



# TRIDENT

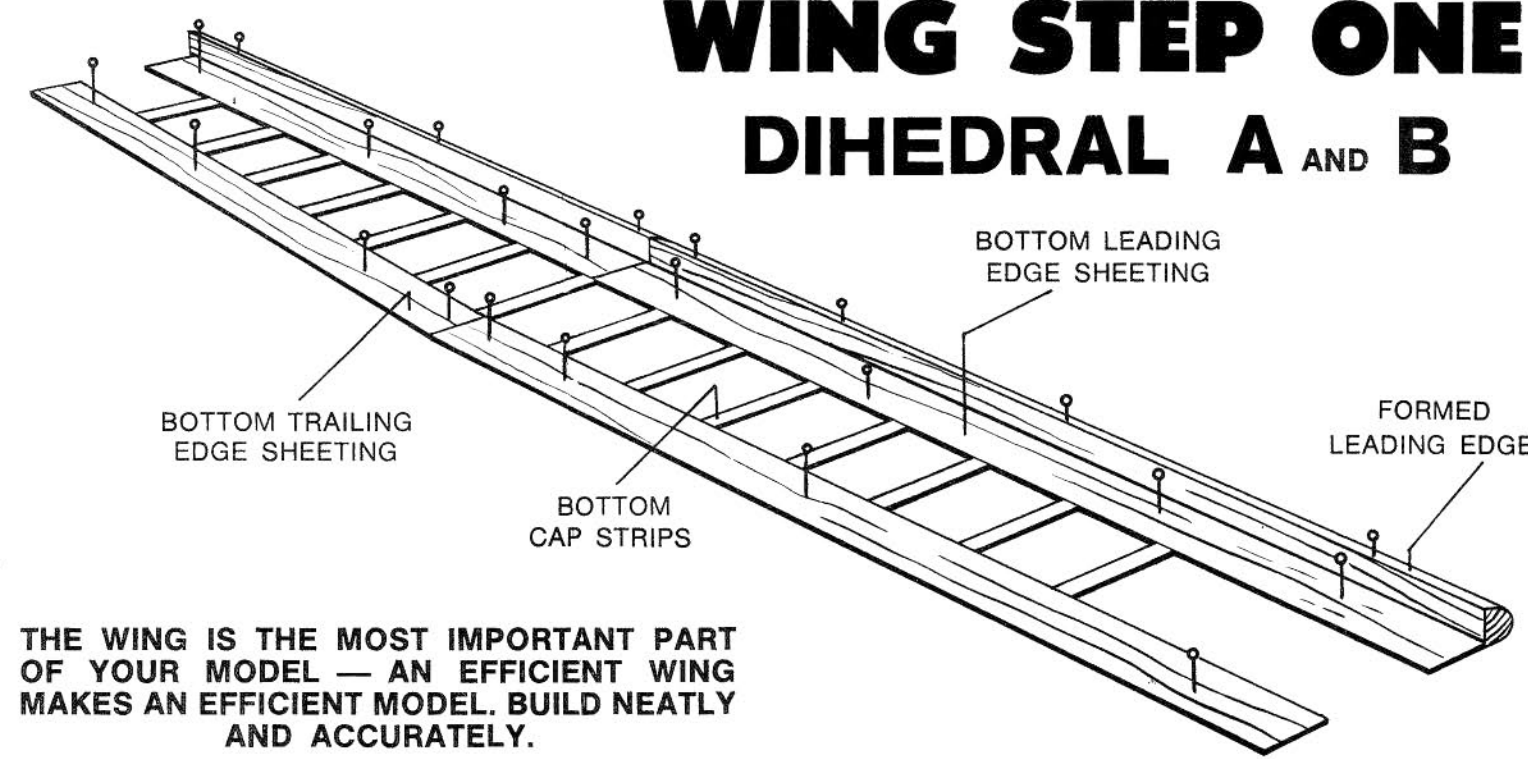


KIT No. 154

SHEET 2

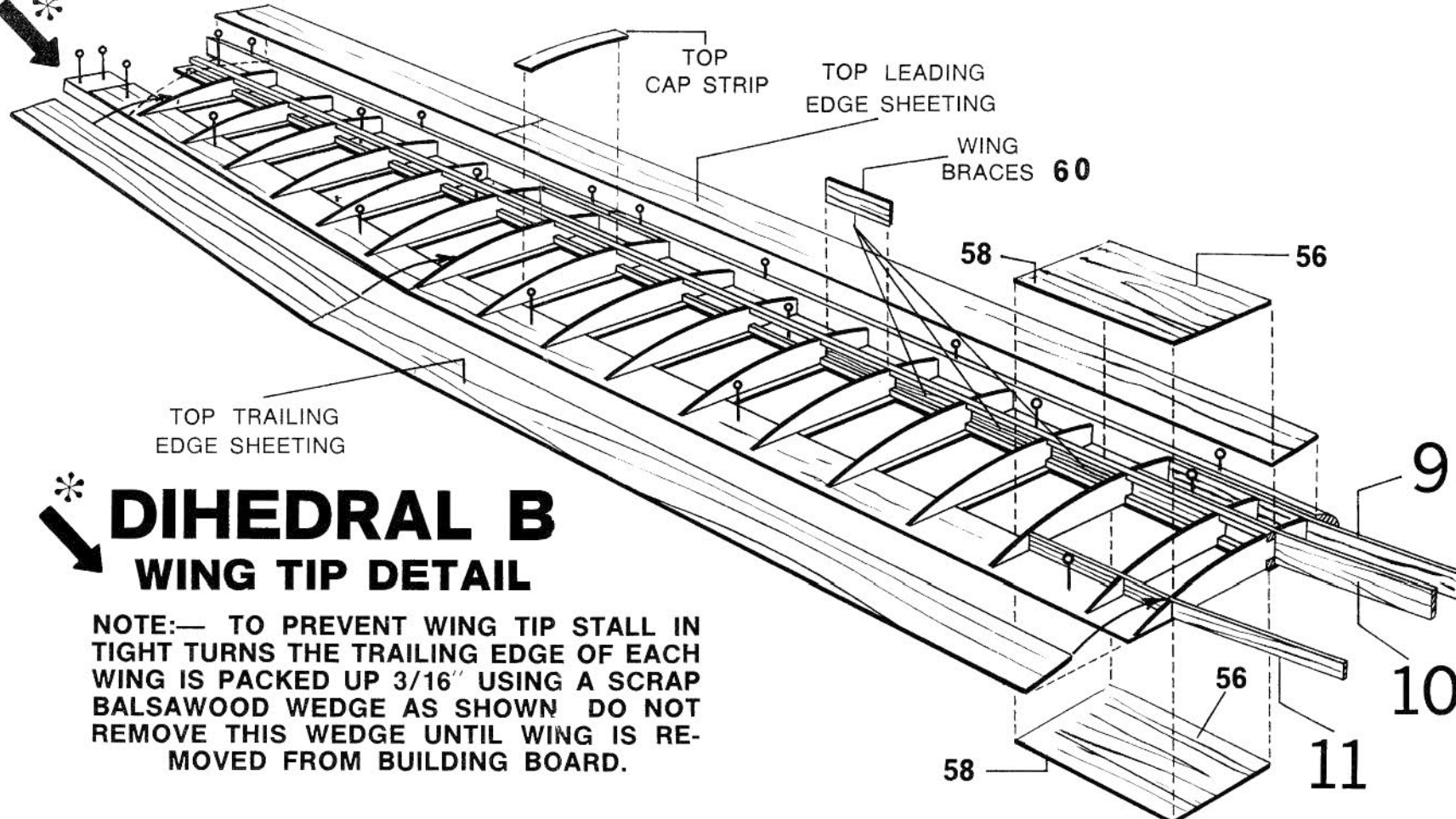
## Building and Flying INSTRUCTIONS

### WING STEP ONE DIHEDRAL A AND B



THE WING IS THE MOST IMPORTANT PART OF YOUR MODEL — AN EFFICIENT WING MAKES AN EFFICIENT MODEL. BUILD NEATLY AND ACCURATELY.

