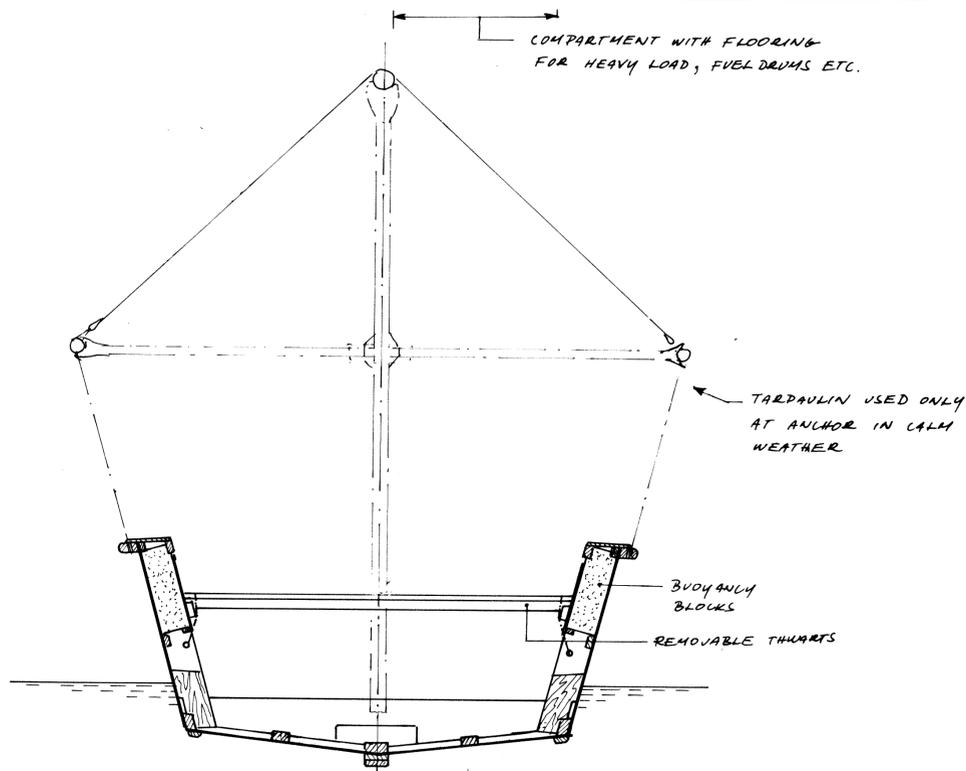
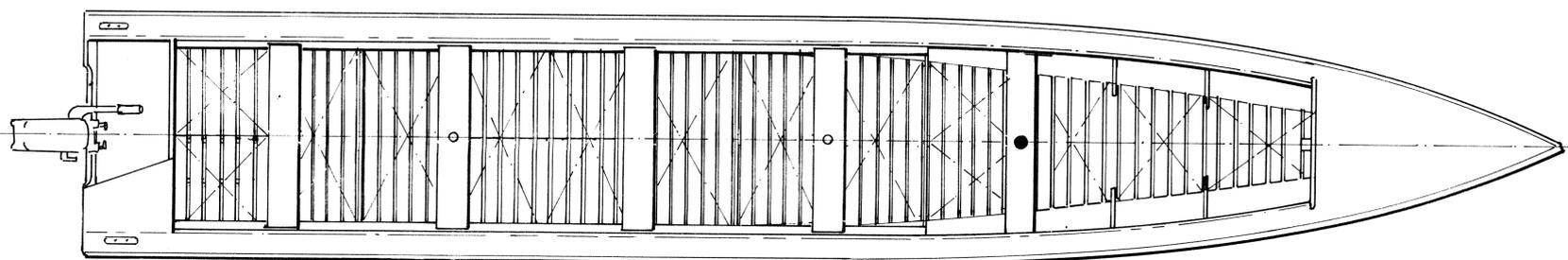
