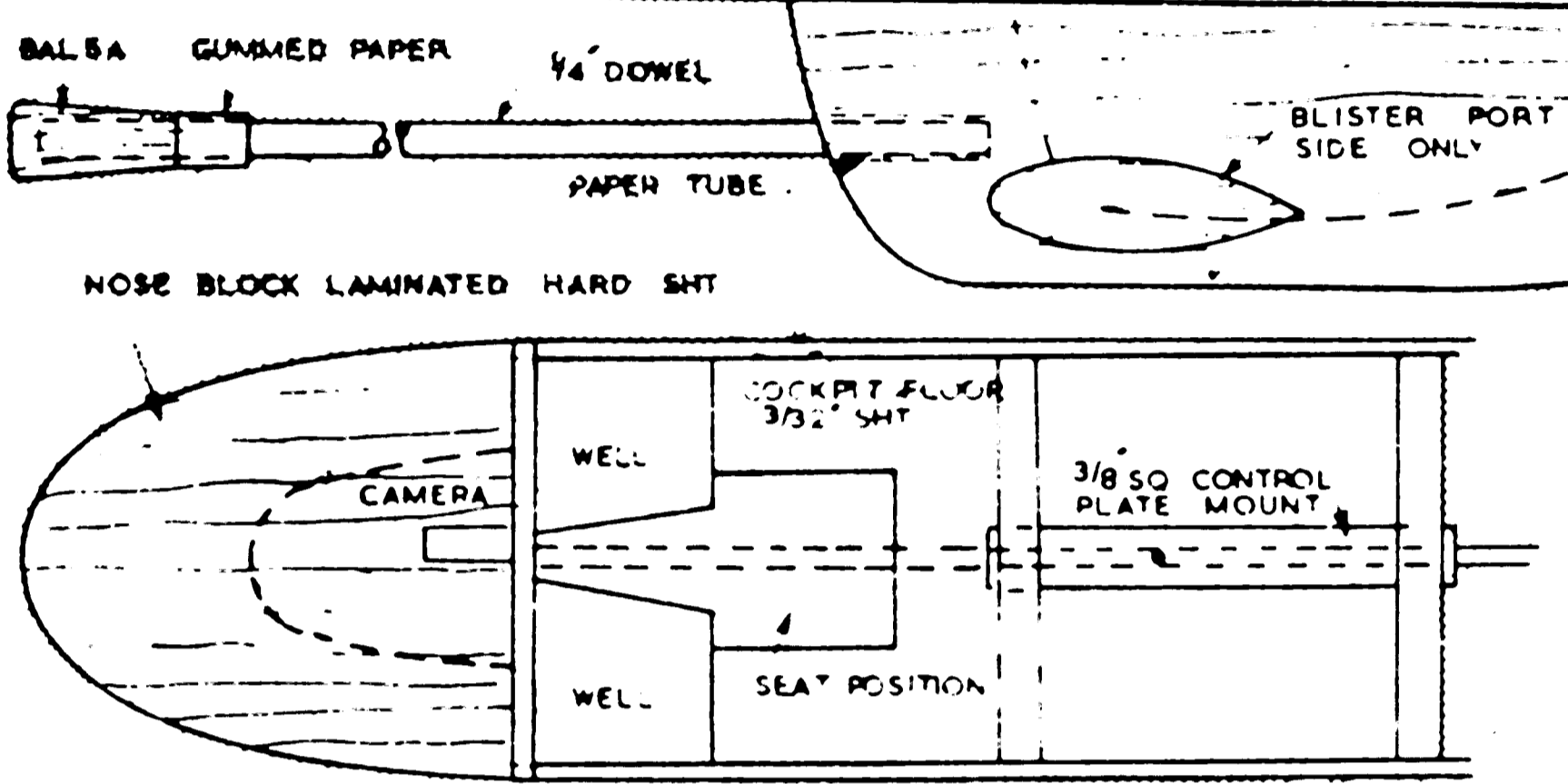
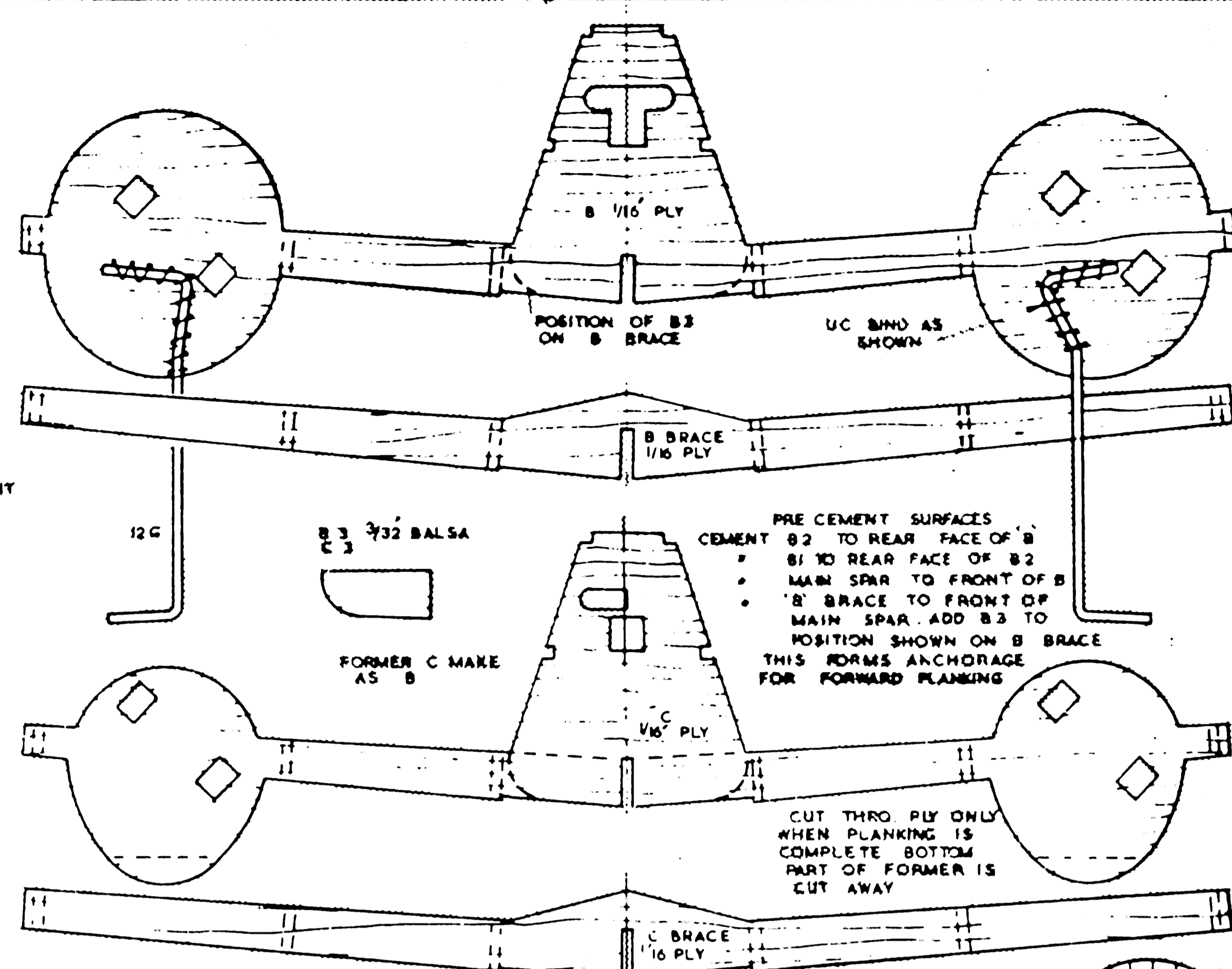
