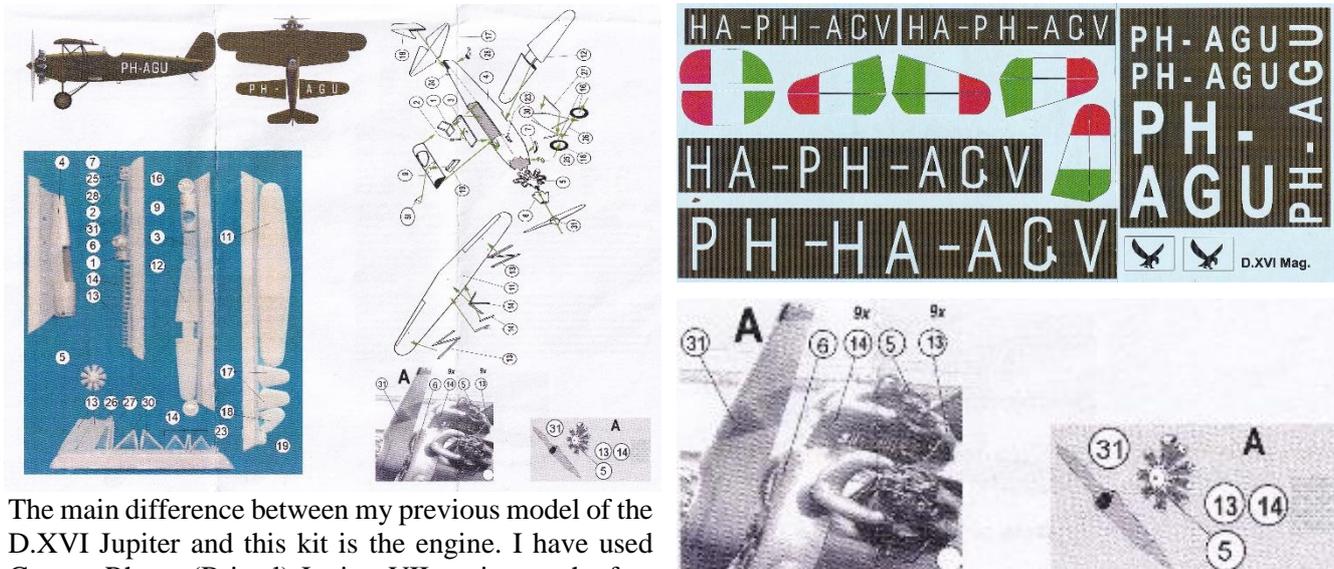




The decal sheet is specifically for the Hungarian version and contains decals for the Jupiter prototype PH-AGU and for one of Hungarian aircraft, the HA-ACV (I could not find the special character C as shown on the decal sheet). Unfortunately the decals are printed on white decal paper, for Omega Models to obtain white registrations, but forcing the modeller to match the paint with the khaki colour of the decals.



The main difference between my previous model of the D.XVI Jupiter and this kit is the engine. I have used Gnome-Rhone (Bristol) Jupiter VII engine on the former, the Omega Models engine is more detailed, especially the tubing of inlets and exhausts. The numbering of the parts in the instruction sheet is not correct; I have addressed that in the building report further down.

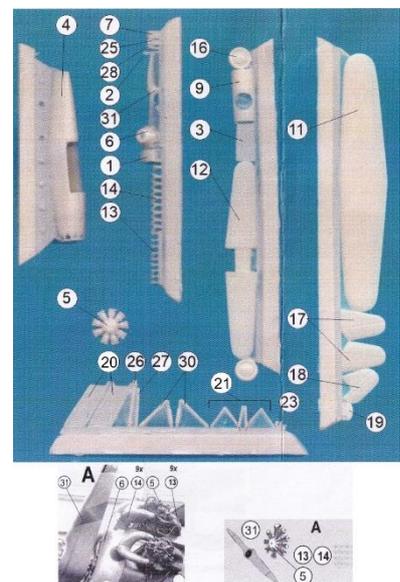
The general references on the Fokker DXVI are the following. Alting (ref. 1), Franquinet (ref. 2), Hegener (ref. 3), Hoofman (ref. 4), Schoenmaker (ref. 5), Wesselink (ref. 6), Gerdessen (ref. 7), Vliegwereld (ref. 8), Fokker Bulletin (ref. 10) and Postma (ref. 11) report the dimensions of the D.XVI. Franquinet, Hegener, Gerdessen, Vredeling (ref. 9) and Fokker Bulletin show three-view drawings.

	Ref.	1:72	model
Span (upper wing)	9.40 m	130.6 mm	130.0 mm (99.5%)
(lower wing)	7.12 m	98.9 mm	99.3 mm (100.4%)
Length	7.30 m	101.4 mm	104.5 mm (103.1%)
Height	2.60 m	36.1 mm	39.8 mm (110,2%)
Engine	Gnome & Rhone Jupiter VII, 440 hp		
Crew	1		
Armament	2 machine guns Vickers M20, FN-Browning M36		

The model is excellent to scale, except for the height, which is very often the case for resin models.

