

Fokker M.10E HR Model resin kit

Sesquiplane reconnaissance, training

Scale 1:72

The single bay, unarmed two-seater Fokker M.10E was an improved version of the M.7 and was called B.I (with the 80 hp Oberursel U 0 engine) or B.II (with the 100 hp U I engine) by the military. Like the M.7, it was also used for reconnaissance and training purposes. It sometimes carried a Swartzlose machine gun in the observer's cockpit.



Fokker B.I (M10E)

Resin kit 1:72

No.7345



Resin parts, decals, metal parts

HR model
Czech republic



Serie
Famous planes
of WW I

Fokker B.I (M10E)

HR model

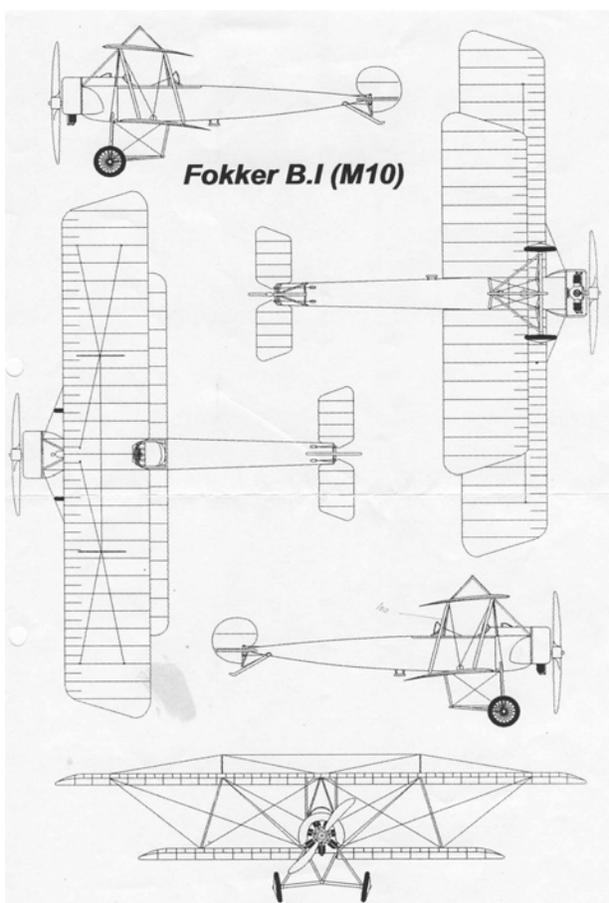
The kit comes with resin parts, a sheet of clear plastic with the instrument dials, decals with several serial numbers and Maltese crosses and the standard HR Model photo-etched parts for one set of seat belts, cockpit stairs, instrument panel, Spandau machine gun detailing (not needed in this case, as the M.10E was not equipped with them, but with a Swartzlose machine gun in the observer's cockpit), propeller hub and a specific set of photo-etched parts for wheels with spokes.

The resin parts are well detailed and the kit includes the choice between building the B.I or B.II version, the only difference being the engine.

The instruction sheet is rather limited; one A4 with a short history and dimensions and very limited painting instructions and another A4 with an excellent five view drawing. For painting I have also used the colour picture on the box.

Dimensions are reported in the table. Engels (ref. 1 and 2), Leaman (ref. 4) and Weyl (ref. 5) all show a three-view drawing. The bold printed values have been used as reference.

Span of the upper wing is quite all right, but the span of the lower wing and the length are slightly too large. Major deviation is the height; although the height quoted in the references excludes the king posts, it is about 7 mm too high. When comparing the model with the three-view drawing going with the kit and found in the references, it seems that an oversized undercarriage mainly causes the discrepancy.



