TIMBER

Two different types of timber are required:

A A rot-resistant timber for internal parts that are difficult to replace, such as frames, keel and battens. This timber should usually be of medium weight, 650kg/m^3 , or750kg/m^3 when it is air-dried.

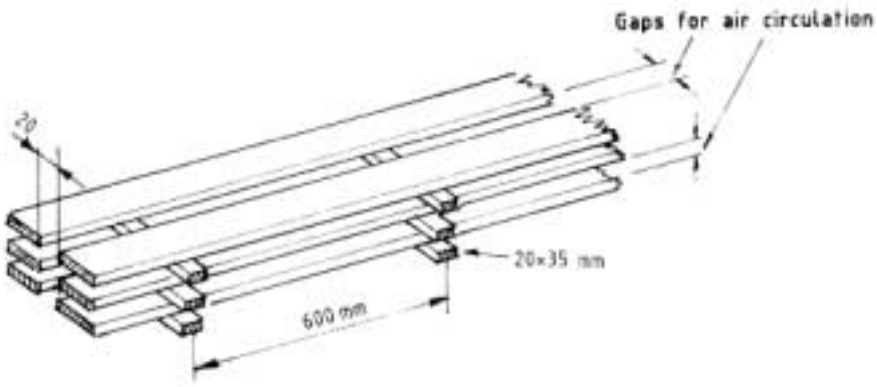
B A stable timber for the outside planking that does not swell and shrink much with changes in humidity. This timber should usually be of low weight, 500 -600 kg/rn3.

The list for timber (below) includes an allowance of 25% for wastage
Note: The list does not include the building jig (see page 7)

TYPE OF TIMBER	DIMENSIONS SAWN mm	MINIMUM LENGTH m	NUMBER OF PIECES	TOTAL LENGTH m	TOTAL VOLUME m^3
	25x150	4	7	28	
	40x150	4	9	36	
A	50x150	5	4	20	0.59
	50x300	1.8	1	1.8	
	75x100	4	1	4	
	100x200	3	1	3	
	20x150	4	32	128	
B	20x 150	5	15	75	0.73
	25x250	4	6	24	

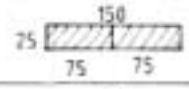
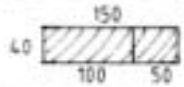
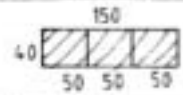
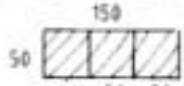
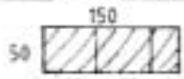
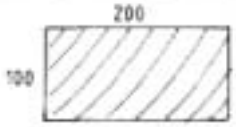
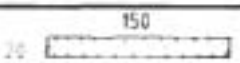
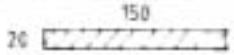
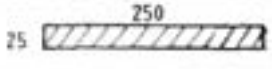
AIR DRYING

The timber must be stored under a roof, protected against sun and rain. Minimum time for air-drying is 3 months after sawing.



SAWING AND PLANING – AFTER AIR DRYING

2

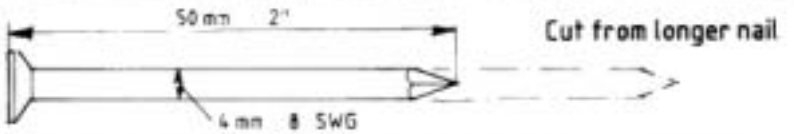
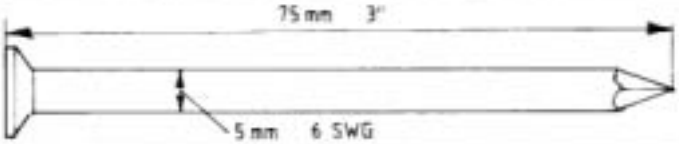
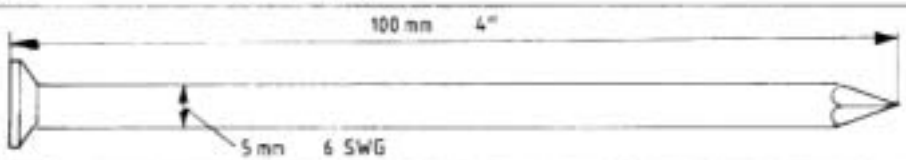
TYPE OF TIMBER	DIMENSIONS SAWN mm	LENGTH m	NUMBER OF PIECES	DIMENSIONS PLANED mm	NUMBER OF PIECES
A		4	5	20 × 140	5
		4	1	20 × 70	2
		4	1	20 × 45	3
		4	4	35 × 45	4
				35 × 90	4
		4	5	35 × 45	15
		5	2	45 ×45	6
		5	2	45 × 55	4
				20 × 45	2
		1.8	1	45 × 300	1
		4	1	70 × 90	1
		2	1	90 × 200	1
B		4	32	15 × 140	32
		5	15	15 × 140	15
		4	6	20 × 240	6

