
VIC SMEED'S '53 BOWDEN TROPHY WINNER PUSHY - CAT

A 44 inch pusher sport model for engines up to 1 c.c. Super-stable, this is the 'plane for perfect r.o.g. take-off and landing.

Margaret Smeed admires hubby's handiwork. Sweep-back equals dihedral angle, giving optical illusion of a flat wing in this view.

JUST about all of a model's ailments centre round, or affect, the C.G. To design a trouble-free model is therefore simple—don't let it have a C.G. "Pushy-Cat" is one model which definitely hasn't one, for, although it balances where indicated on the plan, the vertical factors bring the true C.G. to a position almost one inch *outside* the airframe, in thin air! Does this produce visions of the model scudding away and leaving its C.G. standing ?!!

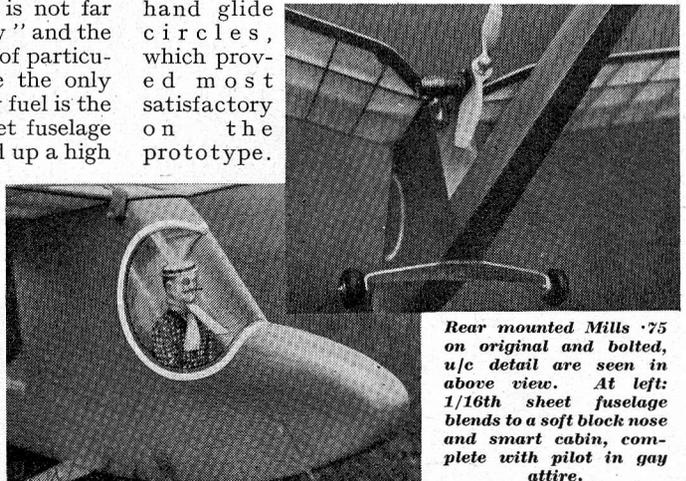
Seriously, "Pushy-Cat" is an attempt to get out of the rut while still retaining reasonably simple construction, easy trimming, and good flight characteristics. The appearance is not far from scale (remember the "Scheldemeuw" and the "Carden-Baynes"?) and the lay-out is of particular interest to concours builders, since the only part of the model likely to be affected by fuel is the leading edge of the fin, and the all-sheet fuselage offers an excellent base on which to build up a high finish. The configuration also lends itself to flying-boat adaptation, and a suggested removable "shoe" is shown on the plan.

One minor snag is that rotary-valve motors will require a left-hand airscrew, since they will not run "backwards". A plastic prop of suitable diameter can be warmed in an oven until soft enough to be twisted to reverse pitch, or a wooden prop carved from a beech blank as illustrated, which takes less than twenty minutes. Side

port engines, such as the Mills .75 used on the original, can use an ordinary airscrew put on "back to front", the engine being run in the opposite direction from normal.

Building the model is very straightforward; use softish balsa and keep colour-doping to a minimum if a .5 motor is to be used. Space bearers as required, but check propeller clearance. The cabin top front and rear engine fairing are the only awkward spots; very soft block may be used at these points if desired. Cover the entire model with lightweight Modelspan. The small strip of aluminium cemented on the rear of the rudder enables the 1/16 in. sheet to be bent slightly across its grain for rudder trim, without springing back straight.

Balance the model on the engine bolt as shown, using ballast in the box provided, if necessary (none was needed on the original). Tailplane packing for glide trim should not exceed 1/16 in.—add or remove ballast if more is necessary. Slight left rudder will give a straight ahead or wide left-hand glide circles, which proved most satisfactory on the prototype.



Rear mounted Mills .75 on original and bolted, u/c detail are seen in above view. At left: 1/16th sheet fuselage blends to a soft block nose and smart cabin, complete with pilot in gay attire.