

<p>39</p>	<p>12 ft & 18 ft <u>Prepare bottom</u></p> <p>Before fitting the keel, there are several steps to complete:</p> <ol style="list-style-type: none"> 1) Cut frame ends and transom to length (level with bottom). 2) Bevel bottom edge of lower side planks; this should be level with the bottom of the floors. 	
<p>40</p>	<p><u>Fit keel</u></p> <p>12 ft – The timber required is: 75 mm x 25 mm x 3 460 mm & the fastenings required are: 2 mm x 50 mm nails for each floor.</p> <p>18 ft – The timber required is: 100 mm x 32 mm x 4 860 mm & the fastenings required are 2 mm x 62 mm nails for each floor.</p> <p>Note: The keel may be tapered to 70 mm wide at the ends; this will assist the planks forming the curved bottom.</p>	
<p>41</p>	<p><u>Bottom planks</u></p> <p>Offer up planking and cut approximately to length.</p> <p>12 ft – The timber required is: 2 pieces 125 mm x 16 mm x 3 460 mm & 2 pieces 125 mm x 16 mm x 2 540 mm.</p> <p>18 ft – The timber required is: 2 pieces 150 mm x 19 mm x 4 860 mm & 2 pieces 150 mm x 19 mm x 3 815 mm.</p>	

<p>42</p>	<p>12 ft & 18 ft <u>Fit bottom planks</u></p> <p>Mark frame positions on planks; once marked, the bottom planks can be fitted. A clamp will be required to keep the plank edges tightly together.</p> <p>The fastenings required are: 2 mm x 50 mm nails for each floor. Pre-drill the nail holes (see step D in section 6.1).</p>	
<p>43</p>	<p>12 ft & 18 ft <u>Edge nail planks</u></p> <p>Once fitted, the bottom planks can be edge fastened (see section 6.1).</p>	
<p>44</p>	<p>12 ft & 18 ft <u>Cut edge of bottom planks</u></p> <p>The outboard edge of the bottom planks can be trimmed and then made smoother with a plane.</p> <p>Note: The bottom planks should extend beyond the side planks by about 6 mm to assist in putting the bottom seam.</p>	

<p>45</p>	<p>12 ft & 18 ft <u>Fasten edges</u></p> <p>The bottom planks need to be fastened to the side planks along the edges. The holes should be pre-drilled, and care should be taken not to split the planks.</p>	
<p>46</p>	<p>12 ft & 18 ft <u>Fasten edges</u></p> <p>At the ends of the bottom planks, the edges need to be fastened to the adjacent plank. The holes should be pre-drilled, and care should be taken not to split the planks (see step D in section 6.1).</p>	
<p>47</p>	<p>12 ft & 18 ft <u>Ends of planks</u></p> <p>The aft ends of the side planks can be cut and shaped. The shape is designed to suit local preferences.</p>	

<p>48</p>	<p><u>Mark the frames</u></p> <p>Turn the boat over. Cut the frame tops in line with the upper side plank.</p> <p>Note: The frame tops will require further trimming once the inwales are fitted (see step 51).</p> <p>The frames need to be marked to suit the inwale that is to be fitted.</p> <p>12 ft – The timber required is: 50 mm x 19 mm x 4 150 mm.</p> <p>18 ft – The timber required is: 62 mm x 19 mm x 5 470 mm.</p>	
<p>49</p>	<p><u>Cut the frames</u></p> <p>Once marked, the frame tops can be cut to the correct dimensions.</p> <p>12 ft – Once the frame top is removed, the inwale is placed against the inner face of the hull plank.</p> <p>18 ft – The frame top is notched to receive the stringer.</p>	
<p>50</p>	<p><u>Fit the inwales</u></p> <p>12 ft – The fastenings required are: 2 mm x 38 mm nails for each frame.</p> <p>18 ft – The fastenings required are: 50 mm nails for each frame.</p> <p>Pre-drill the nail holes (see step D in section 6.1).</p>	

<p>51</p>	<p>18 ft <u>Cut the frame tops</u></p> <p>It is recommended that:</p> <ol style="list-style-type: none">1) the frame tops are cut so that they do not touch the under-side of the gunwale caps, which are fitted later (see step 55);2) the frame tops and the edges of the planking and the stringer are treated (see step 61).	
<p>52</p>	<p>18 ft <u>Mark the rail cap</u></p> <p>The rail cap will have to be fitted in 3 or more sections to accommodate the curve of the gunwale. Here, a board is offered up so that it can be marked with the required curve on its underside.</p> <p>The rail cap is cut from $\frac{3}{4}$" (19 mm) timber.</p>	
<p>53</p>	<p>18 ft <u>Cut the rail cap</u></p> <p>The rail cap is cut to the marked lines.</p>	

<p>54</p>	<p>18 ft <u>Dry fit the rail cap</u></p> <p>Check the sections of rail cap by offering them up to the boat.</p>	 A person is shown from the waist down, holding a long wooden rail cap against the side of a wooden boat hull. The hull is supported by several vertical wooden stringers. The person is testing the fit of the rail cap against the hull planks.
<p>55</p>	<p>18 ft <u>Fit the rail cap</u></p> <p>Mark and cut scarf joints in the ends of the sections of gunwale cap; fasten the rail cap to the top of the hull plank and the gunwale stringer.</p> <p>The rail cap is fastened to the hull plank and stringer with 38-mm nails spaced at 125 mm to 150 mm. Pre-drill the nail holes (see step D in section 6.1).</p>	 A close-up view of a wooden rail cap being fitted to the hull. The rail cap is being joined to a hull plank and a gunwale stringer. The joint is a scarf joint, where the ends of the rail cap sections are cut at an angle to meet. The rail cap is being held in place against the hull.
<p>56</p>	<p>12 ft & 18ft <u>Trim stringers and hull for decks</u></p> <p>Where the forward and aft decks are to be fitted, the edge of the stringers and hull plank need to be trimmed so that they are horizontal.</p>	 A person is using a hand plane to trim the edge of a wooden stringer. The stringer is being held against a larger wooden plank. The person is carefully planing the edge of the stringer to make it horizontal. The background shows a workshop with various tools and wood.

<p>57</p>	<p>12 ft & 18 ft <u>Fit the bow and stern decks</u></p> <p>Short decks or seats are fitted at the ends of the boat. The decks are designed to suit local preferences.</p> <p>12 ft – The timber required is: 16 mm thick.</p> <p>18 ft – The timber required is: 19 mm thick.</p>	 A person in a blue and white checkered shirt is working on the interior of a wooden boat. They are holding a large, flat wooden board and fitting it into the hull. The boat is supported by wooden frames, and the background shows a workshop setting with various tools and materials.
<p>58</p>	<p>12 ft & 18 ft <u>Finish details</u></p> <p>Final shaping and finishing of details should be completed. These details are designed to suit local preferences and may include:</p> <ul style="list-style-type: none">• the shaping of styling pieces in bow and stern;• the final details of the stem and transom.	 A person in a blue and white checkered shirt is using a hammer to shape a wooden piece. The piece is held in a wooden frame, and the person is focused on the task. The background shows a workshop with various tools and materials.
<p>59</p>	<p>12 ft & 18 ft <u>Finished boat</u></p> <p>The boat is now ready for puttying and timber treatment.</p>	 A finished wooden boat is shown on a wooden stand. The boat is light brown and has a smooth finish. It is positioned in a workshop area with other boats and tools visible in the background. The boat is supported by wooden blocks and is ready for final treatment.