

PROFILE PUBLICATIONS

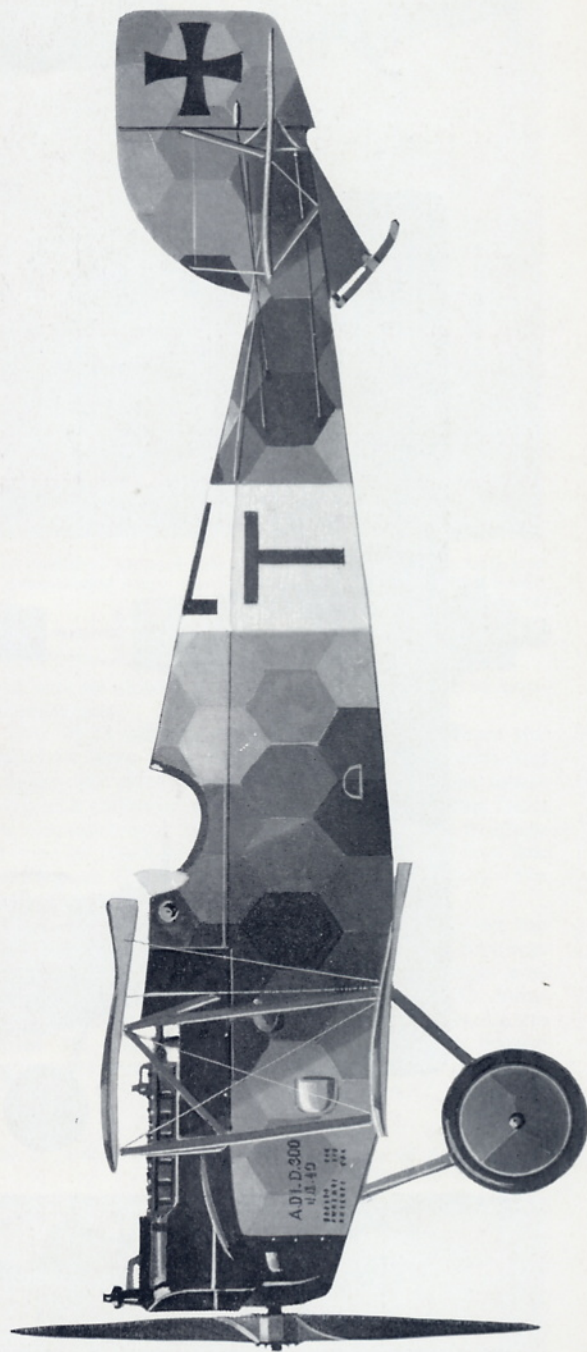
The O. Aviatik (Berg) D I

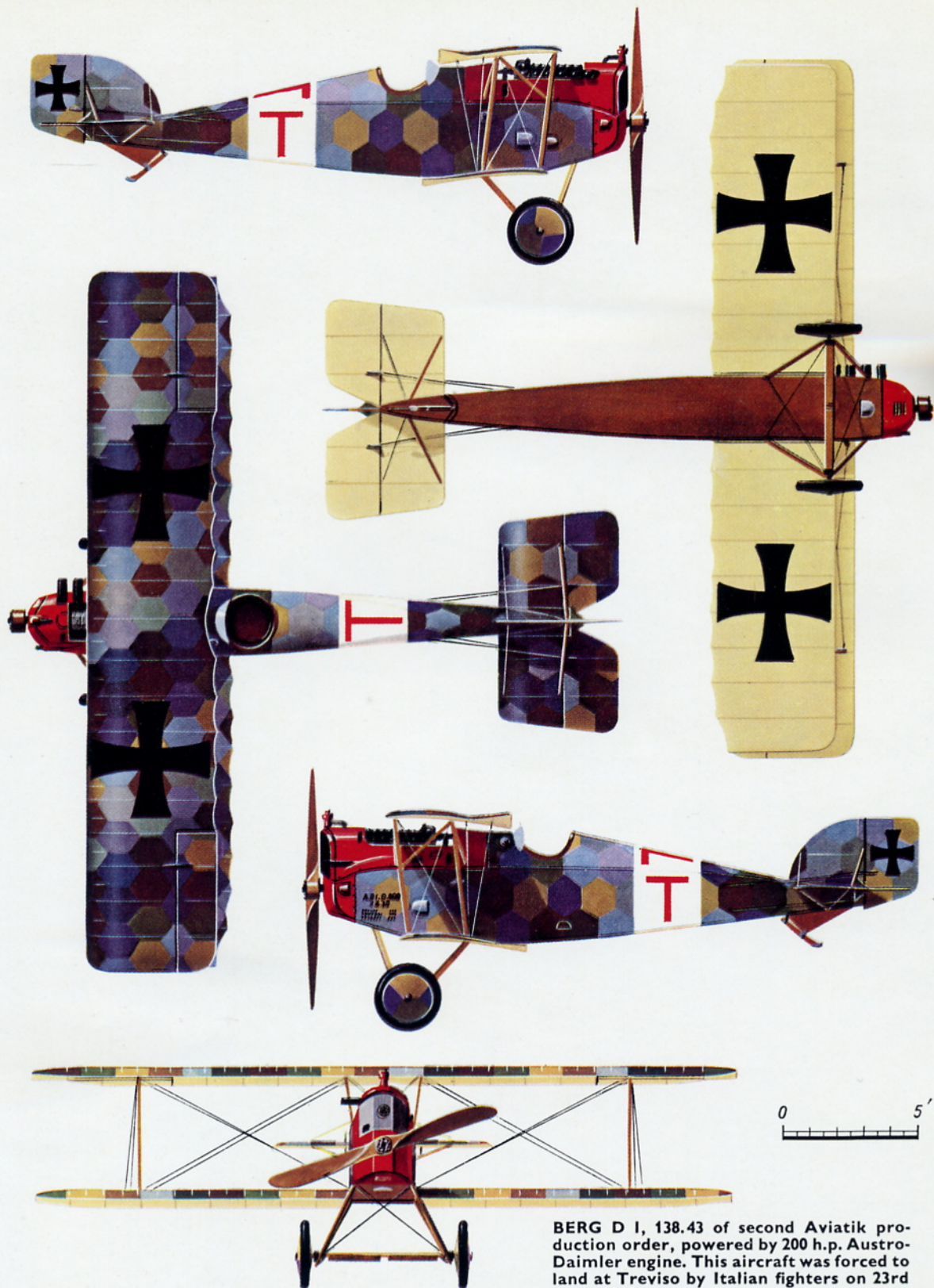
NUMBER 151

RETAIL PRICE

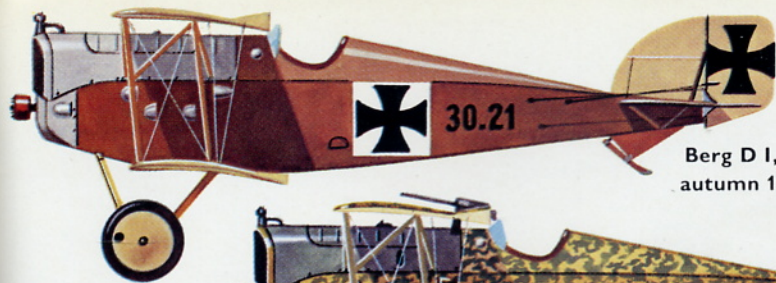
UNITED KINGDOM TWO SHILLINGS

UNITED STATES AND CANADA 50 CENTS





BERG D I, 138.43 of second Aviatik production order, powered by 200 h.p. Austro-Daimler engine. This aircraft was forced to land at Treviso by Italian fighters on 23rd June, 1918.



Ö. Aviatik 30.21, prototype for the Berg D I; Aspern airfield, March 1917.



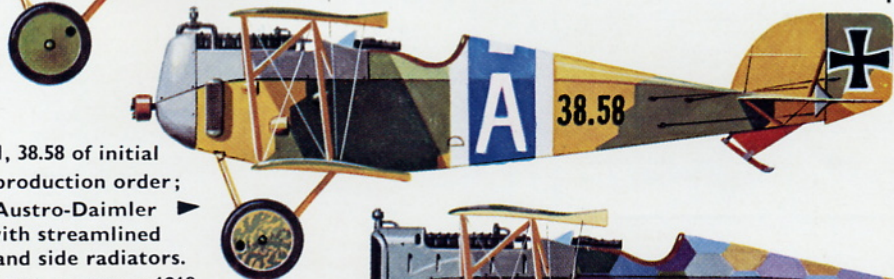
Berg D I, 138.24 of second Aviatik production order, autumn 1917. Note fully cowled engine and unsynchronised gun.

Lohner-built Berg D I, 115.20, of Fliegerkompagnie 60; Feltre, summer 1918. Note upper cowling panels removed.