FASTENINGS

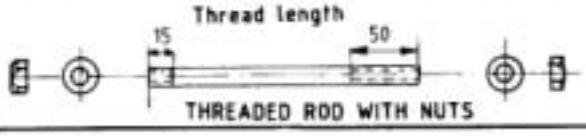
Fastenings must be HOT DIP GALVANIZED, *i.e.* **they must be dipped** in **a molten** zinc bath to obtain a thick zinc cover
(Electro-galvanized fastenings must not **be used)**

ROUND WIRE NAILS HOT DIP GALVANIZED

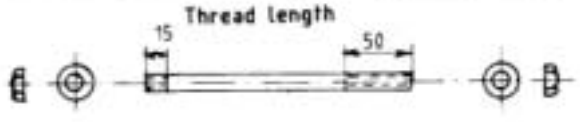
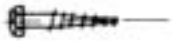
Round wire nails available locally are generally too thin in relation to the length necessary for boat-building use. Either a special order must be made from a nail factory, or longer nails of the correct diameter should be cut down to size and then galvanized.

	QUANTITY
	11 kg
	1.5 kg
	0.6 kg

BOLTS WITH NUTS AND WASHERS HOT DIP GALVANIZED

	DIMENSION mm	DIMENSION inch	QUANTITY
 CARRIAGE BOLTS	10 × 75	3/8 × 3	10
	10 × 150	3/8 × 6	7
 THREADED ROD WITH NUTS	10 × 220	3/8 × 9	1
	10 × 280	3/8 × 11	4

BOLTS WITH NUTS AND WASHERS STAINLESS STEEL FOR PARTS THAT ARE REMOVABLE

 THREADED ROD WITH NUTS	10 × 50	3/8 × 2	6
	10 × 100	3/8 × 4	2
	10 × 110	3/8 × 4 ½	7
	10 × 230	3/8 × 9 ½	1
 COACH SCREWS	10 ×50	3/8 × 2	2

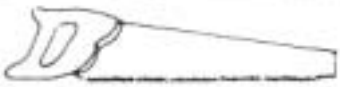
MISCELLANEOUS

ITEM	GUANTITY
Nylon flyscreen 1m wide roll	8 m
Bitumenous compound (roofing compound, Hydroseal)	15 kg
Hemp for caulking	0.2 kg
FilLer	1kg
Wood primer	12 Liter
Glossy paint (topcoat)	liter
Antifouling paint	2 liter
Anticorrosive primer for steel	0.5 liter
Kerosene	3 Liter
Terpentine or white spirit	2 titer
Glasspaper, coarse	S sheets
Glasspaper, fine	S sheets
PoLystyrene 75 1000 1000 mm	2 sheets
Stainless steel flat 2 x 25 x 1300 mm (See alternative page 32)	1 Pc
Stainless steel rod 16 θ x 150 mm (Rudder, page 32)	1 Pc

