

1. INTRODUCTION

This manual contains information on the construction of small multi-purpose boats typical of those found in the Ayeyarwaddy Delta in Myanmar. Its purpose is to give organizations access to detailed information on boatbuilding, which will allow the production of small boats appropriate to the Delta. It is also intended to assist organizations in their understanding of the boatbuilding process and to provide guidelines on good practice. It should assist in the review of contracts and quality control in boatbuilding.

2. DESIGNS

Information on two designs – 12 ft and 18 ft boats – is presented. The boats are simple wooden canoes of flat-bottomed construction, typical of the small multi-purpose boats found in the Ayeyarwaddy Delta. The 12 ft design is intended to be propelled by paddles and the 18 ft design may be propelled by paddles, oars or long tail motor. (Note: No information is given on the installation of motors.)

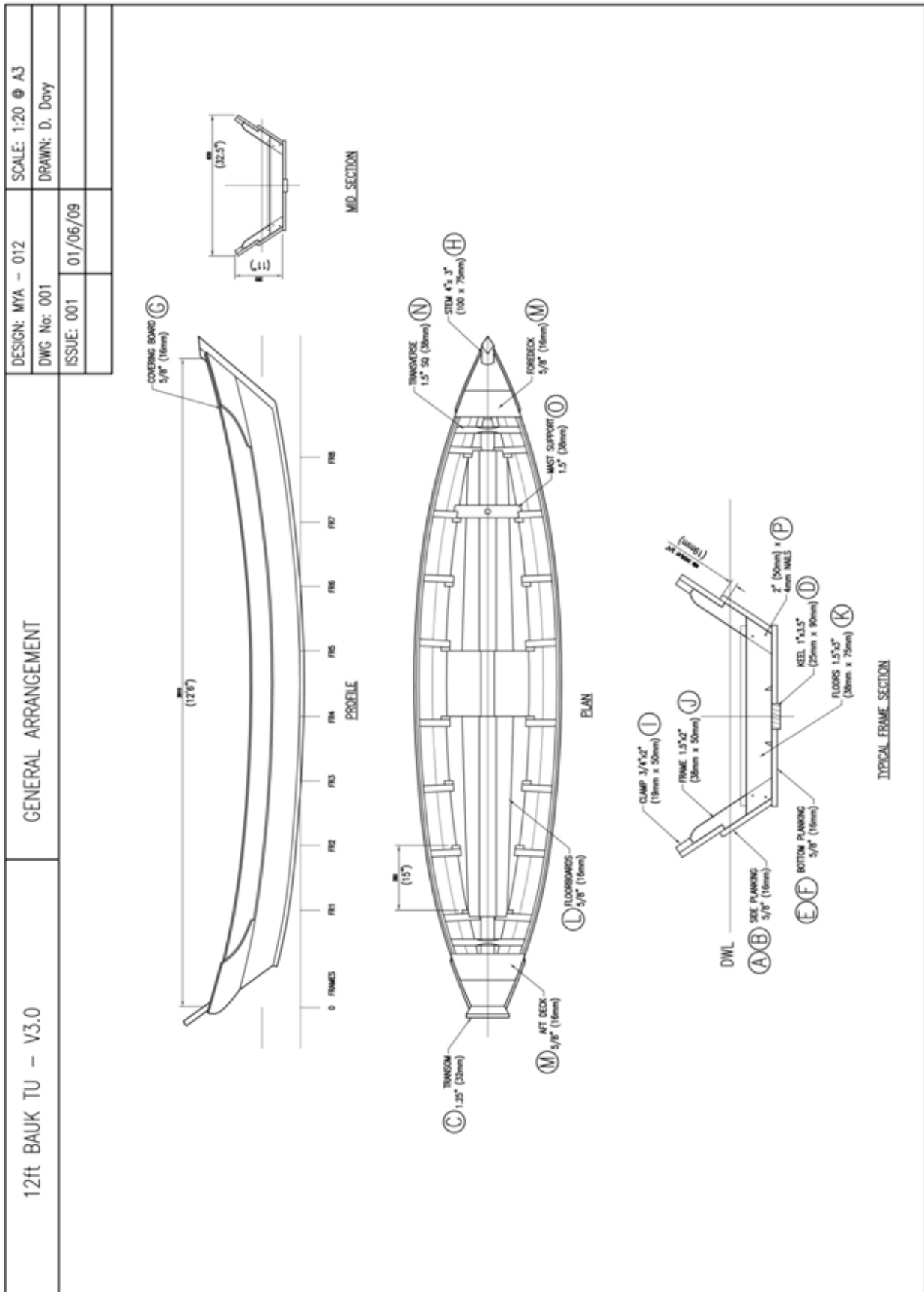
There are many local variations in boat design in the Delta. These mainly concern traditional preferences and features to suit local environmental conditions and fishing methods. When this manual is used by an experienced boatbuilder from the Delta, it will be possible to vary the given designs slightly to achieve the desired result.

