

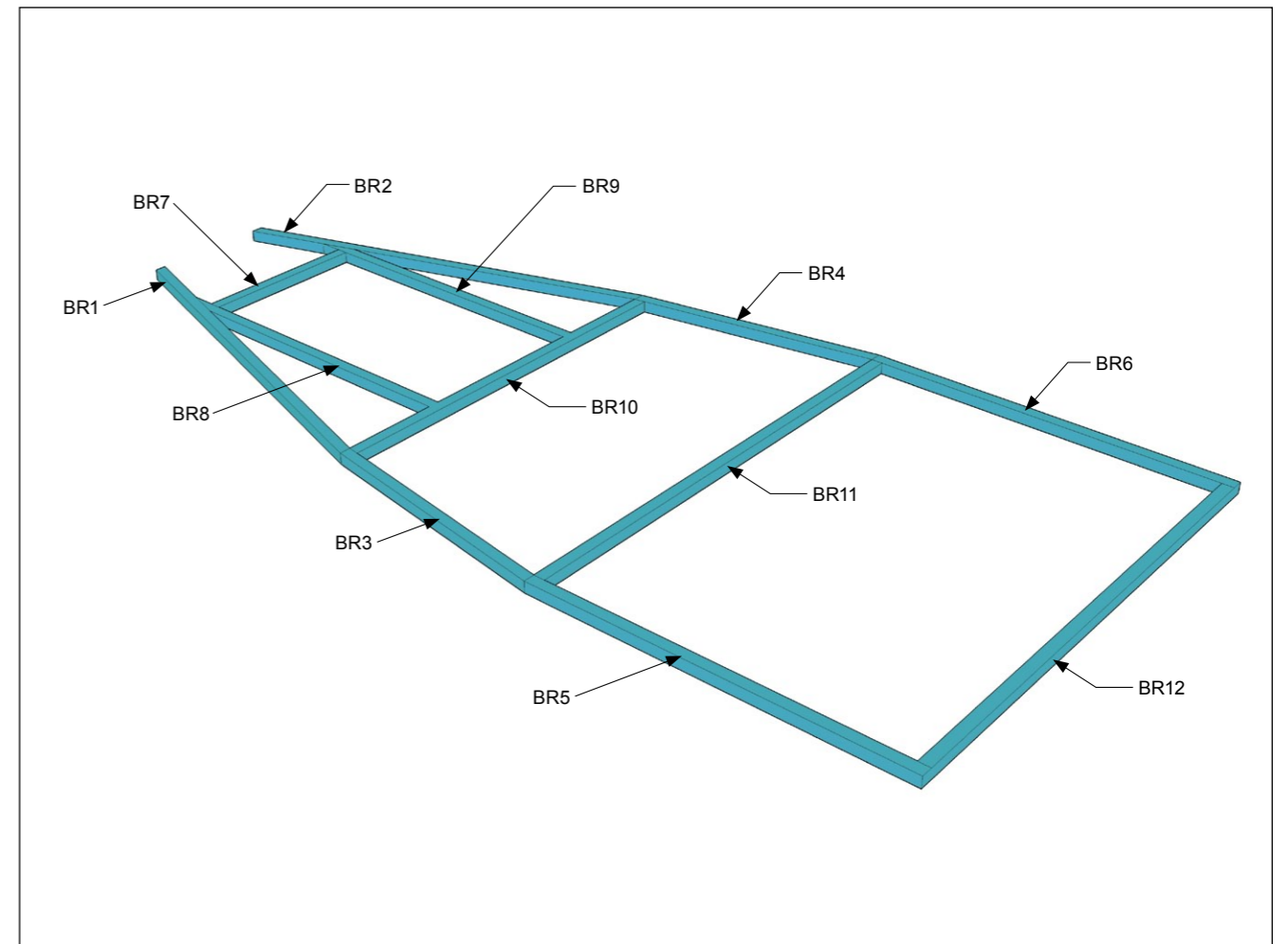
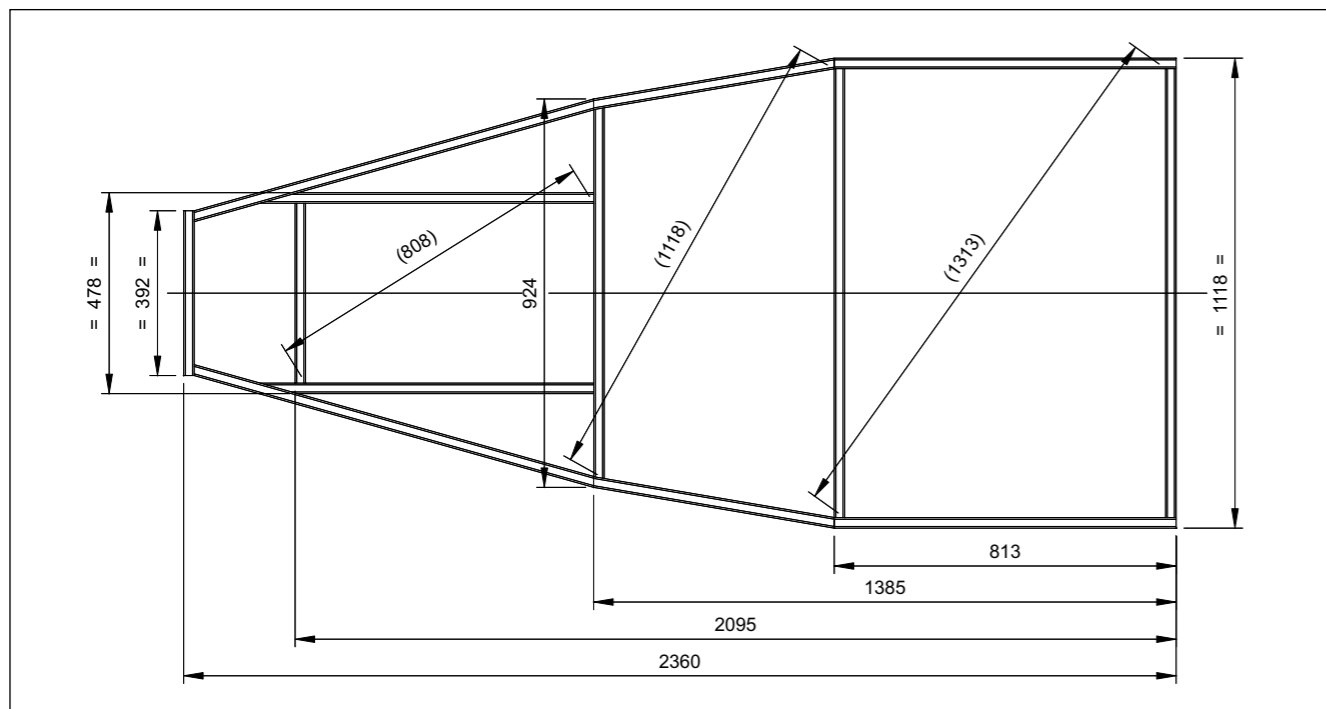
4 MAKING THE CHASSIS