**Parts**

The picture with the parts numbering contains two doubles. Number 13 denotes both the inlet ducts and the wing N-struts, while number 14 denotes both the outlet ducts and the cabane V-struts. I have renumbered the wing V-struts as 20 and the cabane N-struts as number 21 to keep a good correspondence with the small photograph and drawing for the engine. These last parts must still be split in a V-strut and a single strut, as indicated in the instruction sheet with a thin red line. I have also renumbered the parts in the exploded view, which is shown below. A

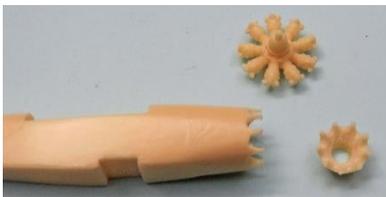


large version of these figures is included in the appendix, as well as a list of all parts.

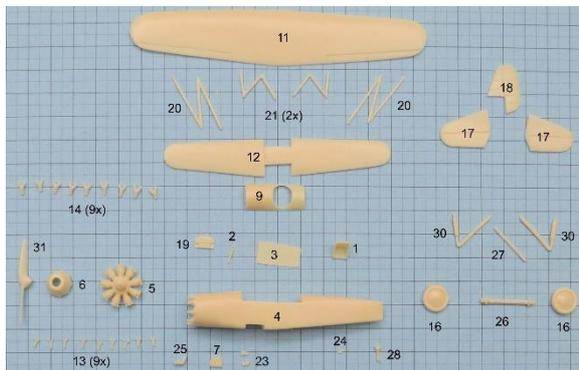
In my Fokker drawing collection I have a drawing of the D.XVI with Jupiter engine (see the appendix). The scaled dimensions of the fuselage and upper wing of the drawing are in excellent agreement with those of the kit. However, the shape of the nose in the drawing is quite different from that in the photograph of the PH-AGU, which shows a more rounded nose and a smaller spinner. On the photographs the part of the spinner behind the propeller mounting plane appears to be the exhaust collector, as is present on many later Bristol engines. This is confirmed by the close up picture included in the instruction sheet. The propeller in the picture of the PH-AGU is clearly a Reed airscrew, as is the part in the kit, even if the blades are rather thick.

The parts are of good quality, hardly an air bubble is present. However, due to the way of casting quite some flash is present, which requires much cleaning and sanding, especially of round parts. In the small cavities on the top side of the engine cylinders some silicone was left from the moulds, so I assume the copies cast after mine would have been less detailed. I have carefully removed the silicone, also because it does not paint well and looks not well if painted.

Some parts require special attention in cleaning. The parts 4 and 6 have a moulded ring, which had to be removed, as both parts should fit around the nine engine cylinders. When this was done, the nine recesses in each of them had to be enlarged quite a bit with knife and file to fit around the cylinders. This has to be done very careful, as the material left can easily break away. I did not manage to remove enough material such that both parts could fit around the cylinders and touch each other.

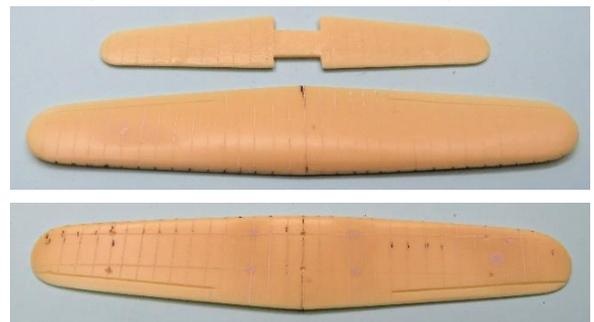


The double Venturi tube 23 is not very well casted and difficult to clean. As a result it broke in two parts, and it was difficult to recognize Venturi tubes in them. I will probably replace them by Venturi tube of Croco Models.



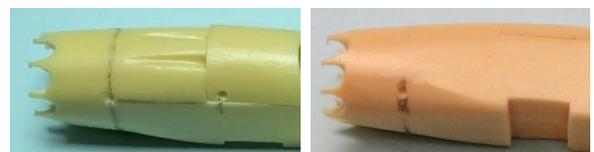
Part 9, the top fuselage over the cockpit, and the lower wing part 12 fitted very well to the fuselage after some minor sanding. However the fin, part 9, as well as the top of the fuselage I had to correct to fit the rudder well with the lower part of the fuselage and to get the hinge line vertical. After cleaning the parts I have made a photograph and numbered the parts in it. The kit has 51 parts, not counting the two parts 21, which have to be cut in two. I did not find any air bubbles in the parts. A slight shortcoming was that panel lines of the upper wing were missing and those in the lower wing were very vague

and would disappear in painting. Also the place where the wing struts have to be mounted was hardly visible. From the photographs I had counted twelve ribs between the location of the wing struts and the centre of the upper wing, so I have drawn them on the wing, expanded them to the tip and redone the panel lines and strut locations, realizing a bit too late that the cabane configuration of the Jupiter engine version was different from that of the Armstrong Whitworth Jaguar engine version. But that was easily corrected with some putty.