The main details of the designs are given below.

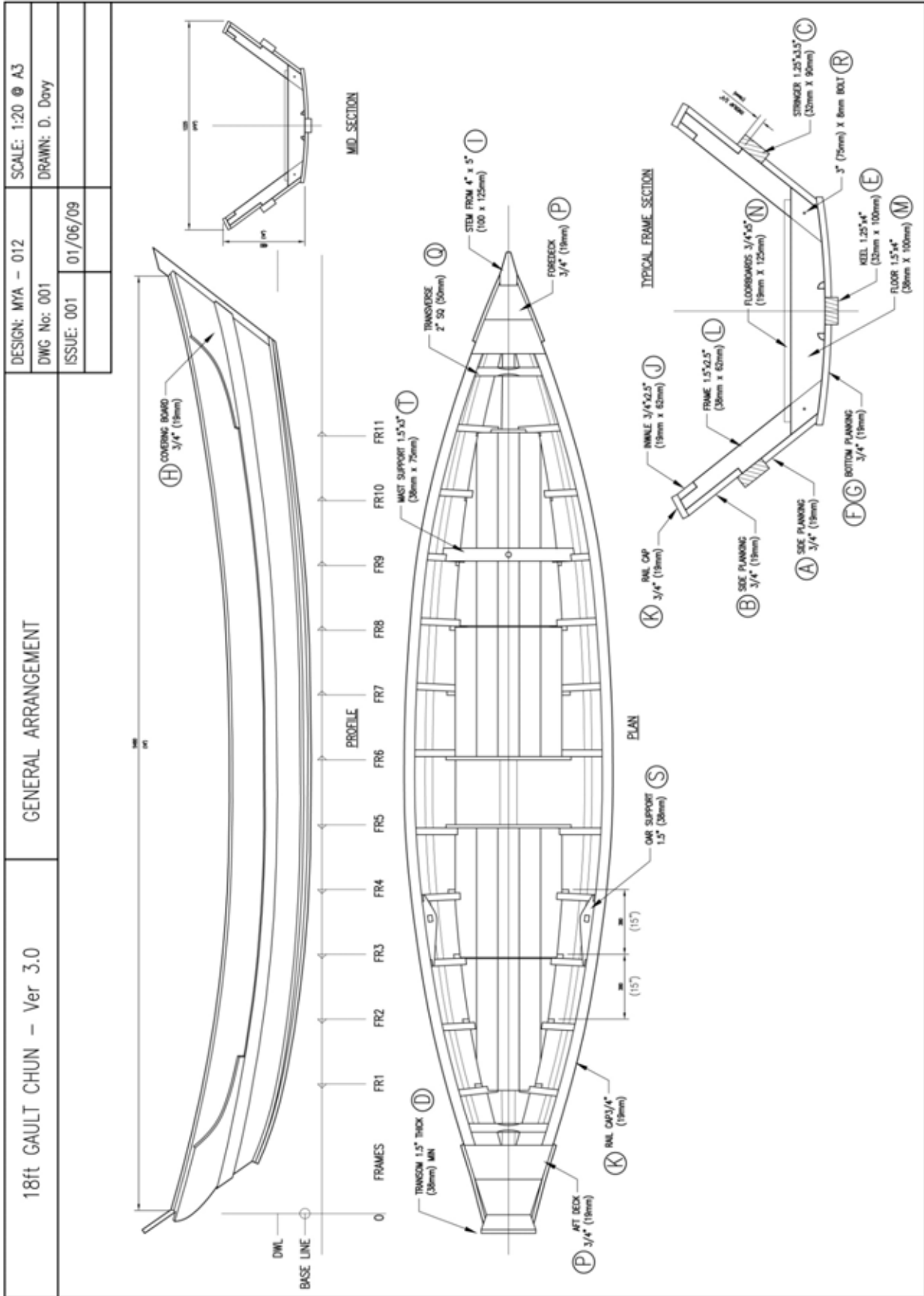
12 ft Boat	
Type of boat	<i>Bauk Tu</i> multi-purpose boat from Delta
Propulsion	Paddles
Length	12 ft 6 in (3 810 mm) measured along length of top plank
Beam	32.5in (830 mm) measured across widest point
Depth	11 in (280 mm) measured from top of keel at mid-section

