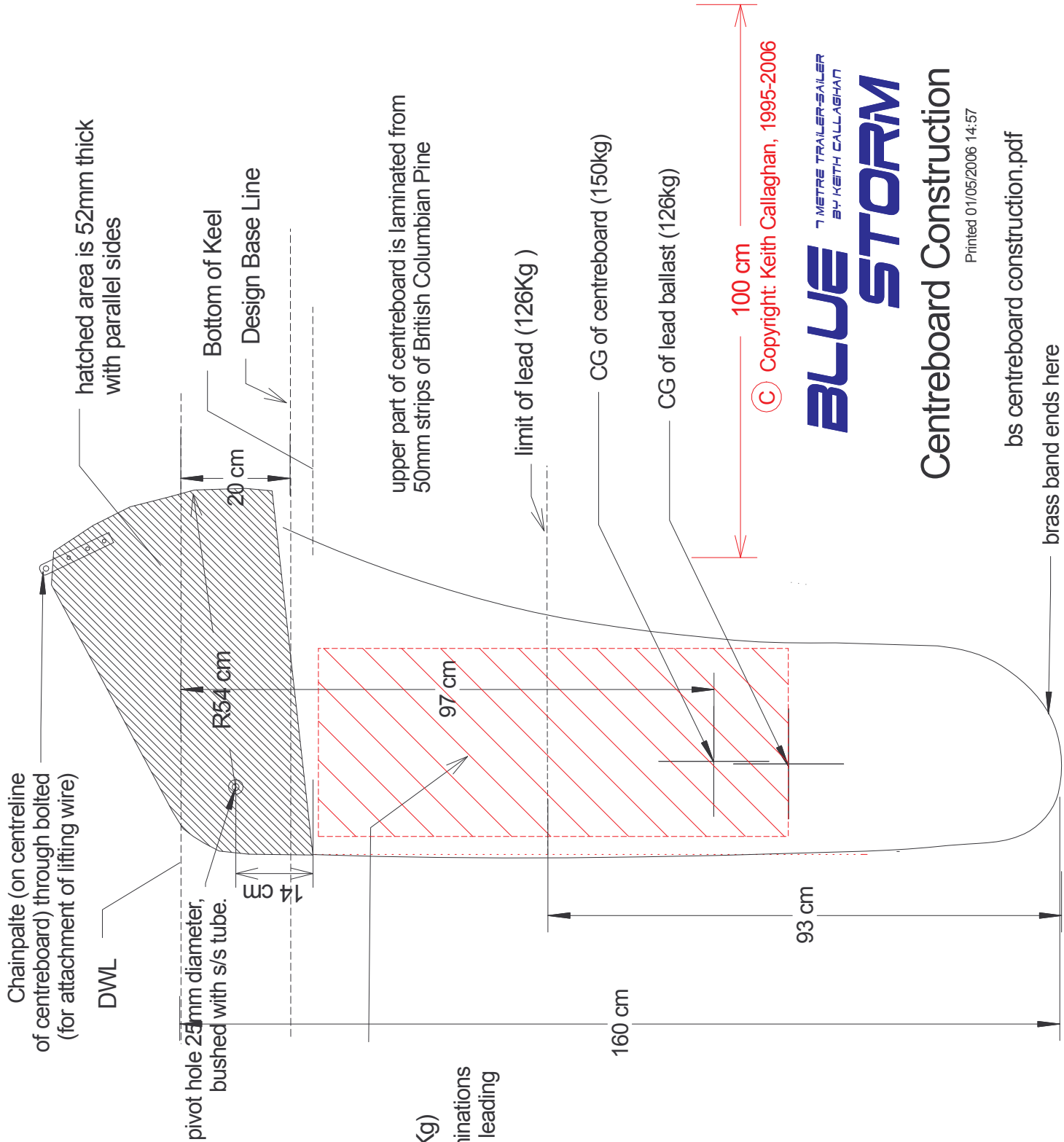
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BS Interior Layout 2.pdf





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BLUE STORM
7 METRE TRAILER-SAILER
BY KEITH CALLAGHAN

Centreboard Construction

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bs centreboard construction.pdf

brass band ends here

Chainpalte (on centreline of centreboard) through bolted (for attachment of lifting wire)

DWL

pivot hole 25mm diameter, bushed with s/s tube.

14 cm

R54 cm

20 cm

Bottom of Keel

Design Base Line

hatched area is 52mm thick with parallel sides

1.5mm stainless steel sheet each side of centreboard, glued with epoxy resin & bolted.
(85 x 33 x .15cm x 2 = 842cc = 6.3 Kg)

The entire centreboard is sheathed in 2 laminations of glass cloth. A brass band is added to the leading edge after the cloth is laid up.

