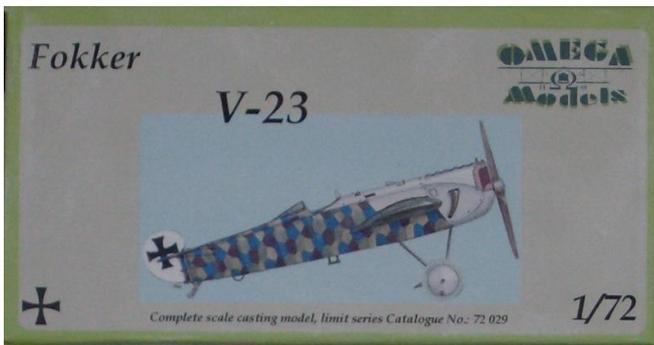


Fokker V.23 Omega Models resin kit

Monoplane fighter prototype

Scale 1:72

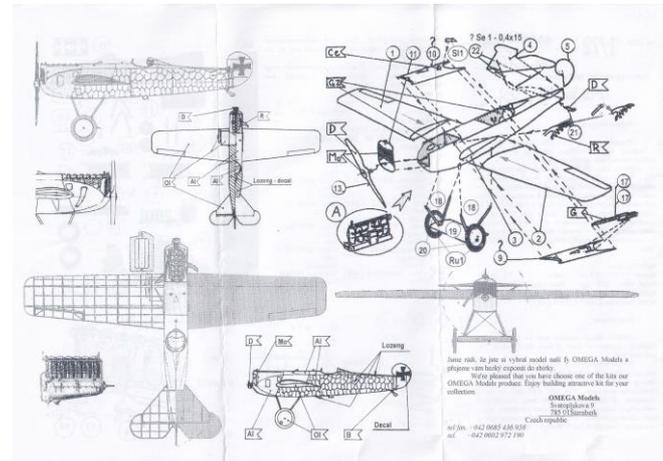
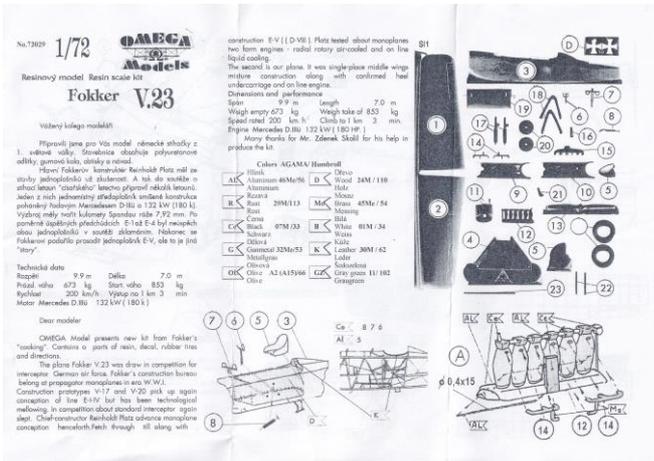
The V.23 was one of the five monoplane fighter prototypes submitted by Fokker for the second fighter trials in June 1918. It was a further development of the V.17 and especially the V.20 entered in the first fighter trials in January/February 1918. The fast 210 km/hr airplane, which first flew in May 1918, lost in the water-cooled engine category, mainly due to its poor climbing performance and bad downward visibility, to the Pfalz D.XII, which was however in the field of participants even inferior to the older Fokker D.VII.



The kit comes in a sturdy carton box and contains resin in parts, packed in plastic, a two sided A4 instruction sheet, two rubber tires and decals for the lozenge camouflage pattern of the fuselage and for the cross on the tail and a piece of metal profile. The model is far



better detailed than the kit of RS Resin.



The instruction sheet gives a short description of the aircraft history and characteristics, a three view drawing, identification of the parts and their location.



I have already built two models of the V.23, the more detailed 1/48 scale model also of Omega Models (right) and the 1/72 scale kit of CS Resin



(left), which I have built rather long ago and shows hardly any detail at all. Building reports of both models are included on this website.

Some characteristics of the airplane are:

	<i>Ref.</i>	<i>1:72</i>	<i>model</i>
<i>Span</i>	9.01 m	125.1 mm	137.2 mm (110%)
<i>Length</i>	7.81 m	108.5 mm	97.2 mm (112%)
<i>Height</i>	--	--	40.0 mm
<i>Engine</i>	Mercedes D III, 160 hp		
<i>Crew</i>	1		
<i>Armament</i>	2 machine guns ⁱ		

It appears that the model is not very well too scale. There are few references for the V.23 and only Engels (ref. 1) and Grosz (ref. 2) report dimensions. Engels also presents a small three-view drawing.

