



Calculating the width of planks at each station when building a boat - Adrian Dean

During the Period of building the Clark Punt Adrian Dean gave us a run through of his **“Proportional Division”** methodology where he calculates the width of an equal number of planks for the girth of each Station including the Transom and Snub.

The same process can be applied if a boat needs narrower planks at the turn of the bilge due to a sharper curvature of the bilge. The Punt we are building has a gradual curve at all Stations so this allowed us to have six equal width planks per side plus the garboard to make 7 in all.

The **“Proportional Division”** methodology by Adrian Dean:

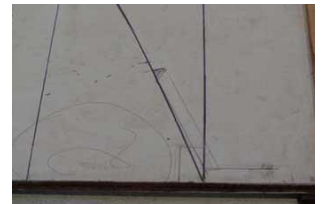
In essence for this punt there are vertical series of division from the bilge to the shear line, to plank or cover. Any line drawn through the verticals is of then of equal proportion.

The process (refer to the photographs);

1. Make the Garboard as wide as possible.
2. Loft at each station, including the Transom and Snub, the garboard width.
3. Draw 6 vertical lines on the lofting board representing the 6 planks above the garboard. In our example they are at the snub end of the lofting board. We will call this a table.
 - a. The vertical parallels are equally spaced for the planking on this boat. Any line drawn across them at any angle will also be equally divided .
4. At each Station, Transom and Snub on the lofting board measure the girth of the stations from the Garboard to the shearline using a curved batten ensuring it is following the girth of the station.
5. Take the batten each time to the 6 vertical lines table and from the bottom right hand corner (6th vertical line) strike an oblique line until it meets the number 1 vertical line as in Diagram 6. Mark this appropriately as the Station 1 etc.
6. Using the dividers on each Stations oblique line, divide it into 6 equal covers or planks.
7. Transfer this with dividers to the appropriate Station on the lofting board.
8. You will now have the markings for 6 equal width planks on that Station from the Garboard to the shearline. If anything the 6th plank can be a touch higher that the shear line.
9. The markings do not allow for the planks lap but you can now loft each plank onto the girth of the Station including the lap of $\frac{3}{4}$ ".
10. This process also allows the taking of the angle and width of the bevel for the top edge of the plank. This bevel can now be planed on the bench before fitting the plank.
11. For the Transom and snub a shiplap is formed not a clinker over lap to provide a nice smooth curve at the Transom and Snub.



Wide Garboard



Garboard lofted on the station



Draw the 6 vertical plank lines

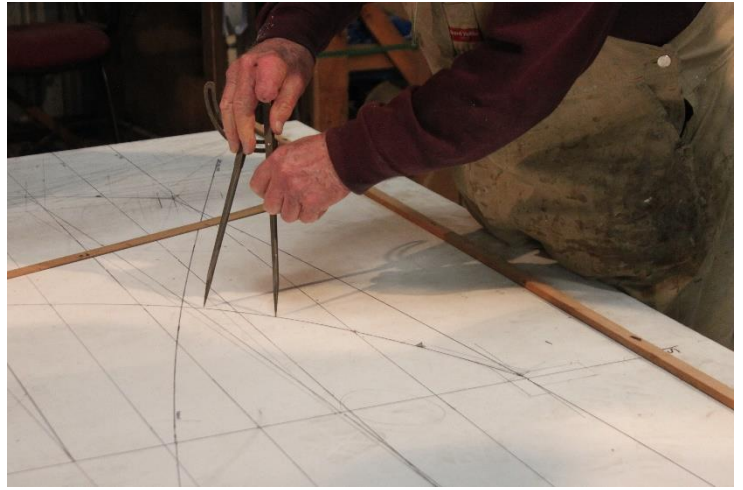


Measure the girth of the station

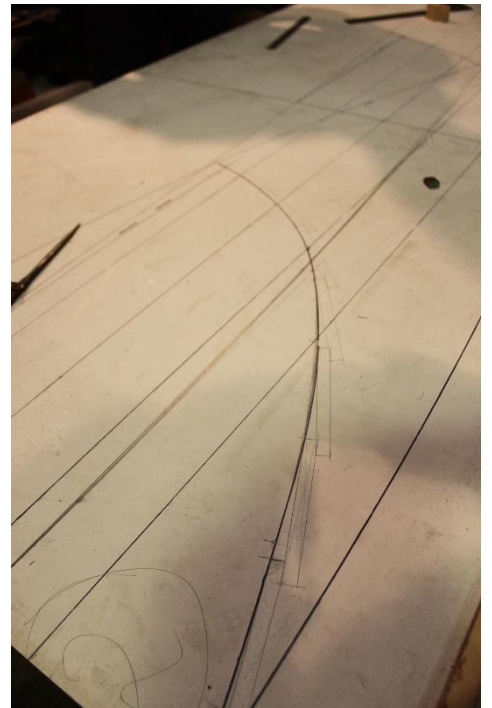


Use the batten strike the oblique line on the plank table

Marking the planks with the dividers on the station girth.

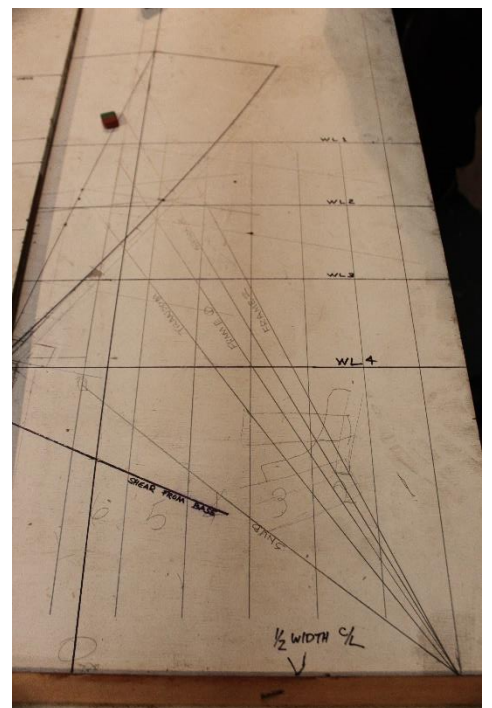


The garboard and 6 planks lofted onto Station 2.



The lofting board showing the 6 planks to the Snub with shiplap joints. This picture also shows the Proportional Division Table on the lofting board.

See the plan for the build without frames on the next page.



Peter Higgs with Adrian Deans advice.

BUILDING THE "FRANKLIN" PINERS PUNT (NO MOULD)

Note reference to equal spaces

BILGE LINE IS IMPORTANT
 WOULD BE POSSIBLE TO CONNECT
 LARGE POINT ON EACH STATION WITH
 CURVE — IF NOT — REDESIGN THE
 A HALF MODEL

THIS CONSTRUCTION SHOULD BE DONE ON THE LO
 FOR EACH STATION, SNUB & TRANSOM
 JOINT THE POINTS WITH A FAIR CURVE
 FOR EACH PLANK
 REMEMBER TO ADD THE LAP WIDTH TO THE
 COVER