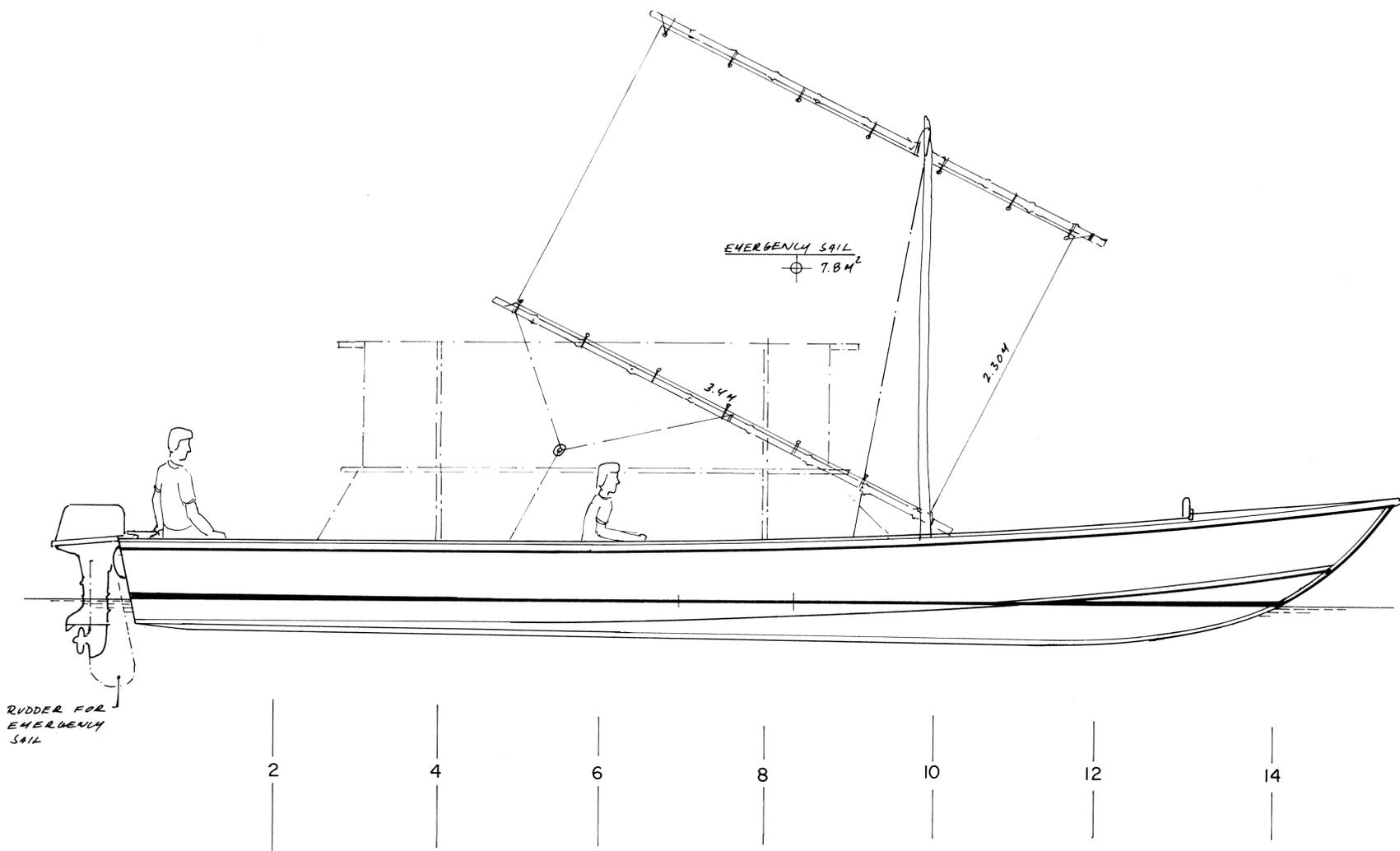
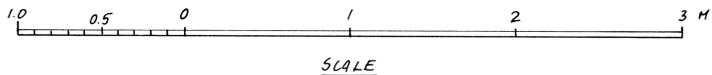