	References	1:72	model
Span (upper wing)	11.30 – 11.90 ¹ m	156.9 – 165.3 mm	156.2 mm
Span (lower wing)	7.77 m	107.9 mm	113.6 mm
Length	7.50 m	104.2 mm	101.4 mm
	References	1:72	model
Height	2.50 ² m	34.7 mm	48.2 ³ mm

<i>Engine</i>	Oberursel U 0, 80 hp
<i>Crew</i>	2
<i>Armament</i>	1 Swartzlose machine gun

Building the model

As I had picture of the M.10E with registration number 03.33, I decided to build that aircraft, which had the seven cylinder Oberursel U 0 engine. I added the Swartzlose machine gun, although I have no pictures of the 03.33 equipped with it. Building the model was rather straightforward.

Cockpit interior

The cockpit interior has the fundamental error of each World War I (Fokker) kit of HR Model⁴: It has a far too fancy instrument panel, composed of black printed dials on the transparent sheet and the etched control panel, which represents clearly a post-war status. I have not replaced it by custom made parts representing the individual controls and instruments, which were mounted on the real Fokkers of that time. I have taken a second set of seatbelts from another source, although mounting them in the front seat does not pay off, as the front cockpit interior is not visible, when the model is completed. As usual the parts composing cockpit interior has been painted before assembling the two fuselage halves.

Wing assembly

The inter wing struts are nicely shaped, which is not always the case with resin models. The lower wing has been joined to the fuselage and painted matt linen (Humbrol 74), as well as the upper wing. The forward part of the fuselage has been painted silver (Humbrol 11), using photographs as guideline. Inter-wing struts and the longeron bordering the cockpit have been painted satin brown (Humbrol 133), as on the box cover. I have painted all other struts grey (Humbrol 128). After painting the decals have been applied on fuselage and wings and both assemblies have been finished with a coat of satin clear varnish.

I have first constructed the forward wing support structure on the fuselage, replacing the forward legs by 0.6 mm diameter plastic rod, as the parts in the kit were rather over-dimensioned. Then the top wing was glued to the forward and rear wing support, ensuring it was really horizontal. When dry, the four inter-wing struts were carefully fitted and glued in place. It is virtually impossible to do this differently, because the inter-wing struts are angled both lengthwise and spanwise. This part of the assembly is very tricky, but could be made far more easy when using the Aeroclub bi-plane assembly rig, which I did not have available at that time. After assembly 0.3 mm holes are drilled on all places where bracing or warping cables are attached to wing or fuselage, using the five-view drawing as a guideline. I have also drilled 0.3 mm holes in the top and bottom of the inter-plane struts. In the fuselage just forward of the second cockpit a 0.5 mm holes has been drilled to accommodate the wing warping cables.

Undercarriage assembly

The undercarriage is identical to that of the Fokker E-types. I have replaced the central lower longeron by 0.7 mm plastic rod, again because the part in the kit was too crude. I have drilled 0.3 mm holes in the top and bottom of the central V shaped parts to accommodate the bracing wires. The spoked wheels have been constructed in the usual way. Prior to mounting them, the undercarriage bracing wires (0.08 mm nylon fishing line) have been glued in place.

How to prepare the spoked wheels

The WW I style spoked wheels of HR Model are composed from three parts: the resin rim and tyre and two photo-etched spokes assemblies. These last ones are flat and have to be shaped by

rolling a 10 to 12 mm glass marble over the parts, while they are on a moderately soft support and while applying pressure in the roller ball. I use some 3.0 mm thick carton for it. The resin parts are cleaned up, and the inner diameter is adjusted until the spokes fit smoothly in it. Then rim and spokes are painted and the spokes glued in the rim, sparsely applying glue. Finally the tyre is painted matt black. The pictures show some steps in the process.