18ft Boat	
Type of boat	<i>Gault Chun</i> multi-purpose boat from the Delta
Propulsion	Oars and paddle
Length	18 ft (5 480 mm) measured along length of top plank
Beam	4 ft (1 225 mm) measured across widest point
Depth	19 in (480 mm) measured from top of keel at mid-section

12 ft *Bauk Tu*

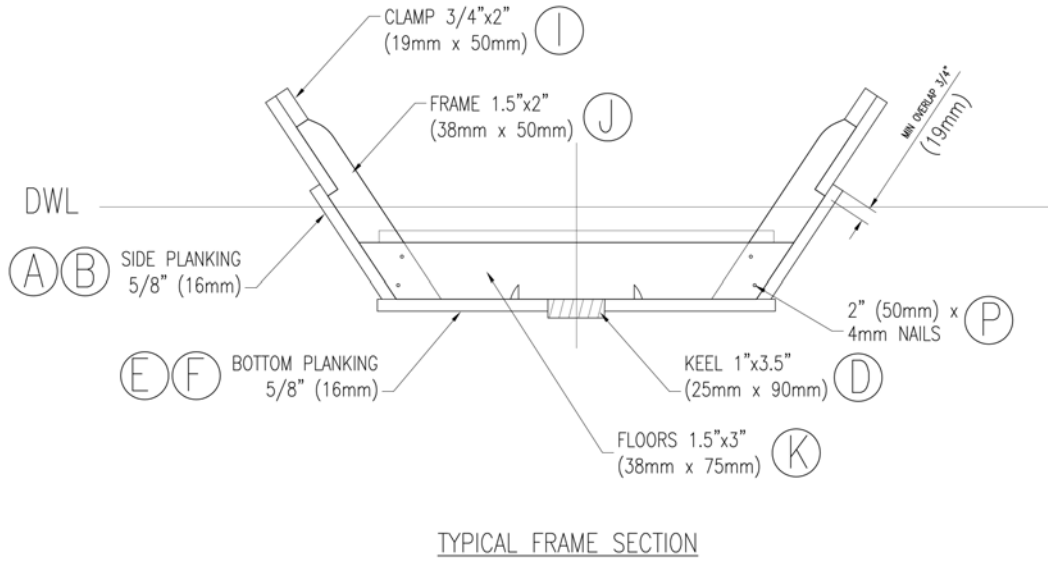


18 ft Gault Chun

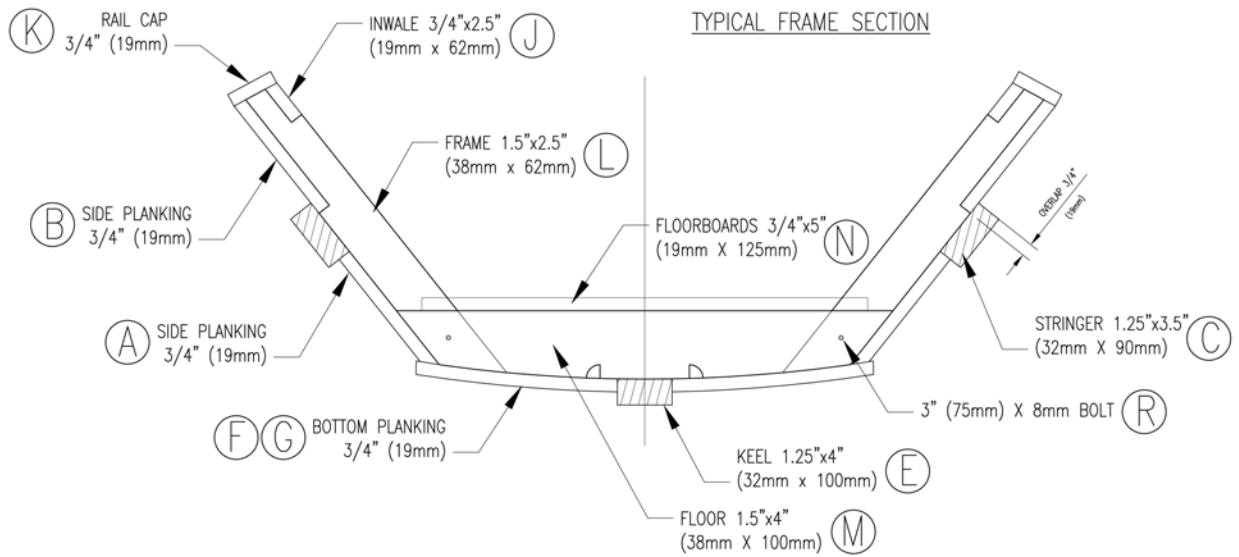


3. SCANTLINGS

12-ft *Bauk Tu* Typical Frame Section



18-ft *Gault Chun* Typical Frame Section



4. MATERIAL REQUIREMENTS

12ft *Bauk Tu*

Materials list					
	Item	Length (min)	Width	Thickness	No. of pieces
	Timber	(mm)	(mm)	(mm)	
A	Lower side plank	3 840	180	16	2
B	Upper side plank	4 150	160	16	2
C	Transom	600	250	32	1
D	Keel	3 460	75	25	1
E	Inner bottom plank	3 460	125	16	2
F	Outer bottom plank	2 540	125	16	2
G	Covering board (side)	800	180	16	4
H	Stem	600	100	75	1
I	Clamp	4 150	50	19	2
J	Frames	350	50	38	16
K	Floors	600	75	38	8
L	Floorboards	1 200	100	16	10
	Floorboard transverses	500	38	19	6
M	Decks	600	180	16	5
N	Transverses	500	38	38	2
O	Mast supports	500	75	38	2
	Fastenings*	Joint	Length	Thickness	No. of pieces
			(mm)	(mm)	
	Nail	Planks to frames	50	4	160
	Nail	Keel to frames	50	4	30
	Nail	Bottom plank to side plank	38	3	40
