

Fokker S.II Omega Models¹ resin kit

Biplane training

Scale 1:72

The S.II was the second aircraft designed by Fokker specifically for basic training purposes. While the S.I training airplane was clearly a derivative of WW.I fighter and reconnaissance aircraft, the S.II was from the beginning conceived as a trainer. It featured side-by-side seating of student and instructor and had easy access to the cockpit. The aircraft could be equipped with different engines. It first flew in July 1922 and has been used intensively for many years by the Air Department of the Dutch Army (LVA).



Box contents

Box contents is complete. Decals are printed however on white background, and have to be cut out very precisely. It is almost impossible to cut out the registration number. Also the red and blue colors of roundels and tail decals are a shade too light.



Box contents

For the Dutch version of the S.II I have replaced the decals by those of Dutch Decal, being of more correct colours and printed on transparent sheets. The rudder has been painted in red (Humbrol 19), white and blue (Humbrol 15).

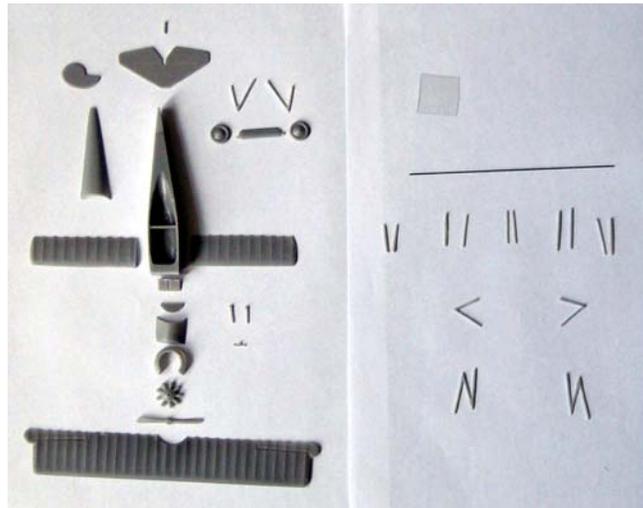
The parts could be removed easily from the runner, but overspill needs the necessary clean-up. As usual, however, the struts are rather crude, even after sanding. Struts from polystyrene plastic have replaced them. This has also been done to adjust the position of the upper wing, which is not according to the original Fokker drawings (ref. 1).

The instruction sheet is sufficient. However, the exploded view showing all parts did not correspond to the struts provided in the kit. The painting scheme suggested in the kit for the Dutch version of the S.II is not correct. All S.II aircraft of the LVA were painted light blue (Humbrol 115).

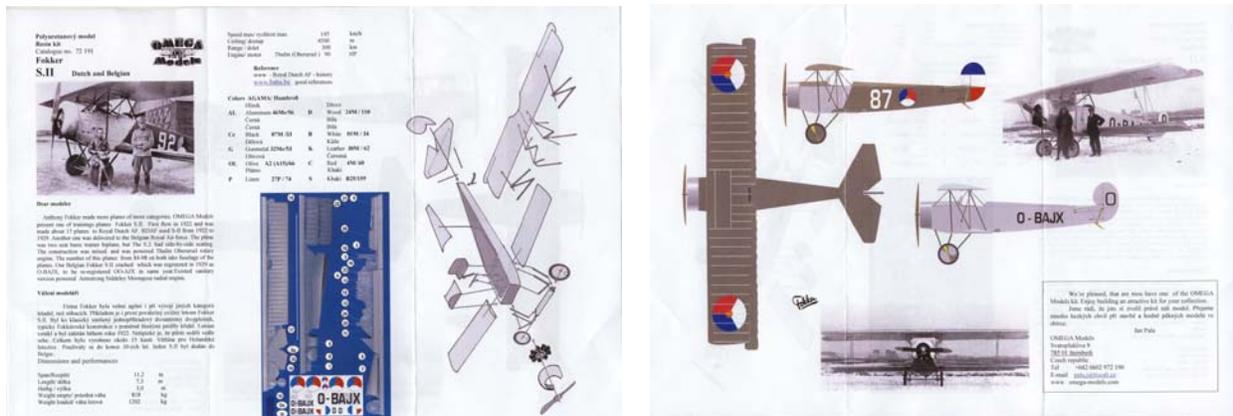
Major discrepancies between the kit and the original Fokker drawings and photographs are the shape and location of the cockpit, the position of the upper wing, shape and size of the horizontal tail plane and the span of upper lower wing. The first three items have been corrected; the last two have been left as is. The aircraft's dimensions reported in literature vary; I have used the bold printed values as reference.