Thöne u. Fiala-built Berg D I, 101.17; Italian Front, 1918. Note final aft position of gun breeches.

Berg D I, 38.63 of initial Aviatik production order; Italian Front, summer 1918.



Berg D I, 38.58 of initial Aviatik production order; 185 h.p. Austro-Daimler engine with streamlined cowling and side radiators. Italian Front, summer 1918.

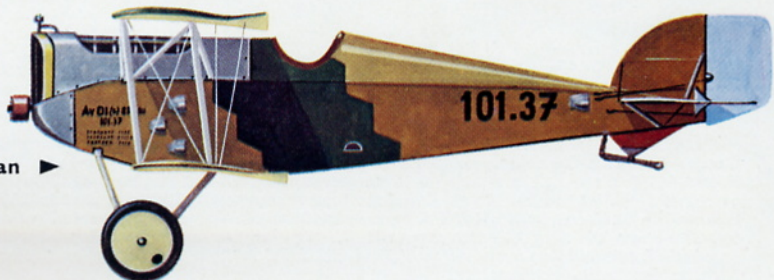


Berg D I, 338.53 of fourth Aviatik production order; 225 h.p. Austro-Daimler engine with fringe cowling and wing mounted radiator. Italian Front, October 1918.



Wing detail of 338.53.

Thöne u. Fiala-built Berg D I, 101.37; flown by Lt. Ladislaus von Almasy, probably with Fliegerkompagnie 17, Italian Front, February-March 1918. Aircraft preserved in Vienna Museum of Industry and Trade.