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MIDSHIP SECTION

1:10

NOTE: FOR INCREASED CARRYING CAPACITY THE LENGTH OVERALL CAN BE INCREASED TO 10.5 M BY INSERTING TWO FRAMES BETWEEN ST. 2 AND 3

PARTICULARS

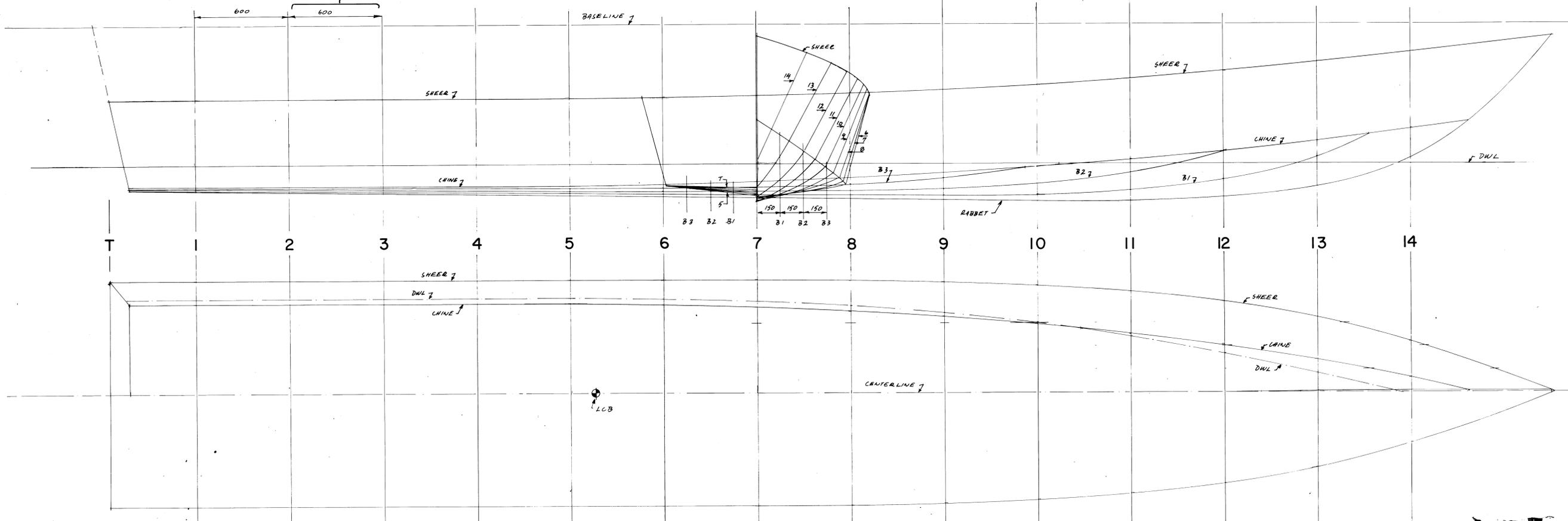
LENGTH OVER ALL	LOA = 9.30 M
BEAM MOULDED	B = 1.50 M
BEAM MAXIMUM	B _{MAX} = 1.61 M
DEPTH MOULDED TO RABBIT	D = 0.65 M
VOLIC NUMBER LOA x B x D	L _{VD} = 9.0 M ³
LENGTH WATERLINE, DWL	LWL = 8.20 M
BEAM WATERLINE, DWL	BWL = 1.24 M
DRAFT MAXIMUM, DWL	T = 0.25 M
FREEBOARD MINIMUM, DWL	F = 0.44 M
WEIGHT EMPTY	= 500 kg
SERVICE LOAD, DWL	= 700 kg
DISPLACEMENT, DWL	= 1200 kg
MAXIMUM ALLOWED LOAD	= 1200 kg
ENGINE MAXIMUM, OUTBOARD, 25-30 HP, 20" SHAFT	
SERVICE SPEED, DWL	V = 12 KNOTS
SAFETY FEATURES: TARPAULIN 7.8 M ² USED AS EMERGENCY SAIL	
POSITIVE FLOTATION SUBMERGED = 390 kg	
OF WHICH IN BUOYANCY BLOCKS = 160 kg	