	<i>references</i>	<i>1:72</i>	<i>model</i>
<i>Span (upper wing)</i>	11.01 - 11.22 - 11.25 ² m	152.9 - 155.8 - 156.3 mm	138.6/147.5 ³ mm
<i>Length</i>	7.18 - 7.20 - 7.25 m	99.70 - 100.0 - 100.7 mm	102.4 mm
<i>Height</i>	2.74 - 2.80 m	38.8 - 38.9 mm	44.0 mm
<i>Engine</i>	Oberursel Ur II, 110 hp; Thulin, 110 hp		
<i>Crew</i>	2		

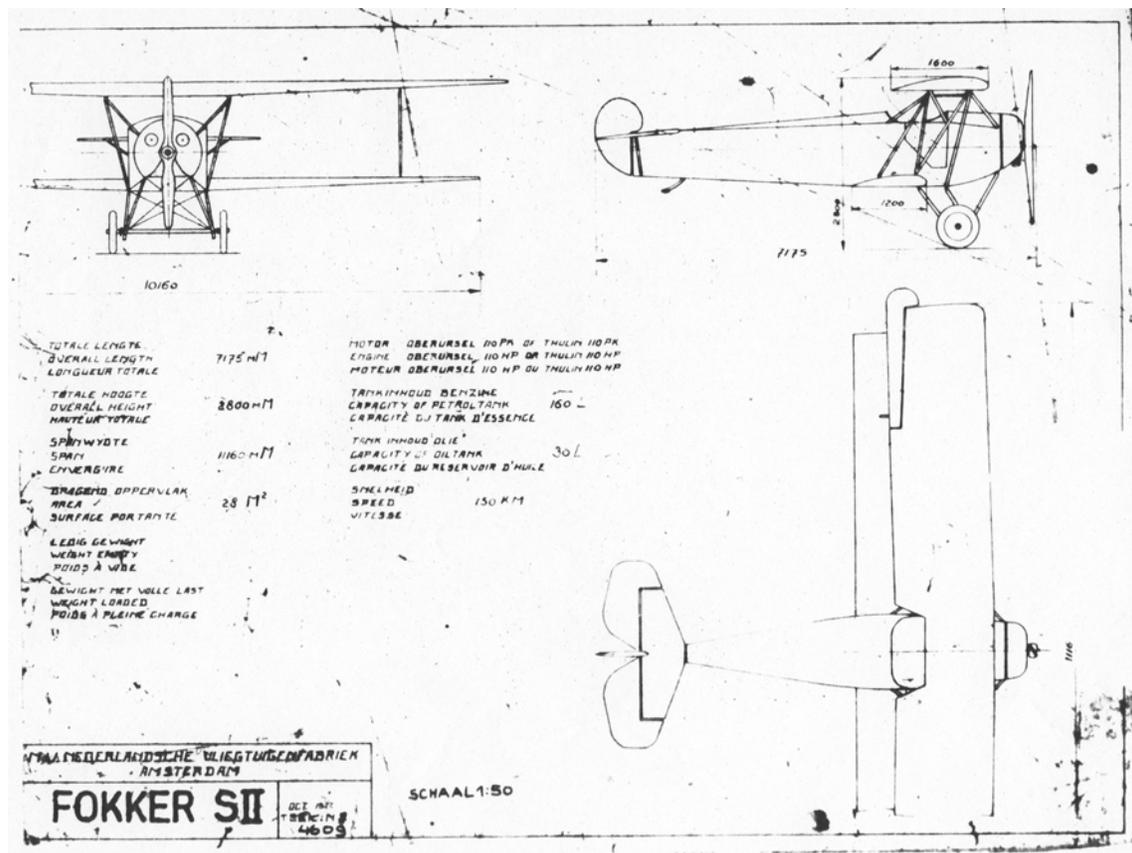
From the table it can be seen that in addition to the span also the height of the model is too large.