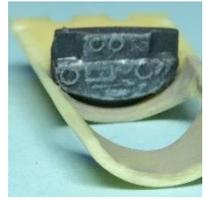
Part 24, which has to be mounted on the top of the aft fuselage, seems to be a navigation light. However, there exist no pictures of the D.XVI Jupiter with this light, so I will delete it. Parts missing in the kit are the balance weights of the ailerons. All variant of the D.XVI had them, so those parts will have to be scratched.

Also on the fuselage the cabane strut and main undercarriage legs locations are not indicated. From the photographs and the Fokker drawing I have derived the location of the interfaces, drawn them on the fuselage and have drilled the (slanted) holes. I have glued the lower wing in the recess under the fuselage.



## Cockpit

I have painted the cockpit floor, the inner walls and top of the cockpit and the inner side of the engine compartment light grey. From bits in my spares box I have scratched a simple rudder bar. The instrument panel, rudder bar control stick and seat have been painted dark grey and I have given the instrument panel a dry brush with white. I have glued the cockpit floor in the fuselage.



The seat has been decorated with photo etch seatbelts. The holes in the floor for rudder bar and control stick have been enlarged to 1.2 mm to accommodate the parts. I have determined the position of the seat relative to the cockpit opening and glued the seat on the floor. Trial and error I have determined the length of the control stick such that it left the instrument panel free. It appeared that it had to be shortened more than 2 mm.



Rudder bar and stick have been glued in the holes in a deflected position, elevator down, rudder left and stick also to the left. Next I have glued the cockpit cover in place. I have glued the lower wing in the recess under the fuselage and have applied putty to the joints between the fuselage and the upper part of the cockpit section and the lower wing, and have sanded them.



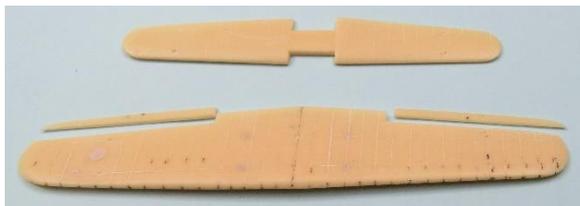
## Decals

I have redrawn the decal sheet to have it printed by Mika Jernfors of Arctic Decals. Although they will be printed with a continuous supporting layer, it eliminates the need to find a matching khaki paint. I had to construct the strange C, which anyhow appeared to be some kind of scripted G, which fits with the registration of the Jupiter prototype PH-AGU. After rearrangement by Mika the printed decal sheet was as usual of excellent quality at a very affordable price.



## Wing and tail surfaces

I have drilled superficial 1 mm holes on the locations of the control horns and the balance masses on the ailerons and slated 0.4 mm holes in the wing to accommodate the push-pull aileron control rods. I have also drilled 0.4 mm holes for



the rigging lines, one near the rear N-strut mounting of the upper wing and one ear the forward mounting of the N-strut of the lower wing. The other holes for rigging line are at the lower wing fuselage interface. More rigging wires are not needed thanks to the long strut between the forward mounting of the N-strut at the upper wing and the fuselage. As I

am going to build the model with deflected control surfaces, I have also separated the ailerons from the upper wing and elevator halves from the horizontal stabilizer and the rudder from the fin.



Next I have glued the fin in place, keeping the rudder hinge line straight. When dry the horizontal stabilizer halves have been glued to the tail section, keeping them well normal to the fin.



## Wing assembly



I have modeled the navigation lights at the wing tips and the top of the fin from pieces of 1 mm rod, rounded at the end. The lower wing top surface, the fuselage and the lower surface of the upper wing have been painted Tamiya olive drab. The other side of the wings will be painted after the wing assembly and the application of rigging wires. The fuselage-upper wing N-struts have been cut in a V-strut and a single strut according to the building instructions.





I have painted the struts and control surfaces olive drab and have given fuselage, the top surface of the lower wing, the lower surface of the upper wing, the struts and the control surfaces a coat of gloss varnish. I have cleaned the holes for the rigging wires.



To fit the fuselage-upper wing struts at least a bit flush to the fuselage surface the end of the struts had to be slanted as well as the holes in the fuselage. I have done that trial and error fitting the inverted V-strut in the holes until an acceptable fit had been achieved.