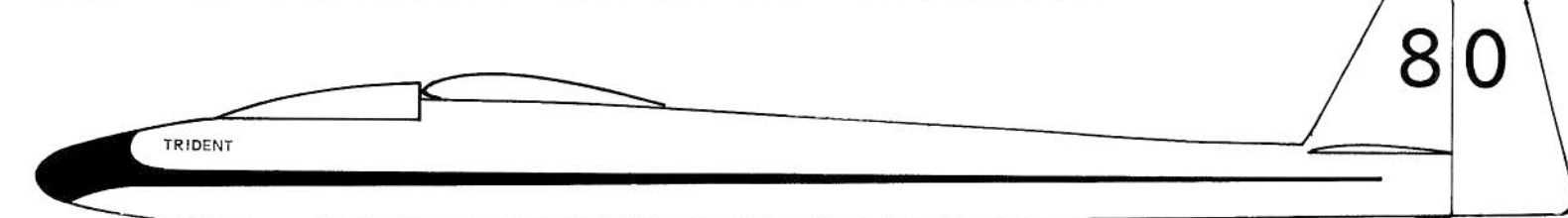
### WING STEP TWO



#### DIHEDRAL B WING TIP DETAIL

NOTE:— TO PREVENT WING TIP STALL IN TIGHT TURNS THE TRAILING EDGE OF EACH WING IS PACKED UP 3/16" USING A SCRAP BALSAWOOD WEDGE AS SHOWN. DO NOT REMOVE THIS WEDGE UNTIL WING IS REMOVED FROM BUILDING BOARD.

