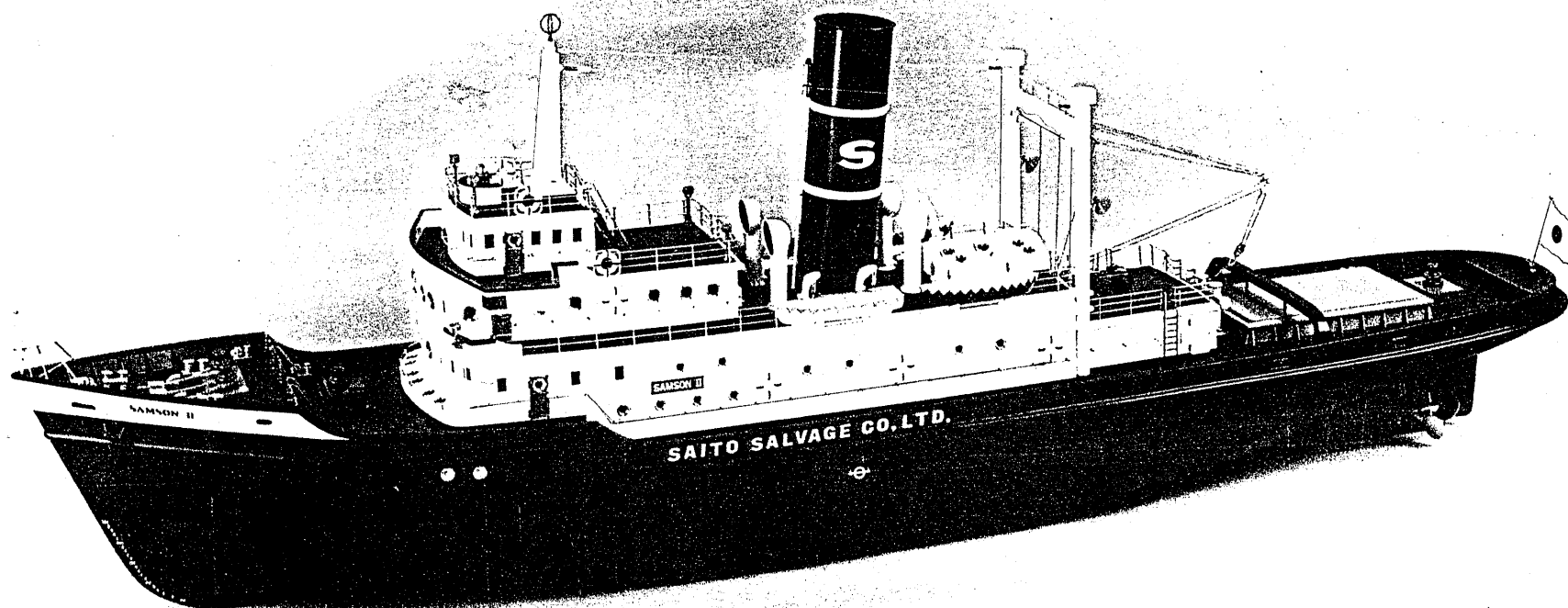


S. 1/40
DEEP SEA SALVAGE TUGBOAT
SAMSON II

Instruction Manual for Assembly



MADE IN JAPAN



We thank you for your purchase of Model Kit "Deep Sea Salvage Tugboat Model Samson II."

Before you start your assembly work, we recommend you to go through this instruction manual for your better understanding of working sequence.

We also recommend you to prepare following tools and adhesives to make your work more efficient.

Since this model ship is not a full scale model of particular ship, you can freely finish the ship with your original fittings and paintings.

Tools:

Fine pitch saw, small planer (balsa planer etc.), small pliers, nipper, hair dryer, soldering iron, tweezers, small electric drill, a set of files (10 mm flat file, 3 mm and 8 mm round bar files), #240 and #80 sand papers, compass, scizzors, paper cutter, pin vice, etc.

Adhesives:

In this manual, types of adhesive are indicated with [1], [2] and [3].

[1] Cyanide instant adhesive (2 types) Various types are available. We recommend to prepare the one thinner type for wooden work (for the bonding of ABS and veneer materials) and the other for veneer (for the bonding of veneer and veneer) for the convenience of work.

[2] 5 minutes curing type epoxy adhesive For quick bonding, heat bonding section with hair dryer and guide adhesive with a piece of wire etc. Do not use heat to build up so that adhesive does not flow.

[3] 30 minutes curing type epoxy adhesive Use this adhesive for the bonding of deck plate, hull and frame without heat. For better curing, we recommend to make ambient temperature higher than 20 degrees centigrade in the winter. For the bonding of balast, use rubber series adhesive.

Paints:

Use lacquer, urethane paint, epoxy paint, etc. for the hull and plastic color is convenient for small items.

☆ Lacquer: White 1/5 l

Green Small quantity

Yellow Small quantity

Black 1/5 l

Red 1/5 l

Blue Small quantity

☆ Plastic colors: Black iron, gray, red, green, mohogany color, etc.

☆ Lacquer surfacer

☆ Putty

☆ Thinner 2 l

☆ Water paper #400 & #800

Samson II Parts List				A32	Rudder shaft	1	BS 4φ x 120L	A70	Rod	2	BS2φx30L Single-end screw
Note: BS: Brass, ABS: ABS resin, AL: Aluminum, φ: Diameter, t: Plate thickness, W: Width, L: Length				A33	Rudder bearing	1	BS 6φ x 25L	A71	//	2	BS2φx80L Single-end screw
				A34	Rudder arm	5	BS				
				A35	Engine bed	1	9mm veneer	A73	//	2	BS2φx35L Double-end screw
				A36	Engine bed support	2	//	A74	Rod joint	1	BS 3φ x 30L
				A37	//	2	//	A75	//	1	BS 4φ x 200L
A: Hull parts				A38	// fixing screw	8	Wood screw M3x16L	A76	Linkage rod	2	BS
Part No.	Part	Q'ty	Remarks	A39	// fixing washer	8		A77	Linkage shaft	2	BS 4 φx65L
A1	Hull	1	FRP	A40	Screw propeller (L)	1	BS				
A2	Deck plate	1	3mm China veneer	A41	// " (R)	1	//				
A3	// (Middle section)	1	//	A42	Propeller shaft	1	Stainless steel 4φx253L				
A4	// (Bow)	1	//	A43	Teflon washer	4	12φ x 0.5t	A81	Rudder reinforce plate	4	BS 0.5t
A5	Frame plate	1	//	A44	Oil pipe	2	BS 5φ x 40				
A6	//	1	//	A45	Shaft bearing (Fore)	2	BS	B: Cabine parts			
A7	//	1	//	A46	Single joint	4	Iron (Black)				
A8	//	1	//	A47	O-ring	4	P-6	Part No.	Parts	Q'ty	Remarks
A9	//	1	//	A48	Propeller shaft	2	Stainless steel 4φx75L	B1	Cabin side plate (1st stage)	2	3 mm China veneer
A10	//	1	//	A49	Double gear	1	BS	B2	Frame plate	1	//
A11	//	1	//	A50	Gear fixing screw	4	Wood screw M3x10L	B3	//	1	//
A13	//	2	//	A51	Double joint	1	Iron (Black)	B4	//	2	//
A14	//	1	//	A52	Anchor	2		B5	//	1	//
A15	//	1	2mm China veneer	A53	Casted bollard (Large)	1		B6	//	1	//
A16	//	2	3mm China veneer	A54	// (Small)	1		B7	Cabin deck plate (1st stage)	1	//
A17	//	2	//	A55	Bollard (Large)	4	AL 9φ x 11L	B8	Crane fixing side plate	2	//
A18	//	1	//	A56	Bollard (Small)	12	AL 6φ x 11L	B9	Frame plate	2	//
A19	//	1	//	A57	Fair-leader	6	Castin	B10	//	1	//
A20	//	2	//	A58	Capstan base	1	3mm China veneer	B11	Crane fixing rear plate	1	//
A21	//	2	//	A59	//	2	//	B12	Crane deck plate	1	//
A22	//	2	//	A60	Capstan (Small)	1	AL	B13	Cabin side plate (2nd stage)	2	//
A23		1	//	A61	Plastic gear	1		B14	Frame plate	1	//
A24	Stern tube support	2	//	A62	Front winch upper plate	1	3mm China veneer	B15	//	1	//
A25	//	2	//	A63	Front winch base	1	2mm China veneer	B16	Rear plate (2nd stage)	1	//
A26	Scupper	8	BS 13φ	A64	Side window	4	BS 12φ	B17	Cabin deck plate (2nd stage)	1	//
A27	Mooring hole	6	AL 1t	A65	Flag staff base	1	Aluminum casting	B18	Frame plate	2	//
A28	Stern tube	2	BS 6.35φ x 225l	A66	Seal (Flag)	1		B19	//	2	//
A29	Shaft bearing (Aft)	2	BS	A67	Servo fixing base	1	3mm China veneer	B20	//	2	//
A30	Rudder	1	3mm China veneer	A68	Ball joint	1		B21	//	2	//
A31	//	1	//					B22	Funnel base	1	2mm China veneer

Part No.	Part	Q'ty	Remarks	B60	Funnel fixing plate	2	3mm China veneer	B98	Search light	2	AL19φx13L
B23	Rear post support base	2	3mm China veneer	B61	Steam whistle	1	BS	B99	Search light pole	2	//
B24	Cabin front plate	1	2mm //	B62	Engine room roof plate	1	3mm China veneer	C: RC hatch parts			
B25	Frame plate	3	3mm //	B63	//	2	//				
B26	//	1	2mm //	B64	// side plate	2	//				
B27	//	1	// //	B65	// front/rear plates	2	//				
B28	Boat davit base	8	3mm //	B66	Boat davit	8	2mm China veneer	Part No.	Part	Q'ty	Remarks
B29	Rear post	2	AL 13φx260L	B67	//	16	//	C1	Upper plate (Large)	1	3mm China veneer
B30	Rear post support base	6	// 1t	B68	Motor for boat	8	AL 7φx10L	C2	Upper plate (Small)	1	//
B31	Rear post positioning base	2	ABS 2tx5φx40L	B69	Pulley bearing	8	// 6φx1.5t	C3	Side plate	2	//
B32	Wheelhouse side plate	2	3mm China veneer	B70	Pulley	8	//	C4	Front plate	1	//
B33	Frame plate	2	// //	B71	Motor boat	2	Plastics	C5	Rear plate	1	//
B34	Wheelhouse rear plate	1	// //	B72	Motor boat frame plate	2		C6	Towing beam	2	//
B35	Wheelhouse front plate	1	2mm //	B73	Row boat	2	Plastics	D: Rear hatch parts			
B36	Wheelhouse deck plate	1	// //	B74	Row boat frame plate	2					
B37	Rader mast side plate	2	// //	B75	Rear ventilator	2	AL 24φx12L				
B38	Loop antenna	2	BS 1.5φx18φ	B76	Rear post beam plate	1	3mm China veneer	Part No.	Part	Q'ty	Remarks
//	Loop antenna pole	1	// 4φx20L	B77	Rear post side plate	2	//	D1	Upper plate	1	3mm China veneer
B40	Search light flange	6	AL	B78	Boom A	1	AL 5φx60L	D2	Side plate	2	//
B41	Mast side beam	1	BS 3φx70L	B79	Boom B	1	AL 7φx130L	D3	Front/rear plates	2	//
B42	Mast lamp	6	//	B80	Boom C	1	AL 5φx60L				
B43	Triangular bar for rader	1		B81	Pivot	1	BS				
B44	Compass	1	AL	B82	Bracket	1	BS				
B45	Compass column	1	//	B83	M3 Countersunk screw	1					
B46	Compass base	1	//	B84	Pulley	2	BS				
B47	Compass soft steel ball	2	//	B85	Rear winch base	1	3mm China veneer				
B48	Compass protection plate	2	3mm China veneer	B86	//	2	//				
B49		1	2mm //	B87	//	2	//				
B50	Search light	6	AL	B88	Winch drum (Large)	1	AL 16φx20L				
B51	Search light stay	6		B89	Rear winch base	1	3mm China veneer				
B52	Search light pole	4	BS 4φx30L	B90	//	1	//				
B53	Life saving float	12	Plastic	B91	//	1	//				
B54	Setting pin	1		B92	Winch drum (Large)	1	AL 11φx11L				
B55	Upper ventilator	4	AL	B93	Winch drum (Small)	2	AL 10φx10L				
B56	Ventilator middle pipe	4	// 15φx65L	B94	Frame (R)	1					
B57	Ventilator flange	4	//	B95	Frame (L)	1					
B58	Funnel	1	// 70φx260L	B96	Rear drum	1					
B59	Funner ring	3	1.5φx73φ	B97	Rear spacer	2					

E: Common parts				F: Common material			
Part No.	Part	Q'ty	Remarks	Part No.	Part	Q'ty	Remarks
E1	Eyelet	4		F1	Brass wire $\phi 0.5$	1/2	Single wire length:1 m
E2	Handrail post	71	BS	F2	// $\phi 0.8$	5	//
E3	Staircase set	5	5 sets	F3	// $\phi 1$	7	//
E4	Hook	39		F4	// $\phi 1.5$	1/2	//
E5	Spring	13		F5	// $\phi 2$	1	//
E6	Capstan (Large)	3	AL	F6	ABS sheet 1(t)x3(W)	2	//
E7	Motor	3	AL	F7	ABS sheet 1(t)x6(W)	2	//
E8	Roller	16	// 5 ϕ x 5L	F8	ABS sheet 1(t)x10(W)	1	//
E9	M3 bolt	3	M3 x12L	F9	ABS sheet 1(t)x20(W)	3	//
E10	M3 nut	4		F10	ABS sheet 1(t)x25(W)	2	//
E11	Loop antenna pole	1	BS 3 ϕ x25L	F11	ABS square bar 3x3	8	//
	Winch drum shaft	1		F12	ABS square bar 4x4	5	Single timber length:900m
	Towing beam stay	2		F13	Hinoki square bar 5x5	5	//
E12	Pulley	21	Plastic	F14	Balsa square bar 8x8	1	200 mm
E13	Handrail knob	76	BS	F15	Balsa square bar 10x10	1	450 mm
E14	Round window (Large)	20	BS 16 ϕ	F16	Wire	1	2 m
E15	round window (Medium)	48	// 12 ϕ	F17	Kite string	1	5 m
E16	Squar window	29	// 14x18	F18	Door material	1	80x100 balsa
E17	Door hinge	16	// 2 ϕ x6L	F19	Chain	1	500 mm
E18	Valve	6	//	F20	Rubber pipe	1	($\phi 5$ I.D.) 800mm
E19	Cock	6	//	F21	Rubber pipe	1	($\phi 3.4$ I.D.) 1m
E20	M2 bolt	8	M2x5L	F22	Solution B	1	Preliminaru treatment agent
E21	M2 nut	28					
E22	M4 screw	4	M4x20L				
E23	M4 nut	4					
E24	M2 screw	13	M2x8L				
E25	M2 bolt	8	M2x7L				
				G: Building berth and gauge parts			
				Part No.	Part	Q'ty	Remarks
				G1	Building berth (Front)	1	9mm veneer
				G2	Building berth (Rear)	1	//
				G3	// (side plate)	2	//
				G4	Gauge plate (a)	1	3mm China veneer
				G5	Gauge plate (b)	1	
				G6	Gauge plate (c)	1	

Cautions:

1. For the assembly of this ship, adhesive for wood work can not be used.
2. No specific heat preventive measure is required for inner hull, however, do not use vinyl chloride resin coating for inside.
3. F22B liquid included in this kit is a preliminary treatment agent for the bonding of ABS to other material. Prior to the bonding, apply this agent to ABS parts with brush etc. and bond them together with epoxy resin adhesive within 20 minutes. As it has strong inflammability and evaporating property, careful attention is required against fire.