► Fig. 4.1 The building board supported on a metal table – note the stiffening timbers beneath the board.

The chassis looks very complicated at first glance, but broken down into stages it's a simple process not unlike the construction kits of our youth. In Appendix 1 you will find the dimensions for every tube and plate, including illustrated details where angled cuts, etc., are required. Some people like to cut all the steel in one go, but I'd advise against this. Although the drawings in this book are very precise, it's better to cut each piece as it's needed, so that it can be tried in place and filed or ground to a tight fit. As an exception to this, tubes which are the same but on opposite sides of the chassis (BR5 and BR6, for example) should be cut together to ensure uniformity.



▼ Fig. 4.2 The basic setting out dimensions for the bottom rails of the chassis.



LAYING THE FOUNDATION

The chassis does not require a jig, but you will need a true flat surface, and one that can be marked out accurately with a pencil or marker pen. This excludes most garage floors or any concrete surface, and marking out with chalk cannot ever be anywhere near accurate enough, as chalk lines will be 2mm thick at least! The chassis made for this book was built on a 2440 x 1220mm sheet of 12mm plywood. To keep the sheet flat a frame of 75 x 50mm timber was glued and screwed to the underside. Select your timber carefully; a bent support frame won't keep the ply flat. Some builders paint the board with white emulsion paint to make the lines stand out.

The board should be marked out with the lines as shown in Fig. 4.2. A steel straight edge and a fine marker pen are probably best. It's important not to make the lines too thick because you must ensure that the initial tubes are in the right place – they are the foundation of your chassis. Once the lines are drawn and checked,

▲ Fig. 4.3 The main bottom rails of the chassis.

▼ Fig. 4.4 Wooden blocks fixed to the baseboard to ensure correct alignment.