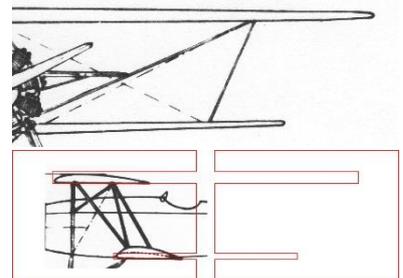
The typical balance weights of the ailerons were not modeled in the kit. I have constructed a pair from styrene rod and sheet and have glued them to the ailerons.



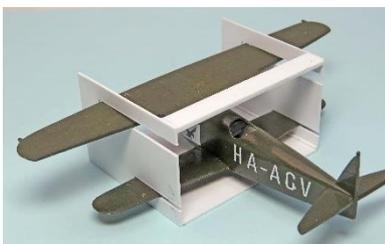
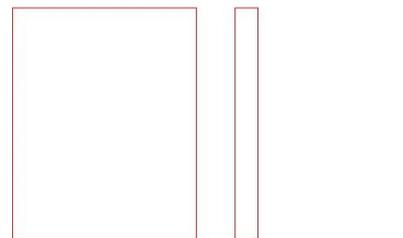
This time I did not use the biplane assembly rig, but will use some simple jigs to align the N-struts properly. The wing N-struts are slanted sideways and the middle strut I have measured on the model the spanwise distance between the N-strut mounting points on the upper and lower wing and the length of the middle strut of the N-strut and have calculated the slope of the N-strut and drawn jig to check the slope when seen from the front.



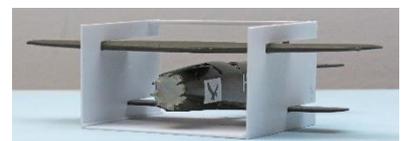
N-strut mounting points on the upper and lower wing and the length of the middle strut of the N-strut and have calculated the slope of the N-strut and drawn jig to check the slope when seen from the front.



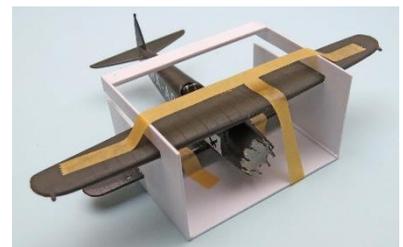
I have made a second jig the same way I had done for the Pander E kit, again using a partial copy of the original Fokker drawing. This will serve as the basic assembly jig for the upper wing and the wing struts (see appendix for a scale drawing). The slits for the wing should be just narrow enough to clamp the wings without damaging them. If they show too much play, adjust them with a thin piece of tape.



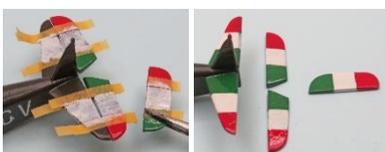
I have applied the decals to the fuselage and have sealed them with flat varnish, which shows up satin on the gloss underlayer. When dry I have fitted the lower wing-fuselage assembly and the upper wing in the wing assembly jig. After carefully aligning both wings in the center of the jig I have fixed the model in the jig with pieces of tape.



I have tried to fit the large N struts between the wings, but they appeared to be slightly short. Trial and error lengthening them did not work out well, so in the end I have fit on the model new N-struts made of pieces of 0.9 and 0.75 mm styrene rod.



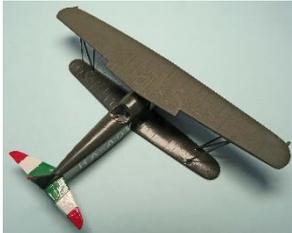
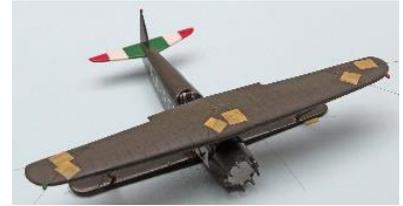
I have tried to place the small V-struts between fuselage and upper wing, but did not succeed to do so; they were too large. So I have resorted to fit pieces of olive drab painted 0.7 mm styrene rod one by one and trial and error between wing and fuselage. It was not possible to fit them nicely in the sloped holes I had made in the fuselage top, it would have been better if I had placed them on the nose without holes like I did for the Jupiter modification of the Jaguar D.XVI kit.



I have not used the decals for the tail surfaces included in the kit, as it is often difficult to fold them around leading and trailing edge, covering these decently. Instead I have painted the red, white and green bands. To align the bands of elevator halves and horizontal stabilizer well I have painted the white bands while keeping them together with the pieces of tape.

## Rigging

I have opened up the predrilled holes for the rigging wires. There are on each side two lift wires and one landing wire. I have used black painted 0.06 mm fishing line for the wires and have first fed the lift wires through the holes in the upper wing and have glued them in the holes in the fuselage. When the glue had set, I have tensioned the wires with a piece of tape and glue them in the hole in the upper wing. The landing wires have been mounted in the same way.