Painting procedure:

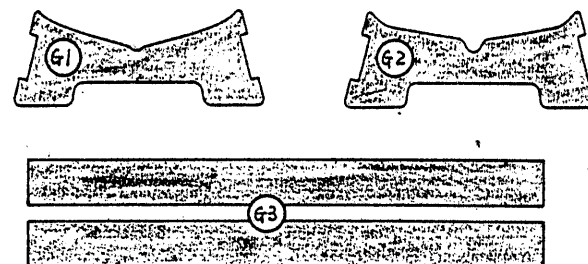
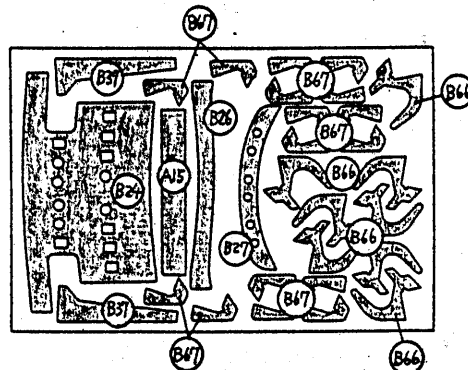
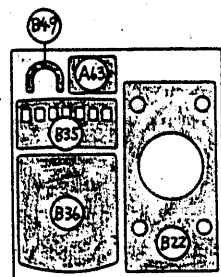
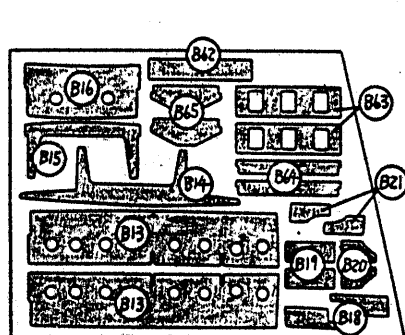
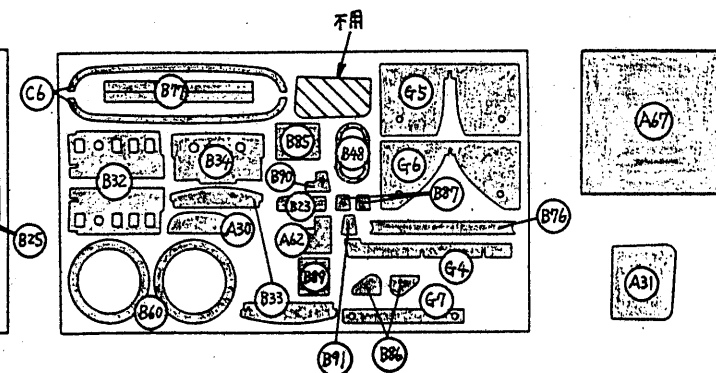
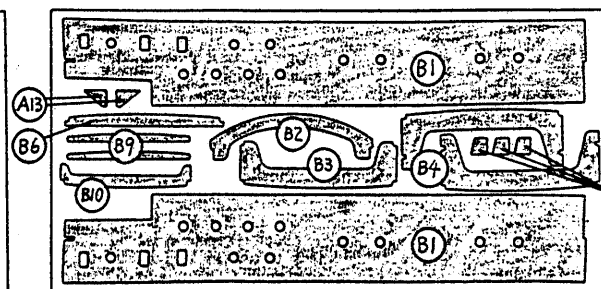
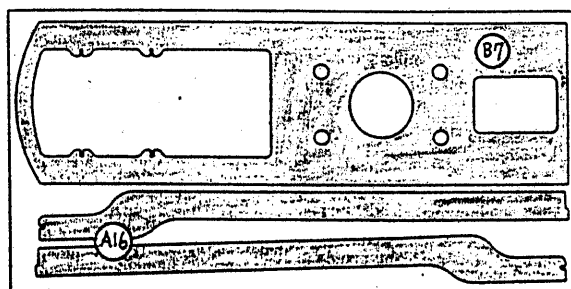
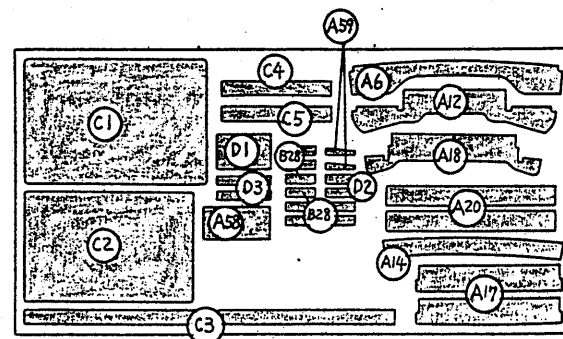
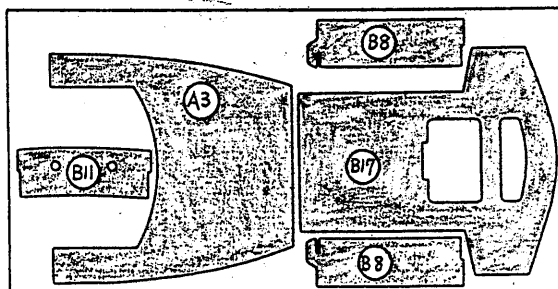
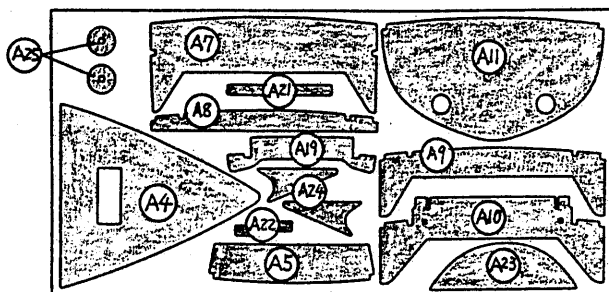
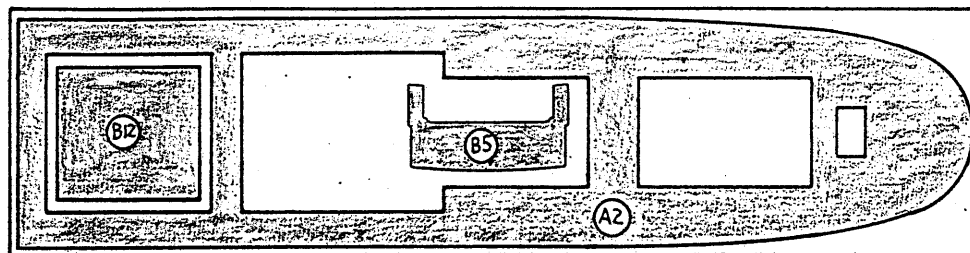
1. Remove external flaws etc. with #400 water paper and mask deck plate with masking tape etc.
2. Apply surfacer 3 times. After each surfacer application, dry surface and use water paper.
3. Fill dents etc. with putty and perfectly finish the base. Also, wood sections of cabin etc. must be prepared for the base.
4. Mask the lower section of waterline and paint black lacquer 3 to 4 times, then mask upper section and paint under the waterline in red with 0.5% black.
5. Paint deck plate, cabin, etc. consulting a photograph on the outer box.

Wooden Parts List

Attention:

Put part numbers on each part prior to their removal according to this list.

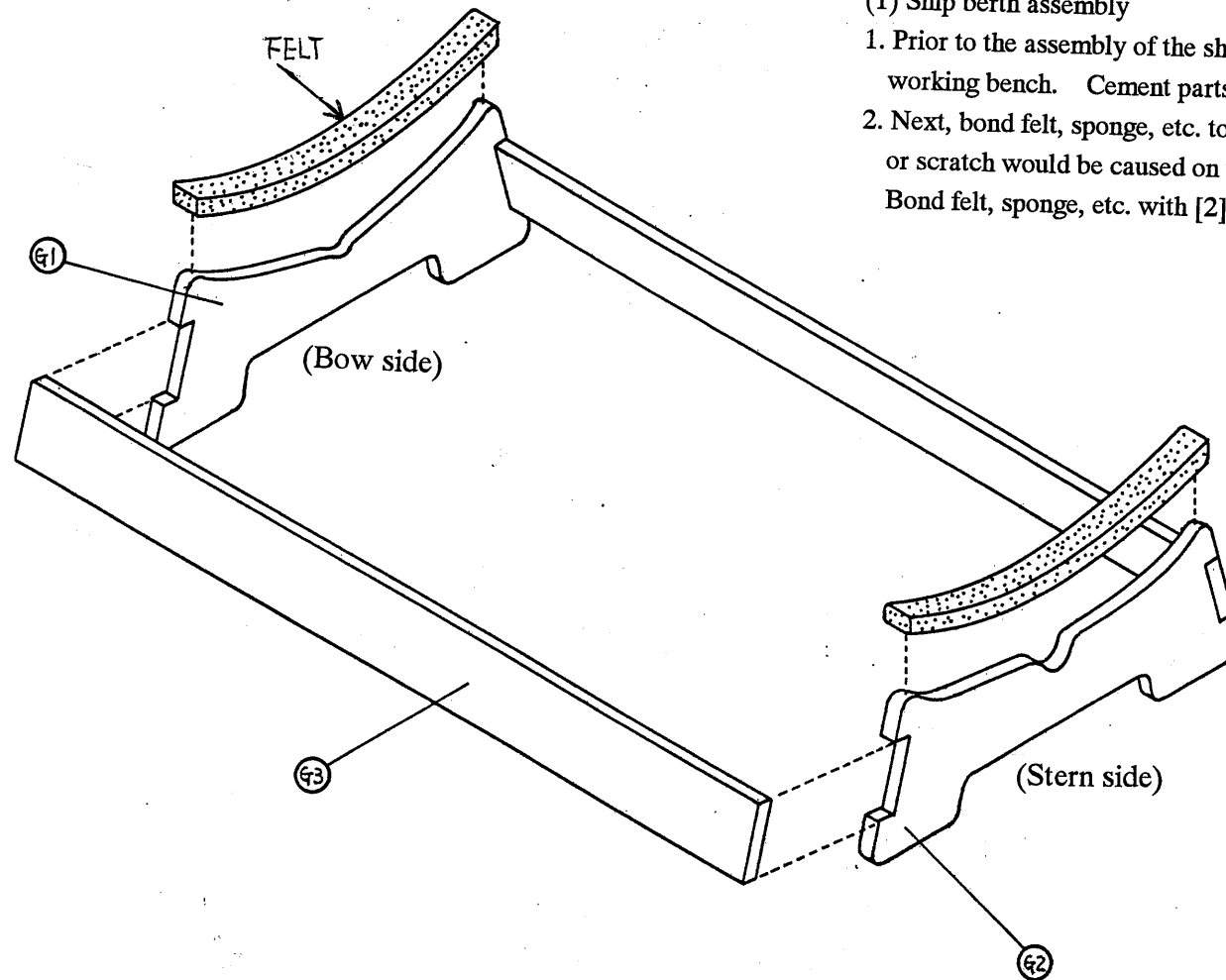
For the assembly, numbered face must be placed inside.



[1] Ship berth assembly

(1) Ship berth assembly

1. Prior to the assembly of the ship, assemble ship berth for working bench. Cement parts G1, G2 and G3 with [2].
2. Next, bond felt, sponge, etc. to G1 and G2 so that no flaw or scratch would be caused on the hull.
Bond felt, sponge, etc. with [2].

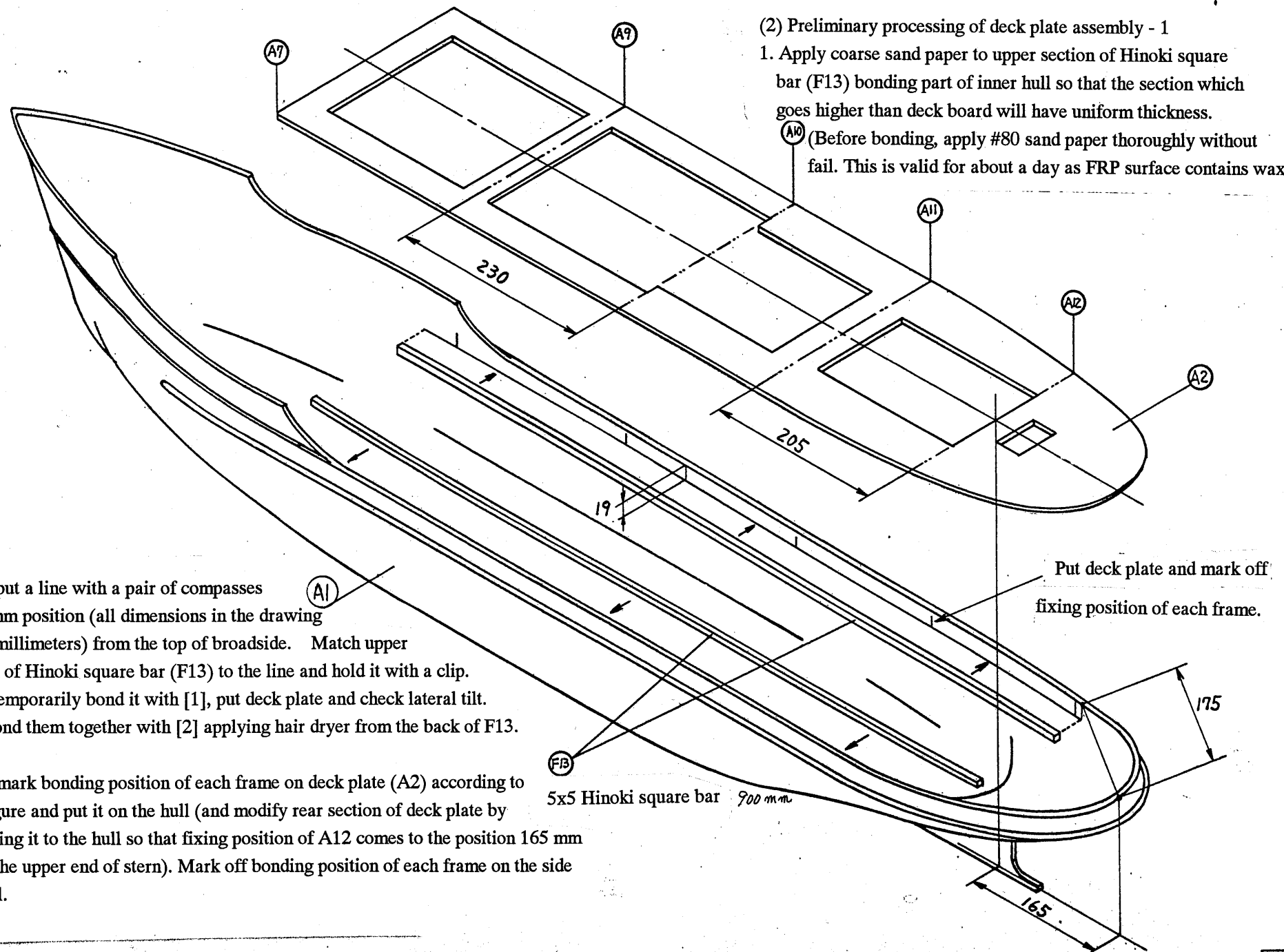


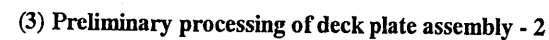
[2] Hull assembly

(2) Preliminary processing of deck plate assembly - 1

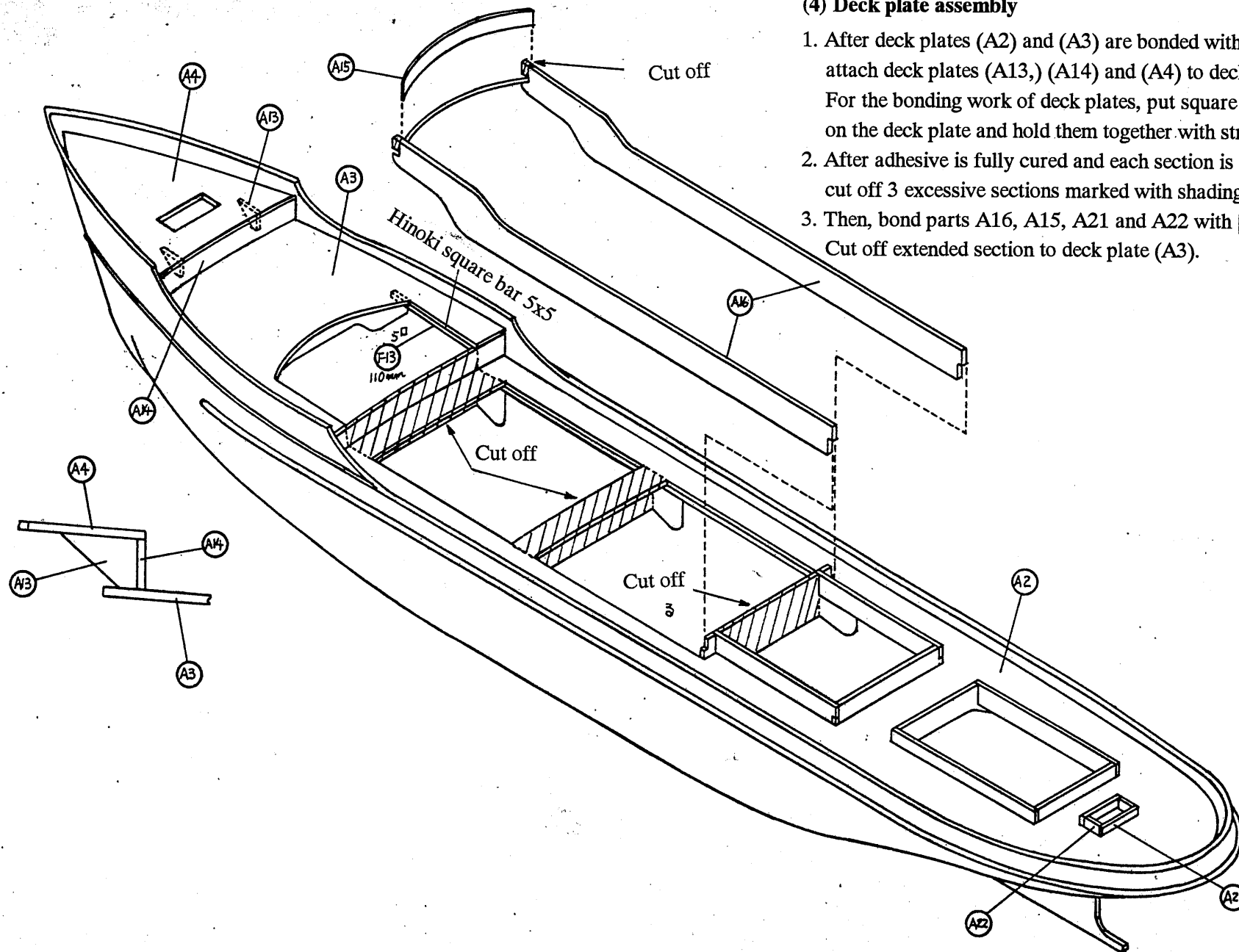
1. Apply coarse sand paper to upper section of Hinoki square bar (F13) bonding part of inner hull so that the section which goes higher than deck board will have uniform thickness.
(A10) (Before bonding, apply #80 sand paper thoroughly without fail. This is valid for about a day as FRP surface contains wax.)

2. Next, put a line with a pair of compasses at 19 mm position (all dimensions in the drawing are in millimeters) from the top of broadside. Match upper section of Hinoki square bar (F13) to the line and hold it with a clip. After temporarily bond it with [1], put deck plate and check lateral tilt. And bond them together with [2] applying hair dryer from the back of F13.
3. Next, mark bonding position of each frame on deck plate (A2) according to the figure and put it on the hull (and modify rear section of deck plate by matching it to the hull so that fixing position of A12 comes to the position 165 mm from the upper end of stern). Mark off bonding position of each frame on the side of hull.





- 3.



