



SWEDEN'S PARASOL FIGHTERS

THE FVM J 23 & J 24/J 24B

The Swedish FVM J 23 parasol-winged monoplane is one of the most obscure fighters of the interwar period — and with good reason. Only five were built, four of which were grounded after the first was lost in a fatal accident; and the sole J 24/J 24B developed from it was little better, as **JAN FORSGREN** reveals

DURING THE EARLY 1920s, only one type of fighter aircraft was operated by *Flygkompaniet* (Swedish Army Air Service) — the Phönix D II. A few fighters of indigenous design had been tested in the preceding years, with the Thulin K (essentially a copy of the French Morane-Saulnier Type N/“*Le Vengeur*”) and the Södertelge Verkstäder SW 15 being used in very limited numbers. However, with the Phönix D II being deemed obsolete, the decision was taken to design and produce a replacement at *Flygkompaniets tygverkstäder på Malmen* (FVM — Army Air Service Workshops)

at Malmslätt in southern central Sweden.

The design of the new fighter was initiated in 1922 by Henry Kjellson in co-operation with aerodynamicist Ivar Malmer, with the aeroplane being tentatively designated J 22 (J for *Jaktflygplan* — fighter aircraft — and 22 indicating the year of construction). Work on the wing ribs and a spar for fatigue-testing was initiated on August 8, 1922, with two fuselages being ordered on October 22. Three sets of wings were ordered that December, with three more fuselages and sets of wings ordered the following month. One of the wings was to be used in static tests, which included having 42

The J 23 prototype, serial 3111, just after its rollout from the FVM workshops at Malmslätt in the early summer of 1923. Note the vestigial rudder attached to the fuselage sternpost, later replaced with a larger conventional fin and rudder after trials revealed directional stability problems. The J 23's BMW IIIa six-cylinder liquid-cooled powerplant was the German company's first aero-engine. VIA AUTHOR



ARLANDA CIVIL AVIATION COLLECTION VIA AUTHOR

ABOVE Swedish test pilot Georg Gärdin poses beside 3111 following his altitude record flight. Note the unusual slotted aileron of triangular planform on the port wing. *British weekly Flight* reported on the J 23 in August 1923 and explained that “as the aileron was moved up or down, the size of the slot did not change”, unlike Handley Page’s patented slotted aileron.

people standing on the wing. Reportedly, the wingtips moved only “a couple of centimetres” during this particular test.

The design was, for its time, fairly advanced, at least when compared to other aeroplanes emanating from the FVM workshops. Built entirely of wood, the fuselage was of monocoque construction with veneer covering. The wings were fabric-covered. Although exhibiting rather elegant lines, it was somewhat anachronistic in having no fin, just a small vestigial rudder attached to the fuselage’s sternpost.

The J 23 (as it was soon redesignated) was powered by one 185 h.p. BMW IIIa inline engine, and was armed with a pair of 8mm machine-guns. The price per unit was set at 24,000 *Kronor*.

PUBLIC DEBUT

The J 23 prototype first flew in June 1923 in the hands of test pilot Georg Gärdin. Assigned serial number 3111, the new fighter was displayed at the ILUG international air exhibition in Gothenburg in early August 1923, during which it reached an altitude of 7,314m (24,000ft), at that time a Scandinavian record. Reportedly, the head of the UK’s Aircraft Disposal Company commented favourably on the J 23, apart from the curious absence of a fin. Although the flight and handling characteristics were deemed good, with a maximum speed of 197km/h (122 m.p.h.), the lack of a fin meant that the J 23 had insufficient directional stability. In the event, a fin and rudder were added, along with a slightly enlarged tailplane.

Four more J 23s were built (serials 3113, 3115, 3117 and 3119), although initially only one of them was assembled. In the event, all five J 23s

were taken on charge by *Flygkompaniet*.

Testing, including aerobatics, continued. On March 15, 1924, test pilot Axel “Pippi” Norberg took off from Malmslätt in J 23 serial 3111 for a test flight to include diving trials. Owing to the small size of the cockpit, Norberg did not carry a parachute. At about 1030hr Norberg initiated a spin which, according to a contemporary news article, “quickly turned into a rapid revolving and irregular manoeuvre, which was followed by a loud whirling sound”. The port wing detached, landing some 2km (1¼ miles) from the main wreckage, with the parachuteless Norberg standing no chance when the J 23 impacted the ground at Tift near Malmslätt.

The press stated that upon hitting the ground, the fighter had turned into “fragments smaller than matches”. The aircraft had accumulated 35hr in the air, with “certain stability tests” having previously been performed by Norberg.

Following the fatal accident, the remaining four J 23s were grounded and consigned to storage, where they remained until struck off charge in 1925 (3115 and 3117) and 1926 (3113 and 3119). Following Norberg’s death, Swedish military pilots demanded that a parachute always be worn, particularly during test flights. It was concluded that the J 23’s airframe, notably its wing and struts, were insufficiently strong.

Even before the accident, construction of