When the glue in all attachment points had set well, I have cut off the excess length of fishing line and have removed the glue on the wing surface with a fresh scalpel. This way only the core of the fishing line is visible on the surface. Next I have painted the top surface of the upper wing and the bottom surface of the lower wing khaki.



After giving the newly painted wing surfaces a coat of gloss varnish I have applied the registration decals. When they had dried, I have sealed them with a coat of flat varnish, resulting in a satin finish. I have also painted the cockpit edge with Humbrol enamel leather paint.



## Undercarriage



I have painted the undercarriage struts, the wheel axle and the wheel hubs olive drab and the tires tank grey. In order to fit the wheels properly I have also enlarged the holes in the wheels to 2 mm.

I have measured the spacing between the superficial holes for the undercarriage struts under the nose and the lower wing, which was respectively 10.5 and 11 mm. I have made a set up with tape and pieces measurement tape on the cutting mat to assemble the V-struts and the axle and have glued the struts to the axle, ensuring the correct spacing.



I have mounted the undercarriage assembly under the fuselage, making sure that the wings tips were on equal distance from the horizontal plane, after which I have mounted the wheels. In the end I had to remove XX mm from the port wheel to get the wings on equal height.



I have made two struts supporting the horizontal tail plane from 0.5 mm styrene rod and have glued them in place. Gluing the tail skid under the aft fuselage completed the undercarriage.

## Other details

I have made the two long struts between the large N-struts and the fuselage from 1x 0.5 mm copper strip from my spares box rather than using the copper wire included in the kit. After painting them and cutting them to the correct size I have glued them in place.



The Venturi tubes to be placed at the port side of the fuselage in the kit had been very badly casted and could not be used. Instead I have used the nicely casted single Venturi tube of Croco Models.



I have cut the windscreen from transparent plastic sheet, formed it and have glued it in front of the cockpit opening with Microscale Kristal Klear.



I have glued the elevator halves and the rudder in deflected positions to the tail. I have glued control horns to the ailerons and have painted them dark grey. The ailerons have been glued to the wings in deflections reflecting the position of the control stick. The action of the ailerons was by means of push-pull rods under the wing. I have modelled these from 0.2 mm metal wire, the strands of a normal power cable.



I had lost the windscreen during the handling of the model. I have cut a new one and glued it in place.



There was a step under the cockpit at the port side of the fuselage. I have made that from 0.5 mm brass wire and have glued it under the fuselage. I have also repaired the decal on the fuselage, which was damaged again.



**Engine**

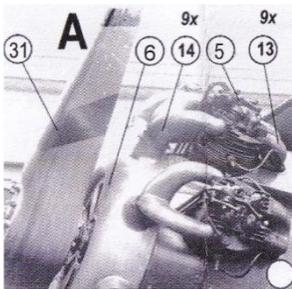
Fitting the engine to the fuselage showed that it could not be placed close enough to the "firewall". As increasing the space between the "spikes" in the forward fuselage was too risky, the only solution was to make more room at the base of the cylinders. I have done that with a drill, increasing the diameter in steps



from 1 to 1.8 mm. I have painted the nose cover, propeller spinner, radiator and air inlet olive drab.



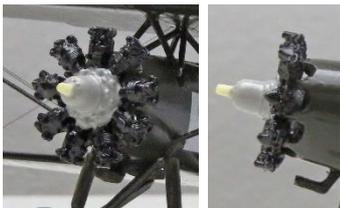
I have mounted the oil cooler and the air intake under the nose as indicated in the instruction sheet.



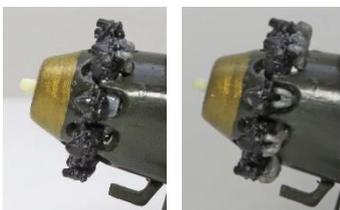
The best picture of the engine installation I have comes from the instruction sheet (shown at the left). It shows that the forward part of the "nose cone" is in fact an exhaust collector, like on the Bristol Mercury and Pegasus engines. I have painted that part of the nose (6) Vallejo and the Y-tubing (14) leading to it bright brass, as I have done with the Fokker G.IA Mercury engines. The inlet Y-tubing (13) I have painted gun metal, the cylinders black and the engine casing light grey, as shown at the right.



The best picture of the engine installation I have comes from the instruction sheet (shown at the left). It shows that the forward part of the "nose cone" is in fact an exhaust collector, like on the Bristol Mercury and Pegasus engines. I have painted that part of the nose (6) Vallejo and the Y-tubing (14) leading to it bright brass, as I have done with the Fokker G.IA Mercury engines. The inlet Y-tubing (13) I have painted gun metal, the cylinders black and the engine casing light grey, as shown at the right.