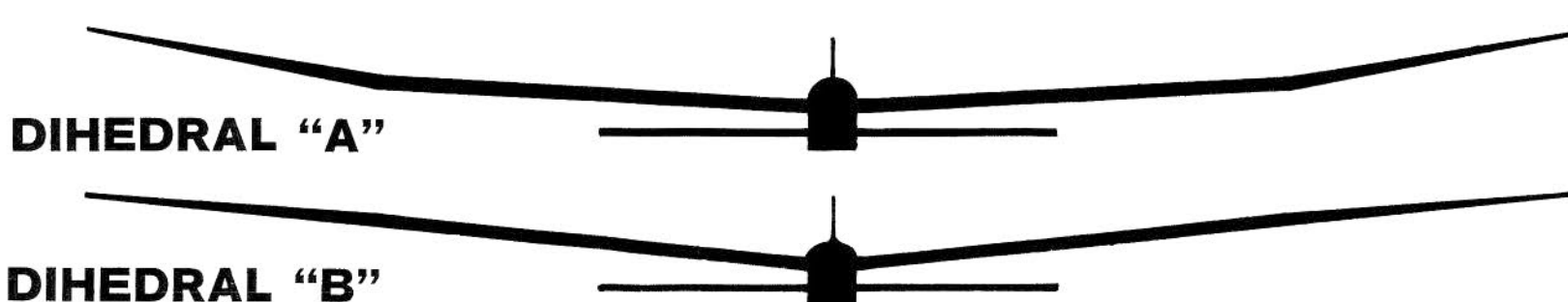
### 1/5 SCALE SIDE VIEW



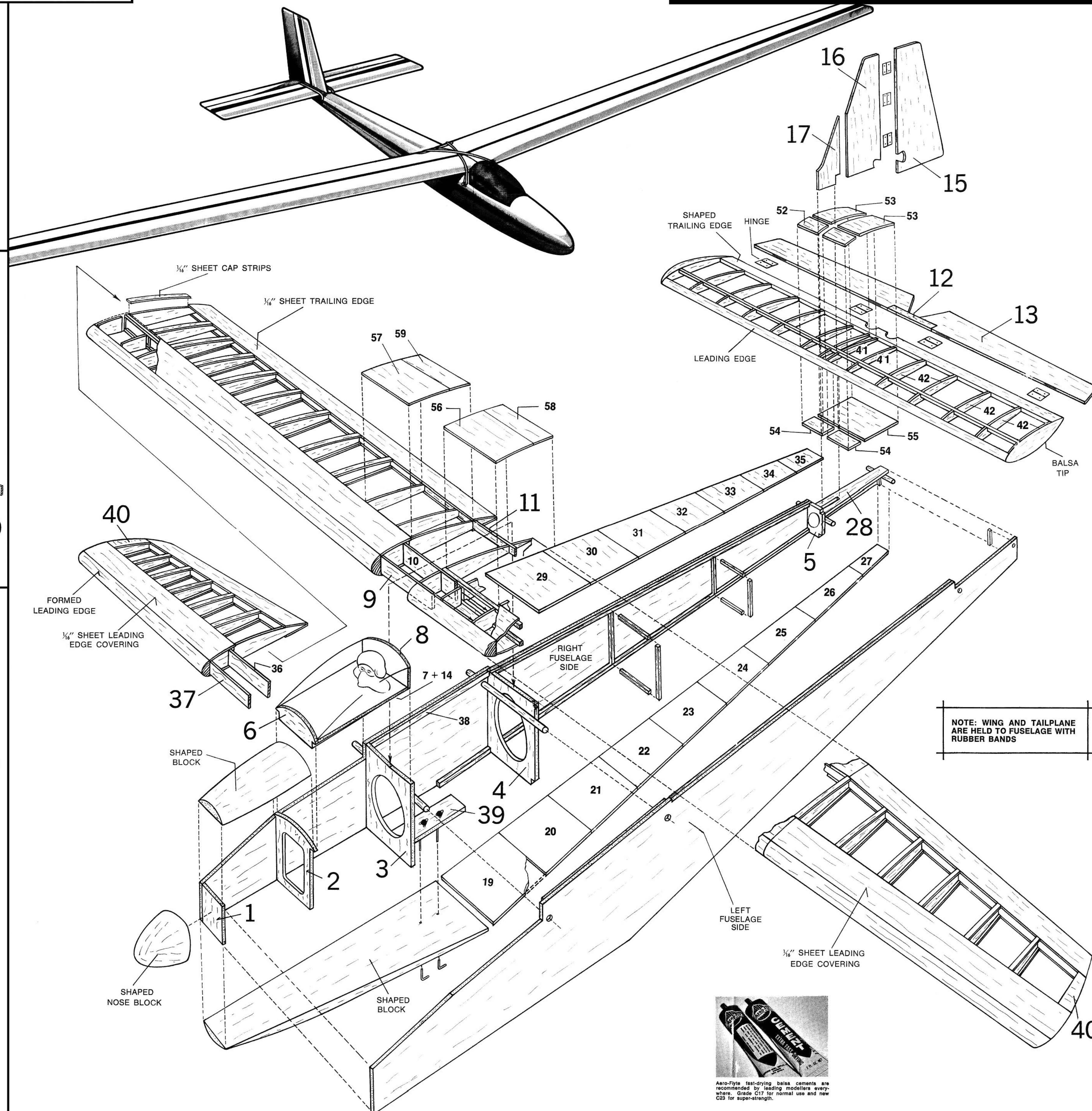
WING SPAN 80 INCHES  
WING CHORD 7 INCHES  
WING AREA 530 SQ. INCHES  
WING THICKNESS 12.5%  
WING SECTION N.A.C.A. 4412

TAILPLANE SPAN 24 INCHES  
TAILPLANE AREA 102 SQ. INCHES  
FUSELAGE LENGTH 39.75 INCHES  
WEIGHT 25 OZS  
(WITHOUT R/C EQUIPMENT)

### 1/10 SCALE TOP VIEW



### 1/10 SCALE FRONT VIEW



NOTE: WING AND TAILPLANE ARE HELD TO FUSELAGE WITH RUBBER BANDS



Aero-Flyte test-drying balsawood cements are recommended by leading modelers everywhere. Grade C17 for normal use and new C23 for super-strength.

For easy accurate assembly and a well made completed model it is important to fully understand all stages of construction before you begin any assembly. Carefully break out all parts from the diecut sheets using a sharp knife to clean out the edges if necessary, and identify each part with the full size plan on sheet one and their respective locations on the exploded view - sheet two. We recommend the use of Aero-Flyte balsawood cements which are especially formulated for use with balsawood. Use C.17 for normal joints and C.23 for high stress areas such as wing centre sections etc.

**FUSELAGE:** Lay each fuselage side over the plan and accurately mark the positions of all formers and uprights, then cement the 1/8" square longerons and uprights to the fuselage sides, making sure that you construct one left hand side and one right hand side. Join the two sides together with formers 3 and 4 making sure that this assembly is accurate. When dry add formers 1, 2, 5, 28 and the 1/8" square cross braces to complete the basic fuselage construction. Complete the fuselage by fitting the three nose blocks, parts 38, 39 (with tow hooks fitted), wing and tailplane dowels, and the cockpit which is assembled from parts 6, 7, 8, 14 and the moulded canopy (Refer Section E - E). Cover the fuselage top with parts 29 - 35 but do not cover the fuselage bottom at this stage if you intend fitting radio control to your TRIDENT.