ENGINE_AND_ACCESSORIES

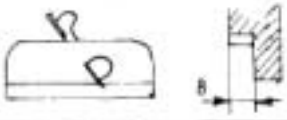
Diesel engine, horizontal cylinder, hopper cooled, 6 hp- 8 hp /2200 rpm	1pc
Propeller shaf t, stainless steel 316, diameter=22 mm, length = 1640mm	1pc
Propeller, bronze, three blade, left handed, diameter = 240 mm= 9 1/2 pitch=165mm=61/2"	1pc
Sternfube with bearings and greasing system. Between flanges = 1500 mm	1
Flexible coupLing propeller shaft to engine with bolts	
Angle iron for makinng engine bed 7 x50 x 50	2.3 m
Metal shims for engine aLLignment 1 mm	8 PC
" " 3 mm	4 pc
Hexagonal bolts 12 x 50 with double nuts for engine fixation	4 pc
Exhaust pipe with water injection elbow	1 Pc
Exhaust through hull fitting	1 pc
Wafer scoop with through huU fitting, tube outside diameter=19 mm	1pc
Cooling water fitting for bloting to engine, tube outside thameter =19 mm	1pc
Hose for cooling water inside diameter = 19 mm	3 m
Hose for exhaust, heat resistant rubber, inside diameter = 50 mm	0.4 m
Hose clamp to suit 20 mm hose preferably stainless steel	4 Pc
Hose clamp to suit 50mm hose preferably stainTess steel	4
Rudder fittings	1set
Glandpacking for stern tube	0.25m
Grease for sterntube	1kg
Spring 250 mm for engine throttle	1 pc
Pulley, brass, for 5mm throttle rope	1pc