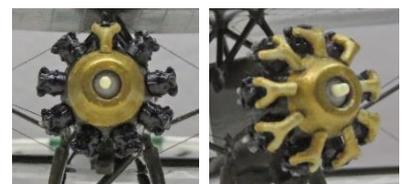


I have started to glue the nine cylinder Jupiter engine to the front of the fuselage, finding the best position to align it vertically and horizontally. Next I have glued the typical Bristol nose cone with integrated exhaust ring on the engine. In handling the model I accidentally touched one of the fuselage decal with a finger covered with a bit of cyanoacrylate glue and piece of the decal came off. Luckily I had two sets of decals so after cleaning the surface I have applied a new decal.



I have placed the Y-shaped inlet tubing to each cylinder. That has to be done one by one after dry fitting them, because both the holes in the nose they have to fit in and the thickness of the Y-shaped parts were different. Most of the parts needed a small correction. Luckily I did not lose any of the very small parts.

Next I could glue the large Y-shaped exhaust tubing to the engine and exhaust collector. Again they have to be dry fitted one by one, and sometimes the leg of the Y had to be cut in a slanted form to fit well to exhaust collector and cylinder. In the process I again damaged a decal at the opposite side of the fuselage. This was repaired with the second spare decal.



I did not like the brass exhaust and have repainted it copper, as I had done before with the Finnish Fokker C.X. This did not look good at all, so in the end I resorted to steel, as I had done for the Fokker G.Ia and T.IX. The exhaust collector ring of the Jupiter engine was missing an actual exhaust, which was not included in the kit as well. I have formed an exhaust from 1.5 mm solder, drilled a hole in one end to form the exit and have glued it in place.



I have painted the propeller aluminium and the spinner olive drab. Gluing it on the engine axis completed the engine.

### Summary

Building the model was relatively simple with the exception of the upper wing installation. A mounting rig was required to assemble the upper with and both the inter-wing N-struts and the fuselage-upper wing struts supplied in the kit did not fit well, certainly if compared with the wing separation as indicated in the Fokker drawing. The Jupiter engine is very detailed with 19 parts to construct it. An exhaust is however missing and has to be added. The casted part for the venturi tube is very crude and could not be used. I have used a resin part from my collection for it. I have also replaced the long struts between upper wing and main undercarriage leg, which according to the instruction sheet should be made from a piece of copper wire in the kit, by pieces of metal strip from my spares box. It is not clear what the part no. 24 models. I could not find a picture showing it.

I have one general remark on the kit. I have not been able to find a clear photograph of the Fokker D.XVI Jupiter with an exhaust system as included in the kit; in general they resemble more the engine of the model of the D.XVI I have built before. Also the Jupiter engines of the Fokker F.VIII did not show such a configuration. However, I have found a picture on [www.alalchetron.com](http://www.alalchetron.com) showing such a configuration, but it is not clear whether it is the type of engine used for the Fokker. the small picture included in the instruction sheet is rather convincing. A pity no source is quoted, however.

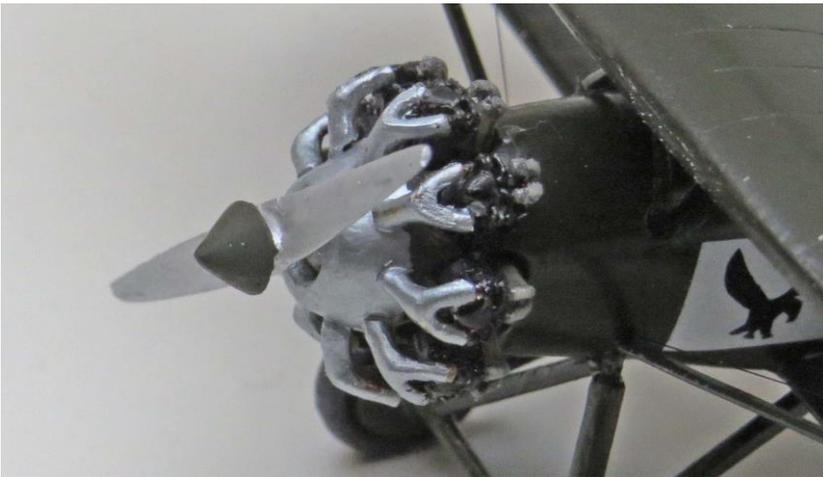


Below some pictures of the completed model are shown.