Detached and cleaned components



Instruction sheets

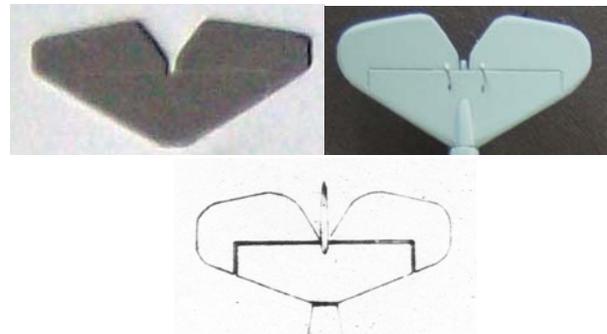


Original Fokker drawing (drawing no. 4609)

Tail plane modification

The horizontal tail plane has been sanded to a shape better corresponding to the shape shown in the Fokker drawing. Note also the control horns added (small triangular bits of 1 x 0.3 mm plastic strip) and the feed-through for the stabilizer control cables (0.3 mm diameter).

Tail plane shape as supplied in the kit (top left), in the Fokker drawing (bottom) and as built (corrected and detailed; top right)



Cockpit interior and location

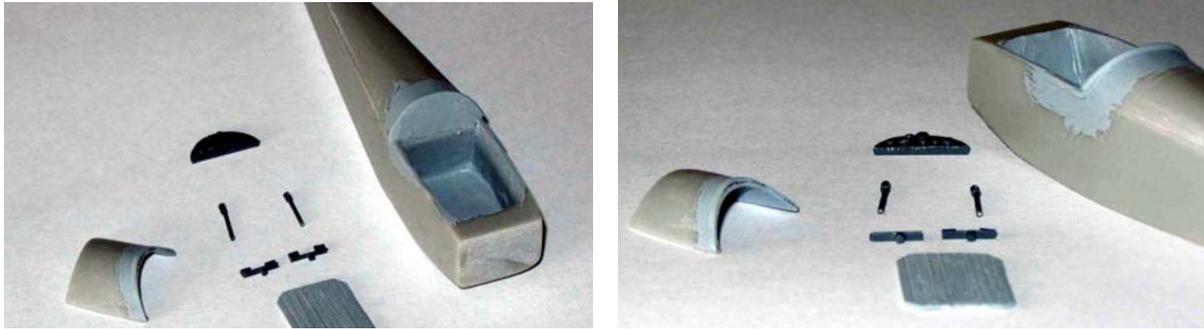
After test fitting of the forward cover of the cockpit bay it appeared that the cockpit was far too long compared to drawings and photographs. So the cover has been lengthened by means of plasticard between engine cowling and cockpit front edge.

After deepening and widening of the cockpit cavity, the back of the cockpit has been closed. The edges of the cockpit have been beefed up to resemble better the leather padding. A couple of thin plasticard strips were mounted on the interior cockpit sides to represent the steel tube frame of the fuselage.

Although most components (control stick, rudder controls, instrument panel and bench seat (side-by-side seating of instructor and student)) are included in the kit, sticks and rudder controls have been replaced by more detailed copies made from plastic rods and profiles and a cockpit floor of plasticard has been added.



Modified front cockpit cover



New control sticks, pedals and cockpit floor; detailed instrument panel



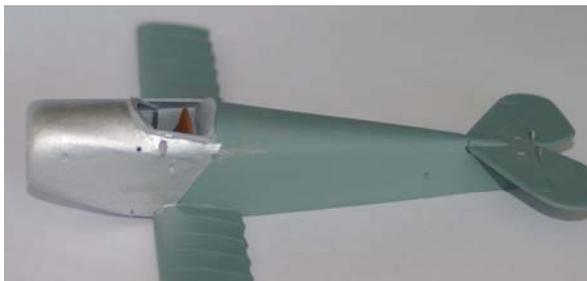
Cockpit access door [ref. 3]

After mounting these modified parts it appeared that the cockpit sides of the model were considerably lower than shown in photographs and drawings. Even bench and controls were visible in side view. So the cockpit sides have been modified with plasticard to reflect reality better and again the edges have been thickened to resemble the leather padding. The location of the lower wing has been determined by means of the original Fokker drawing.