The Ö. Aviatik (Berg) D I



by George Haddow

Berg D I No. 38.58, powered by a 185 h.p. Austro-Daimler engine, with radiators on each side of the nose. Although an early production airframe with the lower-powered engine, this aircraft has the strengthened wings characteristic of the later 225 h.p. model.
(Photo: Peter M. Grosz)

The Ö. Aviatik D I, more commonly known after the name of its designer Dipl.Ing. Julius von Berg, was the first Austro-Hungarian single-seat fighter to go into production which did not owe its parentage to a German prototype. Its development can be traced back to the experimental Ö. Aviatik 30.14 single-seater of early 1916. This ugly, cumbersome-looking aircraft, although it lacked the D I's compact appearance, had many features in common with its descendant, particularly the wings, which apart from being fitted with a much greater gap were very similar. Research has so far failed to uncover any part of 30.14's career or its fate. Some sources claim that Prof. Richard Knoller had some hand in its design; as at that particular time Prof. Knoller exerted great influence over design in the Austro-Hungarian aircraft industry, and it is also known that Ö. Aviatik was one of the main contractors for the unfortunate Knoller two-seaters, this is quite possible.

The next known stage in its development was the Ö. Aviatik 30.21. Designed by von Berg, this was the true prototype of the Berg D I, its construction being completed late in 1916 and a test programme undertaken at Aspern early the following year. Lt.-Col. Fekete is known to have led a commission of service pilots who thoroughly tested the Berg D I and its stablemate, the two-seater Berg C I, and there is every likelihood that this team put in some hours on the 30.21. In all probability the machine was also flown at some time during this period by Col. Emil Uzelac, the chief of the *K.u.K. Luftfahrtruppen*, who was particularly noted for trying out new types for himself. During March 1917, 30.21 had the misfortune to turn turtle whilst landing; apart from a broken propeller the machine was little damaged,

and was no doubt quickly repaired and able to continue its tests.

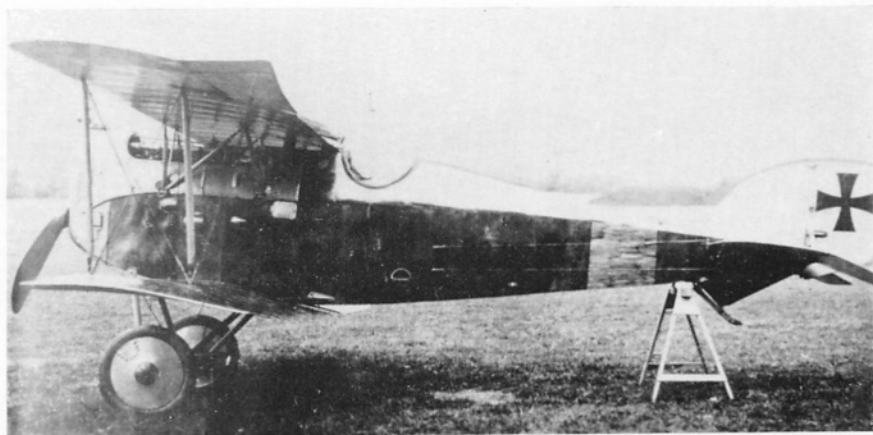
The 30.21 differed only in minor details from the standard Berg D I; its wings were rigged with less stagger, the aileron control cables entered the lower wing at a different point, and the control cables from the elevators were more exposed, entering the fuselage at a point much closer to the cockpit. (The first few production D I's also had this arrangement.) No armament was fitted.

Lt.-Col. Fekete's team reported favourably on the new fighter and on their recommendation the type was adopted by the Austro-Hungarian air force and contracts placed for its quantity production. Ö. Aviatik, the parent company, received orders to build the series 38, 138, 238 and 338. Orders for licence companies were as follows: Lohner was to construct the series 115, Thöne & Fiala and M.A.G., the series

The Ö. Aviatik experimental 30.14, ancestor of the Berg D I.
(Photo: Peter M. Grosz)



Berg D I No. 38.15, one of the first batch of service aircraft, with a single stripped Schwarzlose gun mounted to fire over the aircrew arc; the tilted breach of the weapon is just visible ahead of the cockpit.



101 and 92 respectively. Four series were ordered from W.K.F., namely 84, 184, 284 and 384.

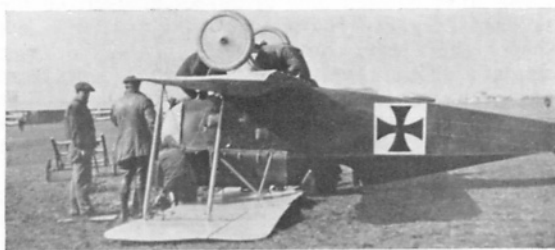
Of interest is the method used by the Austro-Hungarian Army for allocating serial numbers to their aircraft. Each manufacturer was given a key digit (in the case of Ö. Aviatik this was "3") and this number formed the first part of the serial; the second digit was the type number, in the case of the D I "8". This was followed by a stop and then the aircraft's number in the series, i.e. 38.25 can be deciphered as—built by Ö. Aviatik—a D I—and the 25th aircraft built in the series. For repeat orders of the series, a further number was added in front, thus—138.25. Experimental aircraft all had the type number 0, therefore 30.21 was the 21st experimental type produced by Ö. Aviatik.