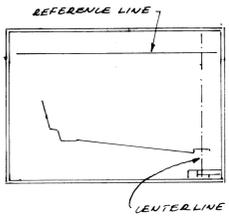
9.3m Canoe
GENERAL ARRANGEMENT

SCALE = 1:10, 1:20	DESIGN NO	DRWG. NO
DESIGN: P. Gullerud Criststad, APRIL-91	PNG-8 A	1

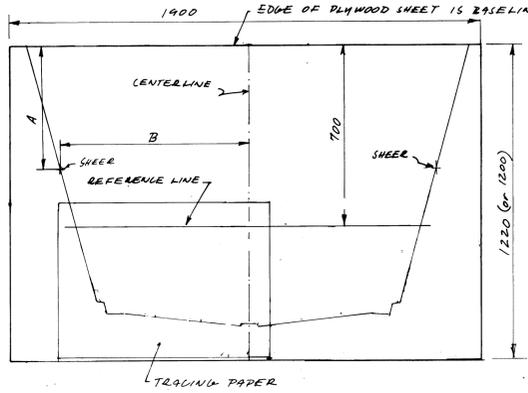
FOR INCREASED CARRYING CAPACITY THE CANOE CAN BE INCREASED IN LENGTH BY 1,2 M BY INSERTING FRAME 2A AND 2B



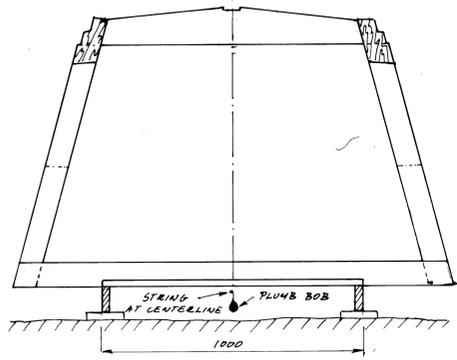
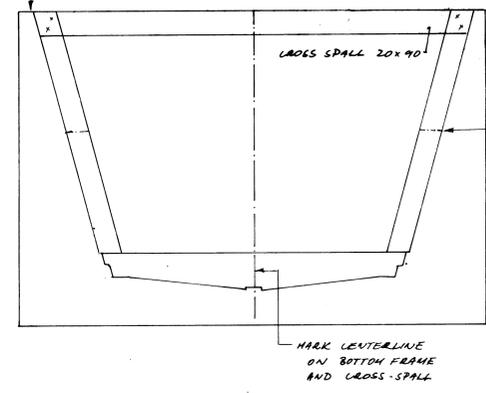
- 1) BUY A SHEET OF TRANSPARENT TRACING PAPER 60x80 CM
- 2) PUT THE FULLSCALE FRAME DRAWING (DRAWING NO 3) ON A FLAT FLOOR.
- 3) FIX THE TRACING PAPER FIRMLY TO THE DRAWING WITH TAPE OR PINS
- 4) TRACE OFF ALL THE FRAMES



- 5) CUT A SHEET OF PLYWOOD TO THE LENGTH OF 1900
- 6) THE EDGE OF THE PLYWOOD IS STRAIGHT AND CAN BE USED AS THE BASELINE. DRAW THE CENTERLINE EXACTLY AT RIGHT ANGLE TO THE BASELINE (MEASURE FROM THE STRAIGHT EDGE)
- 7) PLACE THE TRACING ON THE CENTERLINE AND WITH REFERENCE LINE 700 FROM BASELINE