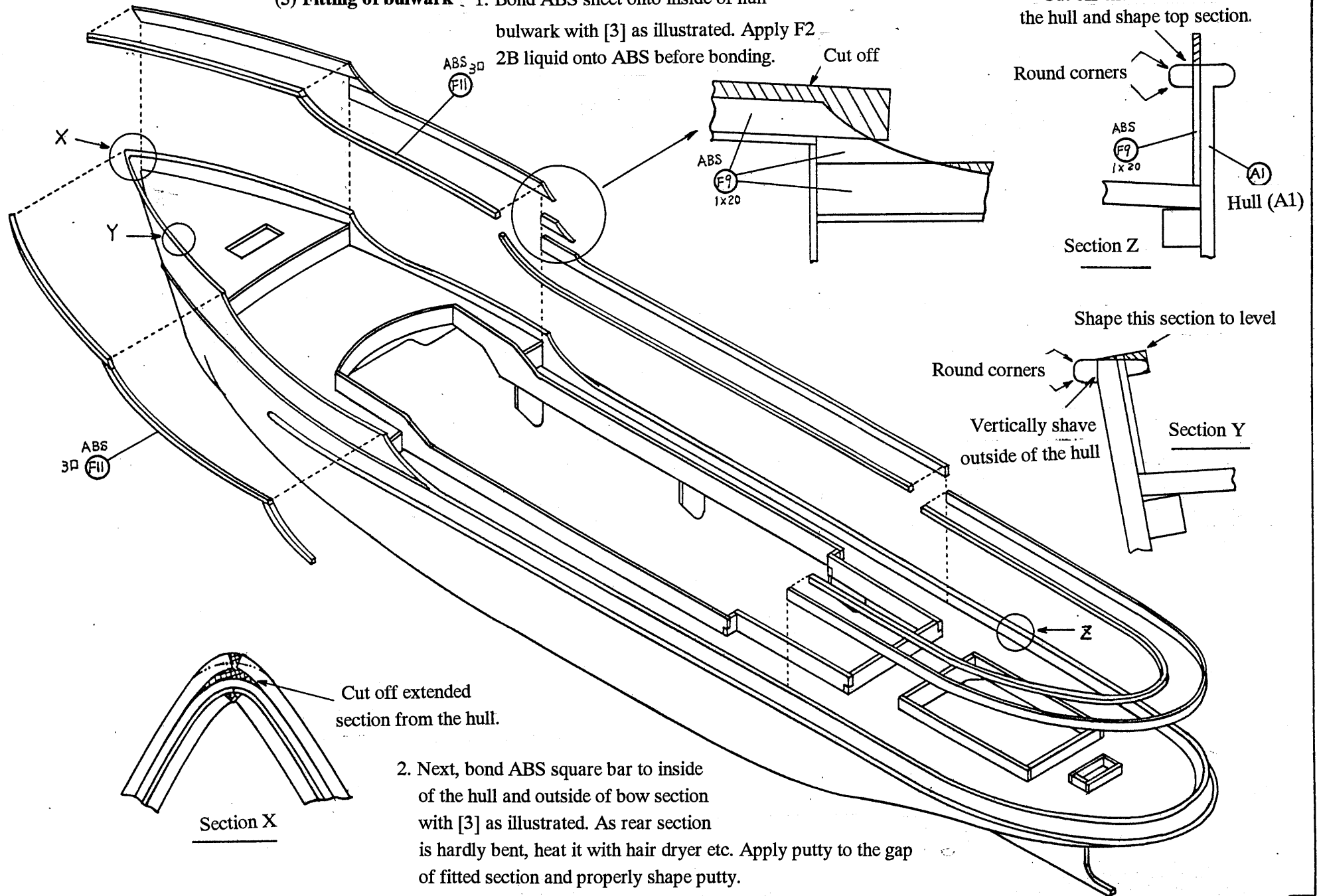
(4) Deck plate assembly

1. After deck plates (A2) and (A3) are bonded with [3], attach deck plates (A13,) (A14) and (A4) to deck plate (A3). For the bonding work of deck plates, put square bar etc. on the deck plate and hold them together with string or rubber tape.
2. After adhesive is fully cured and each section is fully fixed, cut off 3 excessive sections marked with shading.
3. Then, bond parts A16, A15, A21 and A22 with [3]. Cut off extended section to deck plate (A3).

(5) Fitting of bulwark

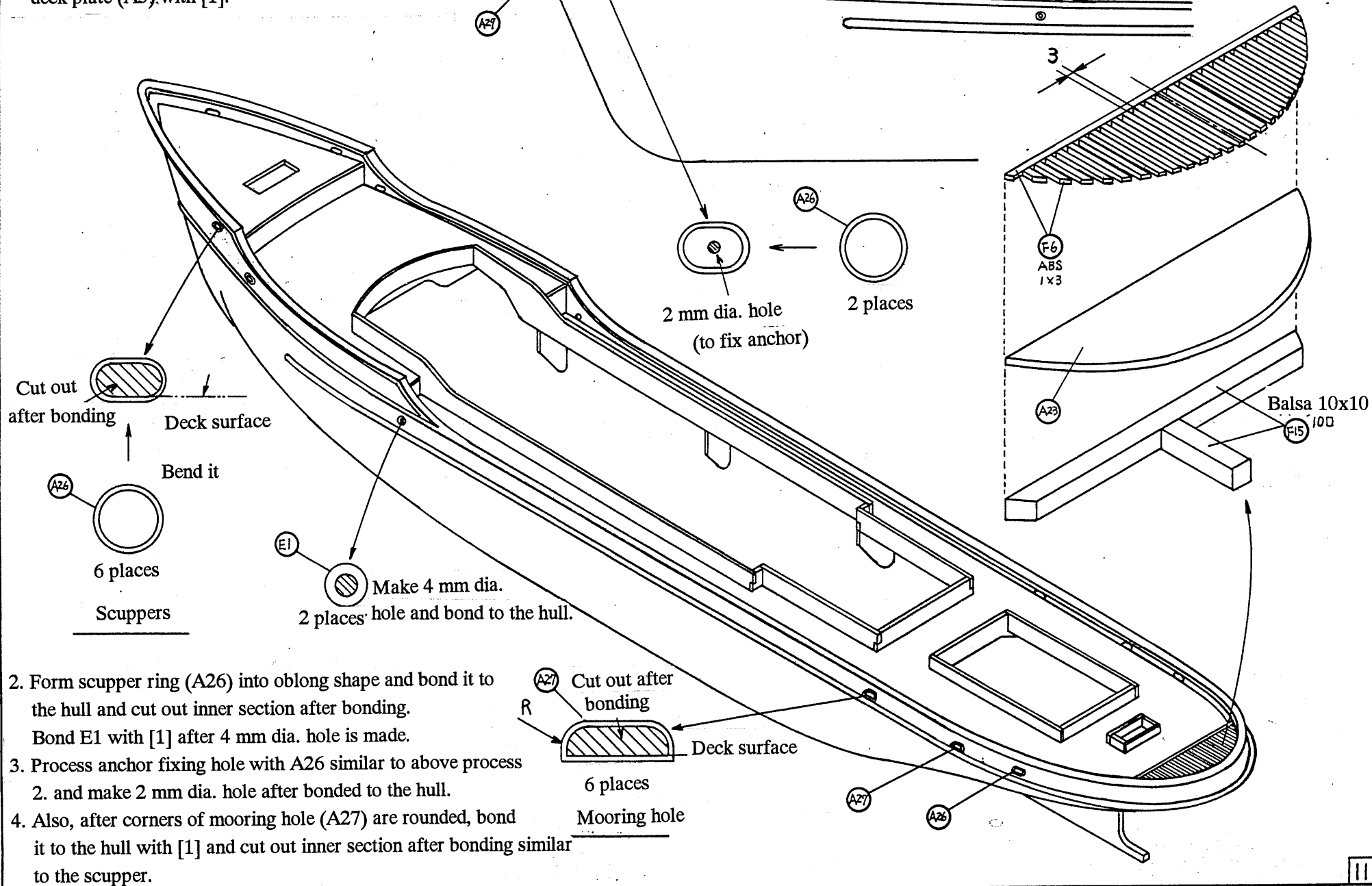
1. Bond ABS sheet onto inside of hull bulwark with [3] as illustrated. Apply F2 2B liquid onto ABS before bonding.

Cut off extended section from the hull and shape top section.



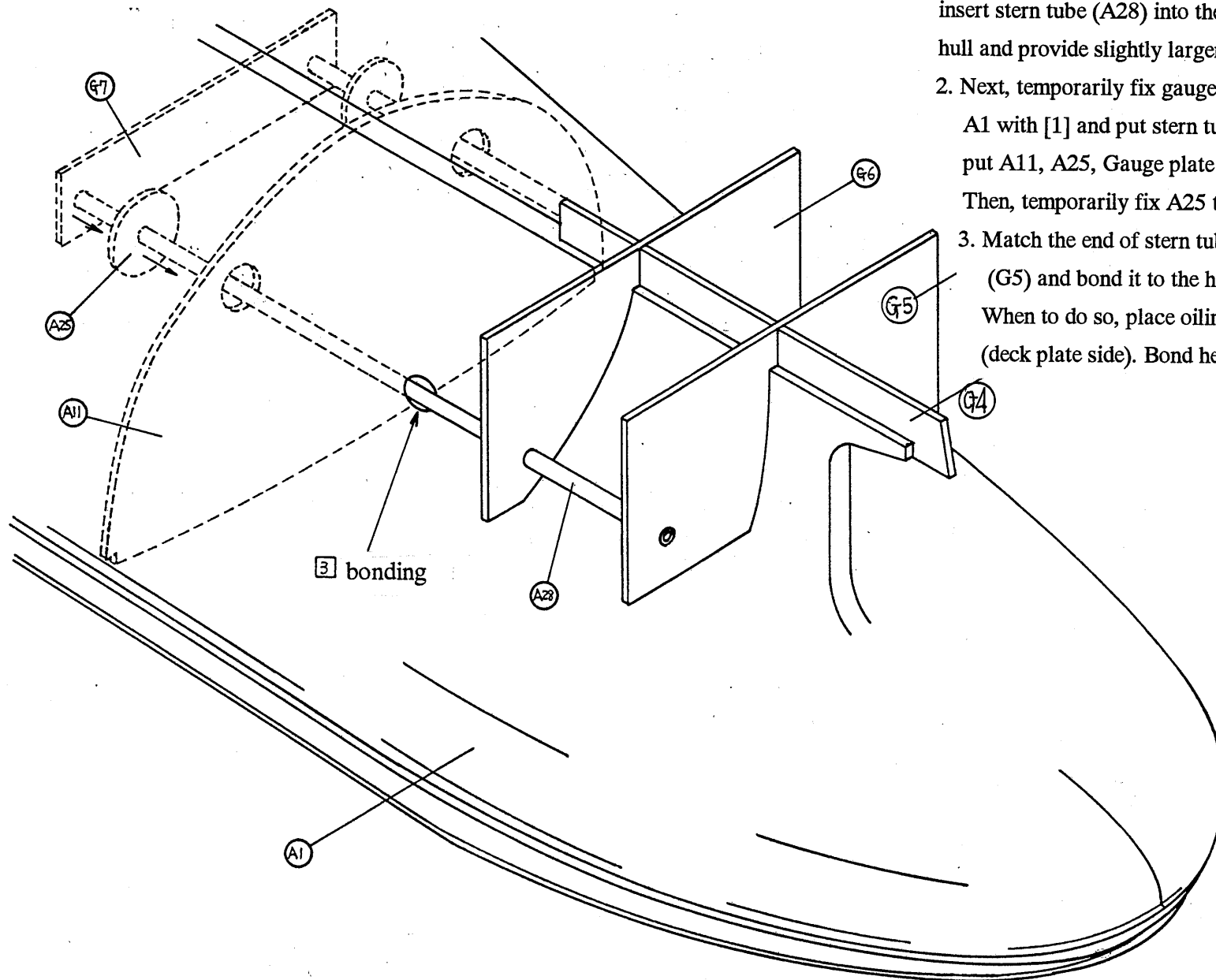
(6) Fitting of rear working deck, mooring hole, scupper, etc.

1. Process rear working deck as illustrated and bond it to deck plate (A3) with [1].



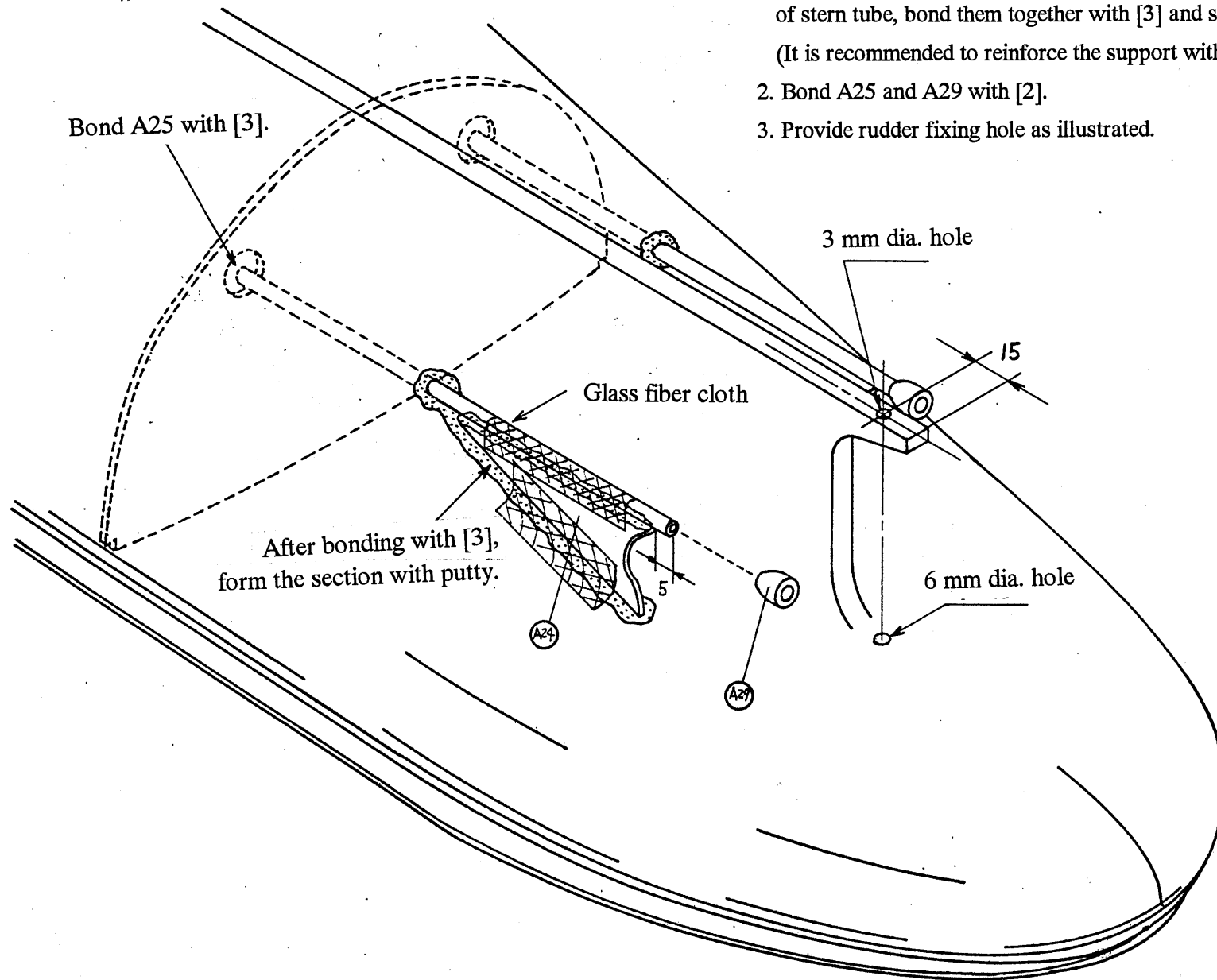
(7) Fitting of stern tube

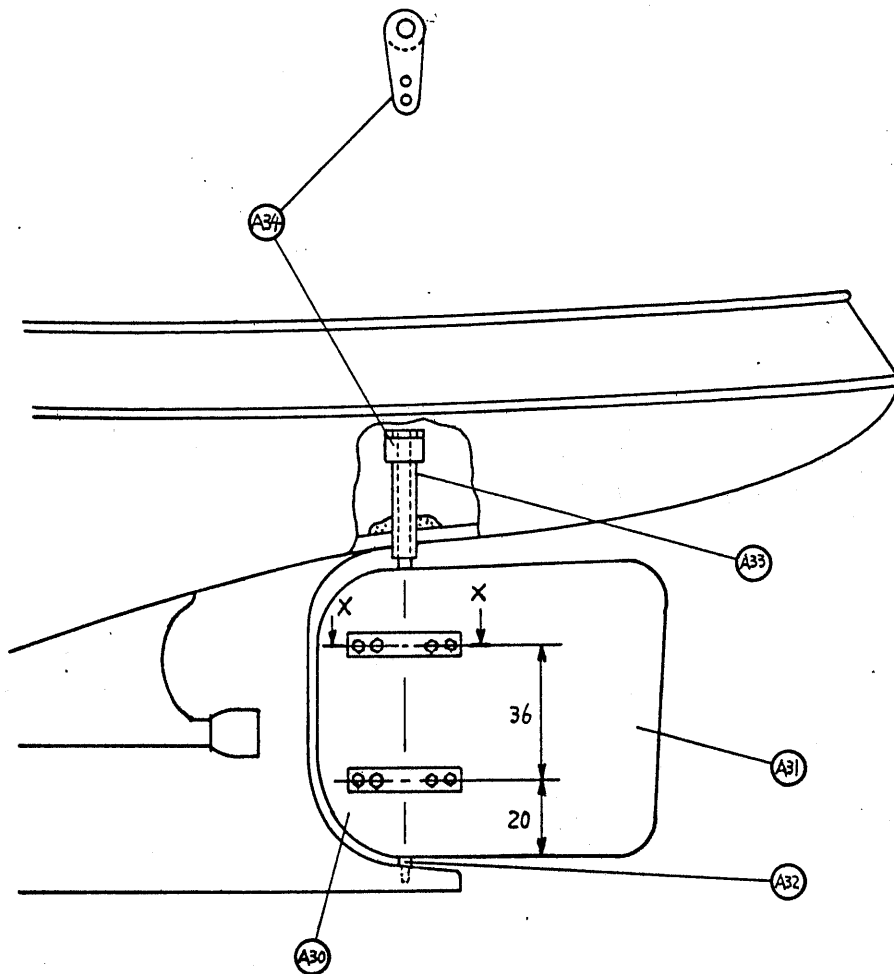
1. Attach gauge plates (G4), (G5) and (G6) to the bottom of A1, insert stern tube (A28) into the holes, mark hole position to the hull and provide slightly larger holes than stern tube diameter.
2. Next, temporarily fix gauge plates (G4), (G5) and (G6) to A1 with [1] and put stern tube inside of the hull and also, put A11, A25, Gauge plate (G7) into hull in this sequence. Then, temporarily fix A25 to A11 with [1] to stabilize stern tube.
3. Match the end of stern tube to the face position of gauge plate (G5) and bond it to the hull with [3].
When to do so, place oiling hole of stern tube downward (deck plate side). Bond here with [3]



(8) Fitting of stern tube support and processing of rudder fixing hole

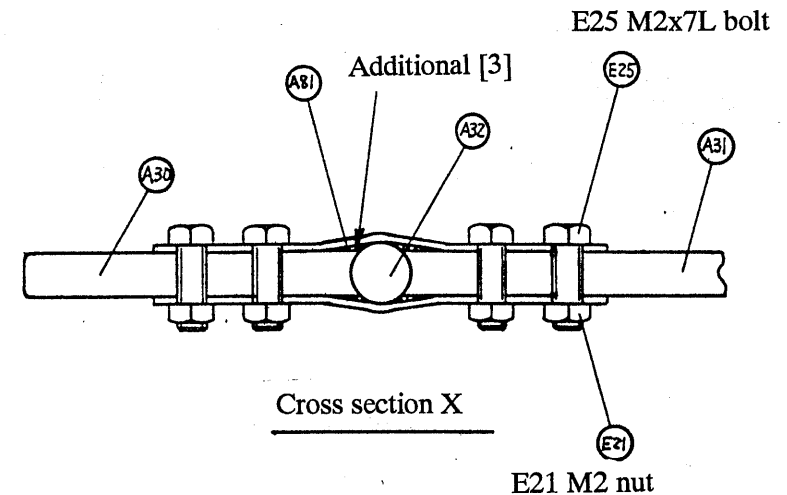
1. After support (A24) is processed matching to the curved surface of stern tube, bond them together with [3] and shape bonded section with putty. (It is recommended to reinforce the support with glass fiber cloth etc.)
2. Bond A25 and A29 with [2].
3. Provide rudder fixing hole as illustrated.