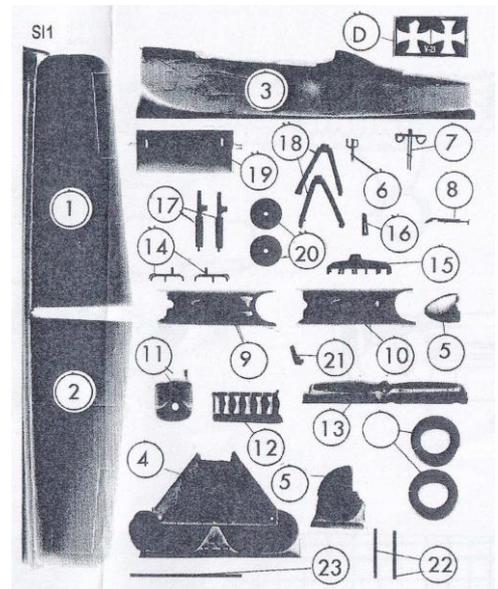
Building the model

Parts

The resin parts are of reasonable quality and show few air bubbles, except for a couple of them, which I have repaired with or replaced by styrene. The show however a lot of flash due to the method used by Omega Models to produce the parts. The kit allows to build the model with or without machine guns, although I could find no photographs of the aircraft with machine guns and test of armament was not included in the trials. There is one part (16) that is nowhere indicated in the instruction sheet, so is not needed.



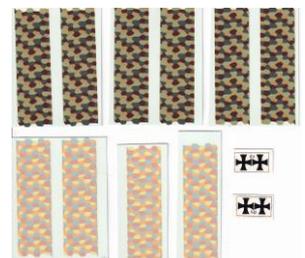
I have removed the flash from the parts and have sanded the parts carefully. I have also removed the ailerons and the elevator halves from wing and tail surfaces, as I want to mount them in deflected position. Somewhere in the past I apparently lost the fuel handpump and the seat, so new copies had to come from my spares box.



The wings had to be corrected, as they were too thick at the tip compared to root and mid wing. I have also drilled skewed holes at the middle of the ailerons to accommodate the control cables. At the tail the exit holes of the control cables had to be formed in the cast already; they only had to be made a bit deeper and skewed.

Decals

The lozenge decals included show different colour combinations than those in the other kits. Examination of the rare photographs of the V.23 reveal that the actual finishing of the aircraft might have been different than that suggested in the kit. On two of the three photographs the wing does not show an even finish, but some vague traces of some lozenge-like pattern are visible. It is difficult to determine the colour combination of the pattern, so it seems best to derive that from the pattern used on contemporary Fokker aircraft. In any case, I have followed the suggestions of the kit producer.



I have cut a paper template from a print of the side view in the kit and have cut two mirrored side views from a piece of decal left from another kit. The remainder I am going to use for the top side behind the cockpit and the lower side.

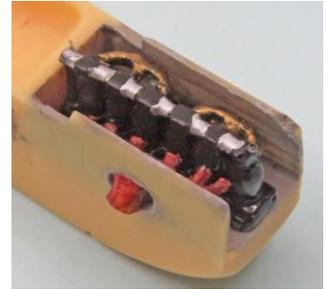
When fitting the Maltese cross decals supplied with the kit on the white painted rudder, I noticed the black ends surpassed the edges of the rudder: they were too big. From my spare stick I selected some that were a bit smaller. I also mounted two photoetch control horns to the rudder in predrilled shallow holes.



Engine



I have painted the inside of the fuselage, the cavity where the engine will be located and the cockpit, light grey. The engine parts required some rework. I have painted it as indicated in the building instructions: black, brass and aluminium. The exhaust I have painted rust. Mounting the engine in the fuselage is a bit difficult. If the exhaust is glued to the engine, the assembly cannot pass any more through the hole in the starboard fuselage wall and if the engine is glued first in the fuselage, the exhaust cannot be passed through the hole any more. The solution was to glue the exhaust with very little slow drying glue to the hole in the fuselage, gluing the engine in the fuselage, then adjust the position of the exhaust to fit the engine cylinders, securing the final configuration with tiny drops of cyanoacrylate glue.



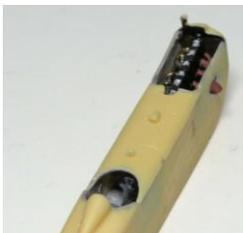
Cockpit



I have produced a throttle from thin styrene sheet and metal wire and a rudimentary instrument panel from a piece of styrene. I have painted the rudder bar, control stick, seat, throttle and hand pump dark grey with aluminium and black accents. The instrument panel has been painted mahogany, the instruments were dots of black paint. I have produced a set of seat belts from leather painted Tamiya tape. The top cover of the fuselage had to be reworked at the location of the cockpit opening to fit correctly.

