



"SIMON" was one of the most successful Wakefield models of the 1949 season, and one example built and flown by J. F. McKenna, whose photograph appears above, placed first in the Wakefield Eliminator with three perfect five minute (maximum) flights, thereby winning the Gutteridge Trophy. Unfortunately McKenna was unable to obtain leave from the R.A.F. in order to compete in the Wakefield "100."

Fuselage

Build the two sides together over the plan in the usual manner. Whilst drying build wing box from hard 1/8 in. sheet and bind with tissue and cotton. Remove sides from plan and join together by means of wing box and centre cross-pieces, then add remaining cross-pieces, working from centre to rear and centre to nose of fuselage. Fit 16 in. sheet in lower rear bay and front bays, under-fin and paper tube for fin fixing, rear motor anchorage, and d/t box into position. Before cementing nose former, sand $\frac{1}{8}$ in. down thrust and $\frac{1}{16}$ in. side thrust into nose. Cement paper tube for undercarriage and strengthening gussets into place. Cut stringers roughly to shape and cement in position, sanding nose to streamlined shape when cement is dry. Centre stringers are let into second bay of fuselage by $\frac{1}{16}$ in. It is important that $\frac{1}{8}$ in. \times $\frac{1}{16}$ in. crosspieces are used at the rear motor anchorage and $\frac{1}{8}$ in. \times $\frac{1}{16}$ in. cross-pieces and spacers are used at front motor anchorage, to give ample rubber clearance. The gussets and wing braces around wing box should not be fitted until after wing root ribs have been checked for alignment on wing tongues.

Wings

Build tips over plan and whilst drying carve ribs, either by template method or individually. Notch trailing edge $\frac{1}{16}$ in. to take ribs and temporarily cement 1/32 in. sheet under each notch to preserve wing section. Remove tips from plan and pin leading and trailing edges in place. Trim ends of tips to

fit and cement in position, packing up extreme ends of tip 3 in. Notch all the ribs to take spars and cement into place, working from tip to centre. To ensure that both panels of wing have the same incidence, plug wing tongues into fuselage wing box, slide root ribs over the ends of tongues and check incidence by comparing flat undersurface of root ribs through fuselage. Any error can be easily rectified before cementing root ribs to tongues. When root ribs and tongues are dry, trim outboard end of tongue flush with rib No. 2 and cement in place, ensuring that root rib is absolutely flat on the building board and that outboard end of tongue is resting on the piece of packing under rib No. 2, this producing equal dihedral on each panel. When thoroughly dry remove wing from plan and sand leading and trailing edges to comply with wing section. Crack leading and trailing edges where shown on plan and pack up to give correct dihedral and add strengthening gussets. Top spar should be fitted before removing wing from plan; fitting of lower spar is last process before covering.

Fin

Pin outline of $\frac{1}{8}$ in. soft sheet over plan. Ribs are $\frac{1}{16}$ in. \times $\frac{1}{4}$ in. oblong strips which are notched to take leading and trailing edges and spar. Mark position of ribs on outline and remove from plan. Cement ribs and bamboo spar in position, add gussets to lower rib and sand whole to streamlined shape. Complete by cementing capping strips to lower rib and small bamboo peg into leading edge to locate fin.

Tailplane

Is quite orthodox construction, the whole assembly being built flat over plan. For best results cut leading and trailing edges and spar from same piece of $\frac{1}{8}$ in. sheet. Note that main spar ends at tip ribs and separate tip spars are used to prevent distortion of section over tips. A short length of paper tube is located in centre section of tailplane

FULL SIZE WORKING DRAWINGS ARE OBTAINABLE FROM YOUR LOCAL DEALER, OR BY POST FROM THE "MODEL AIRCRAFT" PLANS DEPARTMENT, 23, GREAT QUEEN STREET, LONDON, W.C.2, 5s. 0d., POST FREE.



W. Hinks, designer of the "Simon" Wakefield model, with one of the earlier prototypes

(for fin spar to pass through) by means of 1/16 in. sheet top and bottom.

Undercarriage

Leg is made from hard outside part of springy bamboo, tapering, as shown on the plan. Wheel is from 16 in. ply bushed with brass tubing and is held in place on 18 s.w.g. axle by a small piece of plastic tubing.

Probeller

Carve from block as shown on plan. Before doping, cement strips of thin bamboo or cane round leading edges and tips of each blade. Apply four coats of dope, sanding between each. spinner disc to rear of propeller hub and build up spinner from scrap balsa. Apply four coats of dope to spinner and one further coat to whole of propeller, sanding with very fine sandpaper to finish. Nose block is quite straightforward as shown on plan.

Covering and Finishing

Cover with jap tissue or similar and give two coats of dope to fuselage and wings and one coat to tail unit. Build up tailplane/fuselage fairing from sheet and fit d/t box door by means of jap silk hinges cemented to covering of fuselage. For ease of rubber insertion, a trap door can be fitted at rear of fuselage or one bay covered with transparent celluloid; d/t shute is from jap silk 12 in. square and is anchored level with leading edge of tailplane.

Power

Fourteen strands of 1/24 in. x 1/24 in. rubber 48 in. long. Dunlop 6010 is recommended, which should take 1,000 turns if properly broken in.

Trimming

By orthodox method. No washout on wings is necessary, neither is it desirable.