TOOLS

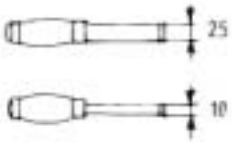


Crosscut saw

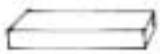
Planes



Rabbet plane



Chisels

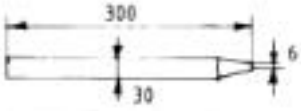


Sharpening stone

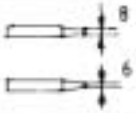
Combination coarse / fine

Claw hammer

Wooden mallet

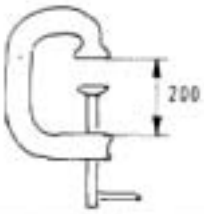


Holding iron



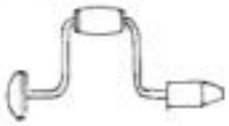
Nail punch

Rasp



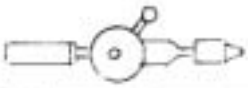
G-clamp

4 pieces

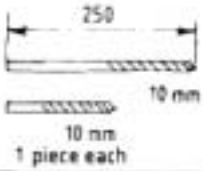


Ratchet brace

Breast drill



Hand drill



Drill bits

4 mm 5 pieces

3.5 mm 10 pieces

Measuring tape

Pencil

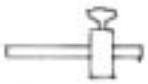
Ballpen

Straight edge

Cut from 9 mm plywood 1.2 m long

Square

Bevel



Marking gauge

Plumb bob

Hacksaw

With 5 spare blades

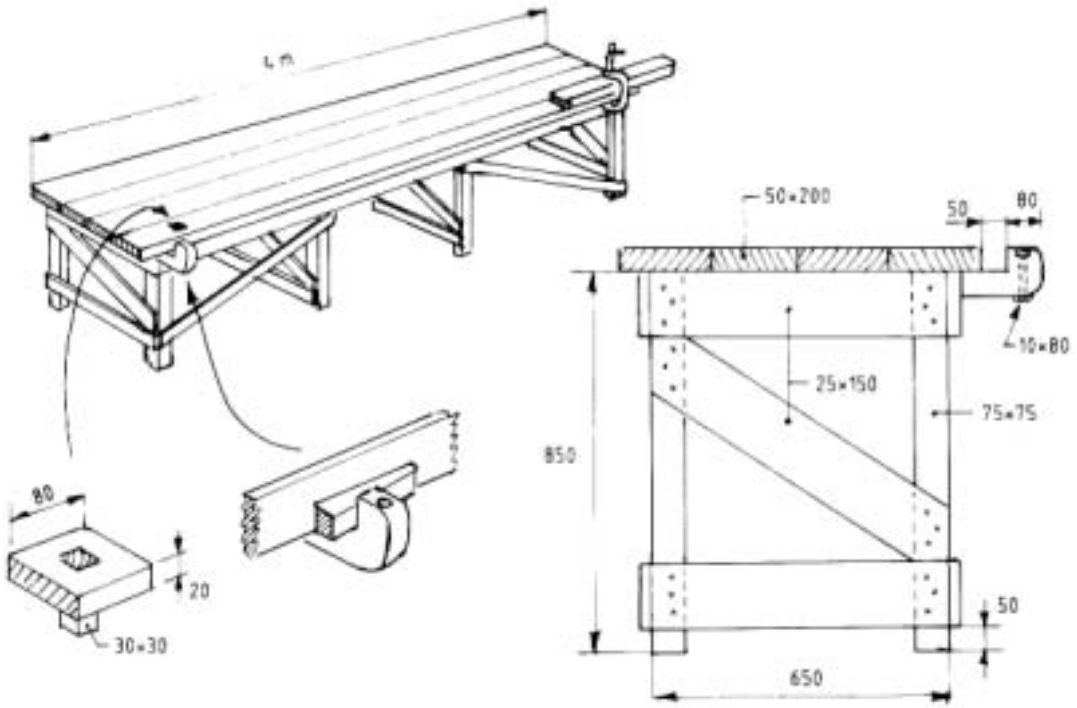