See drawing BS CB section.skf for details of section shape.

The "foil" part of the centreboard is a constant maximum thickness of 52mm except for the bottom 20cm, where thickness is faired down to 18cm at the tip. (ie width of brass band)

upper part of centreboard is laminated from 50mm strips of British Columbian Pine

limit of lead (126Kg)

CG of centreboard (150kg)

CG of lead ballast (126kg)

100 cm

93 cm

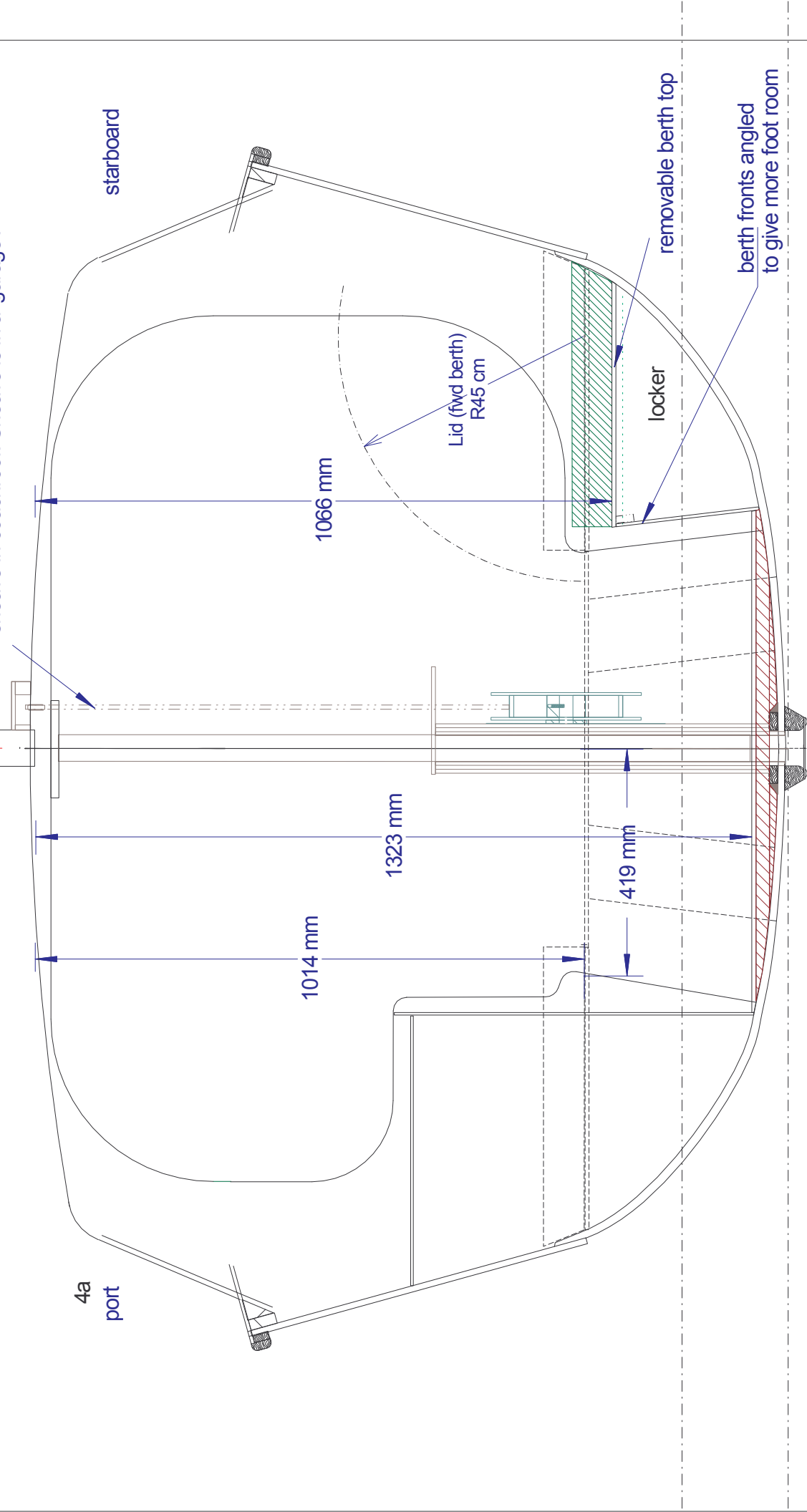
160 cm

97 cm

WEIGHTS & MOMENTS			
	Wgt	Dist DWL	Moment Kg/cm
LEAD	126	110	13420
S/S	6.3	47.5	300
TIMBER	11	19	209
GLASS/RESIN	6	56	336
TOTAL	150Kg		14265
CG is 96.7cm below DWL			

specific gravity of lead is 11.4

Centreboard winch rope goes up to deck via a sheave in coachroof. Sheave is in a 'garage'.