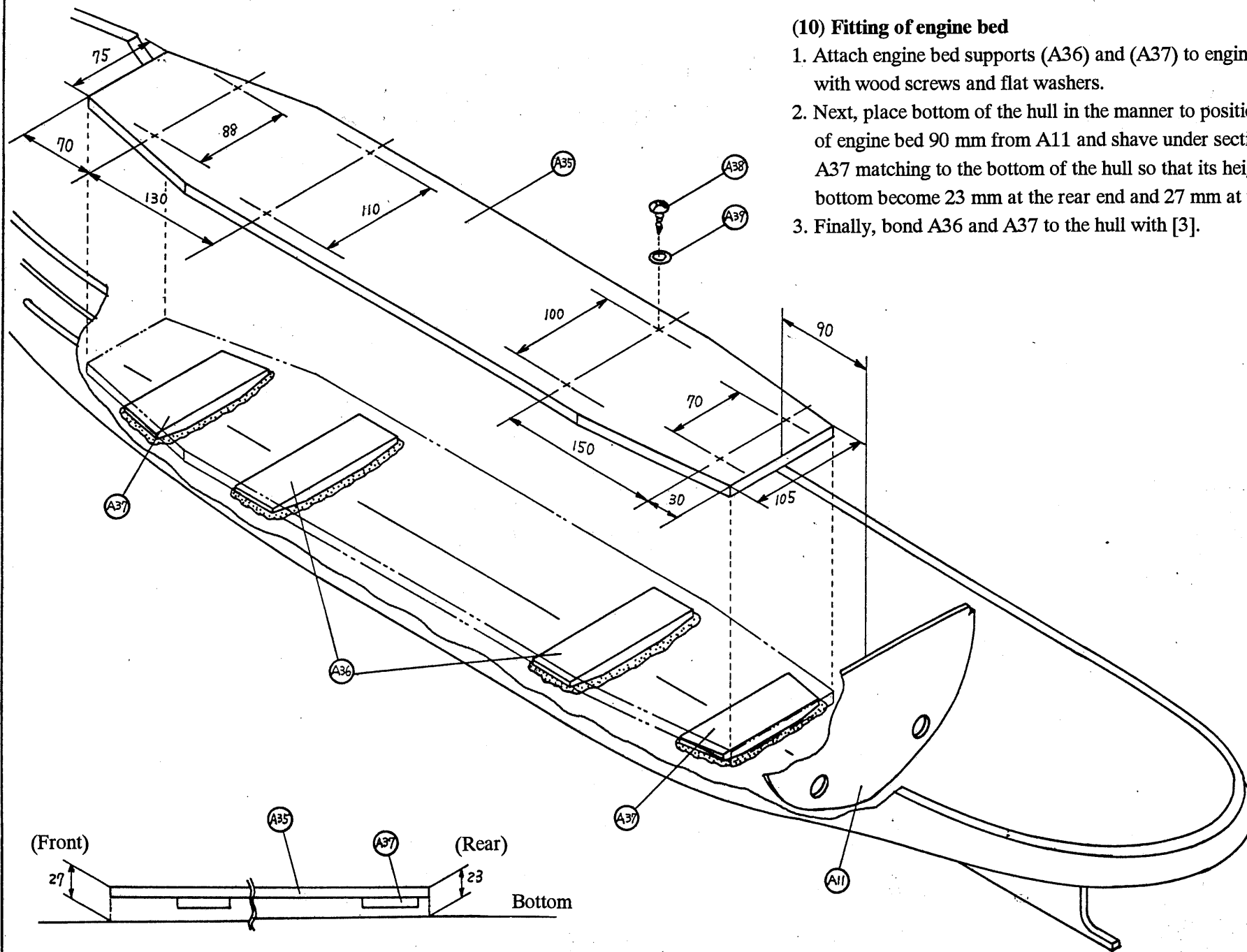




(9) Fitting of rudder

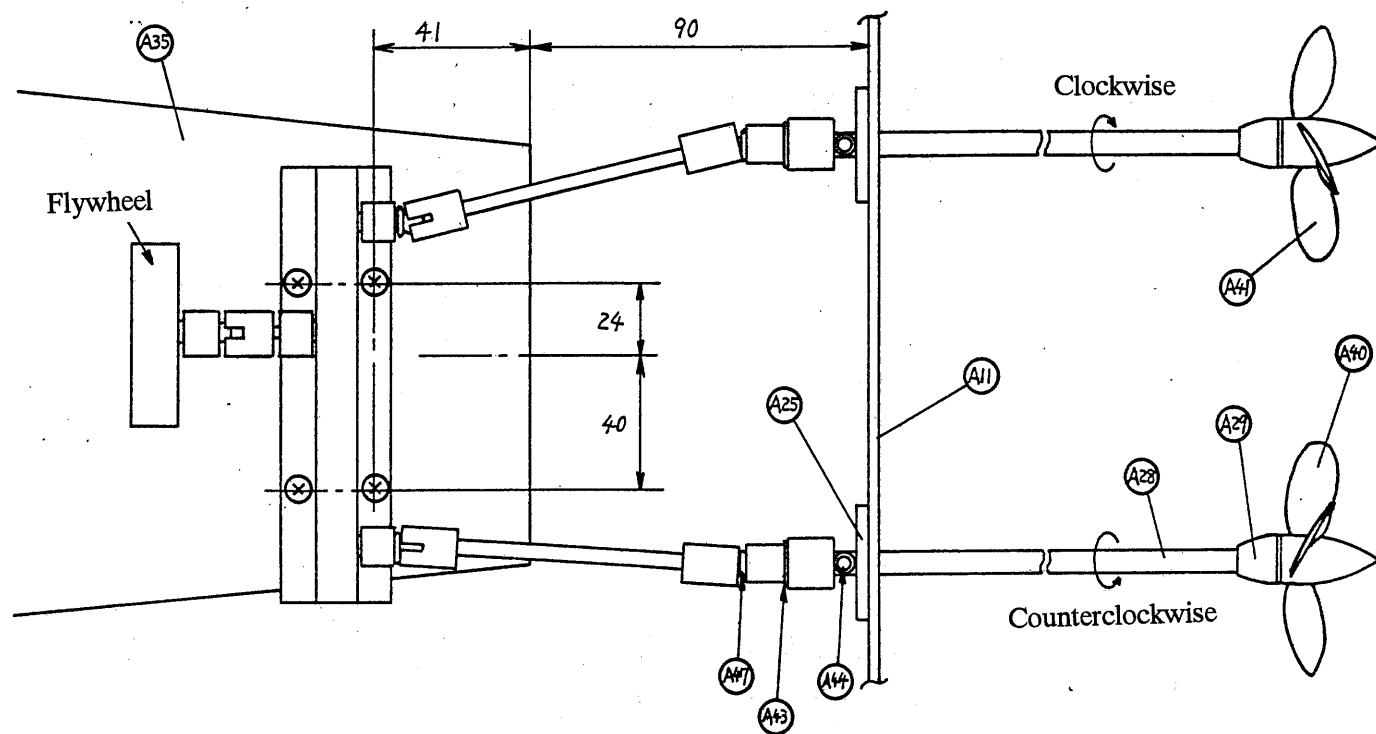
1. Prior to fix rudder, paint the hull referring to the figure of [7] Balance adjustment on page 38.
2. Process A30 and A31 to rudder shaft (A32) and bond them together with [3]. In this process, provide additional epoxy resin [3] to form smooth joint section.
3. Fix rudder reinforce plate (A81) as illustrated. (Make 2 mm dia. hole and fasten them with E25 and E21.)
4. Insert rudder bearing (A33) into the hole of hull and fix A33 to the hull with [3].
5. Attach rudder arm (A34).





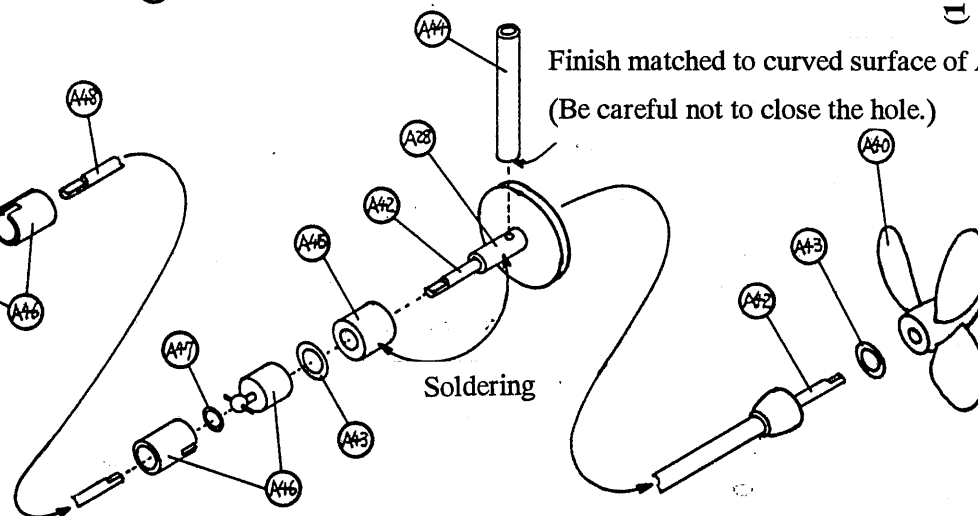
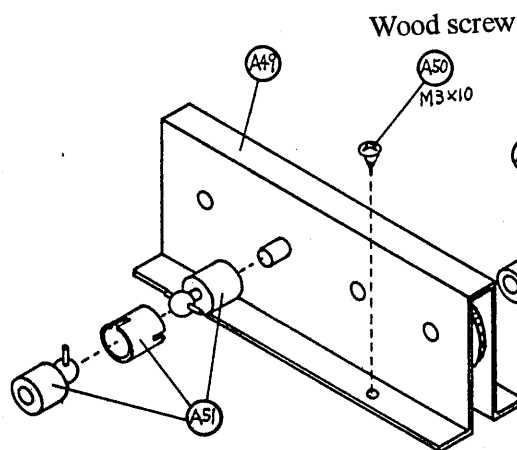
(10) Fitting of engine bed

1. Attach engine bed supports (A36) and (A37) to engine bed (A35) with wood screws and flat washers.
2. Next, place bottom of the hull in the manner to position rear end of engine bed 90 mm from A11 and shave under sections of A36 and A37 matching to the bottom of the hull so that its height from the bottom become 23 mm at the rear end and 27 mm at the front end.
3. Finally, bond A36 and A37 to the hull with [3].



(11) Fitting of screw propeller and double gear

1. Fit screw propellers (A41 & A42), propeller shafts (A42) and washers (A43).
2. Solder A45 to A28 and bond oil pipe (A44) to A28 with [2].
3. According to the figure, fit joint and double gear temporarily and check if each joint turns lightly. Each joint must have some play. (When gear position is determined, position of engine shall be determined at the position where joint (A51) lightly moves.)



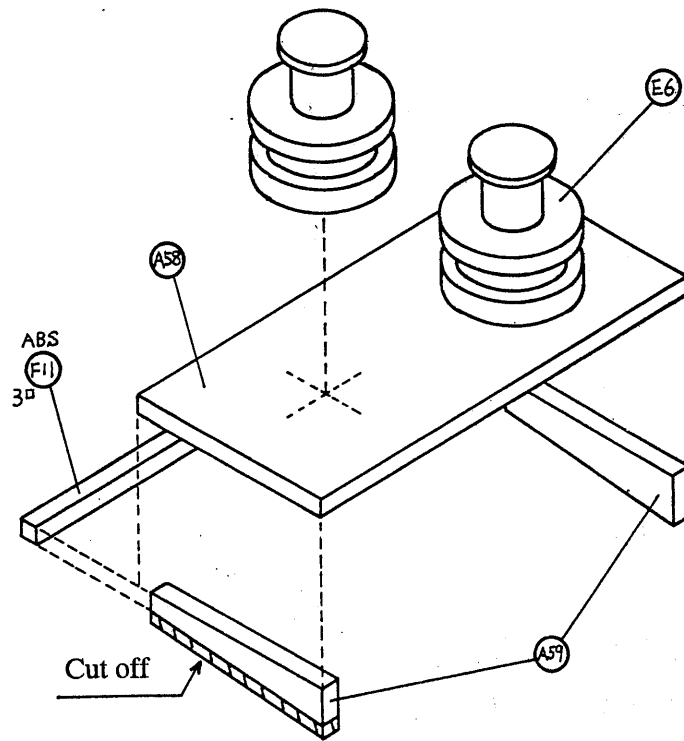
Prior to the bonding of fittings to the hull, each part shall be finished with paint.

For the painting work, refer to the photo on the outer box. Paint each part freely referring to various ships.

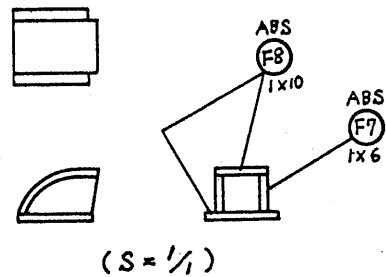
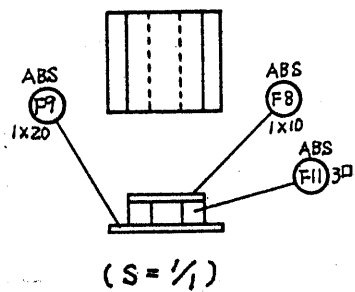
Fittings of this instruction manual shows just an example.