Open end / box end spanner

To fit nuts of 10 mm and 12 mm bolts

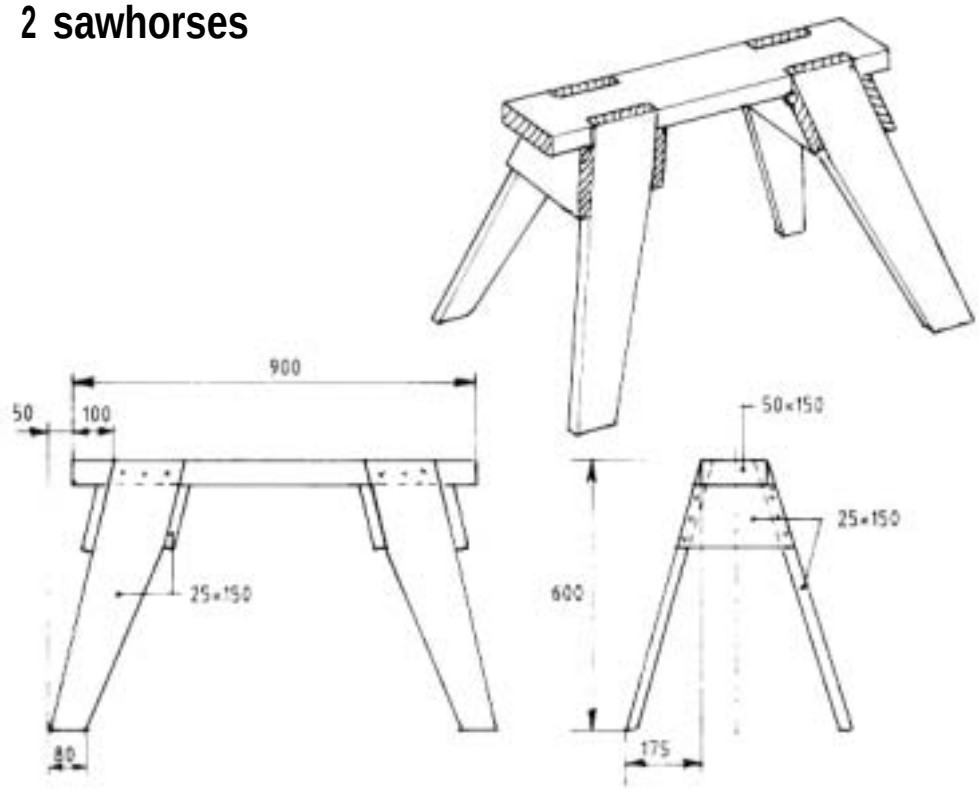
2 spanners of each size

Spirit level

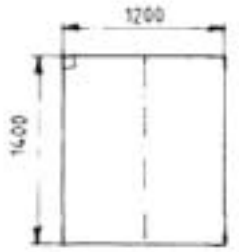
WORK BENCH and SAWHORSES



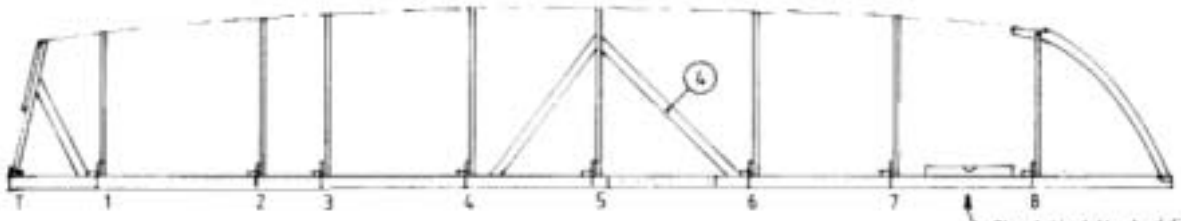
Make 2 sawhorses



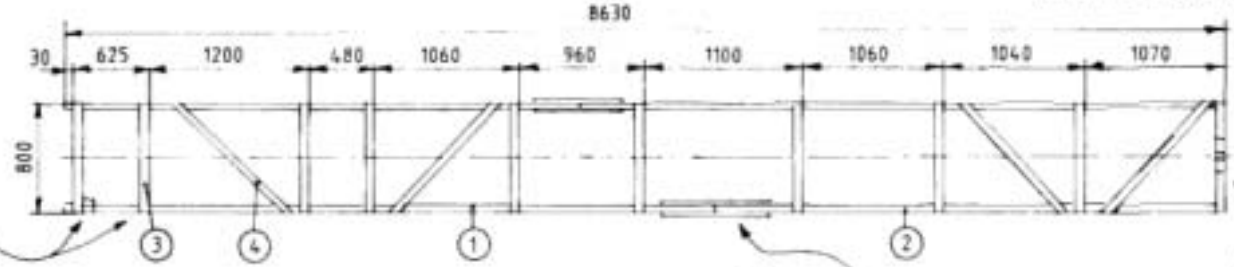
BUILDING JIG



Plywood 9 mm
to draw frames
and use as a square
to control that
crosspieces are
nailed correctly
to building base

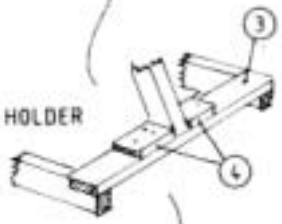


Check that the building jig is level



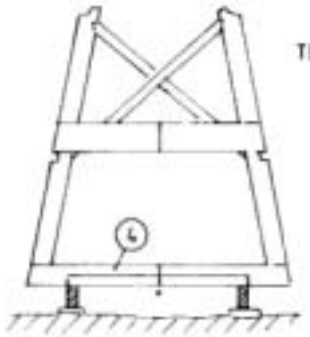
BUTT BLOCKS

STEM HOLDER



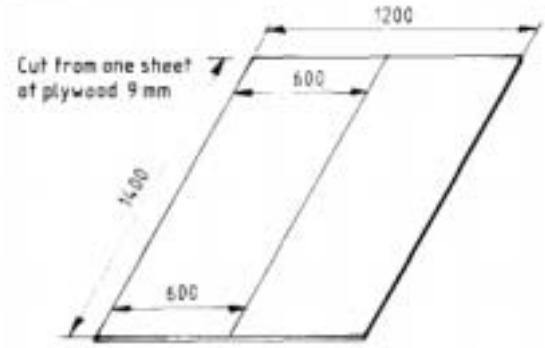
POS	DIMENSION SAWN mm	LENGTH	NUMBER OF PIECES
①	40×100	4 m	2
②	40×100	5 m	2
③	40×75	4 m	3
④	25×100	4 m	11

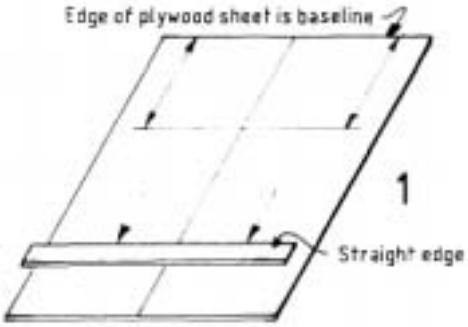
Round wire nails :
4×60 — 1 kg
5×100 — 0.7 kg