- 8) FIX THE TRACING FIRMLY TO THE PLYWOOD AND TRANSFER THE LINES TO THE PLYWOOD BY PUNCHING THROUGH THE PAPER
- 9) TURN THE TRACING PAPER OVER. ALIGN CAREFULLY WITH THE CENTERLINE AND THE REFERENCE LINE. PUNCH THE LINES ON TO THE PLYWOOD
- 10) REMOVE TRACING PAPER. MARK SHEER POINTS. DRAW LINES BETWEEN POINTS.
- 11) MARK AND CUT OUT SHAPE OF BOTTOM FRAME AND SIDEFAMES
- 12) FIX TOGETHER WITH BRIBBETS OF 9 PLYWOOD AND CROSS SPALL 20x90



SHEER LINE														
T	1	2	3	4	5	6	7	8	9	10	11	12	13	14
HEIGHT FROM BASELINE "A"	485	475	475	475	475	475	468	460	444	423	392	352	304	175
DISTANCE FROM "B" CENTERLINE	730	730	730	730	730	730	730	727	717	693	650	585	482	328

* MEASURED ALONG TRANSOM

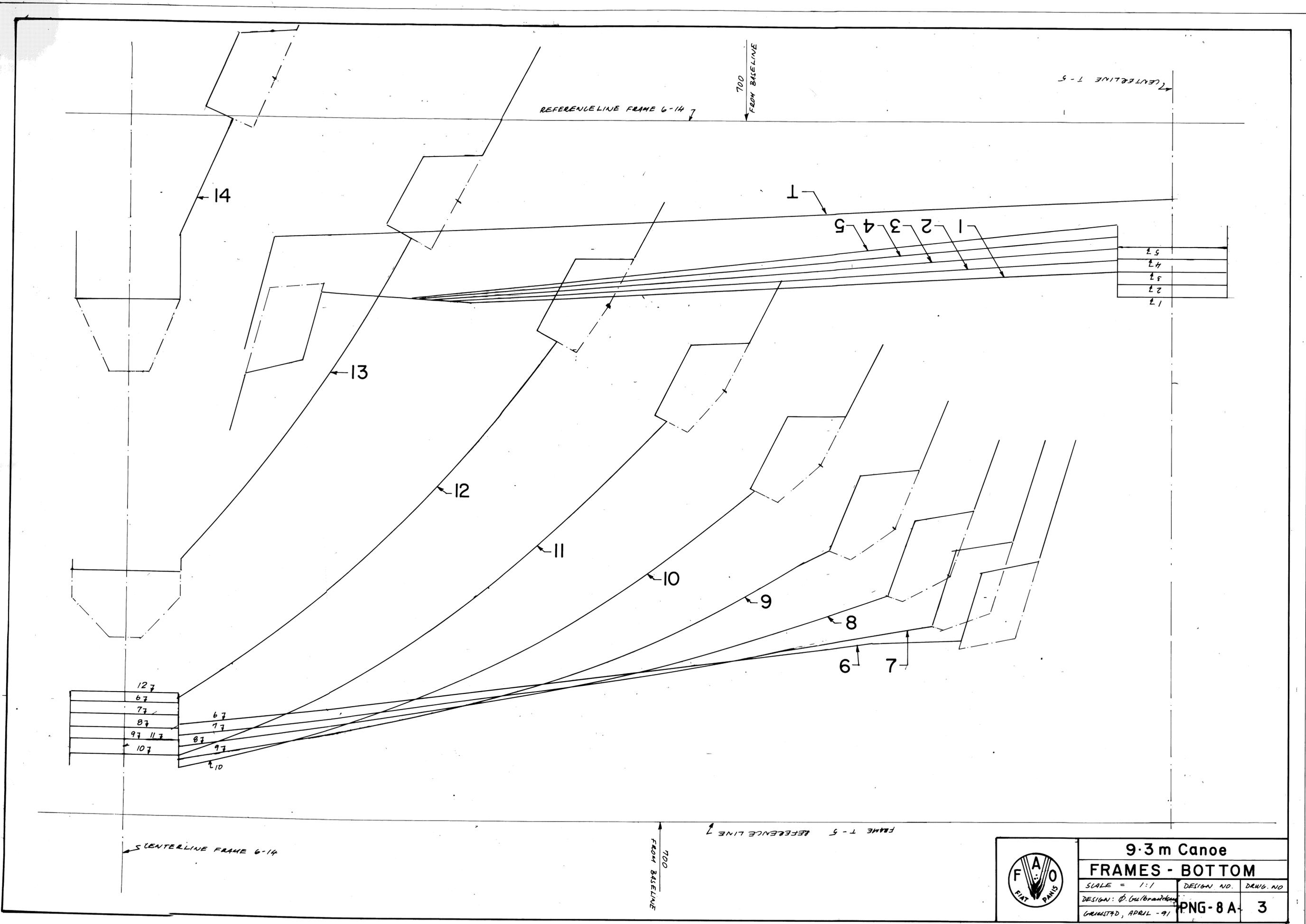
PARTICULARS	
LENGTH OVER ALL	LOA = 9,30 M
BEAM MOULDED	B = 1,50 M
DEPTH MOULDED	D = 0,65 M
CUBIC NUMBER LOA x B x D	LN = 0,90 M ³
LENGTH, DWL	LWL = 8,24 M
BEAM, DWL	BWL = 1,24 M
DRAFT MOULDED	T = 0,21 M
DRAFT, MAXIMUM	T _M = 0,25 M
WEIGHT, EMPTY WITH ENGINE	= 500 Kg
SERVICE LOAD	= 700 Kg
DISPLACEMENT, SERVICE, DWL	Δ = 1200 Kg
MAXIMUM LOAD	= 1200 Kg
MAXIMUM DISPLACEMENT	= 1700 Kg
FREE BOARD, FORWARD, DWL	= 0,83 M
FREE BOARD, MIDSHIP	= 0,96 M
FREE BOARD, AFT	= 0,94 M
COEFFICIENTS, DWL:	
$\frac{L}{B} = 6,6$, $\frac{L}{D} = 2,28$, $\frac{L}{T} = 0,77$, $\frac{L}{T} \times \frac{L}{B} = 12,5$	
SERVICE SPEED = 12 KNOTS WITH 25 HP OUTBOARD	
$\frac{L}{VT} = 2,3$	