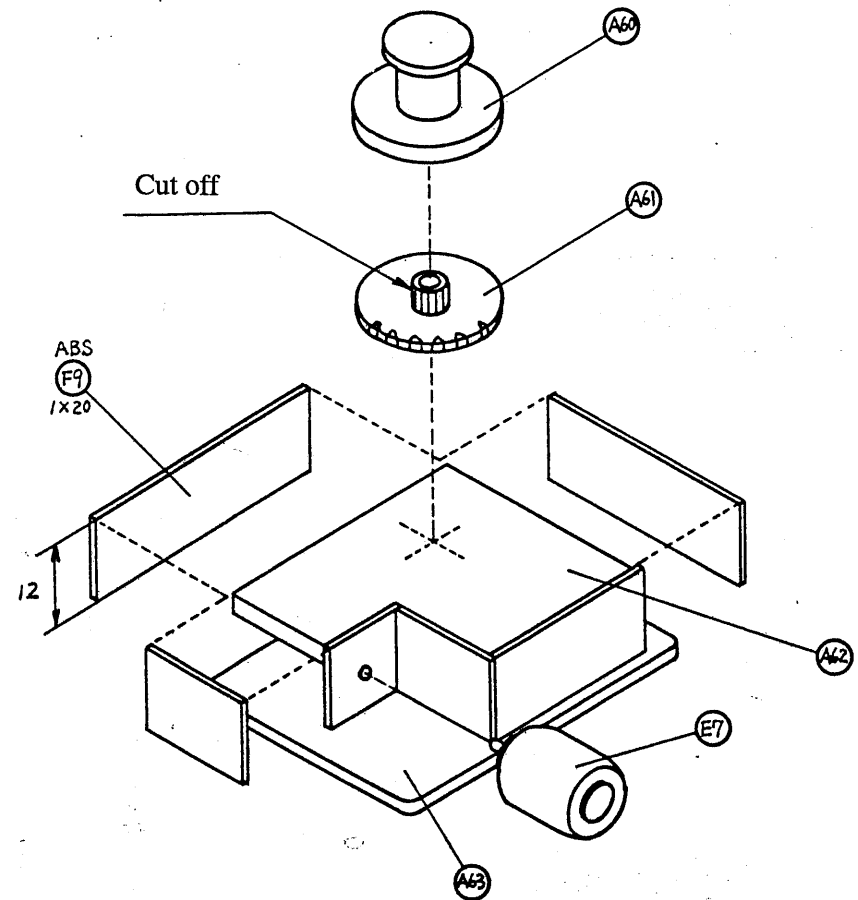
☆Parts for sections X and Y



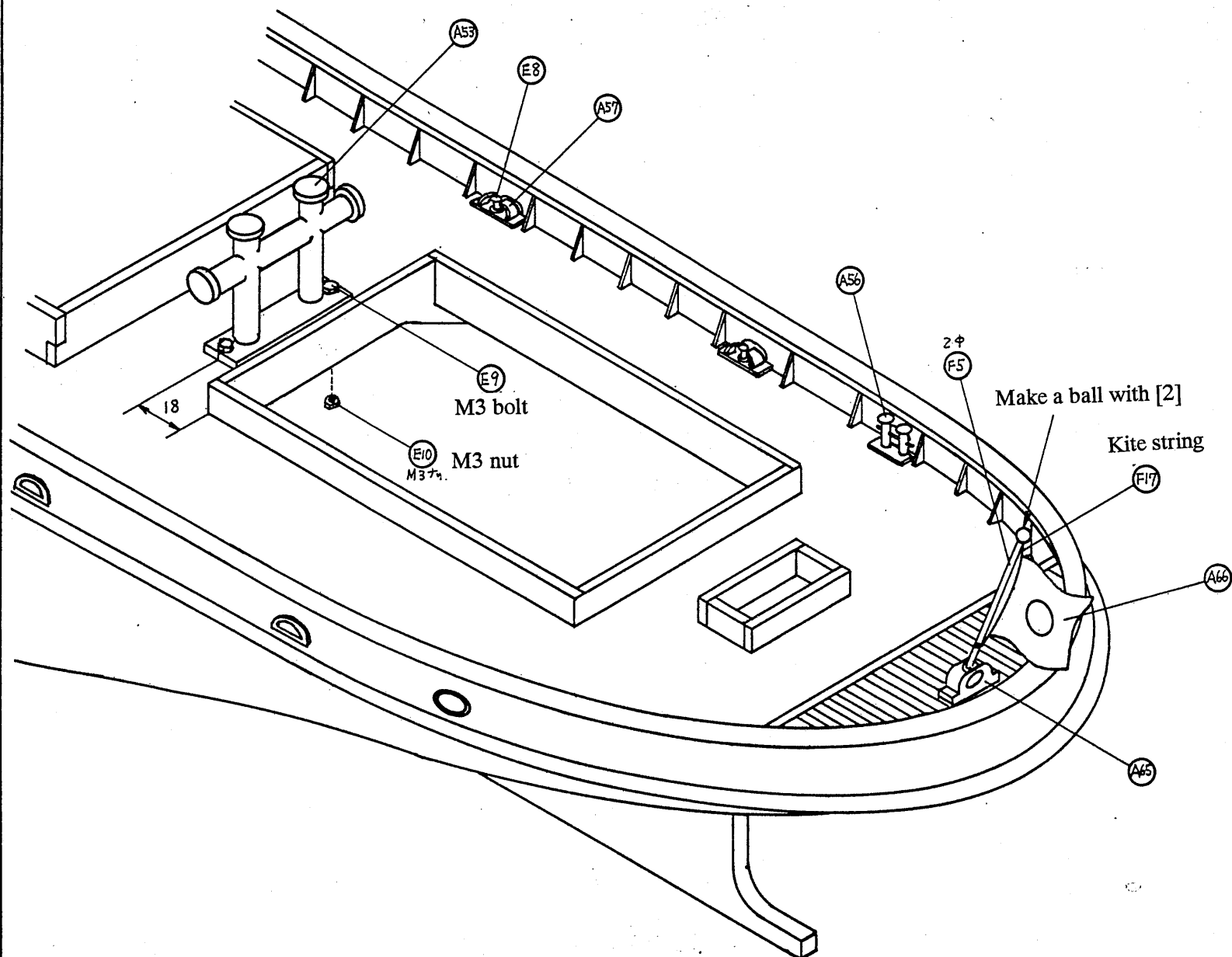
Section X



Section Y



☆ Fittings of stern section



[5] Cabin assembly

(13) Cabin 1st stage assembly

1. Mark the lines at 6 mm and 48 mm from the top end of

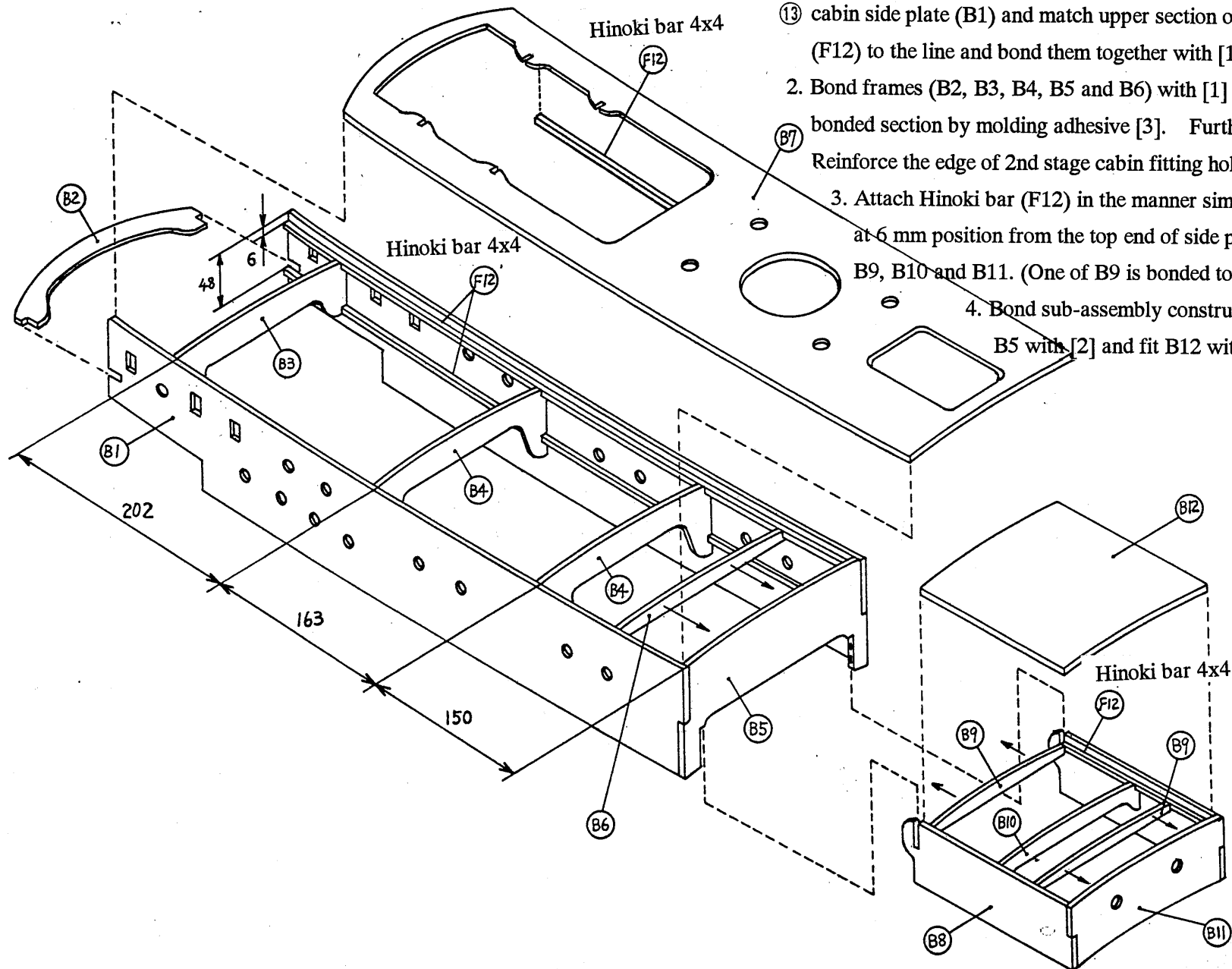
⑬ cabin side plate (B1) and match upper section of Hinoki bar (F12) to the line and bond them together with [1].

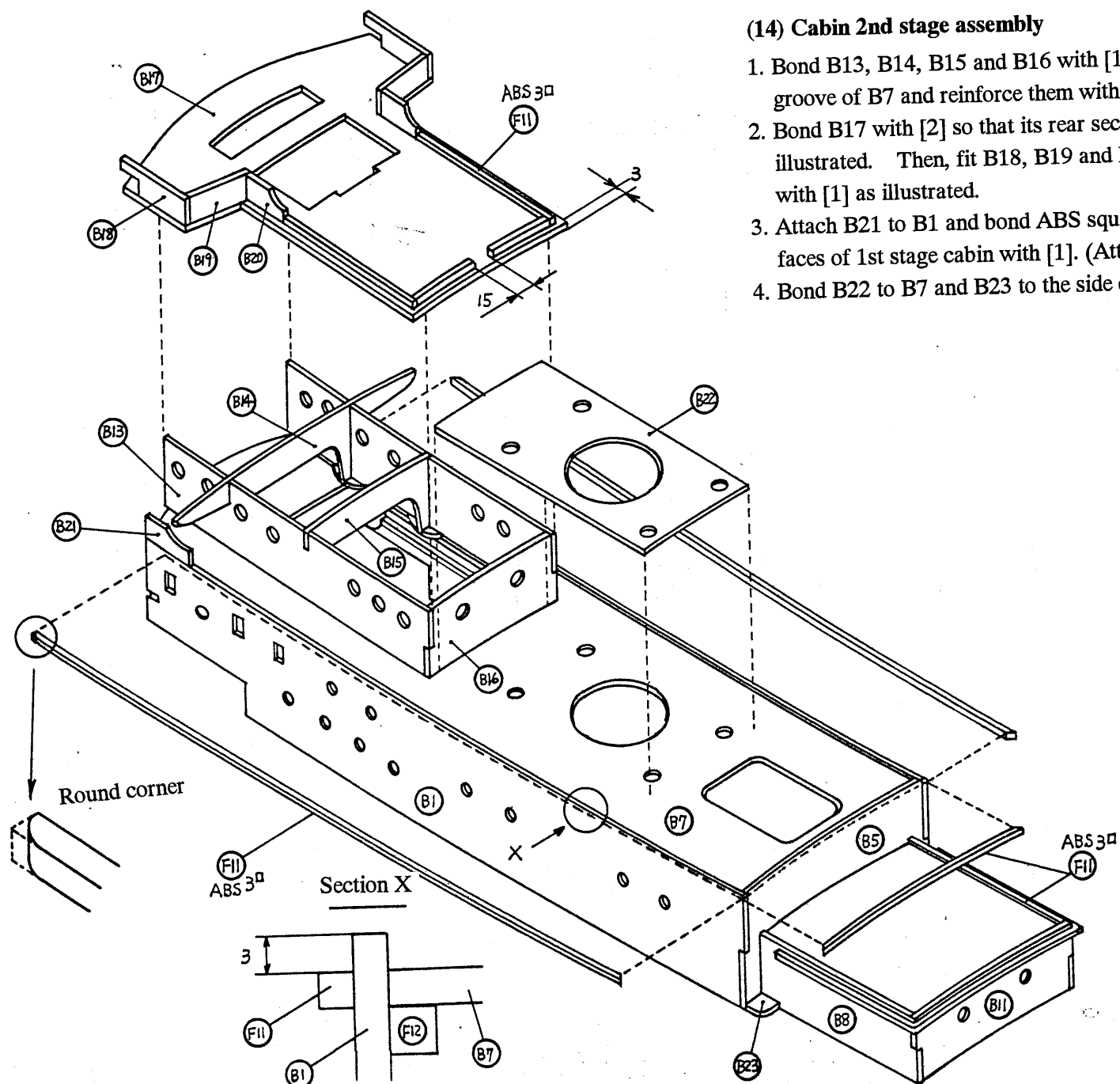
2. Bond frames (B2, B3, B4, B5 and B6) with [1] and reinforce bonded section by molding adhesive [3]. Further, bond B7 with [2].

Reinforce the edge of 2nd stage cabin fitting hole with Hinoki bar (F12).

3. Attach Hinoki bar (F12) in the manner similar to the above 1. at 6 mm position from the top end of side plate (B8) and attach B9, B10 and B11. (One of B9 is bonded to B5.)

4. Bond sub-assembly constructed in 3. above to B5 with [2] and fit B12 with [2].

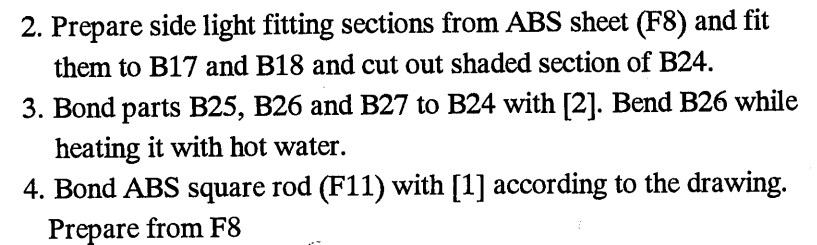




(14) Cabin 2nd stage assembly

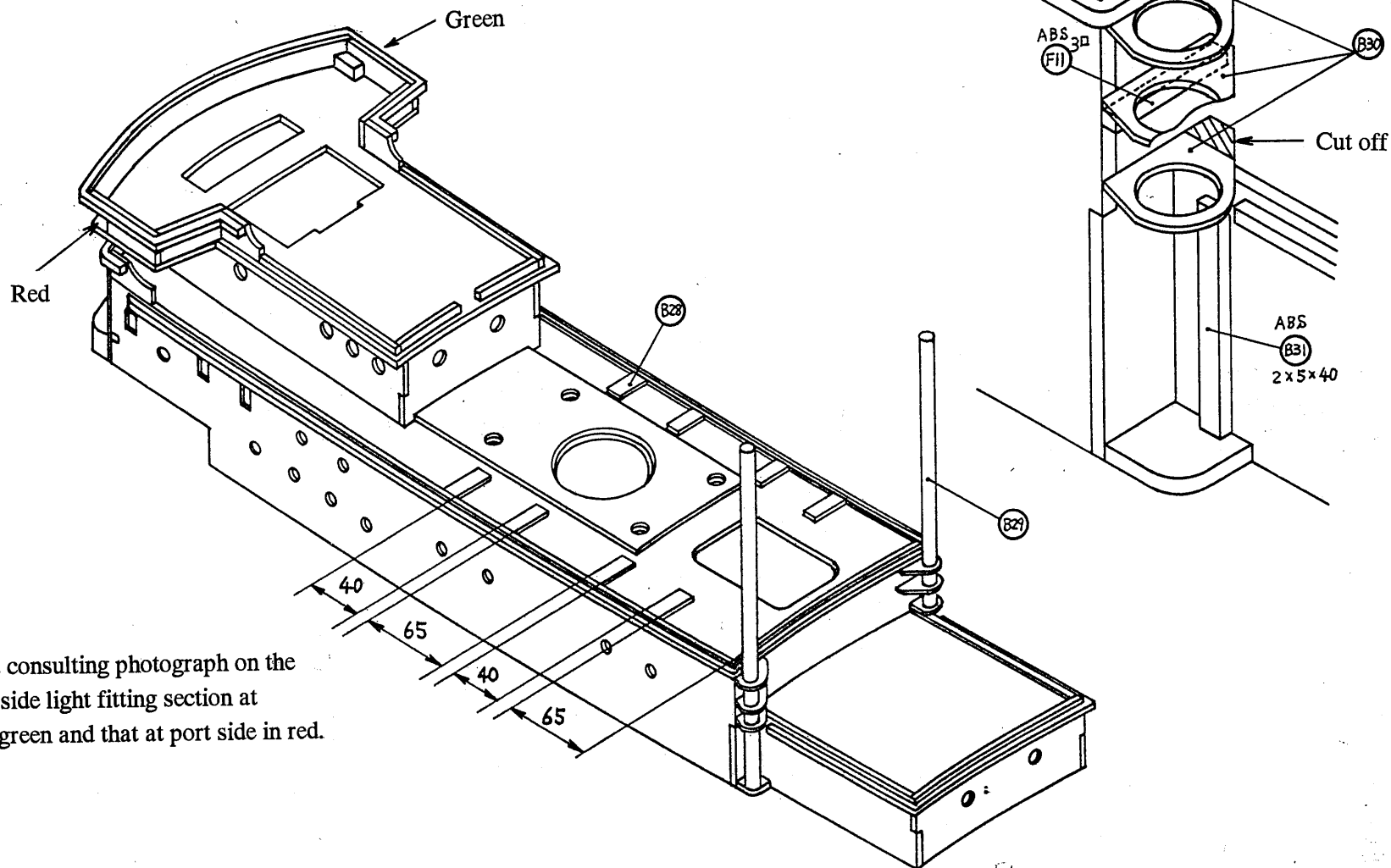
1. Bond B13, B14, B15 and B16 with [1] and enter B14 and B15 into the groove of B7 and reinforce them with [2].
2. Bond B17 with [2] so that its rear section extends 3 mm from B16 as illustrated. Then, fit B18, B19 and B20 and bond ABS square bar (F11) with [1] as illustrated.
3. Attach B21 to B1 and bond ABS square bars (F11) onto side and rear faces of 1st stage cabin with [1]. (Attach them at about 3 mm from the top.)
4. Bond B22 to B7 and B23 to the side of B5 and B8 with [2] respectively.

1. Finish fitting face of cabin front plate (B24). Shave extended sections of B1, B13, B18 and B21 from curved surface of B2, B7 and B17, and bond B24 with [24].
(After B24 is fit, fit it to the hull and check for any play etc.)



(16) Fitting of boat davit base and rear post

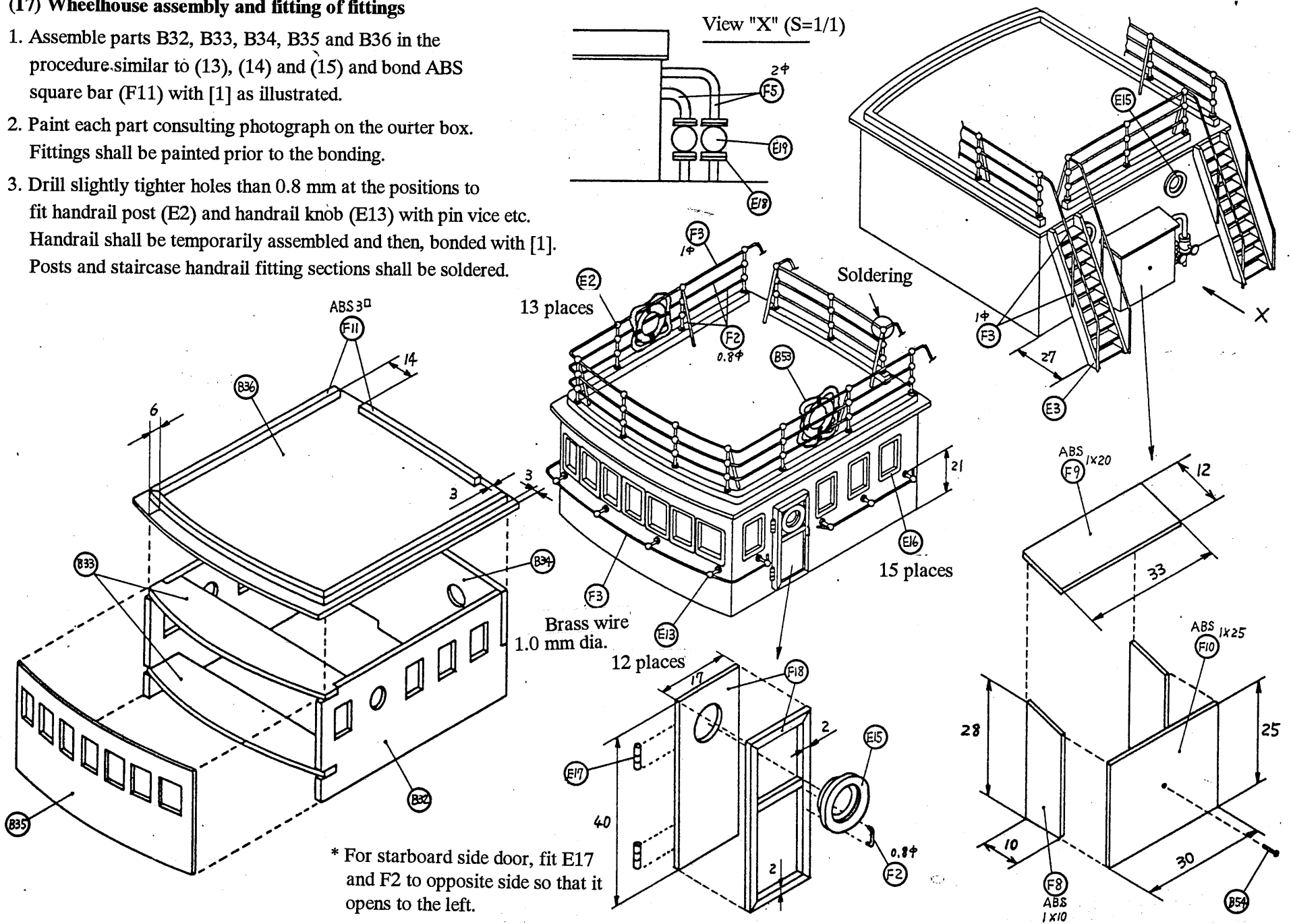
1. Bond B28 with [2] as illustrated.
2. Temporarily fit B30 and B31 as illustrated and fit rear posts B29 and reinforce them with [2] after their perpendicularity is checked.