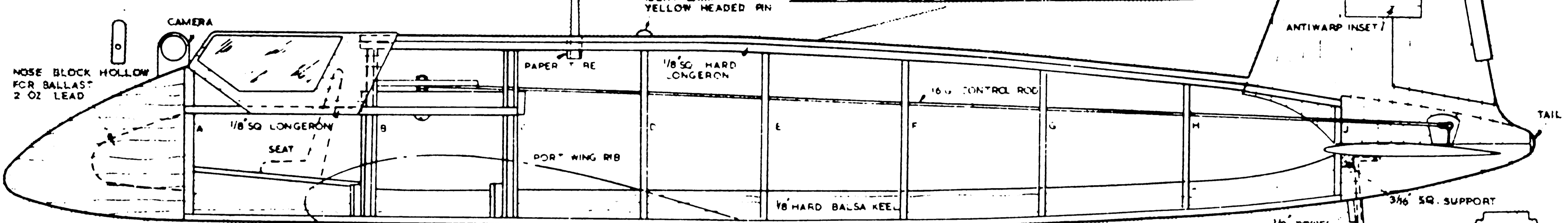
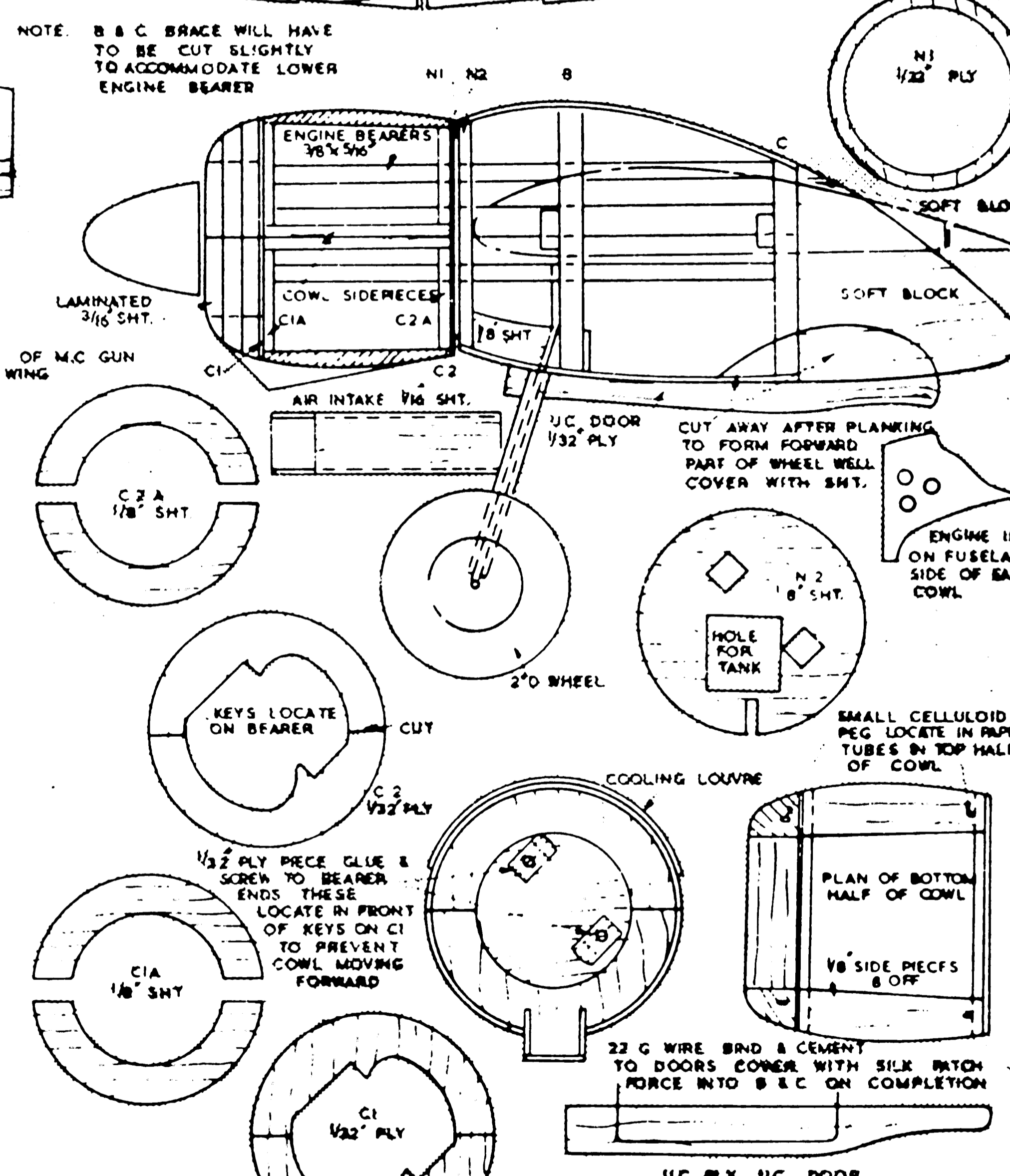
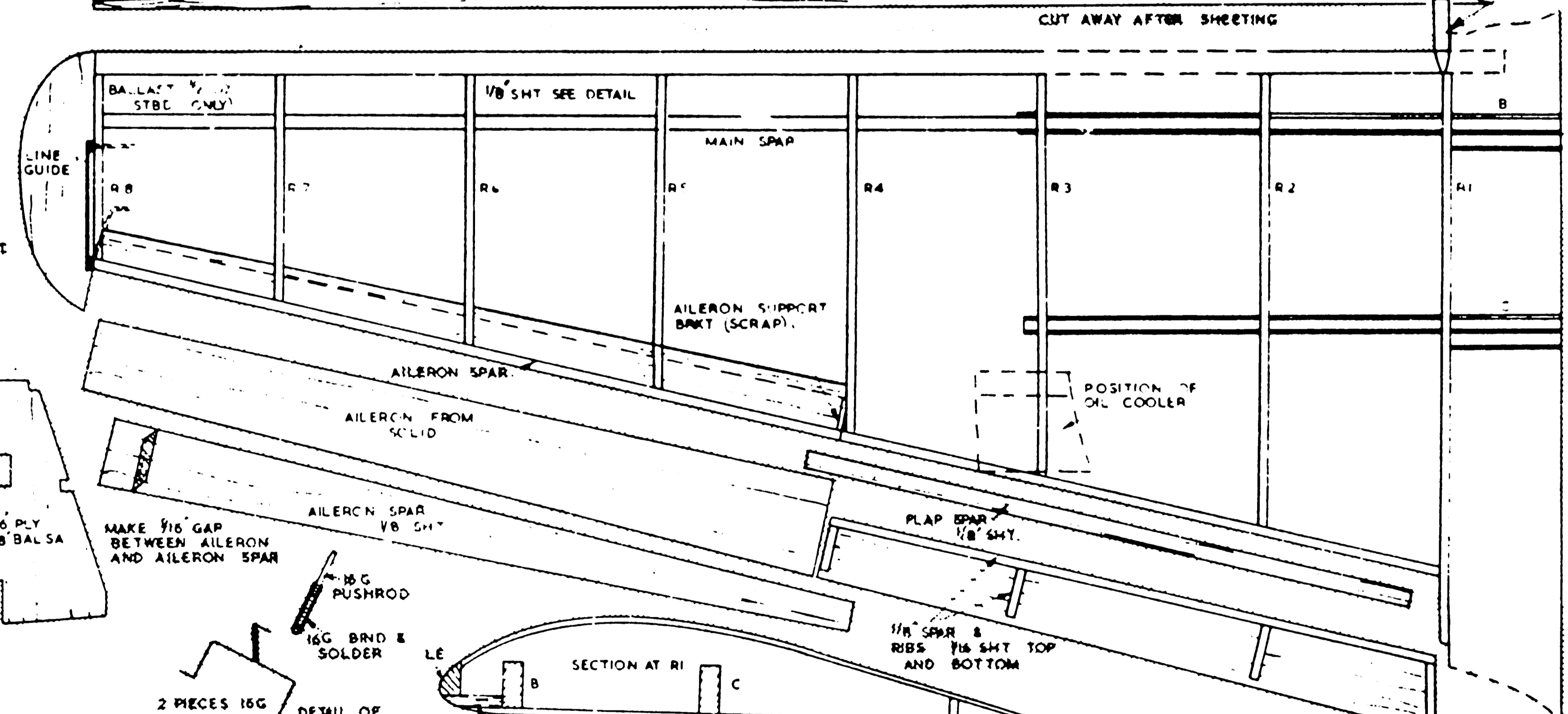