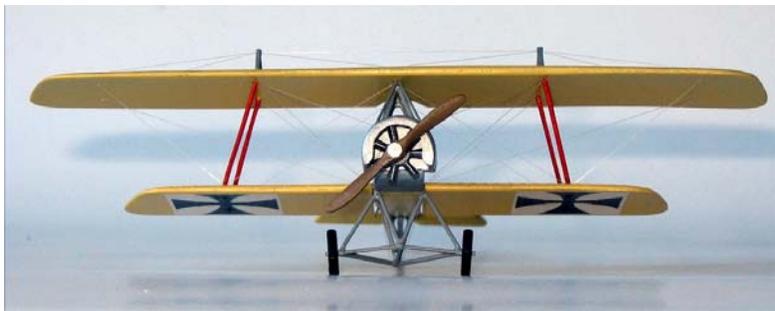
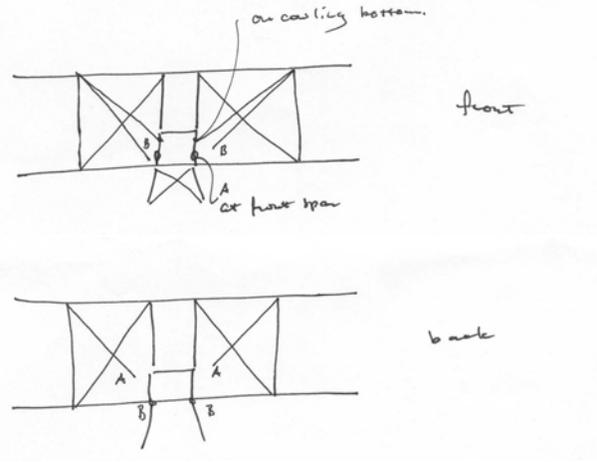
Fuselage and tail

The engine, which has been painted gun metal before with the pusher rods accentuated with silver, can be mounted now. It just passes into the cowling, and is then attached by assembling the propeller, mounted on a shaft of plastic rod. Nice detail on the fuselage is the rear view mirror.

Now the tail surfaces are assembled. Also the control horns, taken from the photo-etched part with the spoked wheels, are mounted. 0.3 mm holes are drilled on the location where the control cables leave the fuselage.

Finishing the model

Last step in the assembly is the provision of the wing bracing wires, wing warping cables and tail surfaces control cables. I have made a sketch indicating the sequence the cables should follow when assembling them. This is almost unavoidable, as the have to be tensioned and glued in place all at the same time. Below some pictures of the finished model are shown.





References

1. P.M. Grosz & V. Koos, *Fokker Flugzeugwerke in Deutschland 1912-1921*, p. 35, ISBN 3-89880-355-4, 2004
2. A.S. Engels, *Fokker und seine Flugzeuge*, pp. 39, 108-109, ISBN 3-930571-52-8, 1996
3. A.S. Engels, *Die Umlaufmotoren der Motorenfabrik Oberursel A.G.*, p. 24, ISBN 3-930571-55-2, 1996
4. P. Leaman, *Fokker Aircraft of World War One*, pp. 53-56, ISBN 1 86126 353 8, 2001
5. A.R. Weyl, *Fokker: The Creative Years*, pp. 141-142, 144, Putnam, London, 1965
6. H. Hegener, *Fokker, The Man and the Aircraft*, p. 198, ISBN 0-8168-6370-9, 1961
7. V. Koos, *Die Fokker-Flugzeugwerke in Schwerin, Geschichte - Produktion - Typen*, p. 22, ISBN 3-928820-21-4, 1993
8. T. Postma, *Fokker, Bouwer aan de Wereldluchtvaart*, p. 28, Fibula - Van Dishoeck, Haarlem, 1979

¹ Higher value given by Engels (ref. 2)

² The height certainly does not include the king posts; it is equal to that reported for the M.10Z, which did not have them.

³ Including king posts and in rest on three wheels. In flight position the height is 49.2 mm. The king posts are 7 mm high.

⁴ HR Model produces the following Fokker W.W. I airplane model kits: M.5, M.5K, M.5L, M.5K/MG (E.I), M.7, M.10E, M.10Z, M.14 (E.II, E.III), M.17E, M.17Z (D.II), M.19 (D.III), V.4 and V.9. The M.5 variants and the M.14 are monoplanes; the others are bi- or tri-planes.