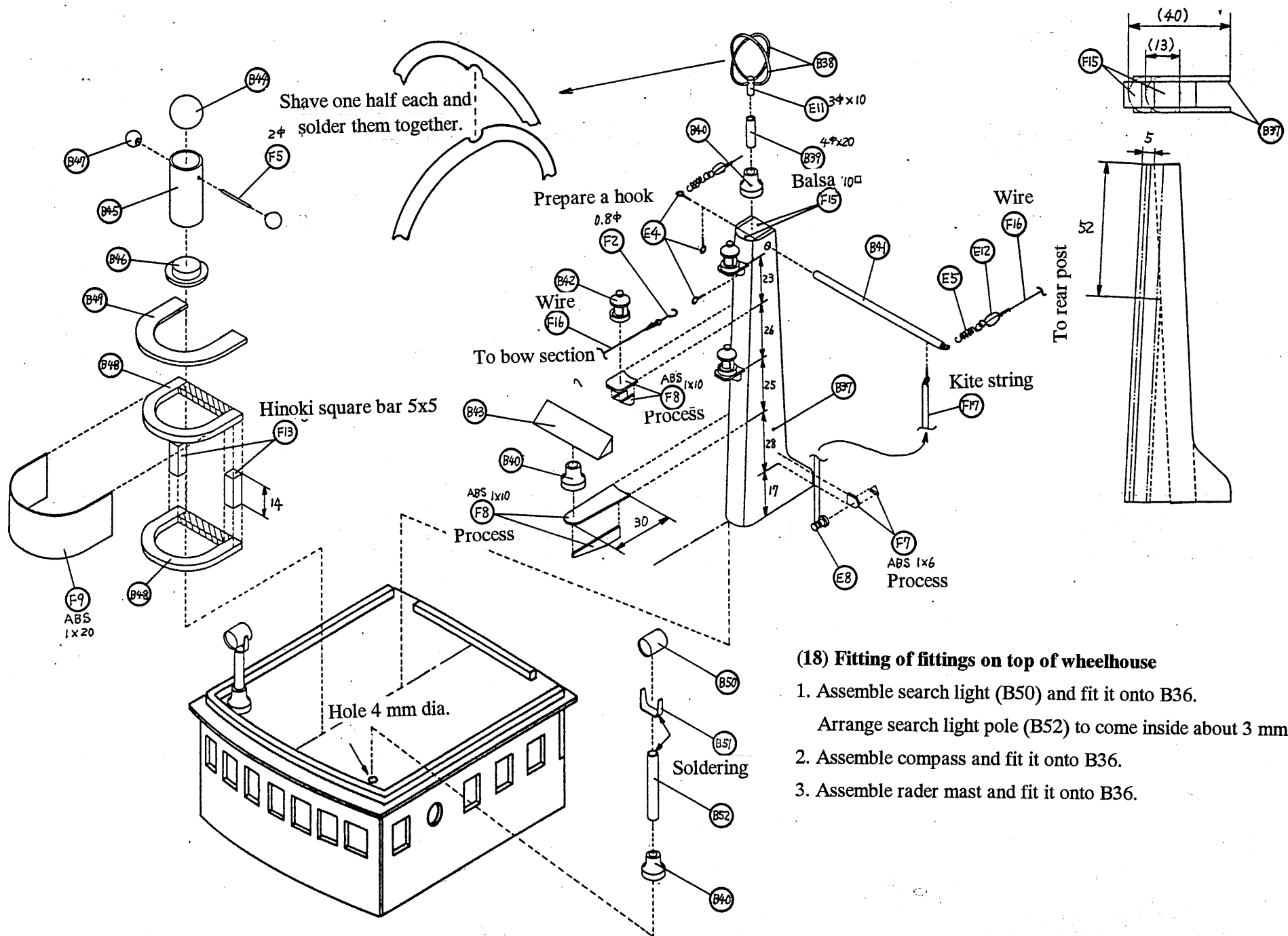
3. Paint each part consulting photograph on the outer box. Paint side light fitting section at starboard side in green and that at port side in red.

(17) Wheelhouse assembly and fitting of fittings

1. Assemble parts B32, B33, B34, B35 and B36 in the procedure similar to (13), (14) and (15) and bond ABS square bar (F11) with [1] as illustrated.
2. Paint each part consulting photograph on the outer box. Fittings shall be painted prior to the bonding.
3. Drill slightly tighter holes than 0.8 mm at the positions to fit handrail post (E2) and handrail knob (E13) with pin vice etc. Handrail shall be temporarily assembled and then, bonded with [1]. Posts and staircase handrail fitting sections shall be soldered.



* For starboard side door, fit E17 and F2 to opposite side so that it opens to the left.



(19) Fitting of ventilators and funnel

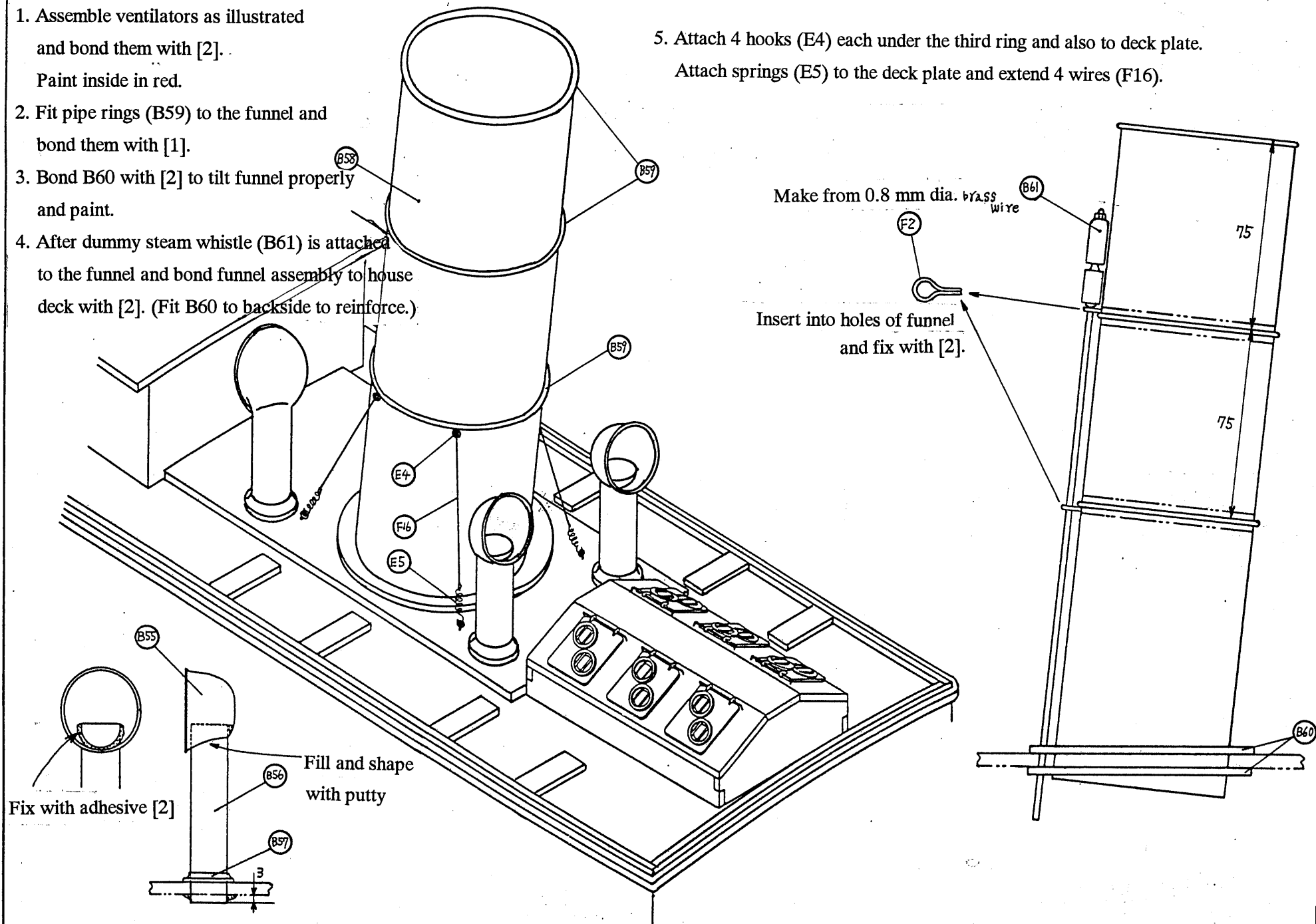
1. Assemble ventilators as illustrated and bond them with [2].
Paint inside in red.

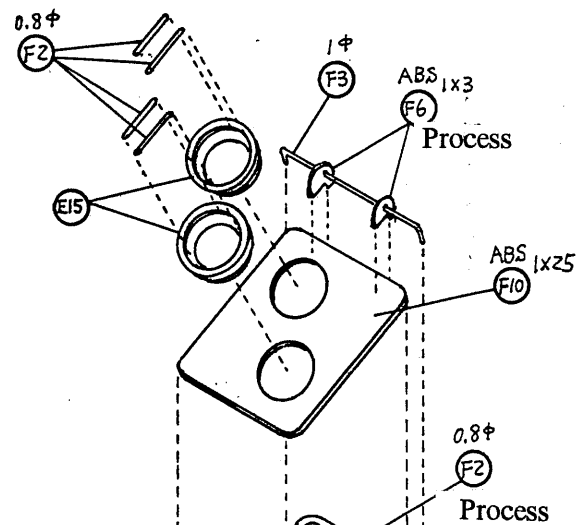
2. Fit pipe rings (B59) to the funnel and bond them with [1].

3. Bond B60 with [2] to tilt funnel properly and paint.

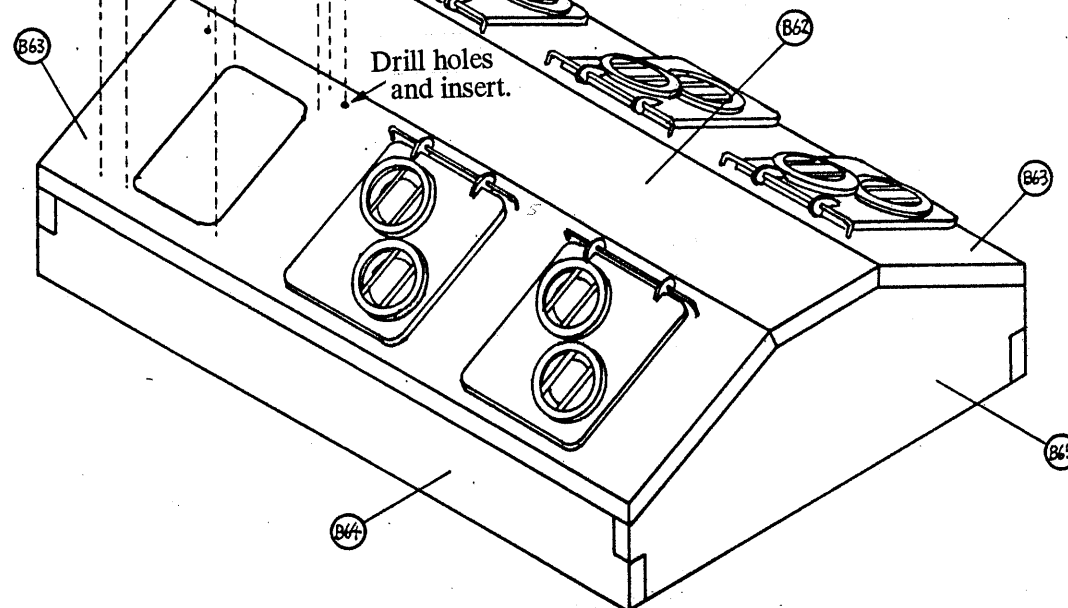
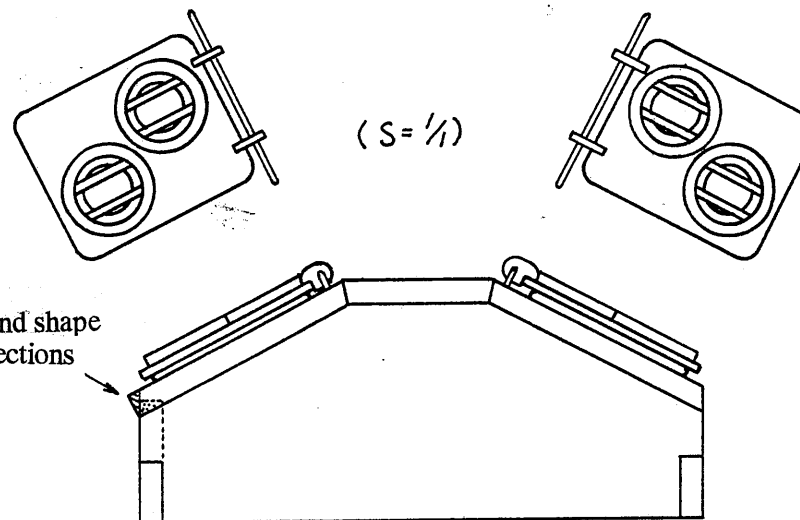
4. After dummy steam whistle (B61) is attached to the funnel and bond funnel assembly to house deck with [2]. (Fit B60 to backside to reinforce.)

5. Attach 4 hooks (E4) each under the third ring and also to deck plate.
Attach springs (E5) to the deck plate and extend 4 wires (F16).





Shave and shape
extended sections

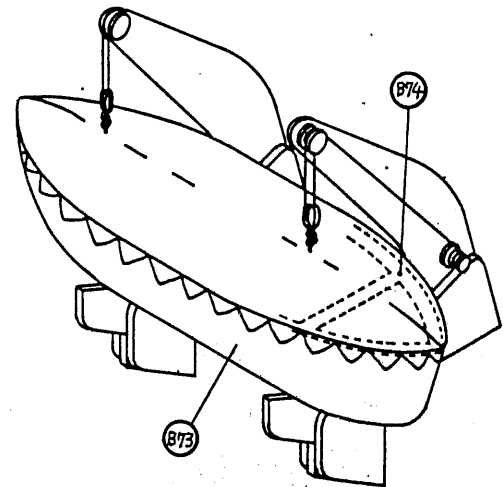


(20) Fitting on the roof of engine room

1. Process contacting faces of B62, B63 and B64 using B65 as reference and bond them together with [1].
2. Paint after reinforced with [2].
3. Assemble hatch sections as illustrated and fit to the roof. Hatches shall be operable.

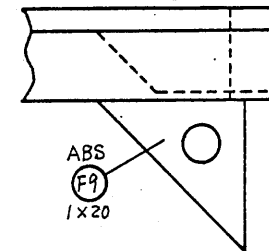
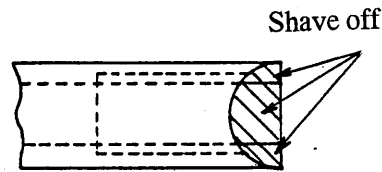
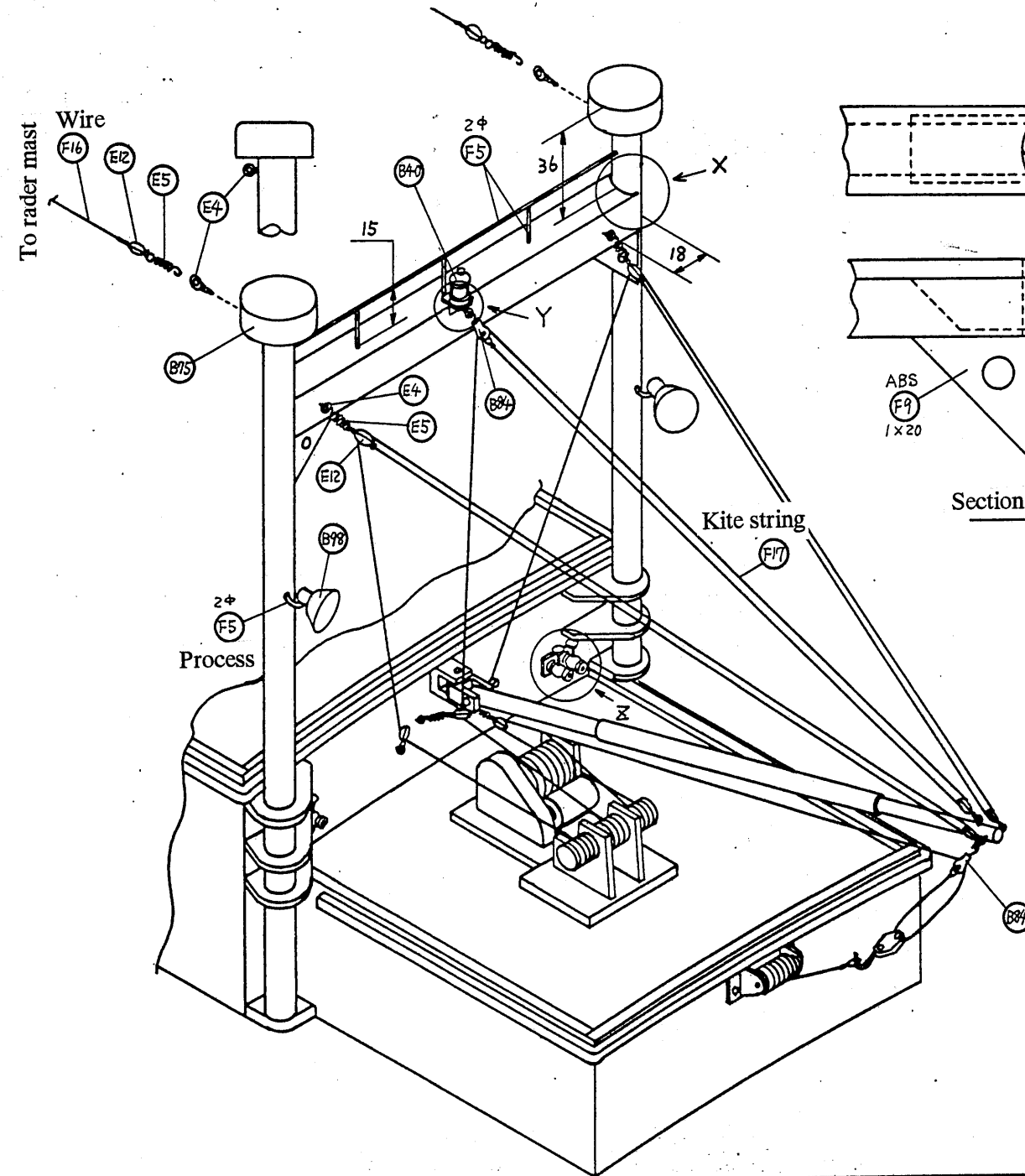
1. Assemble boat davit as illustrated and bond it to boat davit base (B28) with [2].
2. Produce 2 motor boats and 2 row boats and attach them to boat davit as illustrated.
3. Produce 4 lifejacket boxes with ABS sheet etc. and fix them on the deck plate beside the boat.