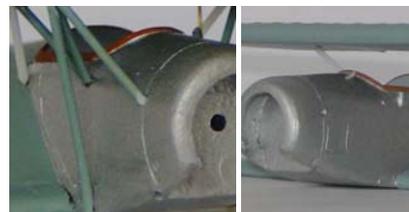
A small piece of plastic rod was mounted at the left side of the cockpit to accommodate the push-pull rod for aileron control between cockpit and upper wing. The access hatch at the front left side of the fuselage and the cockpit door on the right side (clearly visible on the drawing on page 2 and the photographs above and on page 5) were engraved and the separation between engine and forward fuselage was accentuated prior to finishing painting the fuselage. A rear view mirror was made of a piece of plastic rod and mounted at the left side in front of the cockpit.



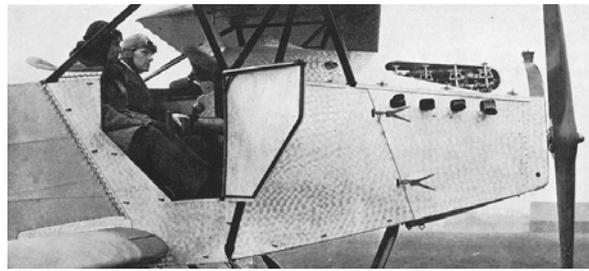
Modified front cockpit cover and installed equipped cockpit floor



Modified cockpit sides and aileron control rod interface



Access door and hatch

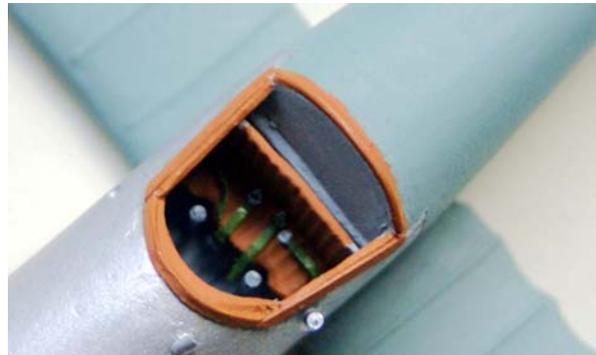


Another photo of the cockpit door [ref. 4]

Seat belts were mounted to complete the cockpit interior.



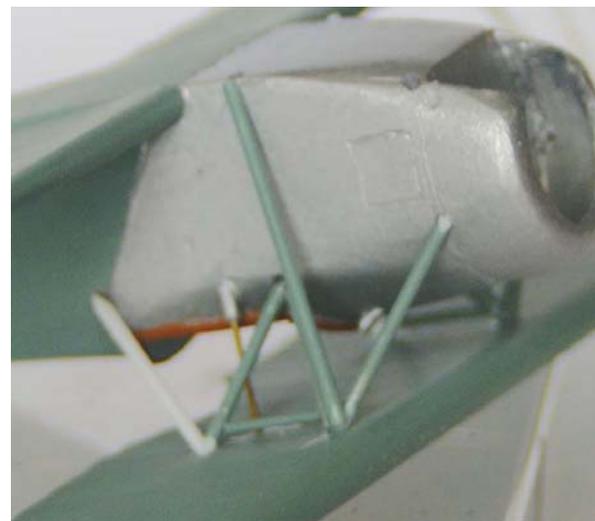
Finished cockpit



Cockpit interior and seat belts mounted



Finishing wing and fuselage painting



Upper wing support struts cut to size and glued in place (prior to painting).

Upper wing position

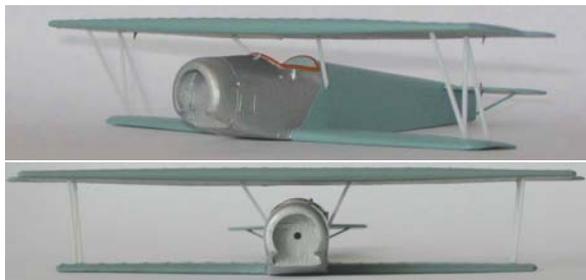
When the original N-struts of the kit were used, the upper wing covered the cockpit area completely. To correct this new struts have been constructed from 0.9 mm plastic rod. The new, improved upper wing position can be seen in the pictures below.