9.3 m Canoe LINES

SCALE = 1:10 DESIGN NO DRAW. NO

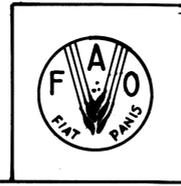
DESIGN: P. Gullerud PNG-8A 2

GRANITAD, APRIL - 91

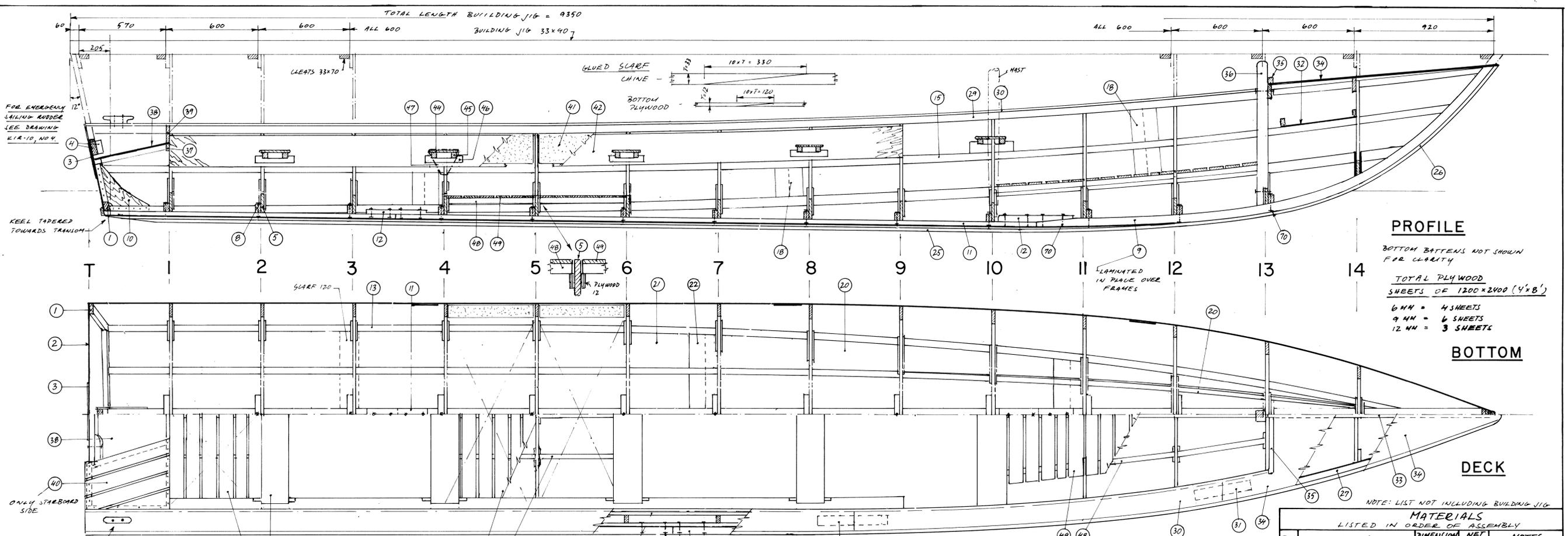


5
4
3
2
1

12
6
7
8
9
10



9.3 m Canoe		
FRAMES - BOTTOM		
SCALE = 1:1	DESIGN NO.	DRAWG. NO.
DESIGN: G. Guibaudon	PNG-8A-3	
LIMITED, APRIL - 91		



PROFILE
 BOTTOM BATTENS NOT SHOWN FOR CLARITY
 TOTAL PLYWOOD SHEETS OF 1200x2400 (4'x8')
 6 MM = 4 SHEETS
 9 MM = 6 SHEETS
 12 MM = 3 SHEETS