1. Assemble boat davit as illustrated and bond it to boat davit base (B28) with [2].
2. Produce 2 motor boats and 2 row boats and attach them to boat davit as illustrated.
3. Produce 4 lifejacket boxes with ABS sheet etc. and fix them on the deck plate beside the boat.

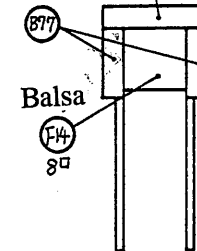


(22) Fitting of a crane

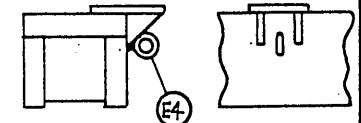
1. Assemble ventilator (B75) and section "X" as illustrated and bond them to the post with [2].
2. Assemble each part of crane as illustrated and fit them together.
3. Also, attach other fittings as illustrated.



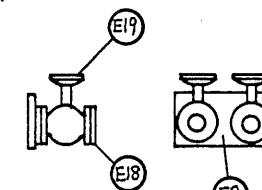
Section "X" (S=1/1)



Process



Section "Y" (S=1/1)

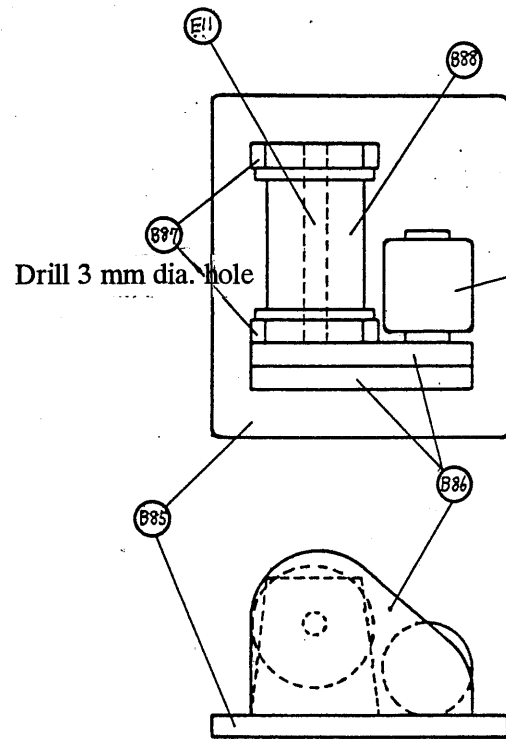


Section "Z" (S=1/1)

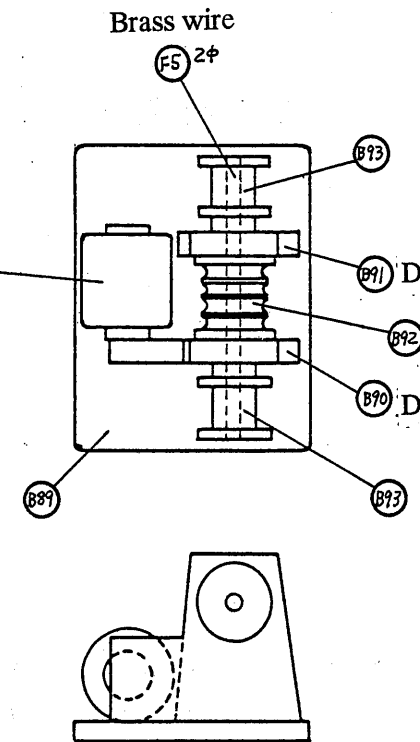
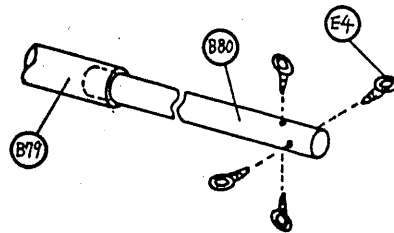
(2 places)



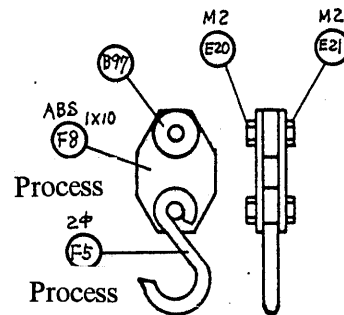
☆Each part of crane



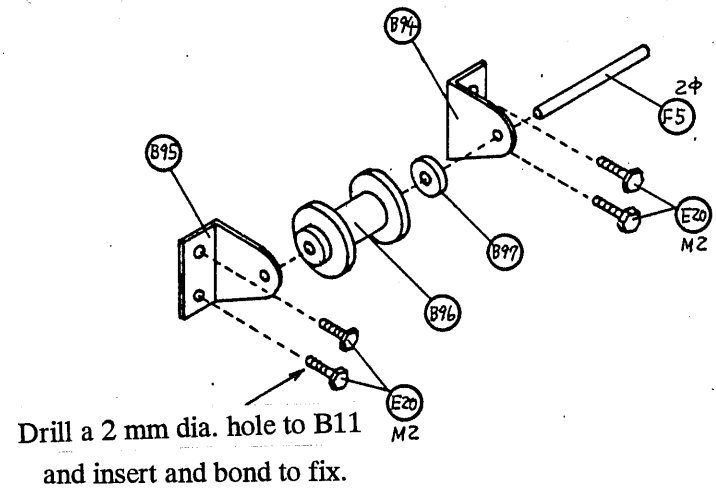
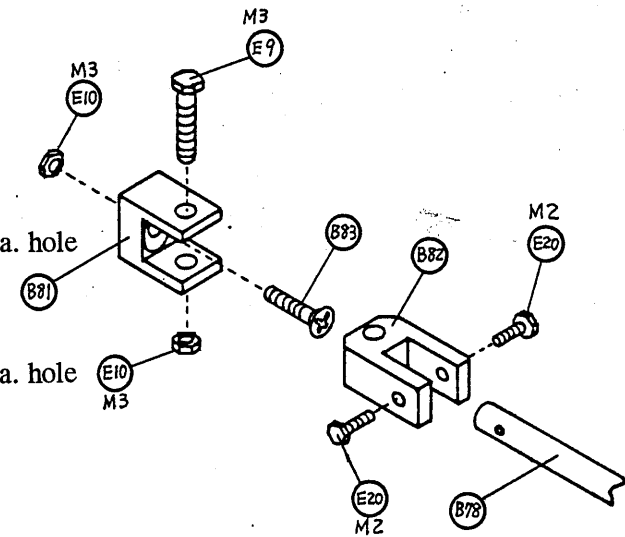
(S = 1/1)



(S = 1/1)



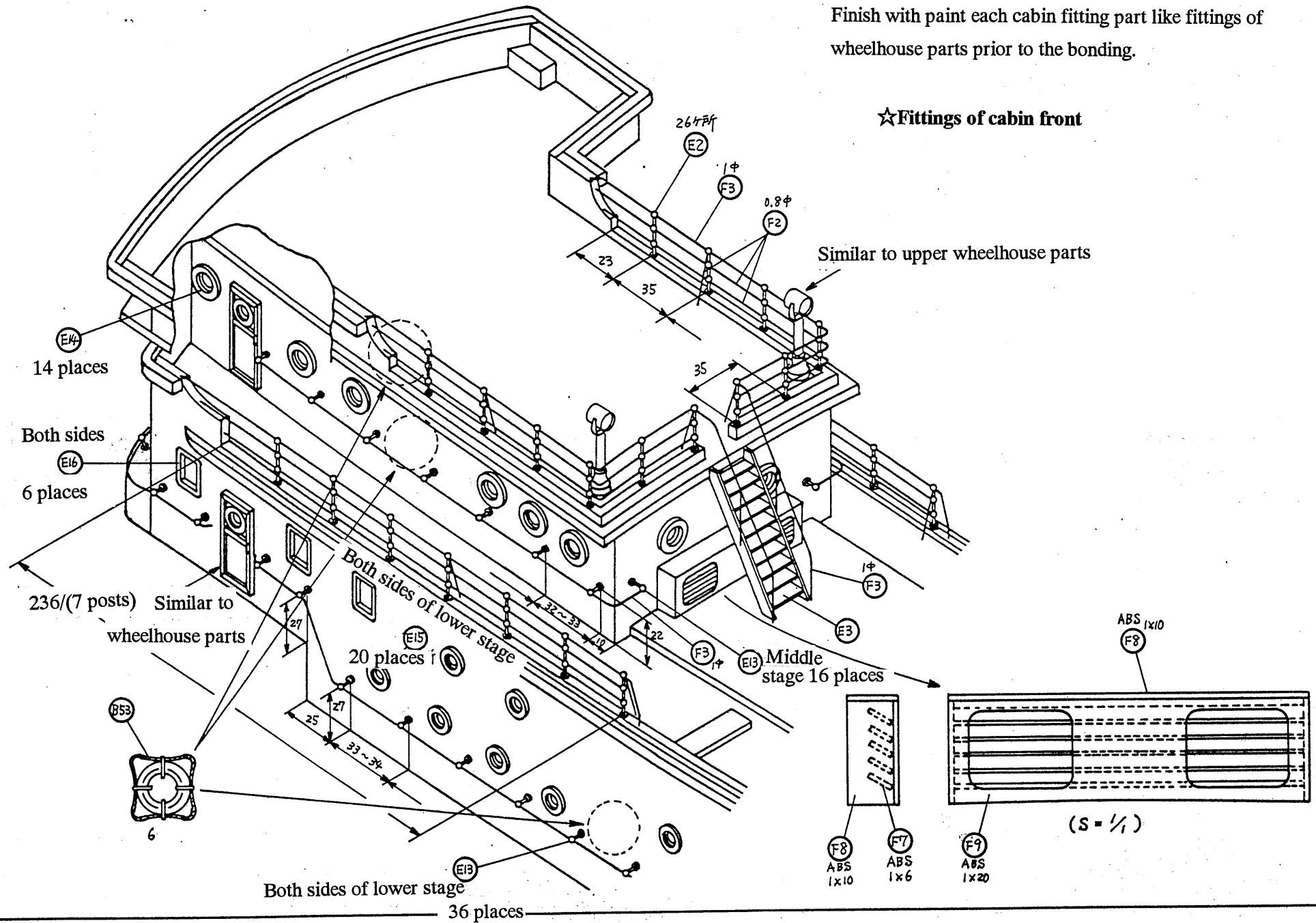
(S = 1/1)



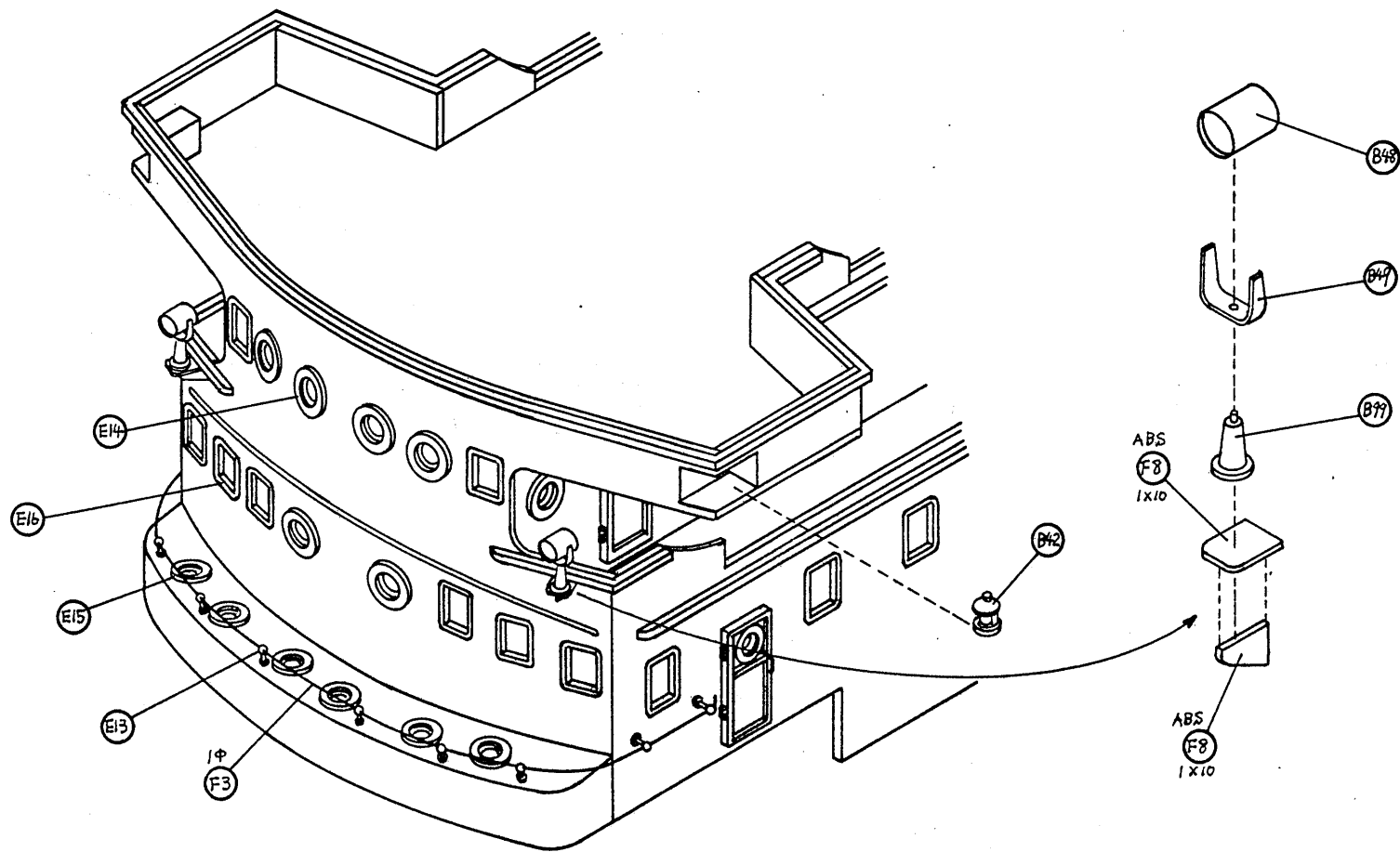
(23) Fitting of cabin fittings

Finish with paint each cabin fitting part like fittings of wheelhouse parts prior to the bonding.