THE D I DESCRIBED

Like the 30.21, the early production aircraft were powered by the 185 h.p. Austro-Daimler engine, but the majority of the D I's that entered service were fitted with the more powerful 200 h.p. and 210 h.p. engines from the same firm. When power was again increased by the installation of the 225 h.p. Austro-Daimler in the summer of 1918, the extra stress proved too much for the lightly constructed Berg D I and as a result the airframe had to be strengthened, especially the wing structure.

The standard propeller used was the two-bladed Jaray, but at least one machine, serial number 138.106, was fitted with the strange four-bladed propeller produced by the same company. The blades of this propeller were unusually narrow, and whereas on a normal type with four blades the blades are set at right-angles with each other, on the Jaray the blades were set irregularly at angles of 70° and 110°. It is not thought that any other Berg D I's were fitted with these propellers, and thus they did not reach the Front. Apart from the D I several other Berg machines were experimentally fitted with these peculiar propellers.

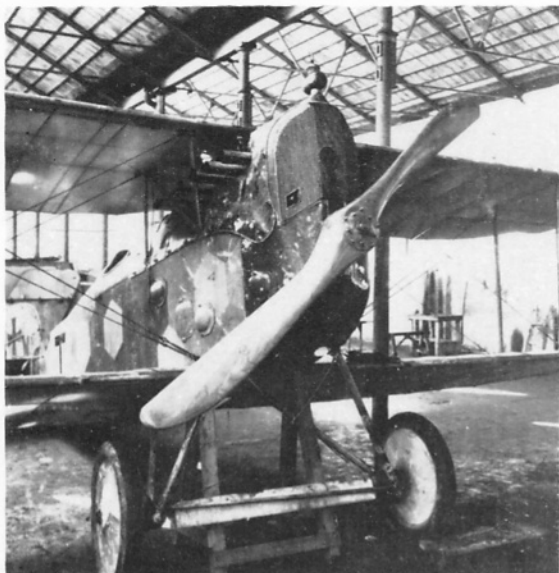
Most of the Berg D I's mounted a car-type radiator at the nose of the aircraft in front of the engine. These were of two models, the most commonly used having a rounded top, the other being angular, flat on top and cut away at the corners. Fitted above the radiator was a rather prominent expansion-condensation unit of distinctive appearance. Some machines, in place of the car type radiators, had two small block radiators mounted one on each side of the forward fuselage; this arrangement allowed for an improvement in the streamlining of the nose, and machines so fitted were considered to be faster. Some few machines with this arrangement saw service at the Front, but they were not very satisfactory owing to the insufficient cooling provided by the small surface of the radiators. In fact, cooling was a problem that dogged the Berg D I throughout most of its service life. The car-type radiators were fairly reliable during the winter months, but during the summer in the rarified air above the Alps they proved inadequate, and the units that flew them were plagued with over-heated engines. For this reason, the machines which left the factory with their engines neatly and completely cowled were almost invariably flown with the top panel, and sometimes other panels also, removed. Late models of the series 238 and 338 overcame the problem to some extent by having a simple fringe



The true prototype of the Berg D I was the Ö. Aviatik 30.21, seen here after a landing accident at Aspern in March 1917. (Photo: Egon Krüger)

A group of Imperial Air Service personnel with an early Berg D I; note claw brake on undercarriage and the two holes in the wing for the machine-gun brackets, visible behind the top of the rear centre-section strut.





The square aperture low in the radiator for the starboard gun flame-tube is visible in this view of 138.43.

cowl, cut low and completely open at the top with the engine cylinders exposed, and being fitted with a single elongated block radiator mounted on the leading-edge of the upper wing.

Owing to the shortage of skilled labour in the aircraft industry of Austria-Hungary, von Berg kept the structural details of the design as simple as possible. Because of this the Berg D I was relatively easy to produce in quantity with the labour that was available, and its manufacture could be undertaken in quite small workshops.

The fuselage was of rectangular section comprising a longeron at each of the four corners, the longerons being spaced at the fore-part of the fuselage by bulkheads; these were cut-out to provide a mount for the engine bearers. Additional support for the engine was provided by a steel tube diagonal strut on each side, from the bearer to the lower wing root. Aft of the cockpit the bulkheads gave way to light frames of spruce, diagonal struts being added to some frames for increased strength. No internal wire bracing was employed in the structure, the necessary



After examination, 138.43 was exhibited to the public in the town square at Treviso. (Photo: Peter M. Grosz)

rigidity being provided by the plywood panels with which the fuselage was covered.

The pilot's seat was set high in the cockpit in order that he should have a good field of vision both above and below the upper wing. It was therefore necessary to design the fuselage with an unusually high decking; in section this decking was faired roughly to the shape of a man's head and shoulders, thus offering as little resistance as possible, and enabling the pilot by a slight side movement of the head to view the area forward and downward on either side. Two circular windows were cut into the plywood of the decking to admit light to the cockpit interior. On early machines the front decking extended in a straight line from the cockpit to the engine cowling; later it was sloped down slightly from the rear of the engine and eventually was cut down still further because of armament modifications.

