

THE LITTLE AVIATION MUSEUM

Workbench notes

HEINKEL HE178V-1 IN 1/72 BY CONDOR

(August 2000)

The Heinkel He178 was the world's first jet powered aeroplane. It was specially designed and built as a testbed for the revolutionary gas jet turbine engine that the Heinkel company had been developing for the previous three years.

The principle of the gas jet had been known for centuries but it was only in the 1930s, when it became clear that the piston engine could not be developed indefinitely, that scientists and engineers in several countries including Germany, Britain and Russia, began working on a more efficient engine that would give much greater power and therefore higher speeds.

Frank Whittle was the first to file patents for the new kind of engine but he could not get much support for his ideas. In Germany Dr Hans-Joachim Pabst von Ohain, who developed the idea in 1935, approached the famed aeroplane manufacturer Ernst Heinkel who was immediately interested and employed Ohain and a specialist team to develop the new engine. After their first successful jet engine had been developed they designed a small aeroplane to put it in, a simple one of conventional design that would test the operation of the engine under flying conditions. Two He178s were designed and constructed, they were almost identical and the He178V-2 had a larger straighter wing, but only the He178V-1 was flown.

Taxiing trials of the He178V-1 began on 24 August 1939 and the first flight was made on Sunday 27 August. The aeroplane had been developed as a private venture and the German authorities didn't see the aeroplane in flight until 28 October 1939, and didn't show much interest in the project. As soon as the He178 was flying Heinkel began developing the twin engine He280 fighter and interest in the little testbed quickly waned. It made a total of 12 flights and was then sent to the Berlin Air Museum where it was destroyed in a bombing raid in 1943.

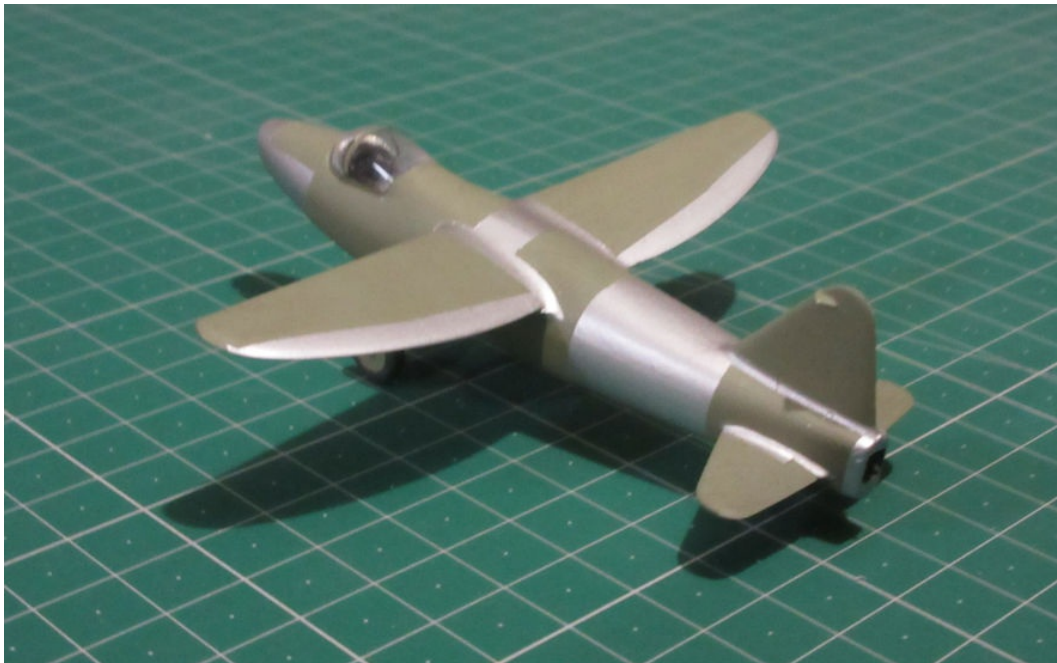


This is another of those increasingly common Eastern European limited run kits. The companies there seem to be finding an endless supply of obscure and half forgotten aeroplane types to kit for us and they are providing us with some wonderful things, for the most part. This little He178 is no exception and I am not aware of any other kit of it. For those who are infected with the 1/48 disease there is a kit for them too which is fairly much the same as this but there is much more scope for detailing.

And that's one of the challenges with this model, what on earth should the details look like? There don't seem to be many photographs of the type and the original was destroyed years ago so there's not much to go on. Condor come to our assistance a little with colour paintings on the back of the box which purport to be a 'colour manual', but I wouldn't put too much faith in it.

The He178 was a very small aeroplane so there isn't much in the box. The detailing is nice but, as with almost all limited run kits, some of the parts are a bit blobby and you have to spend a bit more time than usual getting everything ready for construction. There is no decal sheet because the original aeroplane didn't have any markings. The kit comes with a nice little brass fret with some necessary parts and some unnecessary ones too. The rudder pedals are beautifully detailed but you'd never see them through the canopy so why bother. The instrument panel comes up nicely though. As for the rest of the kit, everything is absolutely straight forward and there is nothing difficult about it. Then we get to the interesting bits.

I always find it tricky getting the wings level on models of aeroplanes with a narrow undercarriage track, in 1/72 scale even a fraction of a millimetre difference between the legs makes the finished model look wonky. And this gets even more difficult on a limited run kit like this which has no positive location for the undercarriage legs. To overcome the problem I made a little jig so the wingtips were precisely the same height and then trial fitted the undercarriage legs to get the angle looking right. I had to drop the wingtips about 1.5 mm from my original estimate to get it right but when I was satisfied everything was right I popped the legs on with super glue. I'm not sure that they should jut out from the side of the fuselage the way they do on the model but it was too late to do anything about that by the time the thought dawned on me.



There is potential for confusion too, the He178 had retractable undercarriage but it was fixed down when the aeroplane flew, the brass fret includes lower undercarriage doors that don't seem to have a home while the instructions are quite vague about what to do with them, so I left them off on the model.

Then we come to the painting. There's only two colours, RLM Gray and bare metal but there's lots of work with little thin strips of tape to get the complex curves looking halfway decent. Perhaps I'll go back to those US Navy deep blue aeroplanes where there's no masking.

Anyhow, it's a nice kit that makes a nice little model.

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