**TAILPLANE AND FIN:** Pin the 1/4" x 1/4" leading edge, the shaped trailing edge, parts 54 and 55 over the full size plan. Cement all ribs numbered 41 and 42 and the mainspar into place. When dry remove from the building board and fit parts 52, 53 and the balsawood tips. Cement fin parts 16 and 17 together, allow to dry and cement into the slot in the tailplane. Make up the elevator assembly from parts 12 and 13. Do not attach the elevator or the rudder at this stage.

**WING:** Before beginning to construct the wing you will need to decide whether to build in dihedral form "A" or "B". We recommend "A" if you are NOT using radio control or if you intend using your model as a radio controlled thermal soarer, but use dihedral "B" for radio controlled slope soaring. The detailed wing sketches on this plan shows the basic wing construction which is as follows:- Pin down the bottom leading edge sheeting, bottom trailing edge sheeting, bottom cap strips (cut from 1/16" x 1/4" strip supplied) and the formed leading edge. Cement all joints and move onto step two.

**LEFT HAND WING:**  
**Dihedral "A"** - Block up the wing tip section 3", at the same time trimming off the leading edge at point D - D to form a neat joint, cement the bottom mainspar and plywood braces 9A, 10A, 11A, 36A and 37A into place and fit all wing ribs trimming off the ribs when necessary to fit between the plywood braces. Note that it is necessary to use the centre rib dihedral template "A" to obtain the correct angle of the centre rib. Cement the top mainspar, balsawood wing braces 60, top trailing edge sheeting, top leading edge sheeting and top cap strips into place. When dry remove from the plan and cement wing tip parts 40 and 43 into place, as shown in the wing tip detail sketch.

**Dihedral "B"** - Block up the trailing edge sheeting at the wing tip as shown in Wing Step Two sketch. Cement the bottom mainspar and plywood braces 9B, 10B, 11B, 36B and 37B into place and fit all wing ribs, trimming off the ribs where necessary to fit between the plywood braces. Note that it is necessary to use the centre rib dihedral template "B" to obtain the correct angle for the centre rib. Cement the top mainspar, balsawood wing braces 60, top trailing edge sheeting, top leading edge sheeting and top cap strips into place. When dry, remove from the plan and cement parts 40 and 43 into place, as shown in the wing tip detail sketch.

**RIGHT HAND WING:** Pin down the parts for step one over the plan as before, and cement all joints. Leave in place on the building board and join the wings by placing the three centre wing braces, 9, 10 and 11 (which are protruding from the left hand wing) in position on the right hand wing assembly. Block up the left hand wing to the correct angle at the same time trimming off the leading edge to suit. Cement the plywood brace to the leading edge and continue assembly of step two for the right hand wing as before. When complete remove from the building board and carefully fit wing centre sheet covering parts 56, 57, 58 and 59. The basic construction of the model except for the fuselage bottom sheeting is now complete and the radio control equipment should be installed at this stage. Attach the elevator assembly to the tailplane and the rudder to the fin with nylon hinges (not supplied). Do not cement the hinges into place at this stage as finishing and covering is much easier with the rudder and elevator removed. Follow the radio control unit manufacturer's instructions for installation of your R/C unit.

**FINISHING:** The original model was finished as follows: - Carefully carve and sandpaper the entire airframe to a smooth finish all over, apply one coat of Aero-Flyte dope to the fuselage and lightly sandpaper again. Cover the fuselage with light weight tissue, brushing dope through the tissue onto the airframe and smoothing out any wrinkles as you go. Apply another coat of dope, allow to dry and paint with a good quality enamel. The wings, tailplane, elevators and rudder were covered in "Solarfilm" and finally the elevators and rudder were attached to the tailplane and rudder with nylon hinges.

**FLYING:** The completed model must balance at the point shown on the plan and should be given a test glide into the wind from shoulder height. Pack the front or the back of the tailplane with scrap pieces of 1/32" balsawood to obtain a smooth flat glide. Final trimming and testing will depend on the flying method used i.e. towline, thermal soaring or slope soaring and if this is your first model we recommend that you have an experienced modeller assist you at this time.



FOR TOP PERFORMANCE