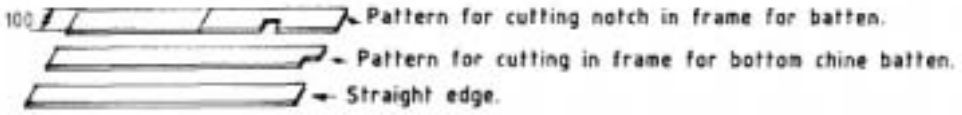


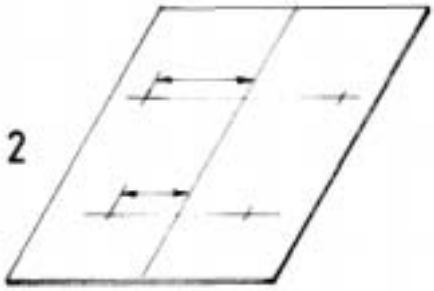
TRANSOM

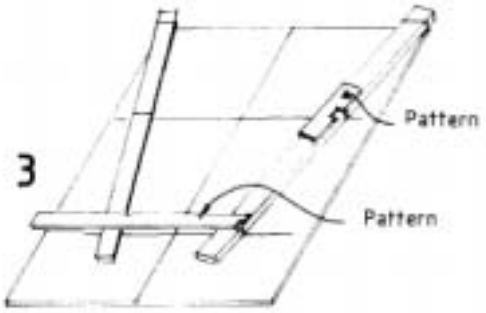
DRAWING FRAMES

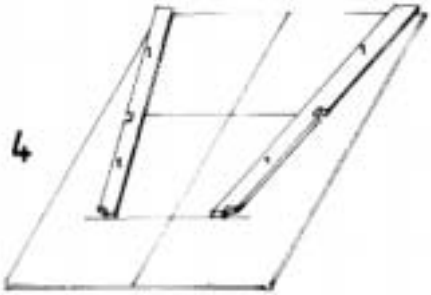


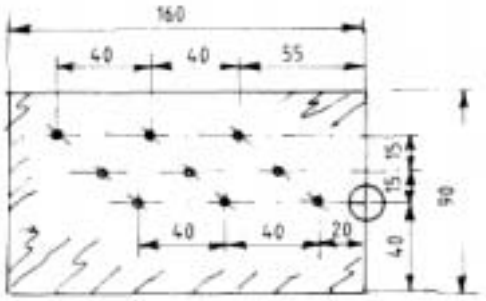




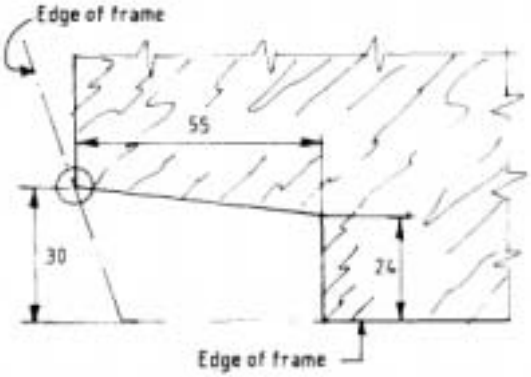




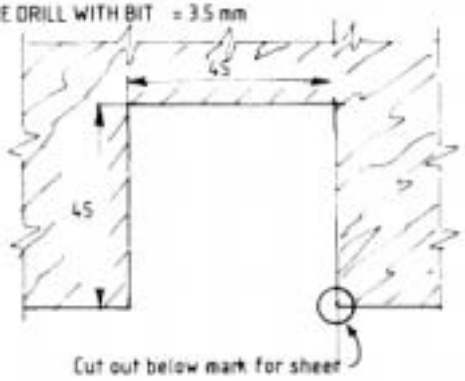




