



R.E.7.



R.E.8.

F.E.2D With the 120 h.p. Beardmore the 2B was somewhat under-powered, and this development was fitted with a 250 h.p. Rolls-Royce Eagle. Occasionally one or two fixed Lewis guns were fitted in addition to the observer's guns.

F.E.2H An F.E.2 development, with a Siddeley Puma engine.

F.E.3 (See A.E.1).

F.E.4 A large twin-engined biplane three-seater, this was designed to carry a C.O.W. gun. Engines fitted were the 250 h.p. RAF.3a, 150 h.p. RAF.5a, 150 h.p. RAF.4a, 250 h.p. Rolls-Royce Eagle.

F.E.6 A two-seat pusher fighter of 1914, with tail boom through the airscrew shaft, this was a development of the F.E.3.

F.E.8 First flown in October 1915, this was a pusher biplane single-seat fighter, originally with 100 h.p. Gnome Monosoupape engine but also fitted with a 110 h.p. Le Rhône and 110 h.p. Clerget. In many respects resembled the D.H.2. Top speed about 95 m.p.h. Following accidents on this and similar machines, Major F. W. Goodden demonstrated the procedure for recovery.

F.E.9 A pusher biplane (1917) for fighting and reconnaissance, with 200 h.p. Hispano-Suiza engine. Originally a single-bay type, it eventually had two-bay wings.

F.E.12 A two-seater night fighter of 1917, this had a searchlight and a rocket gun.

H.R.E. A possible floatplane version of the R.E.1, with 70 h.p. Renault.

H.R.E.2 First flown as a landplane, this was eventually tested, on floats, from Fleet Pond. After overturning, it was rebuilt as a landplane.

N.E.1 A two-seat night fighter of 1917, embodying many parts of the F.E.9, armed with a C.O.W. gun and powered with a 200 h.p. Hispano-Suiza engine.

R.A.M.1 (see A.E.3).

R.A.M.2 An armoured trench-strafer development of the R.A.M.1, with 150 h.p. Bentley B.R.1 engine.

R.E.1 The letters "R.E." signified "reconnaissance experimental." Two R.E.1s were completed in 1913. The first had a steel tube fuselage, wing warping, 70 h.p. Renault engine and pronounced stagger. It was later reconstructed with ailerons and reduced stagger. The second had a longer fuselage and no fin, and was extensively used by Busk. At one time it had four fin surfaces above the top wing. By November 1913 Busk had made the R.E.1 automatically stable.

R.E.3 This airframe was identical in appearance with that of the H.R.E.2 landplane, but the engine was the 120 h.p. Austro-Daimler.

R.E.4 An unequal-span biplane; 120 h.p. Austro-Daimler.

R.E.5 The first R.E. type to go into production, this was a two-seater tractor biplane with equal-span, two-bay wings, and 120 h.p. Austro-Daimler engine. In a single-seat modification Capt. J. H. W. Becke climbed to 17,000ft in June 1914. One experimental machine had air brakes; another had long-span wings, oleo undercarriage and a carrier for a 336 lb bomb.

R.E.6 A three-seat tractor biplane with 275 h.p. Rolls-Royce Falcon engine. The front gunner stood with his head and shoulders through a hole in the centre-section.

R.E.7 The air brakes, oleo undercarriage and bomb carrier of the experimental R.E.5 were characteristics of the R.E.7. The forward portion of the fuselage was of steel tubing, and the wing span of 75ft contributed to the machine's notable weight-lifting capacity. Engines ranged from 120 h.p. Beardmore to the 250 h.p. Rolls-Royce Eagle. A three-seater version existed.

R.E.8 Resembling in appearance a B.E.2E, this best-known of all the R.E. series, of which great numbers were built, had heavily staggered mainplanes, with long extensions on the upper wings. At first only a free Lewis gun was fitted, but this was

later supplemented by a fixed Vickers gun for the pilot. The standard engine was the 150 h.p. RAF.4a, but there was an experimental installation of a 200 h.p. RAF.4d, with a Rateau supercharger and four-blade variable-pitch airscrew. One unofficial modification was the mounting of a Davis recoilless gun to fire through the bottom of the fuselage. The R.E.8 was described by J. M. Bruce in *Flight* of October 15th, 1954. His article finished: "There was nobody to regret the passing of the Harry Tate, but it will always be remembered as one of the great workers of the war days; an aeroplane undistinguished in design or performance, yet one which, in the hands of courageous men, did much good though unspectacular work in spite of itself."

R.E.8A A two-bay biplane development of the R.E.8, with 250 h.p. Hispano-Suiza.

R.E.9 Similar to the 8A but with 150 h.p. RAF.4a engine.

S.E.1 A reconstruction of a crashed Bleriot monoplane as a canard pusher biplane. In this machine Lt. Theodore J. Ridge was killed in 1911. This was not the true ancestor of the S.E.5.

S.E.2 (see B.S.2).

S.E.4 A truly revolutionary aeroplane largely designed by H. P. Folland, fitted with 160 h.p. 14-cylinder Gnome engine, closely cowled and driving a four-blade airscrew. A fan assisted cooling, full-span drooping ailerons were fitted, and streamlining was of an exceptional order. Even a cockpit canopy was provided, though no pilot could be persuaded to fly the machine with it in place. The S.E.4 was the fastest aeroplane in the world in its day, having a top speed of 135 m.p.h. The big Gnome engine was unreliable, and with the 100 h.p. Monosoupape, later fitted, speed was reduced to 92 m.p.h.

S.E.4A This single-seater bore little resemblance to the S.E.4, though it retained the full-span drooping ailerons. It had a plain fabric-covered fuselage, whereas that of the S.E.4 was a plywood monocoque.

S.E.5 One of the greatest fighting aeroplanes of all time, the prototype of this single-seater, with 150 h.p. Hispano-Suiza engine, was first flown late in 1916. Chiefly concerned in the design were H. P. Folland, J. Kenworthy and F. W. Goodden, under the general control of F. M. Green and S. W. Hiscocks. On the prototype Major Goodden was killed in January 1917, and production was halted while the wings were modified. Numerous variations appeared on production aircraft, but the armament was invariably one fixed Vickers gun and one Lewis gun on a Foster mounting over the top wing.

S.E.5A A development of the S.E.5, with 200 h.p. Hispano-Suiza, Wolseley Viper or Adder. The Viper-engined S.E.5A had a top speed at sea level of 137.8 m.p.h. and climbed to 10,000ft in 11 minutes. 5,205 S.E.5s and S.E.5As were built.

S.E.5B A 5A development with 200 h.p. Hispano engine, streamline nose, underslung radiator, and sesquiplane wings.

T.E.1 A two-seat fighter of 1917, with 200 h.p. Hispano-Suiza.



S.E.1. (Below) S.E.5 (first prototype).

S.E.4.

