

HIGH ALTITUDE RECONNAISSANCE 1914 STYLE



by Paul R. Hare

FARNBOROUGH'S FIRST AEROPLANES designed specifically for reconnaissance, the RE1 and RE2, have already been described in earlier volumes of the Journal. RE3 was simply a further version of RE2 powered by a 120hp Austro-Daimler engine in place of the Renault of the earlier machine, and RE4 a project that appears never to have progressed beyond the concept stage.

DEVELOPMENT

RE5 was simply the next step in a logical development and differed little from RE3. It was a fairly large biplane, its two bay wings spanning over forty feet, slightly staggered, and rigged with a shallow dihedral angle to ensure the inherent stability thought essential in a reconnaissance machine. The wings had a similar plan-form to those of the BE2 but were provided with generously sized ailerons to all four tips operated by means of a wheel mounted on the control column, with a throttle mounted in its centre, all as in previous RE models.

The deep, roomy, fuselage was partially constructed of steel tube, fabric covered, and with the pilot occupying the rear cockpit, with the passenger seated under the centre section placing his weight at the centre of gravity and so avoiding trim problems if the machine was flown solo. The 6 cylinder 120hp Austro-Daimler engine was enclosed in a neat aluminium cowling with its radiator fitted behind it, within the fuselage, cooling air being admitted through an aperture in the nose and

exiting via louvres in the cowling sides. The engine exhausts were grouped together by a rather complicated looking manifold into one single exhaust pipe which incorporated a silencer.

The undercarriage was the then usual four-strut, twin skid construction, with the axle bound to the skids with shock cord. The fin was triangular, and the high aspect ratio rudder symmetrical about its centre line, with a neatly curved trailing edge. The elevators also showed neatly curved trailing edges, with generous radii at their corners, the leading edge of the tailplane also being curved.

With the RE5 being considered as an improvement on a series of successful machines, rather than as a new design, no prototype was built, and, instead, towards the end of 1913, it was ordered into production by Col J.B.E Seely, Secretary of State for War, no doubt after consultation with Mervyn O'Gorman, Superintendent of the Royal Aircraft Factory, as to the most suitable type to build. 24 were ordered, their cost partly covered by the sum of £25,000 nominally paid by the Admiralty in exchange for all the army's airships, which were to be transferred to the Navy at the end of 1913. This was a fairly large order for the time when most contracts were each for a handful of machines, and its being given to the Royal Aircraft Factory brought some bitter criticism from C.G. Grey, editor of *The Aeroplane* magazine who, in his support for private industry, strongly opposed the very existence of the Royal Aircraft Factory.

No single block of serial numbers was allocated to these machines, and instead they were known, within the Royal Aircraft Factory, by their sequence numbers within the batch of 24. After the first few were completed, these numbers were painted on the port side of the engine cowling to aid identification. Serials seem to have been applied only on their transfer to the Royal flying Corps which, in many instances, was some time after completion, as the Factory appears to have retained many of them for further experiments. No 11, for example, stayed at the Factory for four months during which time it logged over forty flights, totalling almost 27 hours.

The first machine was completed, ready for final inspection, by 26 January 1914 and made its first flight the same day, piloted by Norman Spratt, the Royal Aircraft factory's chief test pilot at the time, Geoffrey de Havilland having been transferred, rather against his wishes, to the newly formed AID. The second machine made its first flight on 6 February and the third a week later, followed by No 4 the next day. All appear to have been retained, for a time, by the Royal Aircraft

RE5s under construction in the Royal Aircraft Factory's workshops.

:RAFM