BLUE 7 METRE TRAILER-SAILER
BY KEITH CALLAGHAN

STORM

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Station 4a - mast bulkhead Scale 1:10 Printed 31/10/2006 13:39
looking forward bs230017.srf / BS sta4a 2900 +40.skf

4 CENTREBOARD CASE

The case is made of 1 lamination of 7mm ply, plus 2 additional 7mm laminations forward of the main bulkhead

Before assembly, the inner face is finished with 1 layer of glass cloth overall, with an additional layer forward of the main bulkhead

Coordinates on lower edge of centreboard case are to outside skin*, ie the lower edge of the inner case lamination only.

The outer laminations are higher by the thickness of the skin plus hog.

See drawing bscbc02.skf

* except area fwd of CB case slot

BLUE STORM
7 METRE TRAILER-SAILER
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bscbc03.pdf / bs230016.db

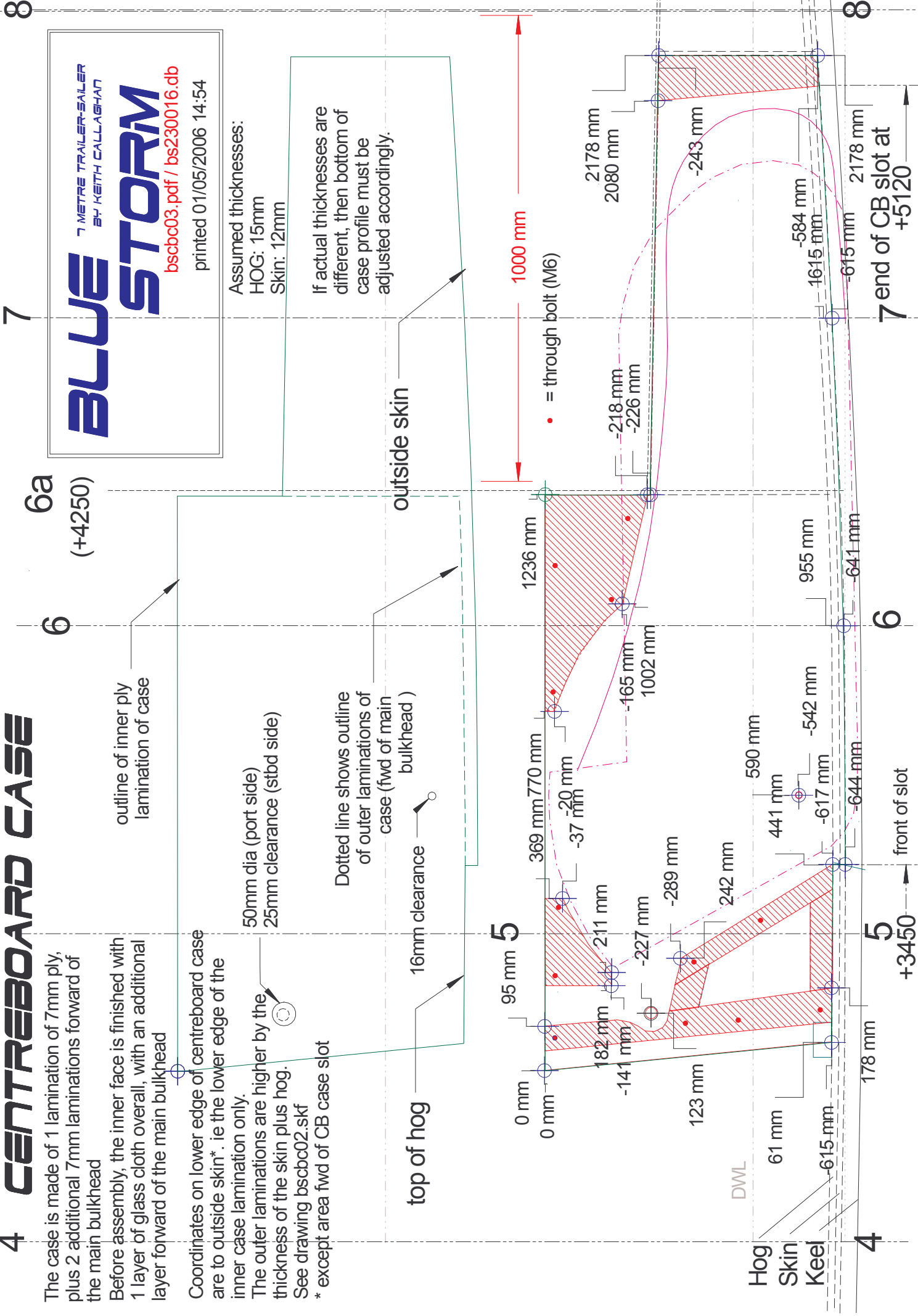
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Assumed thicknesses:

HOG: 15mm

Skin: 12mm

If actual thicknesses are different, then bottom of case profile must be adjusted accordingly.