A most interesting innovation in the design of the Berg was the unconventional aerofoil section of the wings; the upper camber had a pronounced reflex curvature towards the trailing-edge, and the maximum depth was further aft than was the standard practice. In consequence the rear portions of the ribs were rather thin and flexible and the wing tended to "give" to any sudden forces, such as wind gusts, without upsetting the aircraft's equilibrium. Another possible effect of this particular wing section was that to some extent it limited the travel of the centre of pressure. The excellent stability of the D I in the air can be attributed to these features, which at the same time did little or nothing to dampen the machine's sensitivity in answering to the controls. (A notorious



On the 23rd June 1918 Italian pilots forced this Berg, No. 138.43, to land behind the Allied lines on the Piave Front. It was powered by a 200 h.p. Austro-Daimler engine.



The four-blade Jaray airscrew, with inconsistently-angled blades, was fitted to 138.105.

(Photo: Peter M. Grosz)

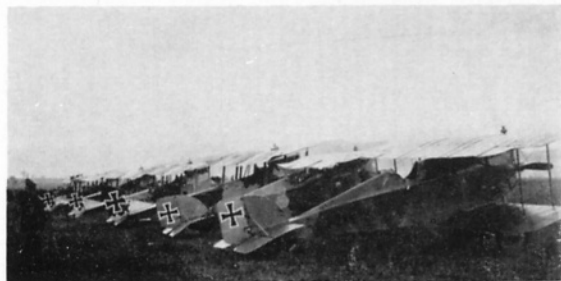
trait of stable aircraft was their sluggishness in this respect, and to a large degree von Berg was successful in overcoming this in his design for the Berg D I.)

Structurally, the single-bay wings were of orthodox design; spars and leading-edge were of spruce and the ribs comprised spruce flanges with poplar webs. Steel tubing was used for the compression members and the structure was braced internally by cables. A wire trailing-edge imparted the well-known scoloped appearance to the wing once the fabric was stretched over it. The single-piece top wing was attached to the fuselage by means of "W" struts, and the lower wings were bolted to the sides of the fuselage and rigged in such a manner that the angle of incidence gradually decreased towards the wing-tips. Interplane struts were of steel tubing.

As already mentioned, the wing structure proved to be inadequate to meet the increased demands made upon it by the more powerful models fitted with 225 h.p. engines. In consequence of the need for improved performance, it became necessary to strengthen the wings and a great deal of structural modification was carried out on them. The resulting new wings possessed many more ribs, the rib-spacing, apart from the wing-tips, being half that which it had originally been.

Ailerons were fitted to the upper planes only, constructed of steel tubing; they were unbalanced and

Not all Austro-Hungarian fighter aircraft were grouped in fighter units; Corps squadrons like Feldfliegerkompanie 6 shown here lined up on a Balkan airfield, usually mustered several fighters to protect their two-seater aircraft. In the foreground is a machine of the third W.K.F. batch, 284.13.

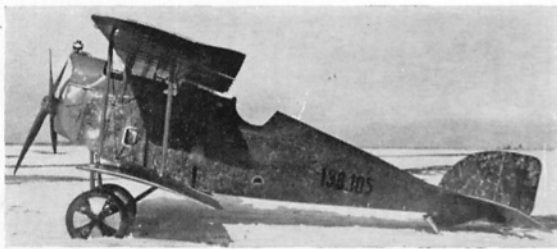


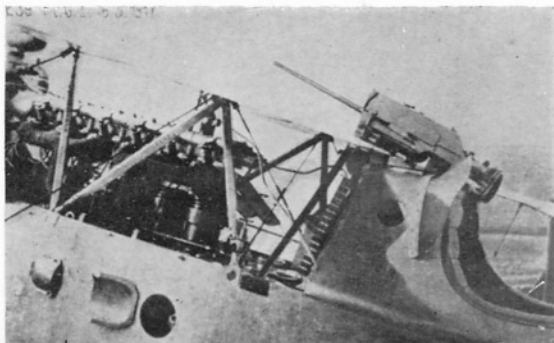
incorporated a pronounced "wash-out". They were hinged to false spars in the wing framework and operated by means of a projecting lever let into the wing, the controlling cables passing down to the lower wing and internally through it to the fuselage. Tail-plane, elevator, fin and rudder, were all manufactured of steel tubing and fabric covered. None of the control surfaces were balanced, and they were operated by the usual horns and cables. Both struts and cables were employed to brace the assembly.

The undercarriage was a simple affair of steel tube "V" struts, the wheels sprung by elastic shock cords that bound the axle to the vees; early production aircraft had a claw-type brake that hinged on the axle midway between the wheels. The tailskid was attached to a pylon which extended from the fuselage below the tail-unit.