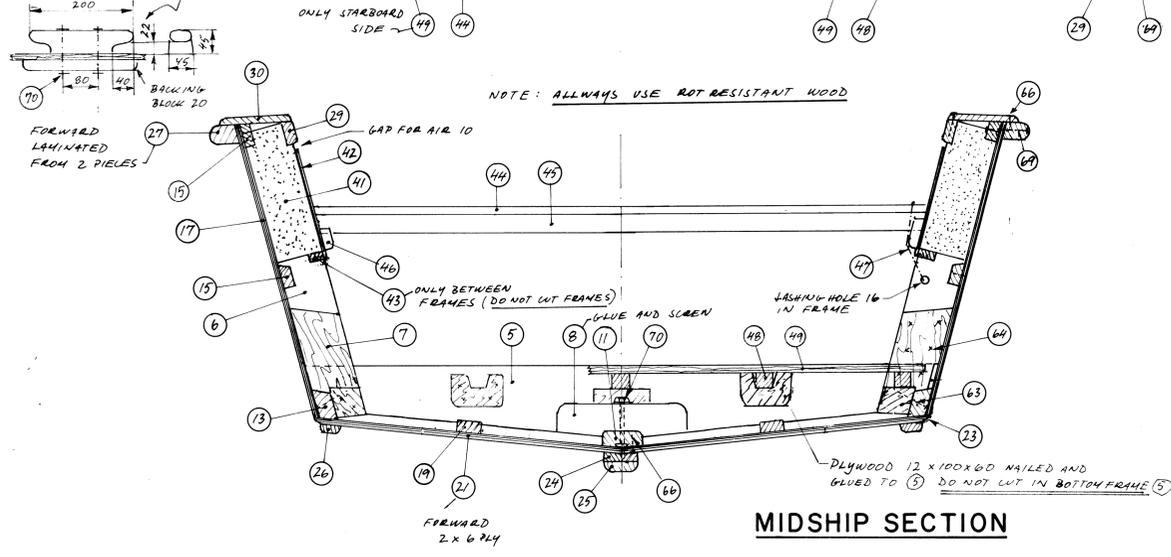
MATERIALS
 LISTED IN ORDER OF ASSEMBLY

POS	ITEM	DIMENSION MM	NET LENGTH MM	QUANT	NOTES
27	RAIL	35x53	1,2	19	FORWARD LAMINATED
28	BUTTBLOCK, RAIL	33x53	1,2	10	
29	LOAMING	20x45	1,2	16	
30	RAIL CAP	14x140	1,2	16	
31	BUTTBLOCK, RAILCAP	12 PLY	1,2	16	
32	SHELF	9 PLY	1,2	16	
33	BATTEN FOREDECK	20x45	1,2	15	
34	FOREDECK	9 PLY	1,2	16	
35	LOAMING FOREDECK	33x33	1,2	0,8	
36	MOORING BITT	70x70	1,2	1,0	
37	STIFFENER, WELL	20x45	1,2	2,4	
38	PLANKING, WELL	9 PLY	1,2	16	
39	FRONT, WELL	20x120	1,2	1,3	
40	SEAT	14x90	1,2	2,3	
41	BUOYANCY BLOCK				POLYSTYRENE
42	PROTECTION BUOYANCY BLOCK	9 PLY	1,2	1 sheet	
43	STIFFENER, PROTECTION	20x45	1,2	10	ONLY BETWEEN FRAMES
44	THWART	20x185	1,2	6	
45	THWART STIFFENER	33x33	1,2	12	
46	THWART SUPPORT	20x70	1,2	2,5	NOTCHED FOR THWART
47	THWART LASHING	8 ROPE	1,2	20,4	
48	FLOOR STIFFENER	33x33	1,2	32,4	
49	FLOOR PLANKING	14x90	1,2	76,4	

GENERALLY USE NAILS FOR FASTENING THE PLYWOOD (+ GLUE)
 SCREWS ONLY FORWARD WITH SEVERE BEND
 NAIL SPACING ALONG EDGES: 4 MM PLYWOOD, SPACING = 80 MM
 12 MM PLYWOOD, SPACING = 100 MM
 ALONG BATTENS SPACING = 150 MM
 USE COPPER ROD THREADED FOR BRASS NUTS AND NUTS
 RIVET HEAD OVER NUTS ON ONE SIDE.

FASTENINGS - GLUE

POS	ITEM	DIMENSION	LENGTH	QUANT.	NOTES
60	WOODSCREW, LIGNUM VITAE	4,2 (8,6)	32 (1 1/4")	50	FOR 9 PLY
61	"	4,2 (8,6)	38 (1 1/2")	95 PC	12 PLY
62	"	4,9 (10,6)	45 (1 3/8")	181 PC	BATTENS 20
63	"	5,6 (12,6)	75 (3")	144 PC	CHINE
64	BARBED REINFORCING STEEL ROD, 3/16" DIA	2,7 (12,6)	25 (1")	1,8 KG	9, 6, 12 BATTENS
65	"	2,7 (12,6)	32 (1 1/4")	1,0 KG	9 PLY TO SCARF AND HOE
66	"	3,4 (10,9)	38 (1 1/2")	1,0 KG	12 PLY TO SCARF AND HOE
67	"	3,4 (10,9)	45 (1 3/8")	2,6 KG	RAILCAP, FLOOR
68	LOPPER BOLT NAIL	2,6 (12)	32 (1 1/4")	0,5 KG	BUTTBLOCKS 2, 12 PLY
69	"	4,0 (8,9)	100 (4")	2 KG	RAIL 27
70	LAMINATE BOLT, HOT DIP GALV	8 (3/16")	100 (4")	15 PC	FLOOR - HOE
71	"	8 (3/16")	125 (5")	10 PC	
72	"	8 (3/16")	150 (6")	5	
73	WIRENERS, STRANG, GALV.	8 (3/16")		35	
74	GLUE, EPOXY OR RESORCINOL				



9-3m Canoe CONSTRUCTION
 SCALE = 1:10, 1:5 DESIGN NO. DRAW. NO.
 DESIGN: G. Lamberton
 G.P. 1981, APRIL 91
PNG-8 A 4