8

7

6a (+4250)

6

5

6

5

4

8

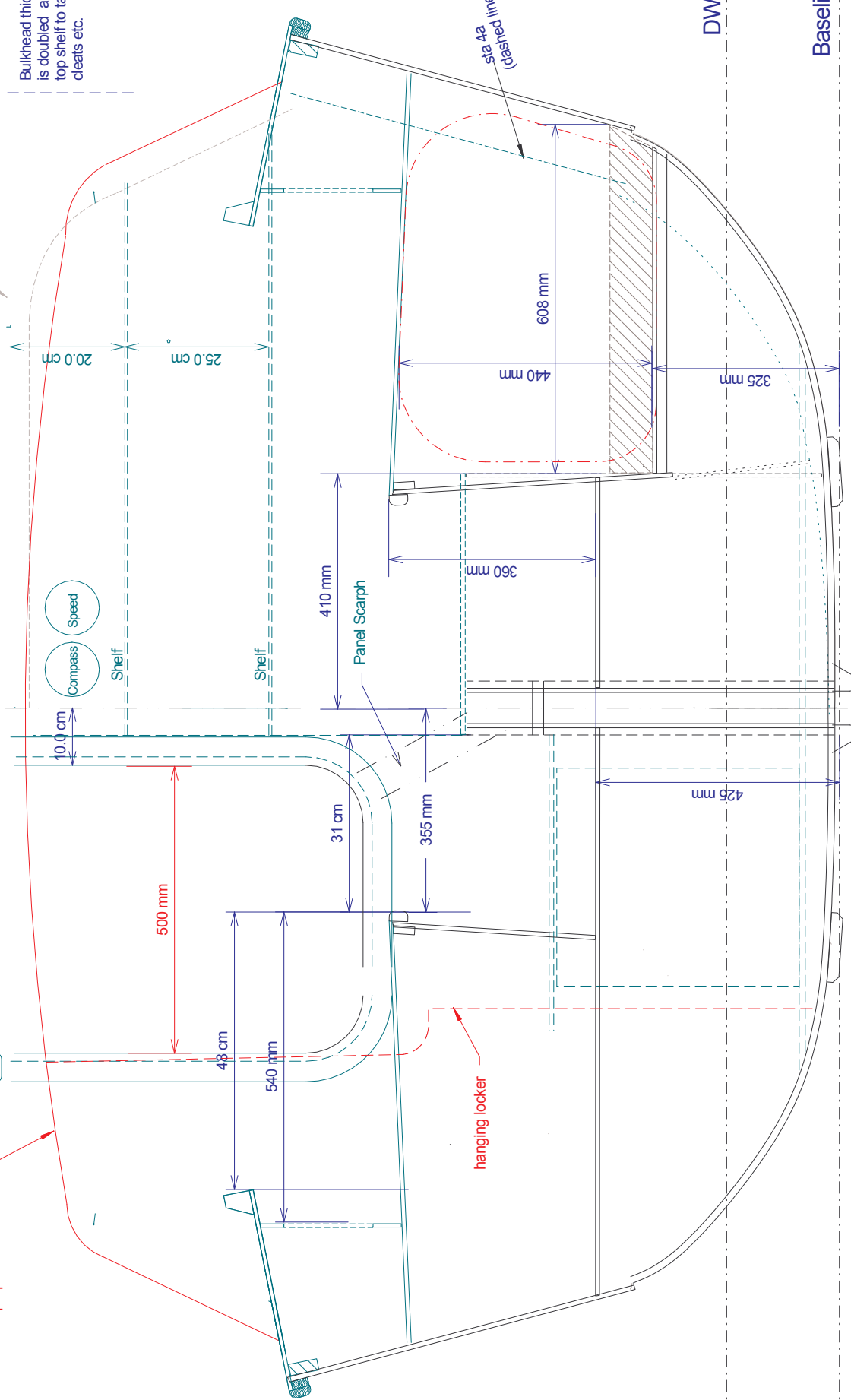
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1000 mm

original coachroof

proposed coachroof

Bulkhead thickness is doubled above top shelf to take cleats etc.



BLUE 7 METRE TRAILER-SAILER
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STORM

MAIN BULKHEAD Sta 6a

(4250mm aft) FROM AFT - LOOKING FORWARD

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bs230017.srf / BS sta 6a 4250 fwd+40.skf
SHEERLINE RAISED 40mm

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