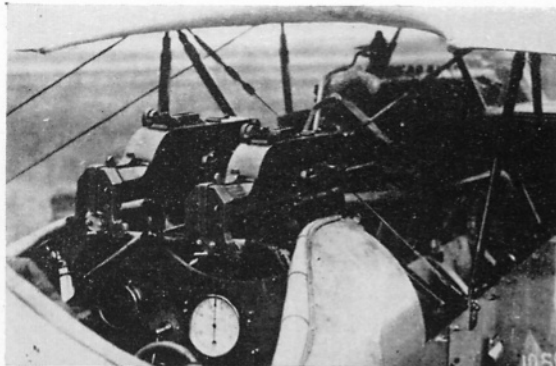
During 1918, Berg D I serial 138.27 was forced down practically undamaged by the R.A.F. on the Italian Front; it was shipped to the United Kingdom and underwent an extensive scrutiny by technical officers of the wartime Ministry of Munitions. In their report they stated that the design was comparable to any being produced by other belligerents at that time, its structure being light, strong, and extremely simple. They also found that the standard of workmanship throughout was of a high quality. Comment was made on the pilot's position, which the inspectors considered to be spacious, comfortable, and with a good all-round view. Later the machine, minus its engine, was placed on public exhibition in London.

Another view of 138.105, with mottled camouflage scheme and decorated wheel-discs.





Detailed view of the early-style armament, in this case fitted to 38.01, the first production machine. Note belt-feed from the drum magazine in the fuselage.



The cockpit of Berg D I (Lohner) No. 115.70, with guns in final position. Flame-tubes led from the muzzles to the front of the radiator, to protect the exposed engine from fire hazard.

ARMAMENT FEATURES

The armament of the Berg D I underwent considerable development. The initial arrangement consisted of a single stripped-down Schwarzlose machine gun, mounted on brackets attached to the upper fuselage longerons in such a way that the gun was located just above the upper wing at an angle which enabled it to fire over the propeller arc. As the upper wing of the Berg D I was close to the fuselage decking, with the trailing-edge in line with the pilot's eyes, the slope of the gun brought the breach mechanism within easy reach of the pilot. Ammunition was stored in a drum in the fuselage decking, and belt-fed to the gun via a conduit. However, by the time the Berg entered squadron service in the autumn of 1917 such installations had become outmoded, and it was soon discarded in favour of two fixed Schwarzlose guns fitted with a synchronising gear to enable them to fire between the propeller blades. Unfortunately, the

interrupter gear developed by the Austro-Hungarians left much to be desired; in 1918 the Italians had the opportunity to test this mechanism on a captured aircraft, and their findings were that it was only efficient when the engine ran at between 900 and 1,600 r.p.m. At higher and lower speeds the guns were liable to damage the propeller. The guns were mounted one each side of the engine block, the portside gun being positioned at a higher level and further from the centre in order to clear the carburettor and induction manifold. They were fired through short flame tubes to lessen the risk of fire owing to the proximity of the muzzle flash to the engine; only the portside tube was visible outside the cowling, protruding some short distance back from the radiator, and in most cases being faired by a metal cover. The only external evidence of the position of the starboard gun was a hole cut in the radiator through which it fired. Apart from the fact that the guns were awkward to service, the chief drawback

A fine study of No. 38.63, one of the first Berg D I's fitted with machine-guns immediately ahead of the cockpit, with breaches accessible to the pilot. Note darker-coloured hexagons painted in the cockpit area.

(Photo: Peter M. Grosz)





The W.K.F. workshop, showing production of Berg D I series 84 machines. Note the inboard position of the national markings on the stacked wings. (Photo: Peter M. Grosz)

to this arrangement was that they were completely out of reach of the pilot, and in the event of a stoppage occurring in the air he had absolutely no chance of clearing it. Nevertheless, the majority of the D I's which saw service had armament mounted in this fashion. During the last year of the war a change was made in the layout and machines began to appear at the Front with the guns positioned further back on the fuselage decking, with their breaches extending into the cockpit. This higher location allowed them to be mounted equi-distant from the centre-line of the aircraft. The guns still fired through flame-damping tubes, and these now extended past the cylinder block to two holes cut in the top portion of the radiator.

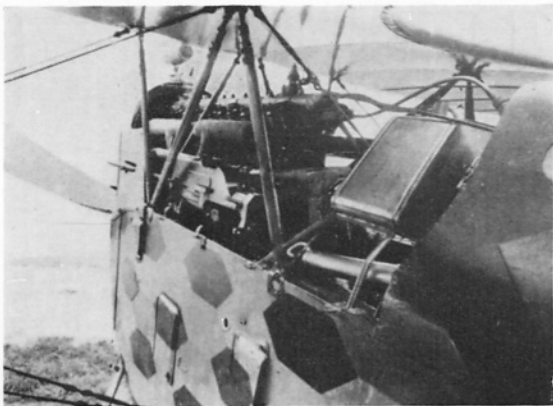
COLOURS AND FINISH

No camouflage was applied to the prototype 30.21, fuselage finish being a rather dark varnished plywood,

and wings and tail surfaces plain doped fabric of a pale buff colour. Most early production D I's were painted a sandy shade mottled with olive green on upper and side surfaces; some aircraft were further speckled with a darker colour. Not all D I's were camouflaged, and a *Jagdkompagnie* operating on the Trentino front flew M.A.G.-built machines finished in the same style as the prototype. The majority of Berg D I's used a paint scheme composed of regular shaped hexagons, somewhat similar to the German printed schemes of the period. The hexagons were of six or seven colours consisting of green, blue, mauve, buff, grey, brown and indigo. The patterns comprised arrangements of four, five, or six colours, the colours generally so arranged that the darker shades were grouped together to form bands three or four hexagons in width running across the surface. Colours were flat and dull, so that the overall effect was not nearly as bizarre, as the description may imply. A two-tone scheme of buff and olive green was introduced in the summer of 1918, arrangement of the



Officers of Flik. 41J with Lohner-built D I No. 115.20 on the Italian Front in June 1918.



