

Cox .049 Dragonfly

slots, giving a degree of control over muffling versus power.

The engine's plastic fuel tank and rear induction assembly (formerly red but now black) offers the advantage of increased fuel capacity by means of an optional 3/8 inch deep rear extension. Fitting this, in place of the regular tank back-plate, increases fuel capacity from approximately 14cc to 20cc and also makes the engine more suitable for stunt flying by allowing freer movement of the clunk weight. As with the R/C Bee, the front end of the tank also contains the air intake and needle valve and embodies the reed valve housing that plugs into the back of the crankcase. The reed itself is merely a small strip of 5 thousandths Mylar film; simple but highly effective.

The rest of the engine follows familiar Cox reed valve .049 practice. The hardened crankshaft, which runs directly in the crankcase material, is relieved in the center to form two highly finished 7/32-inch diameter journals and has a 7/64-inch crankpin on a chamfered circular web with a crescent counterweight. The piston and connecting rod are both of case hardened steel and are permanently coupled together by a ball and socket joint that allows the piston to rotate in the cylinder bore. The actual method of attaching the ball-ended conrod to the piston is by means of a cup, below the piston head, the rim of which is formed over the ball after the conrod is inserted. This, of course, can only be done if the cup is malleable and to make sure that it remains so, only the piston skirt surface is hardened, the rest of the piston being protected from the casehardening process by a thin plating of copper.

Like its predecessors, the Dragonfly is equipped with a coil spring starting device. This not only simplifies starting, especially for the beginner, but ensures that the engine starts in the correct direction reed valve engines being capable of running in either direction with equal efficiency.

The Dragonfly comes neatly packaged with a pair of Cox combination wrenches and a comprehensive instruction sheet.

The advised prop size is a 6x3 and the



Cylinder and back end components. Note simple reed valve and tank extension.

recommended fuel is Cox Super-Power or Cox racing fuel.

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