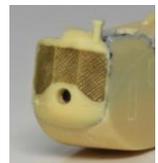


Fuselage

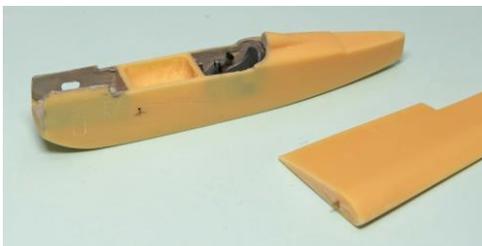


I have mounted the fuselage upper deck to the fuselage and have glued the radiator to the fuselage front. It took a bit of effort to make it fit correctly and the joints needed some putty to get an acceptable appearance. The radiator I have painted brass.

I have also glued the horizontal tail plane to the fuselage. Also here some putty was required. The location of the rudder and elevator control cables is casted in the aft fuselage, and only had to be slanted and made a bit deeper. However the holes in the tail plane itself to make the cables pass to the top of the elevator halves were not present and had to be custom made.

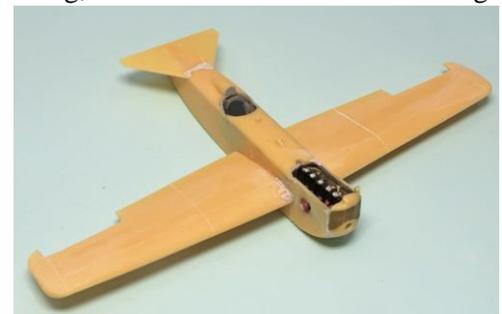


Wing



To define the position of the wings at the fuselage I have mounted a 0.5 mm brass pin in each wing, which also reinforces the wing-fuselage connection.

The taper of the wing had to be corrected; the wing was thicker at the tip than the more inboard position, while the wing underside was well flat as it should be. I have sanded the top surface until a correct taper was achieved and have reconstructed the panel lines. I have also drilled slanted 0.3 mm holes in the wing half way the aileron span for the control cables.



Fuselage finishing and decal application

I have given the fuselage, the wing, the tail planes and the undercarriage parts a coat of grey primer and a couple of layers of olive drab (Humbrol 155), except for the forward fuselage, which will have to be painted aluminium, finishing it with a coat of gloss varnish.

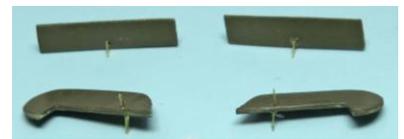
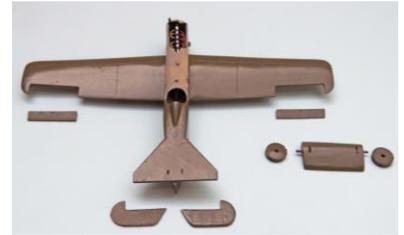
I have applied the decals on the fuselage. This was a disaster; it took very long before they could be separated from the backing paper, they broke very easily, did not attach well at certain places. Apparently they were too old, so I



removed them from the model and ordered new decals from the Aviation Megastore. These were of better quality, and I ruined only one of the side decals, which was no problem, because I had ample spares. I have sealed the decals with a layer of clear varnish.



Next I have painted the forward fuselage aluminium and have redrilled the slanted control cable holes in the wing, aft fuselage and the tailplane. I have glued photo-etch control horns to the ailerons and elevator halves.



Undercarriage

I have put the rubber tires supplied with the kit around the wheel hubs. They were very stiff and assembling them damaged the fine edges around the hubs. I have replaced the wheels by full resin copies from my spares box.

I have painted the landing gear V-struts and the streamlined wheel axle drape olive. And have opened up the pre-drilled superficial holes in the fuselage underside where the landing gear struts will be located. I have glued the struts and axle in place with thick cyanoacrylate glue, taking care that the wing tips were on equal height.



When the glue had set, I have drilled 0.3 mm holes in the top and bottom of the forward struts of the landing gear for the rigging lines, and have fed 0.06 mm black lacquered fishing line through them. After tensioning the lines with pieces of tape, I have applied thin super glue to the attachment points and have removed the excess fishing line with a sharp scalpel.



I had lost the tail skid supplied with the kit, so I have made a new one from 1.2 mm styrene rod, painted it natural wood and glued it in place. To complete the undercarriage I have glued the resin wheels on the axle.