Arrangement of port-side gun on Berg D I (Lohner) No. 115.13. In this mounting the guns were completely out of the pilot's reach and in the case of a stoppage in combat he was helpless.

two colours following closely the light and dark bands of the hexagon system; they were divided by a regular stepped line. Towards the end of the war, the two-tone camouflage was used with an irregular wavy line separating the colours. The camouflage changes only affected new machines, and in all probability units equipped with the Berg D I would have two or three different schemes represented.

SERVICE AND PRODUCTION

From a pilot's point of view the Berg D I was a comfortable machine, and had excellent flight characteristics; Italian pilots who flight tested a captured D I reported it as being fully aerobatic, very sensitive on the controls, and very stable in flight. Yet it did not gain favour with the leading Austro-Hungarian fighter pilots, who almost without exception preferred to fly the Oeffag-built Albatros D III. Oblt. Frank Linke-Crawford, stationed at Feltre in the summer of 1918, continued to fly his Alb. D III and later the Phönix D I, although Flik. 60J, the unit which he commanded at that time, had converted to Berg D I's. No doubt the unpopularity suffered by the Berg D I was in part due to the



Leutenant Mally poses by 101.11, a Thone u. Fiella-built D I powered by a 200 h.p. Austro-Daimler engine; note dark speckling on mottle camouflage. (Photo: Heinz J. Nowarra)

cooling troubles experienced with the machine. Understandably, no pilot who flew above the rugged, serrated Alps of the Italian Front could become attached to an aircraft whose engine tended to overheat, no matter how well it flew in other respects. Also the unsatisfactory layout of the armament, plus the unreliability of the interrupter gear, did nothing to enhance the machine's reputation.



M.A.G.-built Bergs on an airfield in the Trentino sector. (Photo: Heinz J. Nowarra)



238.82, an aircraft of the third Aviatik batch; one of the few aircraft fitted with side radiators.

(Photo: Peter M. Grosz)

Nevertheless, it was widely used on all Austro-Hungarian fronts from the autumn of 1917 until the end of the war, and it was a frequent opponent of Italian and British aircraft in Italy during that time.

Some sources have quoted a production total of 1,200 for the Berg D I, but it is extremely unlikely that anything like that number was actually produced, although it may well have been the number ordered. A reasonable estimate based on known monthly production totals of the firms involved would be in the region of 700–800 aircraft, and even this may be too high a figure. The only authoritative total known is for the series 101, as Thöne & Fiala built only the Berg D I during this period (October 1917 to October 1918) and it follows that their total production of 93 aircraft is also the total of the series 101. At the time of the Austro-Hungarian collapse, production at the parent factory was at the point of being terminated in favour of the Berg D II, and the W.K.F. D I was about to replace it in the W.K.F. workshops.

Austro-Hungarian *Fliegerkompagnien* usually comprised eight to ten two-seater aircraft with two or three single-seat fighters for protection. The Berg D I was widely used in this rôle from autumn 1917 until the armistice, serving on the Italian, Russo-Rumanian, and Balkan fronts. Its use was not so prominent in the *Jagdkompagnien* (Fighter Squadrons). Flik. 42J was issued with the early versions in the autumn of

(Continued on page 12)

Berg D I (Th) No. 101.17, captured during the Austro-Hungarian retreat.



WEIGHTS AND PERFORMANCE						
Engine	...	...	...	185 h.p. A.D.	200 h.p. A.D.	225 h.p. A.D.
Weights, Kg. (lb.):						
Empty	...	...	...	—	610 (1,345)	638 (1,407)
Fuel and oil	...	...	...	—	88 (194)	84 (185)
Water	...	...	...	—	24 (53)	30 (66)
Military load	...	...	...	50 (110)	50 (110)	50 (110)
Pilot	...	...	...	80 (177)	80 (177)	80 (177)
Loaded	...	...	...	—	852 (1,878)	912 (2,011)
Maximum speed (m.p.h.)				112	115	127
Climb to:						
3,280 ft.	...	...	...	m. s. 3 12	m. s. 2 14	m. s. 1 7
6,562 ft.	...	...	...	7 38	4 36	4 7
9,840 ft.	...	...	...	12 57	7 25	7 5
13,124 ft.	...	...	...	18 38	11 17	12 0
16,400 ft.	...	...	...	32 49	—	16 4
19,686 ft.	...	...	...	—	—	26 5
Service ceiling (ft.)				—	20,172	—
Endurance (hrs.)				—	2½	1½

338.53 displays late-style camouflage, with the buff and olive green areas meeting in an irregular wavy line.





