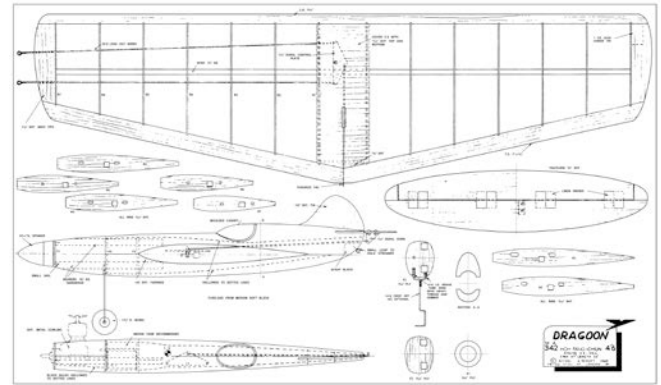


Dragoon



A sleek stunt/combat model for 2.5 - 3.5 c.c. motors. Designed by Hoh Fang Chiun.

When “ Combat ” was first introduced the models flown were usually old stunters retrieved from the scrap box. However, in a very short time, this new branch of the sport rapidly gained in popularity, and specialist combat models were produced with a stunt performance but simplified construction. As the mortality rate of models increased, the emphasis was more and more on ease of building until, today, a combat model is the simplest and often the ugliest of contest models !

In an attempt to get away from this rut, I have designed Dragoon, in which I have tried to combine a slick, manoeuvrable stunt model, with a fast, easy-to-build combat job. Powered by a well-broken-in Taifun “ Tornado ” 2.5 c.c. diesel, the prototype flies at an average speed of 60 m.p.h., and with a line length of 55 ft. it is capable of doing the most advanced manoeuvres.

Construction: Build the entire mainplane first, by first joining up the 9/16 in. sq. leading edge and 3/8 in. sq. hard balsa main- spar. Cut all the ribs from in. medium balsa, not forgetting to cut slots in the port wing ribs for the lead-out wires.

Slide and cement the ribs onto the mainspar and check that they line up correctly. Note that the 3 mm. plywood bellcrank mount has to be cemented in place before the ribs arc added. Cut notches for the ribs in the leading and trailing edges and cement these in place.

Add the 1/8 in. sheet balsa tips and insert the 14 s.w.g. tubes through the port tip for the lead-outs. Don't forget to fix a 1 oz. lead weight in the starboard wing tip.

Before sheet covering the center part of the mainplane, cement the 1/8 in. balsa reinforcement at the trailing edge joint and bolt the complete bellcrank assembly in place.

The entire fuselage is hollowed from balsa block except for the engine compartment which is built first. Cut the three plywood formers (F1-F3) and the hardwood engine mounts. If you wish to instal a drop-off undercarriage, cement and bind the two 14 s.w.g. brass tube's to the firewall at this stage. Now instal the fuel tank between formers F2 and F3 and cement these to the bearers. When dry, cut away (if necessary) the wood on the inside of the bearers to suit your engine. To mount the engine, use nuts and bolts—never use wood screws for this purpose. While the engine is bolted in place, fix the ring former Ft in position by means of two small nails.

In order to obtain a strong and straight joint between the nose assembly and the mainplane, the two 1/4 in. balsa webs must be cemented in position. Join the nose assembly to the mainplane with plenty of cement.

For the main fuselage, select two medium-soft balsa blocks and cut these roughly to the required size.

Commence to shape the blocks by sawing out the mainplane slot, then pin the blocks together and trace the fuselage top view directly on the block and saw it to shape. The fuselage side view is transferred in the same way, always keeping the two blocks pinned

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firmly together. Before separating the blocks, sand them to the correct section.

Now separate the blocks and hollow them out to the dotted lines shown on the plan. Cement the blocks to the mainplane, add the nose block and balsa fillet at the tail, and give the whole fuselage a final sanding.

The tailplane and the fin, which are from 1/8 in. hard balsa, can now be cemented in place, but check that there is enough elevator movement (about 30 deg. up and down is sufficient). Note that the fin has a lifting section and is slightly offset.

Complete the model by fitting the canopy—a commercial one can be used—and install a small pilot for added realism.

Before covering the model give all outside balsa surfaces two coats of thin clear dope. Cover the mainplane with either silk or heavyweight tissue, but be sure that the grain of the covering material runs spanwise to minimise “sag,” between the ribs. Cover the rest of the model with lightweight tissue. Apply four coats of clear dope, sanding lightly between each coat. The model is now ready for colouring, but don't forget to protect the transparent canopy with Sellotape during the process.

The engine cowling can be made of thin sheet metal (aluminium or brass) or moulded in sheet acetate. It is held in place with four small wood screws. Bend the drop-off undercarriage if required, and check that it drops freely.

Before you go out to fly, check that the model balances correctly, and that there is no warp in the mainplane. The length of the lines will depend on weather conditions varying from 35 ft. in windy, to 50 ft. in calm weather.

Always make the take-off downwind and if you use the drop-off u/c, apply slight up-elevator. When hand-launching the model hold the elevator in neutral, and let your helper launch the model with the nose slightly up. When flying your model over a concrete surface, be sure to put a wire skid under the fuselage or hold on the drop-off u/c with rubber bands in order to minimise damage upon landing.