Final assembly



I have glued the end of the exhaust to the stub of the exhaust attached to the engine and exiting the fuselage at the starboard side of the nose. To make it fit decently I had to correct the gluing interface quite a bit. I have painted the exhaust rust and have dry brushed the external and internal parts of the exhaust with gun metal.



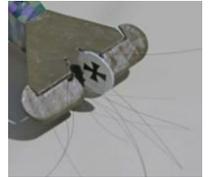
The propeller has been painted natural wood and finished with a much diluted and



streaky coat of burn amber oil paint. I have painted the bolts aluminium.

When I attached the elevator halves it appeared they were seriously misaligned with the wings. I had noticed before already that the radiator was somewhat misaligned also. I could establish that the root cause was that the flat bottom of the fuselage was not normal to the fuselage sides and not parallel to the top of the fuselage. Aligning the wing with the flat fuselage underside and assuming that the stabilizer, correctly fitting on the fuselage top side, would then be parallel to the wing (and not checking it), resulted in the overall misalignment. So I will not show front or rear view pictures of the model.

I have continued applying the control cables for elevator, rudder and ailerons. I have used again 0.06 mm black lacquered fishing line for that. Inserting ends of these in the slanted holes in the aft fuselage and wing I have fixed them with a drop of thin cyanoacrylate glue. When the glue had dried, I have guided the lines over the control horns, tensioned them with pieces of tape and pulling with a pair of tweezers and have fixed them with a drop of thick



cyanoacrylate glue. I have removed the excess fishing line with a sharp scalpel and small scissors. It appeared that the slits in the stabilizer were too close to the fuselage to allow a straight connection of the

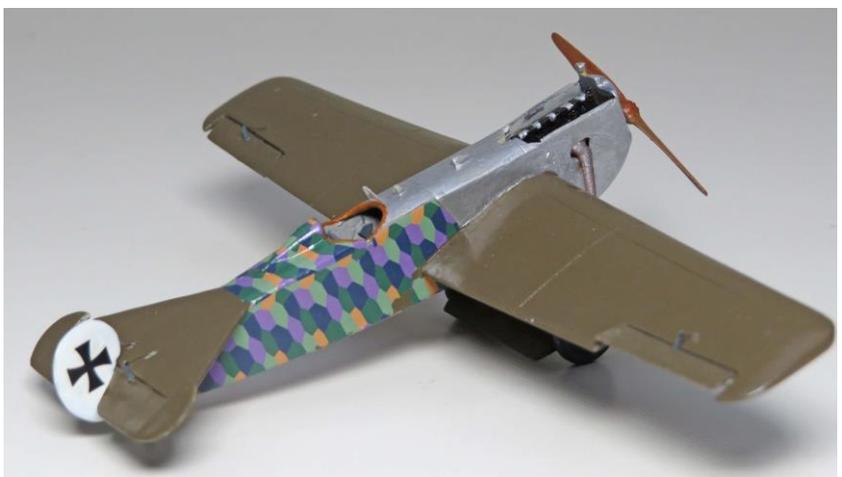
cable between the fuselage exit point and the place where I had glued the control horns. Comparison with a Fokker D.VII model, which has the same aft fuselage structure learned that indeed the control horns are placed much more inboard. Last thing to do was to mount the stabilizer support struts.