Berg D I used by the Bohemian Flying Club in post-war Czechoslovakia.

(Photo: Ted Gee)

SPECIFICATION

Manufacturers: Aviatik G.m.b.H. Österreichische-ungarische Flugzeugfabrik, Wien XIX, series 38, 138, 238, 338, 384. Wiener Karosserie und Flugzeugfabrik W.K.F.), series 84, 184, 284, 384. Lohnerwerke Ges.m.b.H., series 115. Thöne & Fiala, series 101. Ungarische-Allgemeine Maschinenfabrik A.G. (M.A.G.) series, 92.

Power: Engines specified for the various series were not rigidly adhered to, aircraft often being powered by the units that were available. 185 h.p. Austro-Daimler, series 38. 200 h.p. Austro-Daimler, series 138, 115, 101, 92, 184. 210 h.p. Austro-Daimler, series 238. 225 h.p. Austro-Daimler, series 338, 284, 384.

Dimensions: Span upper 8 m. (26 ft. 3 in.), span lower 7.89 m. (25 ft. 10½ in.), chord both 1.45 m. (4 ft. 9 in.), gap 1.405 m. (4 ft. 7½ in.), stagger 175 m. (7 in.), incidence top 4.5 degrees, bottom 4.8 degrees at root decreasing to 3 degrees at wing-tip, dihedral nil, length 6.95 m. (22 ft. 9½ in.), versions without front radiator 6.86 m. (22 ft. 6 in.), height 2.48 m. (8 ft. 2 in.), tailplane span 2.54 m. (8 ft. 4 in.), propeller diameter 2.75 m. (9 ft. 0 in.), wheel diameter .76 m. (2 ft. 6 in.), wheel track 1.8 m. (5 ft. 10½ in.).

Areas: Wings 21.8 sq. m. (234.65 sq. ft.).

Armament: Two fixed Scharzlose 8 mm. Mod. 07/12 machine guns with synchronising gear. 300 rounds of ammunition carried for each gun.

Interesting view of 238.18, crashed and abandoned at Egna on 10th November 1918. Noteworthy are the fringe cowl and wing-mounted radiator, the "stepped" divisions between areas of colour on the wing, and the extremely late-style national markings.



1917; found to be unsuitable they were from the beginning of 1918 gradually replaced by the Alb. D III. In the summer of 1918, later versions formed part of the equipment of Flik. 60J, Flik. 61J and Flik. 63J.

© George Haddow, 1967.

Readers may be interested to note other aircraft of the First World War which are available in the Aircraft Profile series:—

Profile

No.	Aircraft	Author
1	S.E.5a	J. M. Bruce
5	Vickers Vimy	J. M. Bruce
13	Sopwith Pup	J. M. Bruce
21	Bristol Fighter	J. M. Bruce
26	de Havilland D.H.4	J. M. Bruce
31	Sopwith F.1 Camel	J. M. Bruce
50	Sopwith 7F.1 Snipe	J. M. Bruce
62	de Havilland D.H.9	J. M. Bruce
73	Sopwith Triplane	J. M. Bruce
74	Short 184	J. M. Bruce
85	R.E.8	J. M. Bruce
91	de Havilland D.H.2	J. M. Bruce
103	S.E.5	J. M. Bruce
121	Sopwith 1½ Strutter	J. M. Bruce
17	SPAD XIII C.1	C. F. Andrews
49	Nieuport 17 C.1	C. F. Andrews
79	Nieuport 28 C.1	P. M. Bowers
37	Curtiss JN-4	P. M. Bowers
68	Thomas-Morse Scouts	Frank Strnad
97	The American D.H.4	P. M. Bowers
61	S.V.A. (Ansaldo) Scouts	Gianni Cattaneo
109	Hanriot HD-1	J. M. Bruce
9	Albatros D V	Peter L. Gray
25	Fokker D VII	Peter L. Gray
38	Fokker Monoplanes	J. M. Bruce
43	Pfalz D III	Peter L. Gray
55	Fokker Dr I	J. M. Bruce
67	Fokker D VIII	J. M. Bruce
86	Siemens Schuckert D III & D IV	Peter L. Gray
115	Gotha GI—GV	Peter M. Grosz
127	Albatros D I—D III	Peter L. Gray

PRINTED IN ENGLAND © Profile Publications Ltd., P.O. Box 26, 1a North Street, Leatherhead, Surrey, England by George Falkner & Sons Ltd., for McCorquodale City Printing Division, London. U.S. 2nd Class Mailing Rates applied for. Profile Publications Ltd. is a member of the Norprint Division of the Norcross Group with world distribution network, retaining all rights in all languages. North American Import Agency rights delegated to J.W.C. Aeronautica, 7506 Clybourn Avenue, Sun Valley, California 91352; North American Distributive Agency rights vested in the National Aerospace Education Council, 616 Shoreham Building, 806 15th Street N.W., Washington D.C. 20005. Reproduction of, or any part of, this publication is expressly forbidden under the terms of International Copyright Law except as subject to written permission by the Managing Director, Profile Publications Ltd.