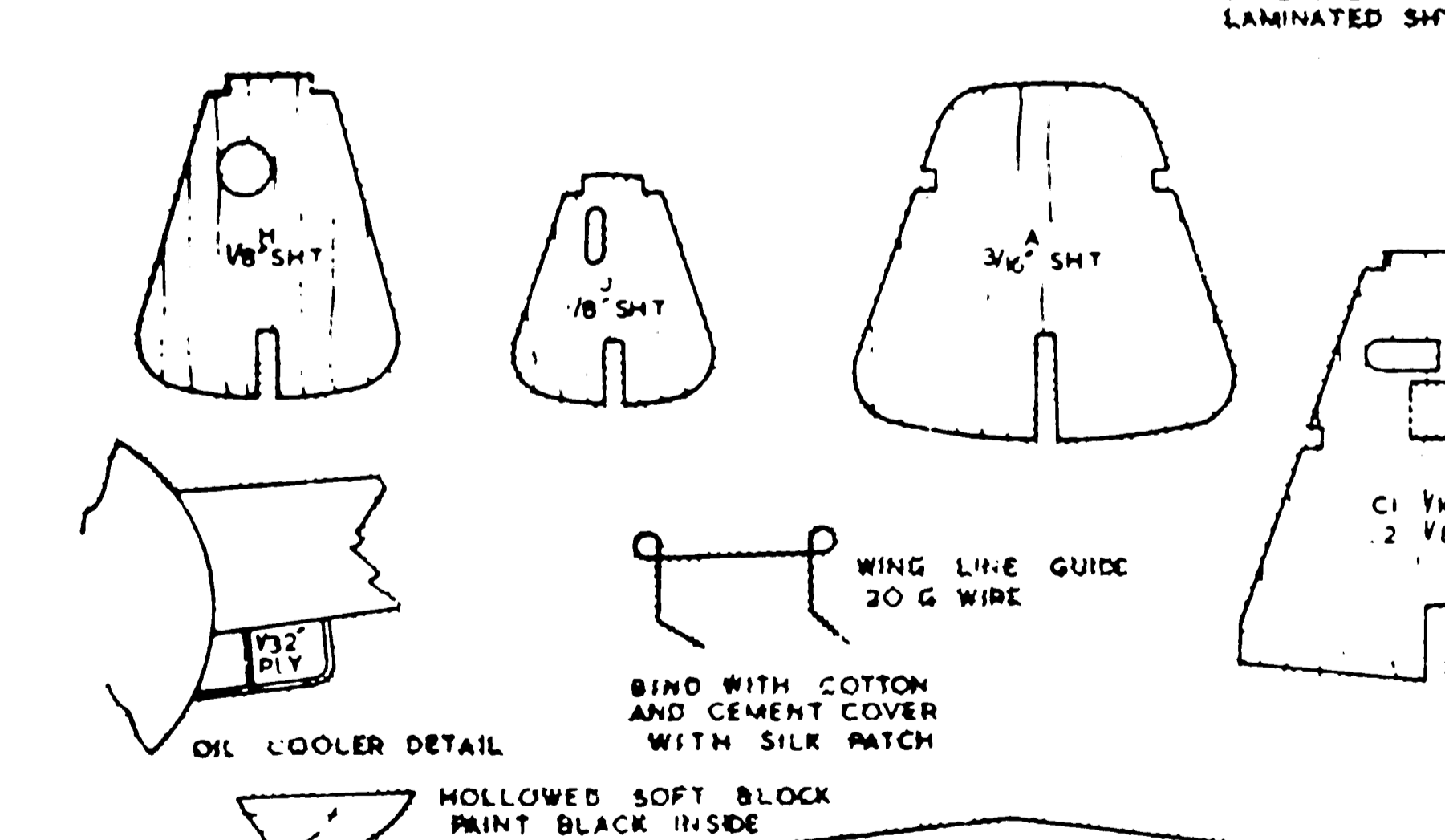