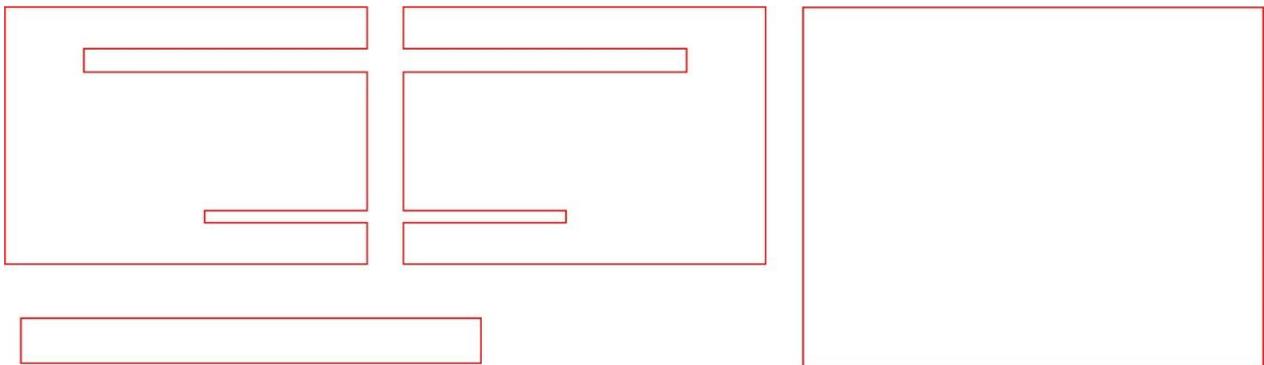
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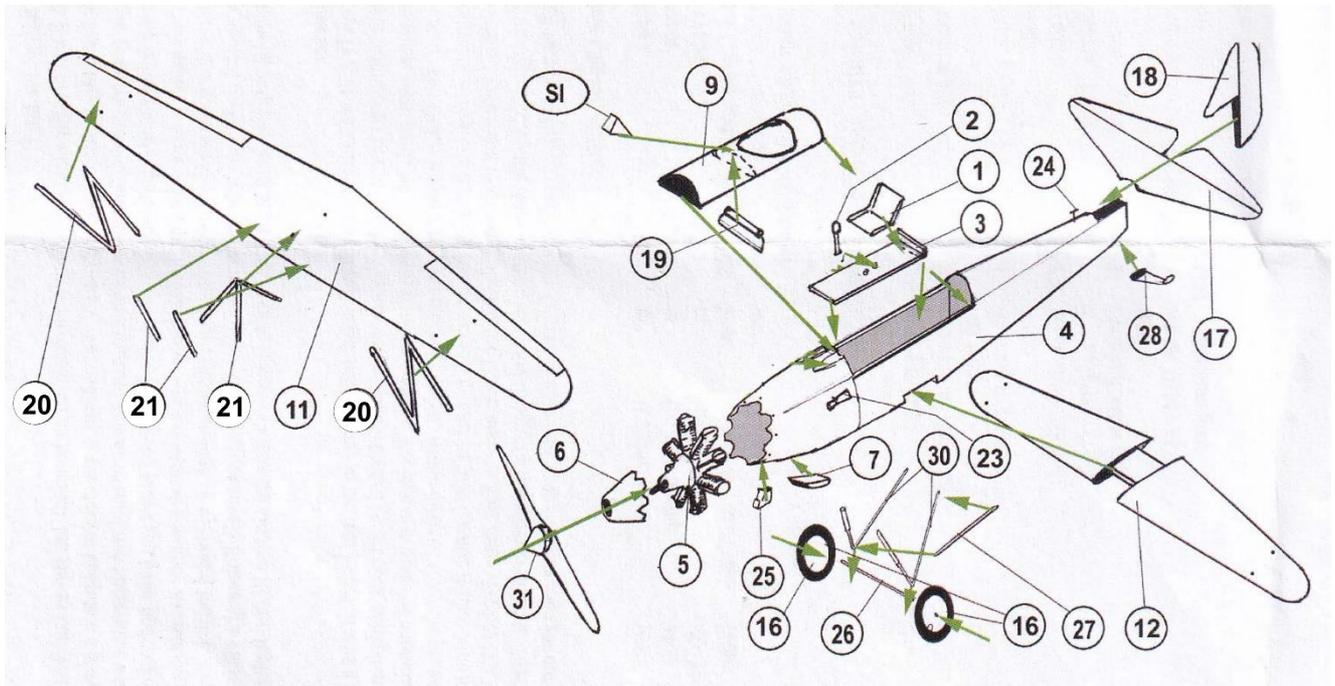
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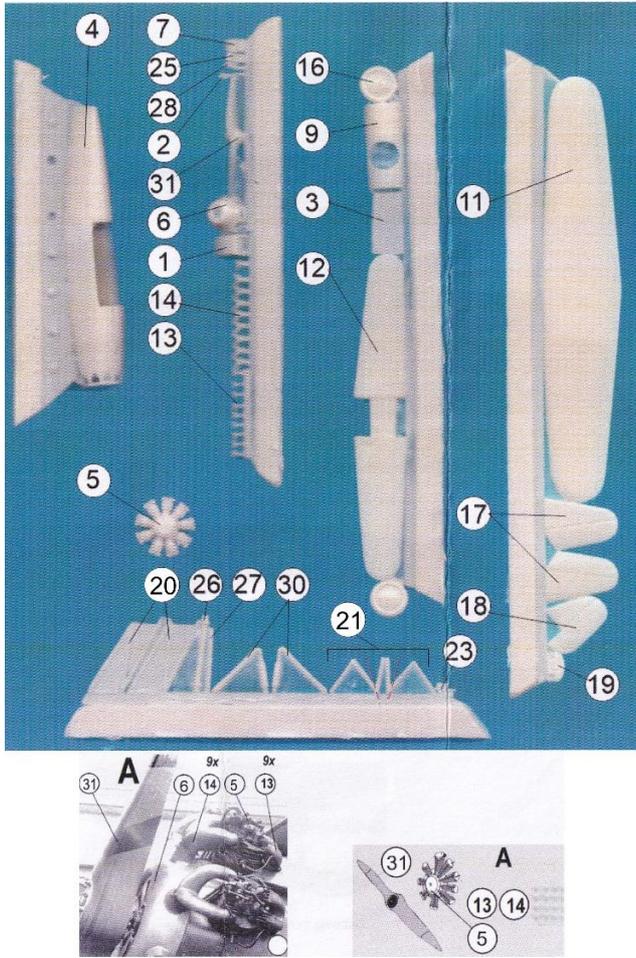
## Appendix Model modifications and corrections; paint table; pictures, drawings and other documentation of the Fokker D.XVI Jupiter