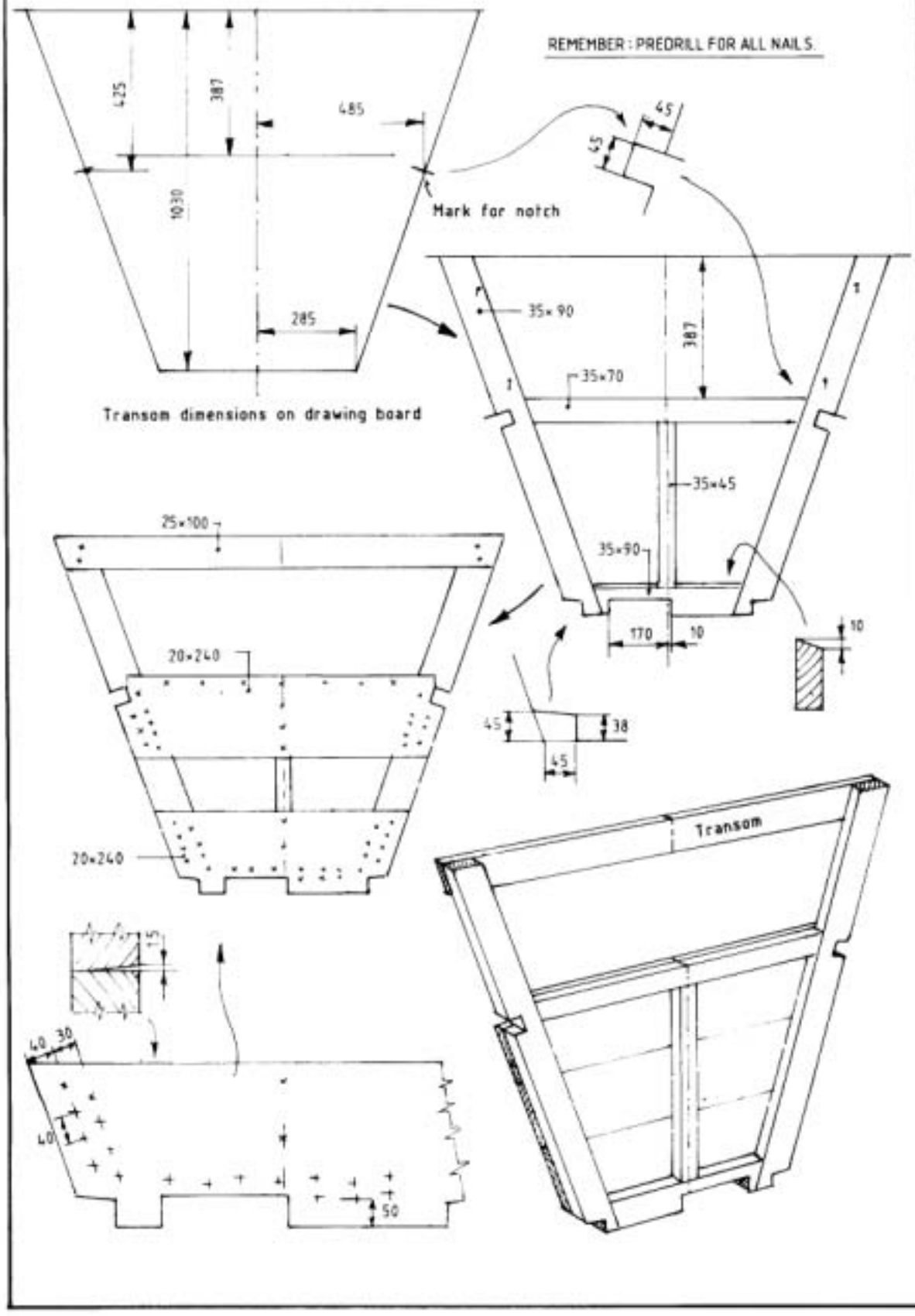
NAIL PATTERN



PRE DRILL WITH BIT = 3.5 mm



TRANSOM


REMEMBER : PREDRILL FOR ALL NAILS.
425
387
485
1030
285
Mark for notch
45
45
Transom dimensions on drawing board
35×90
387
35×70
35×45
35×90
25×100
20×240
20×240
170
10
10
45
38
45
Transom
15
40
30
40
50