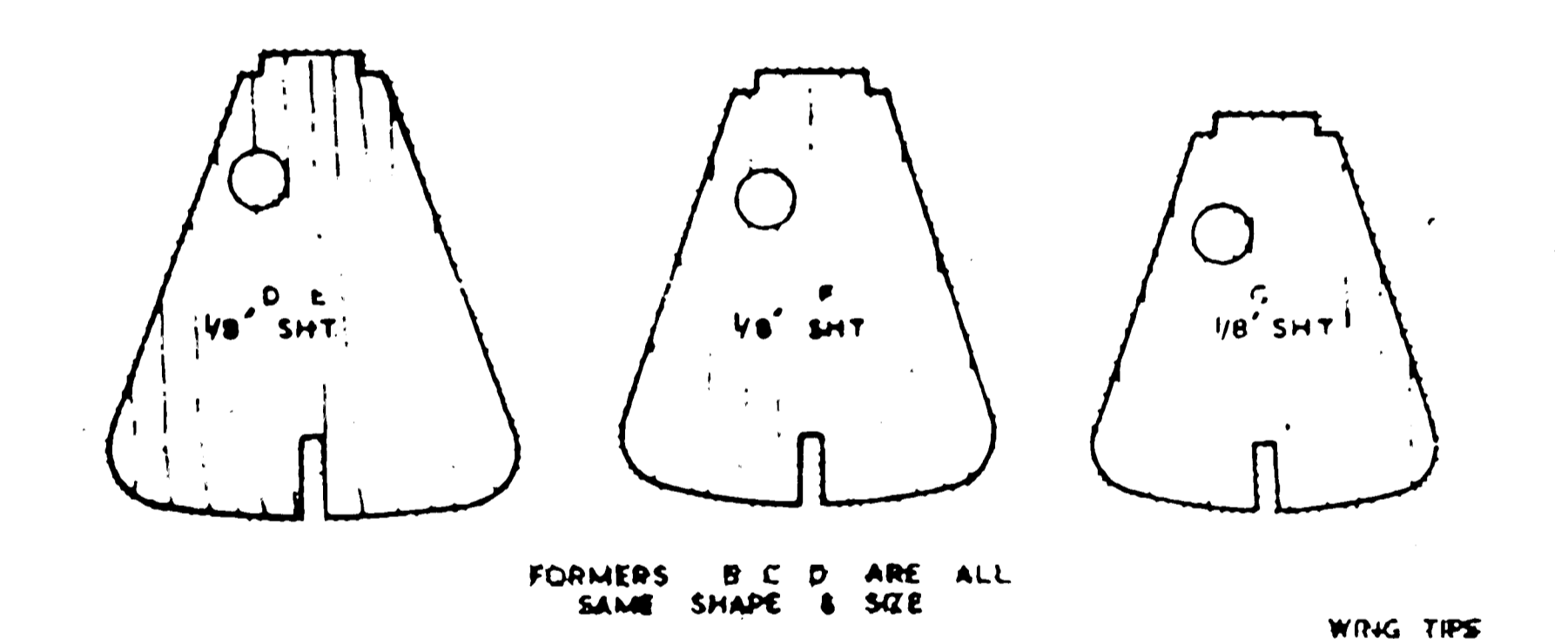
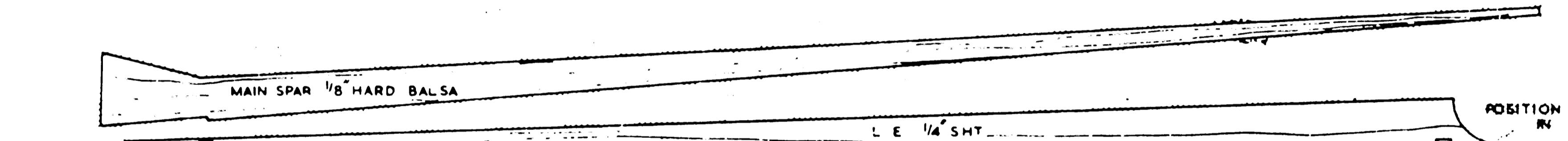