### Upper wing assembly jig (1:72 model scale)



### Corrected instruction sheets





part	number
	1
	2
	3
	4
	5
	6
	7
	9
	11
	12
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	14
	16
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	S1

### Modifications & corrections

M = modification, C = correction

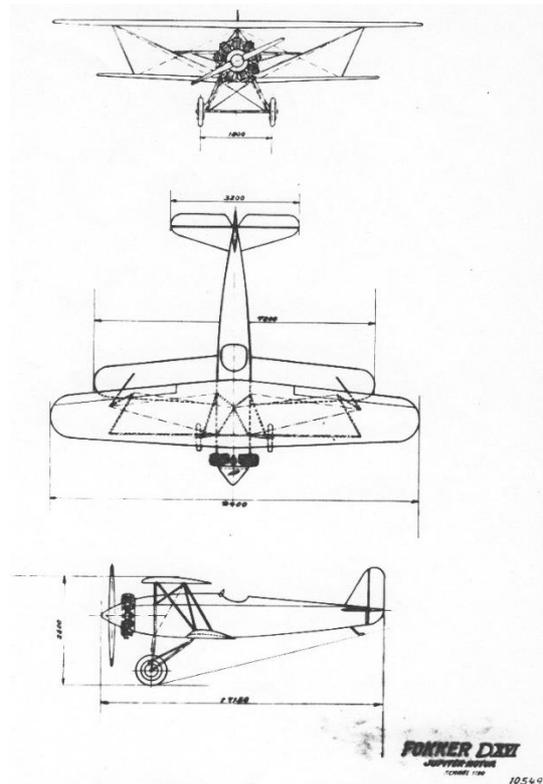
Change	Location/part	Modification or correction
C01	Cockpit	Rudder bar added
M01	Engine	Propeller spinner
C02	Fuselage	Venturi tubes replaced
M02	Struts	Forward long wing strut
M03	Tail	Elevator and rudder separated
M04	Tail	Navigation light on rudder
C02	Undercarriage	Wider axle
M05	Undercarriage	Additional strut in V-strut
M06	Wing	Ailerons separated
M07	Wing	Navigation lights on upper wing
M08	Wing	Speed sensor

### Paint table

HE = Humbrol enamel, RA = Revel Aqua, T = Tamiya acrylic, VMA = Vallejo Model Air

Code	Colour	Where
HE	Green	Navigation light, horizontal tail plane, rudder
HE	Red	Navigation light, horizontal tail plane, rudder
HE 21	Black	Engine cylinders
HE 22	White	Instrument panel (dry brushed) horizontal tail plane, rudder,
HE 85	Coal black	Exhausts, oil cooler, air intake, Venturi tube
HE 125	Dark grey	Seat, instrument panel, rudder bar, control stick
HE 127	Light grey	Cockpit walls and floor
HE 133	Brown	Leather edge of cockpit opening
RA 36178	Tank grey	Tyres
VMA 71.062	Aluminium	Undercarriage dampers, propeller blades
T XF-62	Olive drap	Wings, fuselage, struts, propeller spinner, speed sensor

### Drawings



[Source: ref. 9]

**Pictures**



[Source: ref. 6<sup>2</sup>]

<sup>i</sup> [www.omgea-models.com](http://www.omgea-models.com)

<sup>2</sup> Possibly this picture shows the Jupiter engine with the big front exhaust, but it is too dark to confirm that.