

HAWKER HURRICANE



By KEN DWIGHT

Unquestionably one of the most famous fighters in the history of aviation, the Hawker Hurricane was evolved in the mid-30's to replace the biplanes which were readily becoming obsolete. From the time the first Hurricane prototype took the air in 1935 until Hawker's last delivery in September of 1944, more than 14,000 of these fighters saw duty, primarily during World War II, as fighters, dive bombers, night fighters, catapult and carrier based warplanes. By the outbreak of WW II, almost five hundred Hurricanes were in service with the RAF — by the onset of the Battle of Britain, thirty squadrons of the 325-mph ship were in service.

Although somewhat inferior, performance-wise, to the Luftwaffe's dread Me-109, the Hurricane's ability to withstand amazing amounts of punishment in combat, coupled with its excellent maneuverability, enabled its wartime record to be more than impressive.

Insofar as markings and armament go, the author would like to refer you to 'Hawker Hurricane,' published by Aero Publishers, Fallbrook, California, due to the fact that this book illustrates the infinite variety of combinations used on the more than 14,000 Hurricanes produced by Great Britain during WW II.

As to general specifications, the Hurricane had a maximum attained speed of 325 mph at an excess of 17,000 feet altitude. Gross weight was in excess of 7100 lbs. Service altitude ceiling was 36,000 feet with a climb of approximately 2200 feet per minute. Engine on the Hawker Hurricane Mark I was a V-design twelve-cylinder, liquid-cooled, 1025 h.p. powerplant developed and manufactured by Rolls-Royce-Merlin. The variety of armaments used included eight Browning 303's in the wing; 4-20 mm cannons; 2-40 mm cannons, bombs, etc.

Insofar as the model presented here is concerned, it is almost fully-scale — its wide gear, thick wing, and excellent aerodynamic qualities giving it a flying ability that is truly outstanding. As a matter of fact, the prototype shown on the cover of this issue, and in the photographs accompanying this article, can truly hold its own in the Class III pattern.

Construction Details

Wing. Wing construction is straightforward and conventional, with the exception that it is built in three sections instead of two. First, build-up the straight flat centre section. Attach your gussets and braces to this section, then set it up on a wing jig at the proper dihedral. Jack up the outer trailing edge to give it approximately $\frac{3}{8}$ " washout at the tips — this will make for an extremely stable aircraft that has no tendency toward tip stalling.

The entire wing is sheeted with $\frac{3}{32}$ " sheet. The nylon horns on the ailerons are from the Top Flite parts package #10.

Fuselage. The fuselage construction is slightly unusual in the fact that the bottom is built first. Lay out the $\frac{3}{8}$ " square stringers and the $\frac{3}{8}$ " square spacers. These spacers will be removed when the fuselage is complete. Lay in the $\frac{3}{8}$ " x $\frac{1}{2}$ " motor mounts to fit your motor (spacing is shown for a Veco .45). Fill in around the motor mounts with $\frac{3}{8}$ " balsa sheet, leaving a space for your tank to fit between the bearers in the rear.

Install formers F3 to F14 and bot-

tom of equipment box in order to form the wing saddle. Add the bottom rear keel piece between Former F6 and F14. This should be cut out of medium $\frac{1}{8}$ " balsa.

Lay the completed wing on the saddle, then fillet former F15 to flow evenly with the bottom of the wing. Now add the front nose block — this should be made out of soft balsa.

Once this assembly is rigid enough to take up, add formers F1 and F2 which can be of one piece. Now add the top half formers. Plank the front of the fuselage with medium $\frac{1}{8}$ " balsa sheet — the back half from the sheet-line aft uses $\frac{1}{8}$ " x $\frac{1}{4}$ " stringers, using the stringer location chart. If Hobby-poxy is going to be used for a finish, the stringers could be of rock-hard $\frac{1}{8}$ " square. The wing fillet can either be made up of soft block, or built-up — I prefer the built-up version inasmuch as it is considerably lighter.

Stab and rudder. Stabilizer and rudder are built as shown on the plans, then sanded to shape and cov-

ered with $\frac{1}{16}$ " sheet. The rudder fin and elevator are silk covered.

Under-the-wing-radiator. This unit was carved out of soft balsa from which a female mold was made and a fiberglass radiator formed. It was open both in front and back with a metal screen installed in front for added appearance. The model has always been flown with this assembly attached, and with no apparent ill-effects, although it must add a considerable amount of drag to the model.

Undercarriage. The undercarriage was formed out of $\frac{3}{16}$ " drill rod, then commercially hardened.

Finishing. The original model was completely finished with Hobby-poxy as per the manufacturer's instructions. This was applied with a Miller air-brush. The underside of the Hurricane was painted light blue — the camouflage was painted olive green and gray.

The completed model, ready to fly, weighed 7 pounds, 12 ounces.

Ken Dwight's Hawker Hurricane is an example of outstanding craftsmanship and scale fidelity with a design prerequisite of maximum flight performance.