- FUSELAGE ASSEMBLY**
- 1 MAKE FORMERS B & C
  - 2 CEMENT B & C TO KEEL
  - 3 CEMENT A TO KEEL & LINK B & C WITH LONGERONS
  - 4 ADD COCKPIT FLOOR
  - 5 ASSEMBLE TP & FIN
  - 6 CEMENT REST OF FORMERS TO KEEL ADD TOP LONGERONS
  - 7 ADD CONTROL PLATE TO KEEL
  - 8 ADD TP & LINK ELEVATORS TO CONTROL CHECK MOVEMENT
  - 9 ADD FUSELAGE SIDES TOP DECK & PLANK BOTTOM LEAVE BAY B & C OPEN
  - 10 ADD TAIL WHEEL AND TAIL CONE
  - 11 CEMENT NOSE BLOCK IN PLACE
  - 12 SAND FUSELAGE & FILLET TP/FUSELAGE JOINTS WITH SILK



- ASSEMBLY OF WINGS**
- 1 CEMENT R1 IN PLACE ON B & C
  - 2 CUT LE PIECES & ASSEMBLE
  - 3 CEMENT R2, 3 & 4 IN PLACE
  - 4 REMOVE ENGINE BEARERS & CEMENT LE IN PLACE
  - 5 CHECK ANGLE OF INCIDENCE
  - 6 ADD FLAP & AILERON SPARS
  - 7 COVER LOWER SURFACE WITH 1/16" SHT
  - 8 CEMENT REMAINING RIBS IN PLACE
  - 9 COVER TOP SURFACE ADD LINE GUIDES AT TIP
  - 10 CARVE LE TO SECTION
  - 11 FILLET WING/FUSELAGE JOINTS WITH SILK