	Nail	Clamp to plank	38	3	30
P	Nail	Frame to frame	50	4	40
	Nail	Rail cap	38	3	40
	Nail	Plank to plank	38	3	250

* Note: All fastenings should be hot-dipped galvanized.

18ft *Gault Chun*

Materials list					
		Length (min)	Width	Thickness	No. of pieces
	Timber	(mm)	(mm)	(mm)	
A	Lower side plank	5 360	220	19	2
B	Upper side plank	5 820	200	19	2
C	Stringer	5 490	90	32	2
D	Transom	900	320	40 min.	1
E	Keel	4 860	100	32	1
F	Inner bottom plank	4 860	150	19	2
G	Outer bottom plank	3 815	150	19	2
H	Covering board (side)	1 000	200	19	4
I	Stem	950	125	100	1
J	Inwale	5 470	62	19	2
K	Rail cap	2 000	160	19	6
L	Frames	600	38	62	22
M	Floors	750	38	100	11
N	Floorboards	800	125	19	15
N	Floorboards	1 150	125	19	5
N	Floorboard transverses	650	38	19	20
P	Decks	650	200	19	5
Q	Transverses	700	50	50	2
S	Oar supports	470	120	38	2
T	Mast supports	900	75	38	2
	Fastenings*	Joint	Length	Thickness	No. of pieces
		(mm)	(mm)	(mm)	
R	Bolt + (nut & washer to suit)	Frame to frame	75	8	25
	Nail	Planks to frames	50	4	200
	Nail	Keel to frames	62	5	25
	Nail	Stringer to frame	62	5	50
	Nail	Bottom plank to side plank	50	4	50
	Nail	Inwale to frame	50	4	50
	Nail	Frame to frame	50	4	50
	Nail	Rail cap	50	4	50
	Nail	Plank to plank	38	3	700

* Note: All fastenings should be hot-dipped galvanised.