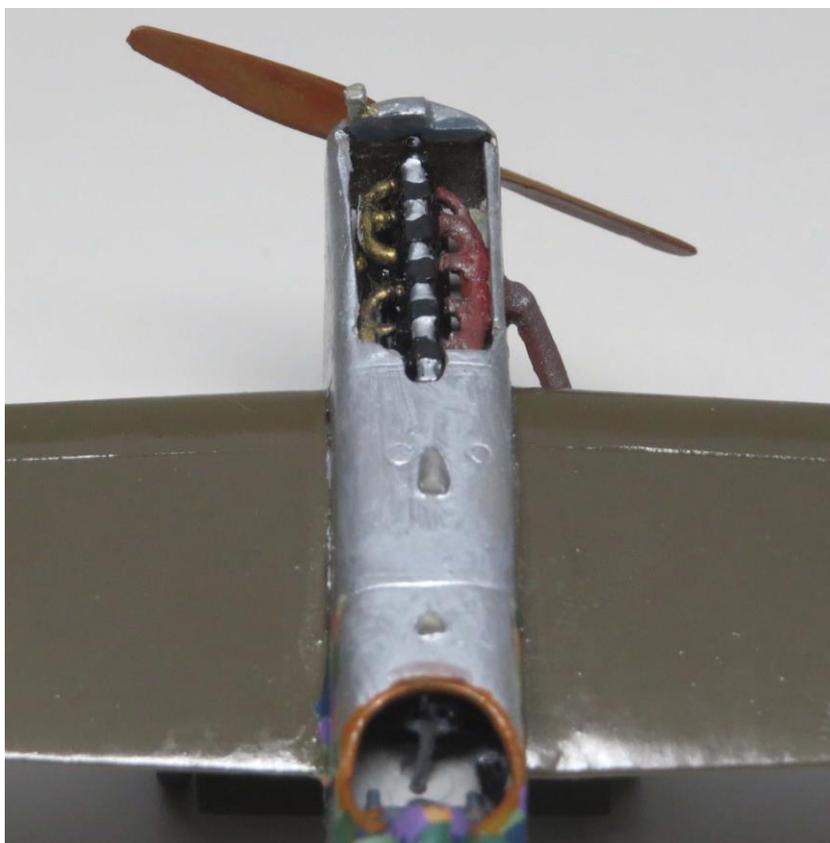
As shown in the introduction, the Omega Models V.23 is more than 10% oversized. In the end the model did not work out very well, mainly because of my own negligence. I have compared the Omega model with the CS Resin kit of the V.23 (right in the pictures), which I had built earlier. The Omega model is in general better detailed, especially the engine compartment. The fuselage is a bit bulkier than that of the CS Resin model, but not extraordinarily, if compared to models of the Fokker D.VII, which have about the same fuselage configuration. The rubber tires of the Omega Model V.23 may seem a nice feature, but their small size and little flexibility make it difficult to use them without damaging the resin wheel hubs.



Below some pictures of the finished model are shown.







References

1. A.S. Engels, *Fokker und seine Flugzeuge*, pp. 159-160, ISBN 3-930571-52-8, 1996
2. P.M. Grosz & V. Koos, *Fokker Flugzeugwerke in Deutschland 1912-1921*, p. 112, ISBN 3-89880-355-4, 2004
3. H. Hegener, *Fokker, The Man and the Aircraft*, p. 210, ISBN 0-8168-6370-9, 1961
4. V. Koos, *Die Fokker-Flugzeugwerke in Schwerin, Geschichte - Produktion - Typen*, p. ??, ISBN 3-928820-21-4, 1993
5. P. Leaman, *Fokker Aircraft of World War One*, pp. 145, 149, ISBN 1 86126 353 8, 2001
6. T. Postma, *Fokker, Bouwer aan de Wereldluchtvaart*, p. 40, Fibula - Van Dishoeck, Haarlem, 1979
7. A.R. Weyl, *Fokker: The Creative Years*, pp. 314-315, Putnam, London, 1965

Appendix Documentation of the Fokker V.23 and the Daimler Mercedes D.III engine

Paint table

HE = Humbrol Enamel, RA = Revell Aqua, VMA = Vallejo Model Air

Code	Colour	Where
HE 21	Black	Instruments
HE 22	White	Rudder
HE 53	Gun metal	Exhaust (dry brushed)
HE 54	Brass	Engine inlet tubes
HE 62	Leather	Seat belts, cockpit edge
HE 85	Coal black	Exhausts
HE 110	Natural wood	Propeller
HE 113	Rust	Exhaust
HE 125	Dark grey	Seat, control stick, rudder bar, handpump, throttle, control horns
HE 129	Light grey	Fuselage inner walls
HE 155	Drab olive	Wing, stabilizer, landing gear
HE 186	Brown	Edge of cockpit opening
RA 36178	Tank grey	Tires
VMA 71.036	Mahogany	Instrument panel
VMA 71.062	Aluminium	Propeller bolts, forward fuselage

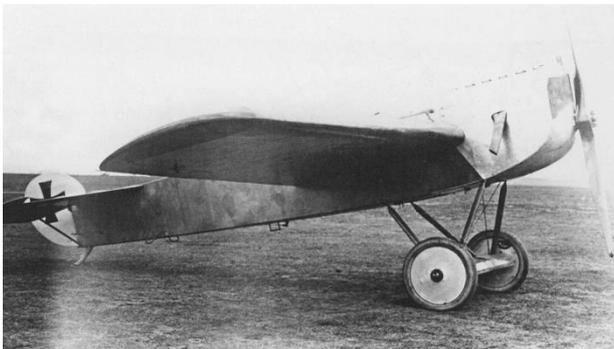


[Source: <http://www.wwi-models.org/Photos/Engines/Mercedes/MercDIII/>]



[Source: Leaman, ref. 5]

Photographs.



[Source: Grosz, ref. 2]



[Source: Grosz, ref. 2]

ⁱ No pictures could be found showing the aircraft equipped with (one or two) machine guns.