**HENSCHEL HS129**

M.A. 330 P. WELDON 5'6"

LENGTH 25" SPAN 31"

ENGINES 1-1.5 CC

C. MODEL AIRCRAFT 1960

19-20 WEL ST LONDON W1



designed  
by

PETER  
WHELDON

## A scale control-line model for two 1.5 c.c. motors

I CHOSE the Henschel Hs 129B-2/R4 as a companion model to my *Moskito* (published in the December, 1959, M.A.) as being a typical example of German design. It is not a "pretty" aircraft but does make a most attractive model.

The Hs 129, powered by two 690 h.p. Gnome-Rhone engines, entered operational service in 1942 and was the Luftwaffe equivalent of the Russian *Schturmovic*. As a result of space limitations in the cockpit, certain flight instruments were positioned on the inboard sides of the engine cowlings. The entire fuselage nose section—including the pilot's canopy—was built up from armour plate. Although the original armament consisted of two heavy cannon and two machine guns this was steadily increased until the 2/R4 staggered into the air carrying a 75 mm. anti-tank gun! This was no mean achievement when the limited power available is considered. Considerable success was achieved with this armament but with the advent of rocket carrying aircraft in 1944 the era of the Hs 129—the "Flying Can-opener"—ended.

### Construction of the Model

The construction is similar to that of the *Moskito* and is split into three stages—(1) the fuselage and tail unit, (2) the wings, and (3) the engine nacelles—all being linked together by the two master formers B and C. Provided these two formers are carefully constructed and lined up on the fuselage keel, alignment of the model is automatic. Being a scale model, a little patience is needed, but as the photograph shows, the effort is well worth while.

### Fuselage

Commence construction by carefully cutting out all parts for formers B and C including the hard  $\frac{1}{8}$  in. sheet main-spars. (Note that small portions of B and C braces will have to be cut away

to allow the engine bearers to slide into position.) Pre-cement all mating surfaces and assemble these two formers, then put aside to dry and cut out the remaining fuselage formers. Cement master formers B and C to the keel and hold true by inserting the engine bearers in place (do not cement bearers at this stage). Cement former A to the keel and link B and C with the  $\frac{1}{8}$  in. sq. longerons. Add the cockpit floor, check alignment and put aside to dry.

Cut out the two fin parts, stabiliser and elevators, and assemble. Cement the remaining fuselage formers in position on the keel, and then add the top longerons. Cement the bellcrank assembly in place, complete with short lead out wires. Now fix the tailplane in position, link up the elevators to the bellcrank and check for "neutral."

Cut out fuselage sides from hard  $\frac{3}{32}$  in. sheet, and after sanding the top longerons to follow the fuselage contours, cement in place. Follow with the top decking and bottom planking—all of hard  $\frac{3}{32}$  in. sheet. Note that the bay between B and C is left open at this stage. Fit the tail wheel assembly and tail cone fairing blocks. The nose block should be hollowed slightly and about 2 oz. of lead poured in before it is cemented in place. Carefully sand the fuselage to the correct section, fillet all tail/fuselage joints with silk and finally give the entire structure one coat of clear dope.