New (top) and old N-struts (bottom)

As a consequence all other wing struts have to be custom made from 0.9 and 0.6 mm diameter plastic rod, which had been painted light blue in advance. The individual length of rods has been cut to size on the model. Finally a length of 0.4 mm diameter wire has been used to represent the push-pull

rod for aileron control. After gluing the joints between the individual rods have been treated amply by paint to simulate a well welded joint.



After painting, decal application and coating with satin varnish.

Decals

The decals have been replaced by decals with a more representative color scheme selected from a set supplied by Dutch Decal, which went out of business in the mean time. After painting the S.II they have been applied with Microset Set and Sol to get as well as possible a “painted-on” look.



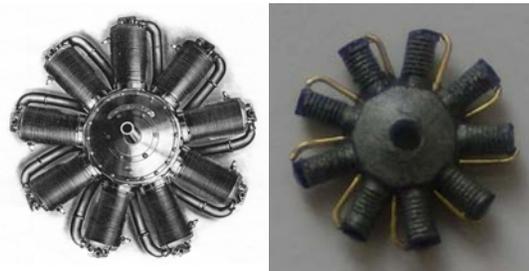
Original (bottom) and replacement decals from Dutch Decal (top)

Registration numbers have been selected from the remainder of other kits.

The engine

The S.II engine was a 110-125 hp Thulin-G or from 1926/1927 110 hp Le Rhône-Oberursel [ref. 2 and 3] (probably an Ur II, as that is the only nine cylinder engine with that power). As I have no details of the Thulin engine, I have taken the Oberursel as reference. The engine supplied in the kit is missing the characteristic details (see the figure at the right), so it has been detailed by means of small bits of 0.4 mm brass wire. The result prior to painting is rather convincing.

The engine can just be fitted into the cowling. A 1.5 mm plastic rod



Oberursel Ur II engine; original (left, ref. 5) and detailed model (right)



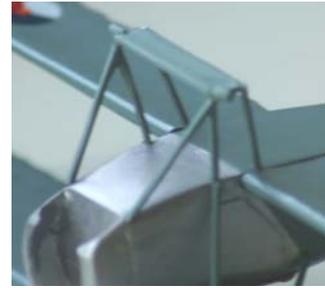
Mounting engine and propeller

connects the engine to the fuselage. Finally the propeller is glued to this motor axis.

Landing gear

The front legs of the landing gear and the streamlined axle as included in the box are used; the rear legs are constructed from 1 mm diameter plastic rod, as the parts included in the kit are rather crude. The holes in the fuselage where the landing gear legs have to be mounted are enlarged to a 1 mm diameter. After test fitting all parts are cemented in place. When dry the paint work is retouched and the undercarriage is given a finishing coat of satin varnish.

Next 0.3 mm diameter holes are drilled to accommodate the bracing wires. As can be seen on the picture, double bracing wires run crosswise from top to bottom and right to left between the front legs, while the middle legs are braced to the bottom of the rear legs. This is confirmed by the original drawing. On the model we will use single wires, as there is no room to drill two wholes next to each other in the landing gear legs. After drilling the 0.3 mm holes in the landing gear legs the bracing wires (0.08 mm fishing line) is glued in place.

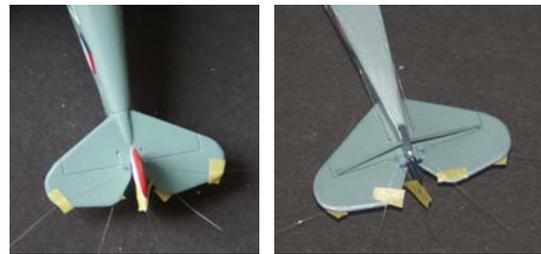


Completed landing gear bracing

Adding the control cables

Control cables are made also from 0.08 mm fishing line. Short bits are glued between upper wing surface and the control levers of the ailerons and from the holes drilled in the rear fuselage to the rudder and elevator. When dry the shiny spots of super glue are again covered with satin varnish.

Rudder and elevator control cables



Aileron control cables



Detail



Finishing up

The windshield is cut to size and shaped to fit well to the fuselage. It is glued in place with white glue.

Windshield



Completed model

Below some pictures of the completed model are shown.





References

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¹ www.omega-models.com

² Most authors quote a span of 11.22 m.

³ Including ailerons