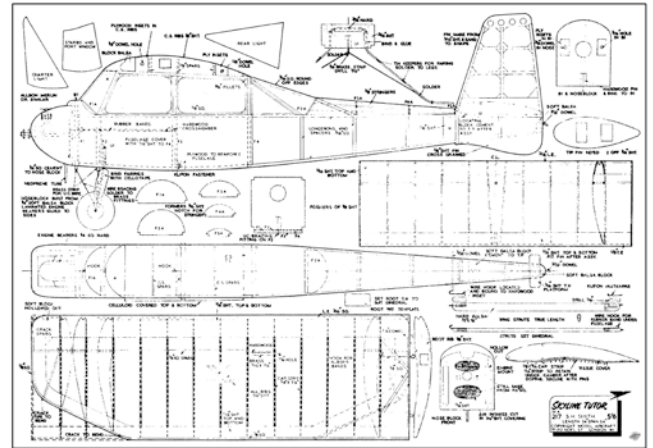


Skyline Tutor



A Semi Scale F/F Model for .75 – 1 c.c. engines by H.B. Smith.

The Skyline Tutor, has been designed as a semi-scale cabin model and when powered by engines of about 1 c.c. achieves a realistic scale flying speed. The prototype has been flown with success powered by a Mills .75 but it proved rather under-powered for take-off, thus necessitating hand launching. With engines of 1 c.c. successful r.o.g. flights can be made.

Fuselage: The fuselage is constructed basically of 3/16 in. sq. longerons and spacers, 1/16 in. sheet being used on the sides from the nose block to former F4. Celulloid covering is used on both top and bottom of cabin, so that it is possible to see inside the fuselage should radio be fitted.

Nose Block: The nose block is designed to knock off, being located by two dowels and held in position by rubber bands attached to two hooks. This facilitates complete removal for engine servicing and reduces the risk of damage in the event of a heavy landing. It is built up from 1/4 in. laminated soft balsa and sanded to shape. The engine bearers are glued to the sides with Croid universal glue, whilst the oval air-intakes are cut out of the 1/16 in. sheet covering. Behind are cemented in position diagonally, 1/16 in. balsa slats to represent radiator grilles. A neoprene overflow pipe is cemented to the underside and this carries away all surplus fuel thus leaving the airframe clean.

Undercarriage: This is very light, strong, and simple to make. It is braced where shown by piano wire soldered to brass fittings located in hardwood blocks,

which are cemented to B1 and U1. Tin keepers are soldered to the legs, upon which the balsa fairings are sandwiched together and sanded to a streamline section. These legs may then be bound with cellotape before covering with paper, which adds greatly to their strength.

Wings: The wings also, are designed to knock off, and are practically unbreakable under normal flying conditions. They are secured to the center section by two rubber bands fitted to wire hooks on the main spar. The bands are pulled through the hatch by means of a hook formed on a length of wire, the wing struts are then hooked on to the brass fittings and are located in "Klip-on" fasteners (obtainable from Henry J. Nicholls), fitted to bottom longerons. Two thin bands are then fitted to wire hooks, and pass under the fuselage, taking the load in flight. With this arrangement the whole assembly can break away undamaged on impact.

The tail-plane needs little explanation. The fin and the locating block are cemented to the tail-plane after assembly, and the "end-plates" are keyed to prevent warping, these are not covered or doped.

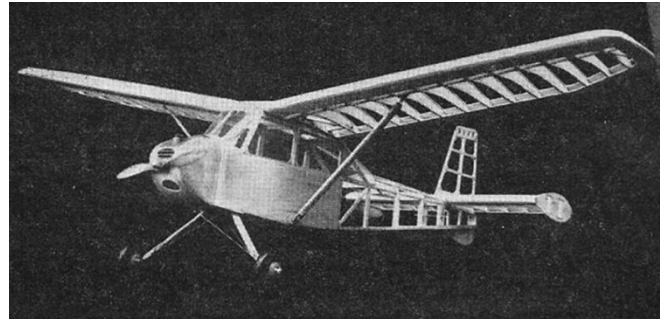
Covering: The ribs of the main planes are capped with 1/16 X 1/8 in. balsa strips both top and bottom. Smear a liberal coating of photo paste to bottom ribs only and cover in the usual way, making paper adhere to caps. Wait until quite dry and then fit second set of caps over paper, with 1/2 in. household pins pushed right into ribs, at about 1/2 in. pitch, this will then maintain the under-camber shape of wing section, the dope being unable to pull the paper from the desired section. Do not cover top of wing until the lower

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surface has been dealt with, as this will then enable the pins to be felt into position from the top.

Finish: The model is given two coats of clear dope to all surfaces. The fuselage was then given one coat of cream, with two coats of fuel proofer inside the nose block and radiator grilles to be on the safe side.

Flying: No adjustments were found necessary on the prototype, but slight variation in the tail-plane setting may be necessary, depending on the size of engine used, together with the type of wheels fitted.



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