### Wing

Cut out all the wing ribs and cement R1 in place on B and C. Cut the leading edge pieces and assemble as shown on the plan, then cement ribs R2, R3 and R4 in place. The engine bearers can now be removed, and the leading edges cemented in place. At this stage check that both wings are at the same angle of incidence and that no "twists" are developing, and if all is true cement the remaining ribs in place, followed by the

flap and aileron spars. When dry sand these to the wing section contour.

Cover the lower wing surface with hard  $\frac{1}{8}$  in. sheet, noting that the port and starboard sheeting meets on the fuselage keel between formers B and C. At other places it should be a snug fit against the fuselage sides. Sheet the upper surfaces of the wings and add the line-guide and wing tips. Carve the leading edges to section and sand the wings all over.

Fillet the wing/fuselage joints with silk, and cover the lower surface of the wing between ribs R1, with one large silk patch then give the wings one coat of clear dope.

Carve the gun blister to shape and cement in place, but remember that the gun barrel is removable so do not cement this in position. Force two pieces of 14 SWG bushing into the wing leading edges to represent machine guns and fair them to the fuselage sides with silk and plenty of cement.

### Nacelles

Drill the engine bearers to suit the motors (A.M.15s were used in the original model) to be used, and pre-cement. Cement the bearers into place and mount the motors to hold them true until dry. Bend the under-carriage wires to shape and bind them in position using strong linen carpet thread. Cement N1 to the front face of N2, and when dry, slide N2 into position on the bearers. Plank the nacelles with hard  $\frac{3}{32}$  in. sheet, add the rear fairing blocks and sand smooth.

Cut away the lower portions of nacelle formers C (shown by dotted line on plan) to form wheel wells and fill in the space with sheet to prevent fuel seepage. Cover the nacelles with silk, overlapping onto the wing by about  $\frac{1}{2}$  in. all round. Use plenty of cement. (Note all the silk patches specified, in particular those around the nacelles, add considerably to the strength of the finished model and are essential.)

The construction of the cowlings is quite straightforward and when finished they lock into position very neatly, but if you have a favourite method of

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## HENSCHEL H.S. 129

*Continued from page 164*

construction or fixing you may prefer to use it.

### **Ailerons and Flaps**

These are made and finished independently of the wing. On the original model the flaps were built up and the ailerons carved from the solid, but here again, you may use any method preferred. These two units are held in place on the wing trailing edges by matchstick "hinges"—four each for flap and aileron. They are cemented to the ailerons and flaps before these units are finished but not cemented to the wings until the model is completed.

### **Cockpit Canopy**

This is fabricated from  $\frac{1}{16}$  in. plywood and constructed on the fuselage. After the sides and top are cut, the celluloid windows are cemented on the inside face, and the complete frames cemented in position on the fuselage sides, followed by the top transparency. Cover the frame/fuselage joints with silk for strength, and then add the windshield.

### **Finishing**

A good finish enhances any model and is essential for a scale model. Enough has been written about methods of finishing models, and it is assumed that, after covering the model with lightweight Modelspan, the surfaces are quite smooth and free from any dents or cracks. The prototype was finished in the standard colours of the period—pale blue/grey undersurfaces and dark olive green uppers. Squadron markings were in yellow.

The model should be painted pale blue/grey all over—three or four coats should suffice—rubbing down between each one. When the finish is satisfactory, mask off at the colour dividing lines, and paint the upper surfaces dark olive green. After the insignia have been applied, the model should be fuel proofed, and when dry, given a final rub with wax polish. The radio mast and gun barrel are painted matt black.

### **Flying**

Before attempting to fly the model, check the balance point carefully. If the model is tail heavy add ballast to correct (attach ballast to engine mounting bolts). The original model showed a fair turn of speed and no trouble should be encountered when flying on 58 ft. lines. However, as a precaution, carry out the initial test flights on 40 ft. lines. When flying over rough ground it may be advisable to remove the gun barrel and radio mast in case of a nose-over landing.

One final word. After all the time taken in building your Hs 129, spare a few moments before taking off to check that the control lines and fixings are safe. A scale model makes a lovely prang—for onlookers!