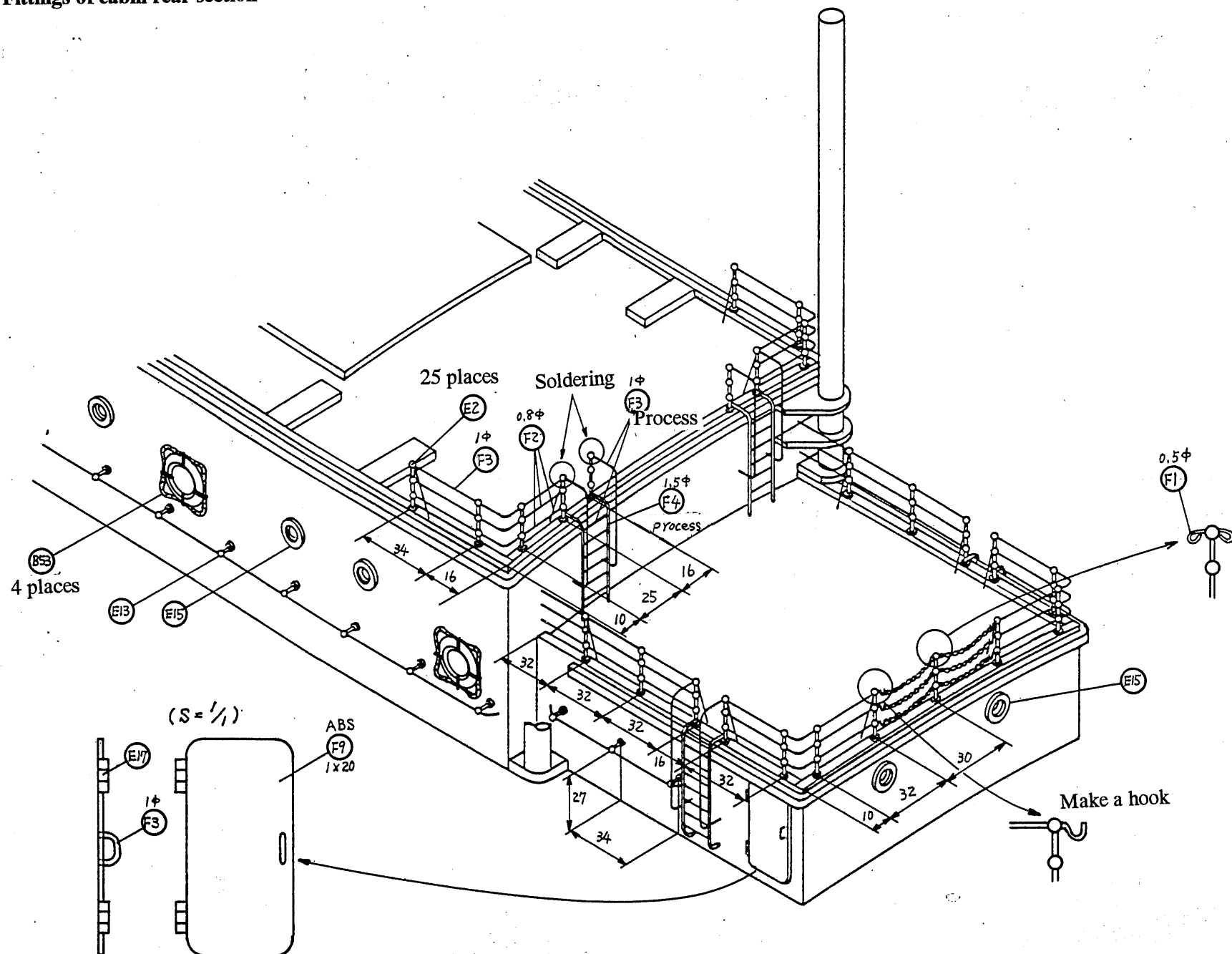
☆Fittings of cabin front



☆ Fittings of cabin front section



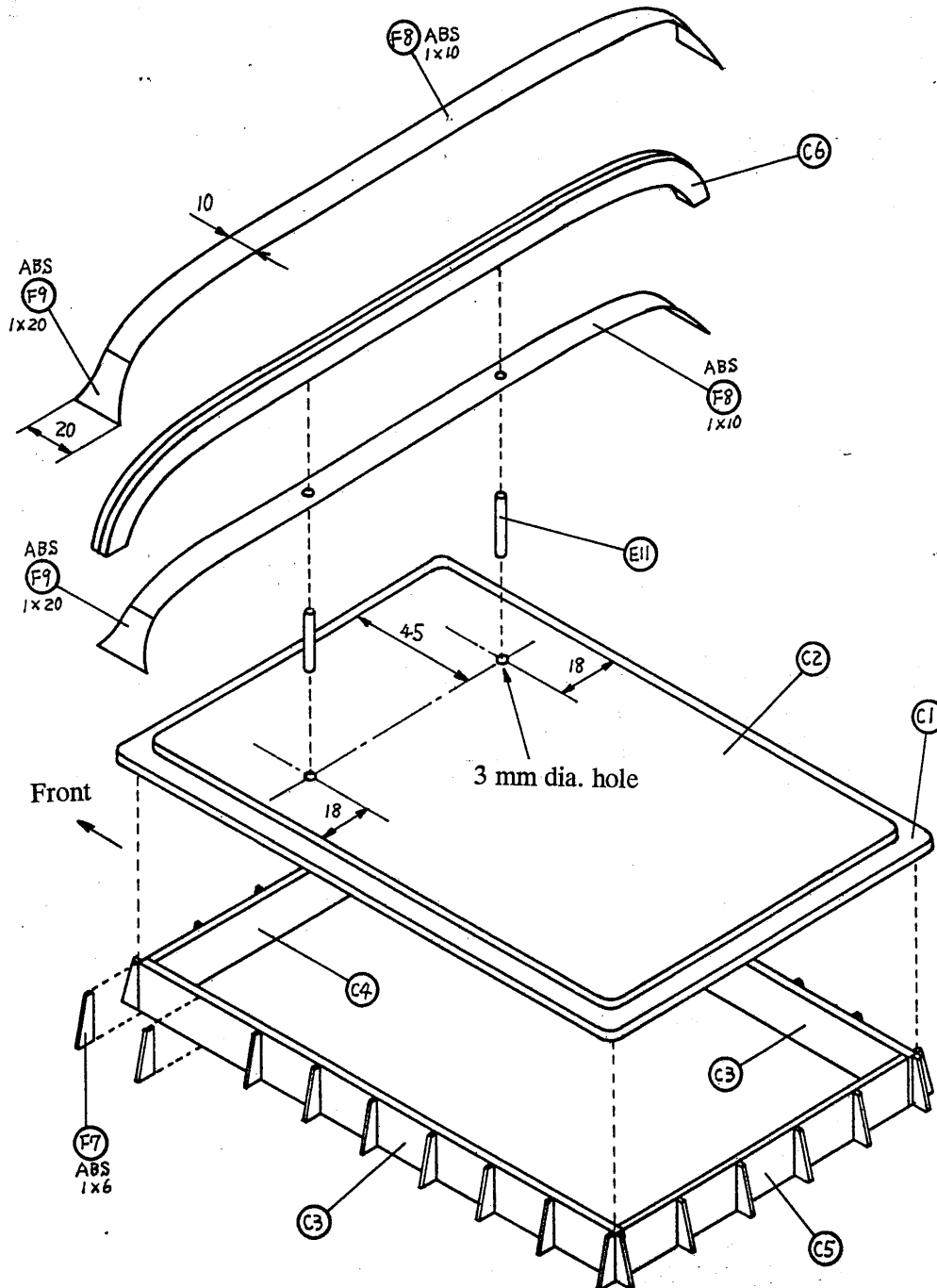
☆ Fittings of cabin rear section



[4] RC hatch assembly

(24) RC hatch assembly

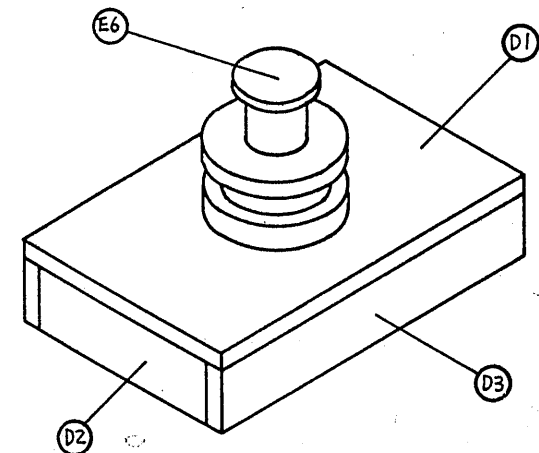
1. Assemble parts C1, C2, C3, C4 and C5 as illustrated.
2. Produce stays with ABS sheet (F7) and fit them to the side and paint.
(As lower section of C4 is curved matching to deck plate (A2), dimension of each stay is different from others according to each curvature.)
3. Fit two towing beams (C6) and match ABS sheet on both sides and bond them together with [2].
4. Drill holes on C2 and C3, and attach towing beam stay (E11).



[5] Rear hatch assembly

(25) Rear hatch assembly

1. Assemble parts D1, D2 and D3 and paint.
2. Bond E6 with [1] after painted.

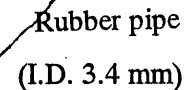


(26) Fitting of RC

- (Any type of servo system or ultra-miniature type servo.)

Bond it to the bearer of A11 and the hull with [3].

2. Mount engine to engine bed with 4 pieces each of M4 screws (E22) and nuts (E23).
3. Determine the position of boiler so as to match both centers of funnel and stack when the cabin is placed.
4. Securely mount burner with holding plate so that no lateral play occurs.
5. Arrange piping works for engine, boiler, burner and optional parts with rubber pipes of F20 (I.D. 5 mm) and F21 (I.D. 3.4 mm) as illustrated. (with I.D. 5 mm and with I.D. 3.4 mm)



Smoke generating tank
(optional))

Pressure gauge (optional)

Drain tank (optional)

Rubber pipe
(F20
I.D. 5 mm)

Provide cutout with round file etc.

Soldering

A diagram of a servo motor horn. The horn is shown in two positions: a solid line for the rest position and a dashed line for the full travel position. The distance between the two positions is labeled "Stroke". The distance from the center of the horn to the tip of the horn is labeled "Pitch". The horn is labeled "Servo horn".

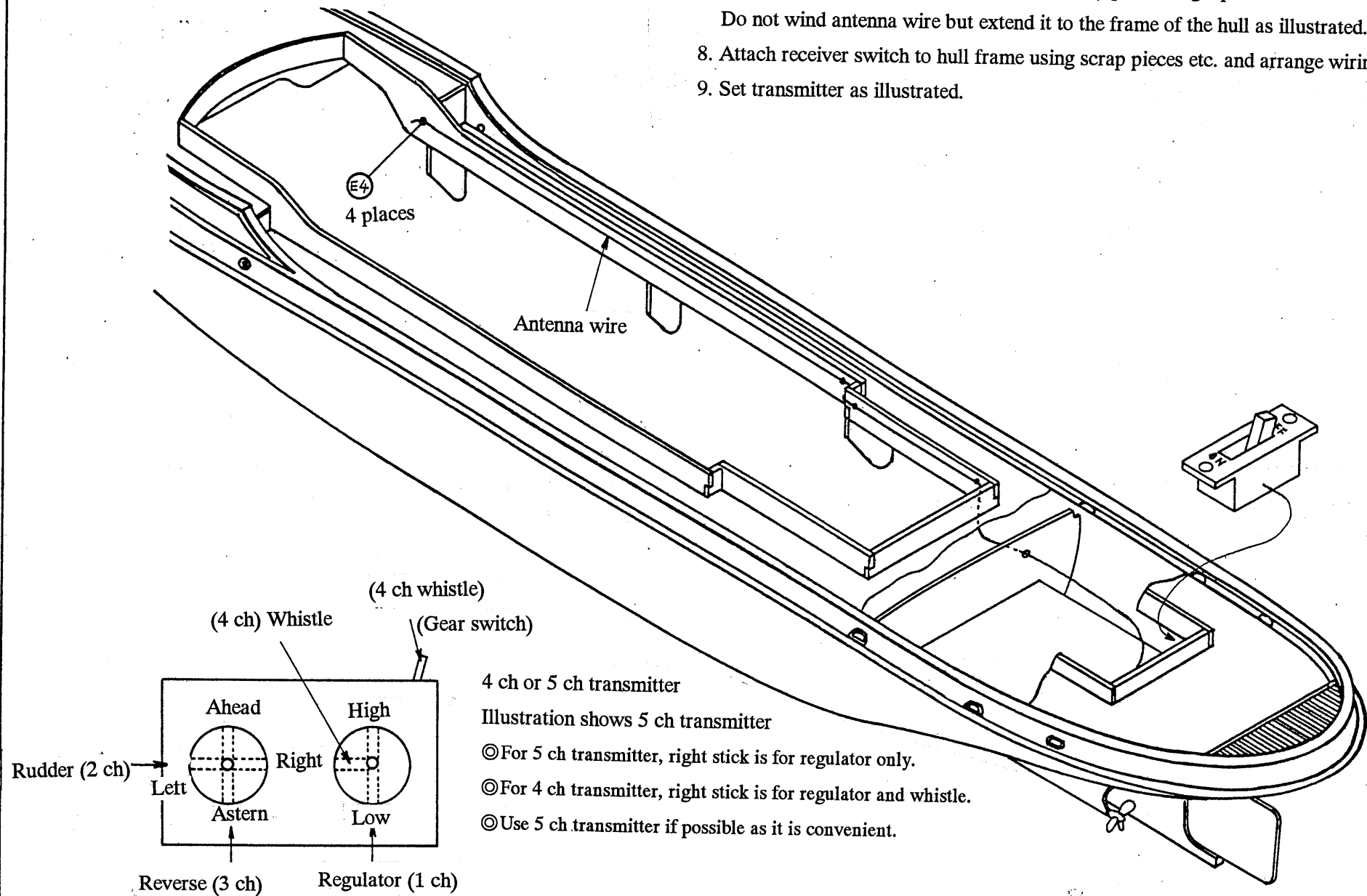


7. Mount receiver and battery onto servo bed by processing square bar etc.

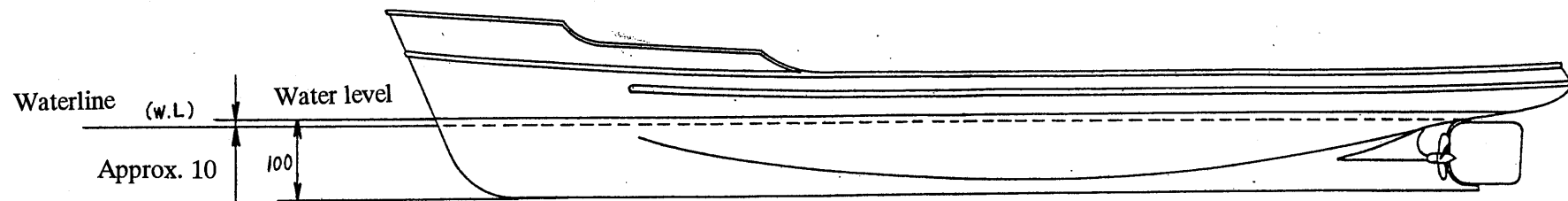
Do not wind antenna wire but extend it to the frame of the hull as illustrated.

8. Attach receiver switch to hull frame using scrap pieces etc. and arrange wiring.

9. Set transmitter as illustrated.



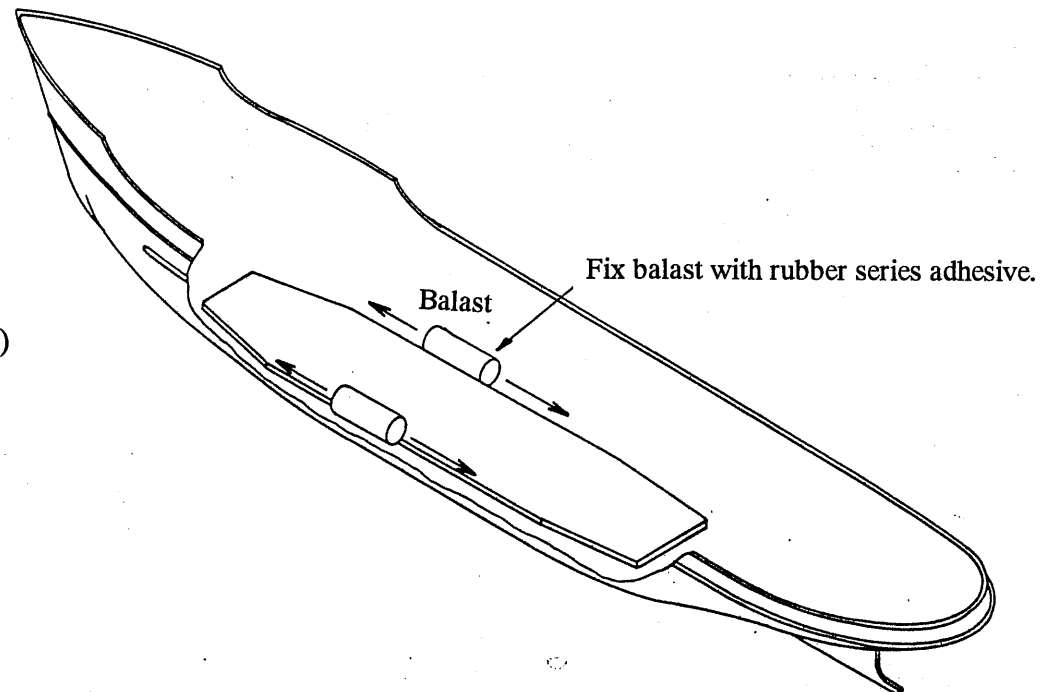
☆For regulator and reverse, open rear cover and remove spring inside.



[7] Balance adjustment

(27) Balance adjustment

1. Put balasts into the hull so that water comes approximately 10 mm under the waterline as illustrated.
Also, adjust front-to-rear and left-to-right balances.
(Too shallow waterline may result in ship's capsizal or submersion.)



[8] Sailing

Running operation:

First, remove cabin and feed water (1) and oil (2). At this moment, lubricate oiler and each rotating and activating section sufficiently.

Next, feed fuel (3). (At this instance, close burner needle. If fuel is fed with burner needle open, fuel flows out from fire gate in liquid form.

As it blazes up when ignited, put water immediately when fuel flows out.) If this sequence is customarily followed, empty firing of boiler can be prevented. (If fuel is fed first, water supply may be forgotten by some illusion.)

For fuel supply, be careful not to spill fuel on the ship. When fuel is spilled, put water immediately (as the ship is painted with lacquer).

When fuel is spilled in the process of fuel supply into wick case with pipet, similar fire preventive action must be taken.

Next, supply alcohol into wick case of each burner two times each with pipet and ignite them. After about 80% of alcohol is burnt, slowly open the needle and when fire gate is ignited, set needle opening at 90 degrees (maximum opening). (Excessive opening extinguishes the fire.)

Then, ignite another fire gate. When pressure reaches to 2 kg/cm², set regulator at medium speed. Water hammer phenomenon occurs at first but when the engine warms up and turns to normal operation, set regulator at slow speed, adjust burner needle one more time, put on the cabin and start cruising.

To change operating mode into reverse, it must be switched quickly not slowly. If engine stops, close regulator once and try to switch again.

Carefully watch burn time during cruising. When burner sound becomes softer, recover the ship. (Use of timer is recommended.)

While the ship is out of water, do not increase engine speed more than medium speed and never go to maximum speed. For the first voyage, do not go far but cruise nearby. (To prepare for the case when fire is extinguished.)

Drainage:

Drain in the drain tank shall be collected after each cruising while it is still warm.

Removal of cabin:

To remove the cabin, disconnect the hook at upper section of rader mast and hold front and rear sections of cabin horizontally and remove.

Water drainage:

Full speed in reverse mode is not permissible. Drain water at the bottom of hull.

Collision of the ship:

When the ship is collided against something during its cruising, recover and check the ship immediately. If burner moves forward because of the shock, a fire on the ship may be caused. To prevent this, burner is fixed with wood screw on the burner holding plate. To remove the burner, loosen this screw.

Cruising on rough water:

To cruise rough water (10 to 15 cm wave height), put an extra balast of approximately 1 kg and fix it so that it does not move.

Wishing you a safe voyage!

S. 1/40

DEEP SEA SALVAGE TUGBOAT

SAMSON II

TECHNICAL DATA

LENGHT.....	1510 ^m
BEAM.....	255 ^m
HEIGHT.....	510 ^m
ENGINE.....	T2GR
BOILER.....	B2G
RADIO.....	4ch

(有) 斉藤製作所

SAITO SEISAKUSHO, LTD.

22-7, TOKAGI 3-CHOME, ICHIKAWA-SHI
CHIBA-KEN, 272 JAPAN
PHONE: 0473-78-4156 FAX: 0473-78-4155

〒272 千葉県市川市稲荷木3丁目22-7
TEL: 0473-78-4156 FAX: 0473-78-4155

MADE IN JAPAN

