

GENGANGGAREN

A SWEDISH F.A.I.
CLASS TEAM
RACER

by

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OR THE SPECTRE

THIS model was designed with the following ideas in mind: 1. strength and reliability; 2. smallness, for low drag; 3. complete accessibility to tank and controls; 4. tank located to ensure positive starts; 5. control of oil seepage; 6. crankcase cooling, for consistent motor runs; 7. extremely quick and easy building; 8. good looks.

Points 1, 3, 5 and 7 are met by the semi-bolted together assembly, while the high starboard tank location gives a positive feed and minimises the risk of the motor leaning out in the air. The bearers-below-engine system gives the smallest possible model, crankcase cooling is easy to arrange and as for looks, well that's for the individual to judge.

Other interesting features that have been designed into the *Spectre*, include an asymmetric wing, leadouts rigged for "clean" tangential flying, and despite the short tail moment, and rearward c.g. location (22 per cent. chord) the model is completely stable and can be flown with precision.

The construction is quite straightforward, but the following assembly sequence should be of assistance.

1. Put six coats of balsa cement

2. on wing blank root for strength.
2. Add shaped bearers, landing gear and hold-together bolts.
3. Instal (tape-protected) motor. (No offset is used.)
4. Add fuselage layers sawn out for motor and cooling air. Note that air is led around cylinder.
5. Shape fuselage and wing. Cement and silk 1 oz. of lead into cutout in outer wingtip.
6. Add tailplane, fin-stab. fairing and cowl. Hold in place with pins as well as cement.
7. Sandpaper all over.
8. Silk cover lower fuselage half, and tissue-cover rest.
9. Apply filler, allow to dry, sand, clear dope, sand lightly and colour dope.
10. Cement canopy in place, and fuel-proof plane inside and out.
11. Instal tank and controls. Lead-out-guide should be placed exactly in line with centre of gravity.

Flying is simple as *Spectre* is completely stable, just use full "up" elevator until the model is airborne, then level off. However, if you want to win contests then the following points should help.

Use the best possible motor; at

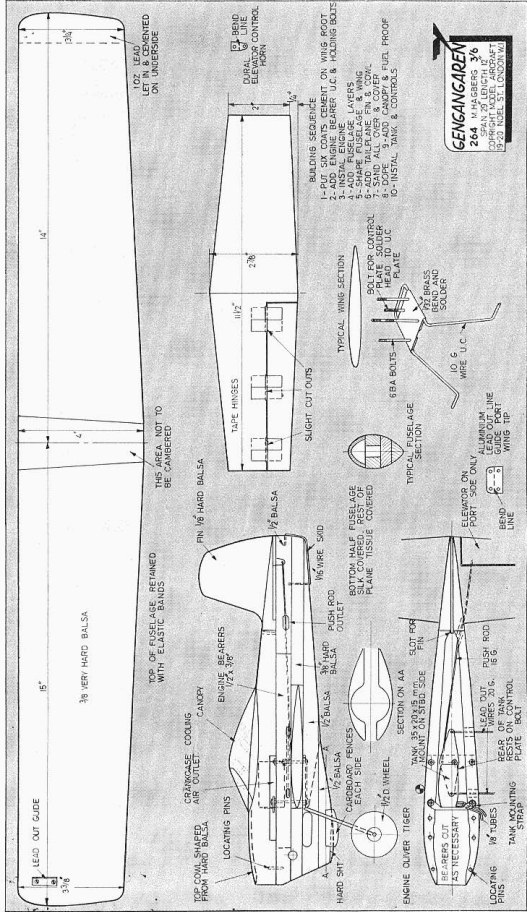
the moment for Class "A" racing the Oliver Tiger III is unsurpassed. Run it in properly until it is completely free, as any friction causes overheating and loss of power. The "works" fuel formula is very effective in this racer; where the engine is well cooled, however, on hot days I add a little more ether.

When a race is due, check and clean your plane several days in advance. Double check tank, controls and carburettor needle soldering.

Before your heat commences, pre-run motor and open needle-valve two turns to clear out any accumulated dirt. Also test pull lines and wipe them. See that you have a pair of combination pliers (faster than wrench) handy, also an extra airscrew with spinner nut and the required washers already in place. During the race, it is often better to use a chipped propeller than to replace it.

My shortest pit-stops are made in this way:

1. Squeeze filler bottle hard so that fuel is pressed into engine.
2. Prime by closing exhaust port with piston and splashing in through fuselage side port.
3. Flick twice, release immediately.



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