

RMCheckout

THE NIEUPORT 28 (correct designation N28C-1) is probably one of the lesser known aeroplanes of the first world war. It has also the distinction of being one of the most unique in that it was the first fighting aeroplane to carry the American colours into combat.

Open the box!

The model comes in a colourfully decorated, substantial box which, when opened, reveals the anticipated mass of component parts. Unfortunately, even at this early stage, my belief in Pilot kits excellent reputation was slightly shaken. On checking the die cut wooden parts it was found that only half of the ply parts had been cleanly cut and part numbered. The other half had only been sufficiently cut to see the outline. With no markings, and as this particular sheet contained a number of fuselage formers and is approximately three feet long, obviously a fair amount of fretting was required. Fortunately the balsa components did not require the same amount of work, all being easily freed by hand or by gentle application of the balsa knife.

Checking through the rest of the kit reveals an absolute mass of hardware for all the linkages, fixings, bracings etc., two large sheets of plans, scale detail sheet, plus component list and pictorial

instructions, two excellent sheets of self-adhesive decals, plus the remainder of the wooden components and very few plastic ones..

Wing construction

After some considerable time studying the plans, plus the instructions, I can only comment that they are not totally explicit. Before any assembly work was started a phone call to Irvine Engines, the importers for Pilot kits was made to see if clarification of any of my queries could be obtained.

This was not to be however, as they were equally at a loss and suggested I carry on as I thought best — which is what I have done.

The main reason for my query was with respect to construction of the underside of the wings. Should the leading edges be of 'D' box construction or, as half suggested on the plans, only sheeted on the top surface. The drawing whether viewed as a plan view or as cross section, seems to contradict itself.

I eventually decided that the plans had been drawn incorrectly, added some more sheet balsa from my own collection, and completed the wings with a full 'D' box section. However, in retrospect, having now seen some more scale detail,

the full size machine only had top sheeting (with the ribs being seen on the underside right up to the leading edge). This would produce difficulties if built this way as it would mean starting construction with the lower rib cap strips in place — if you wish to keep everything flat and true.

Having now committed myself to a way of building, the rest of the wing construction was quite easy.

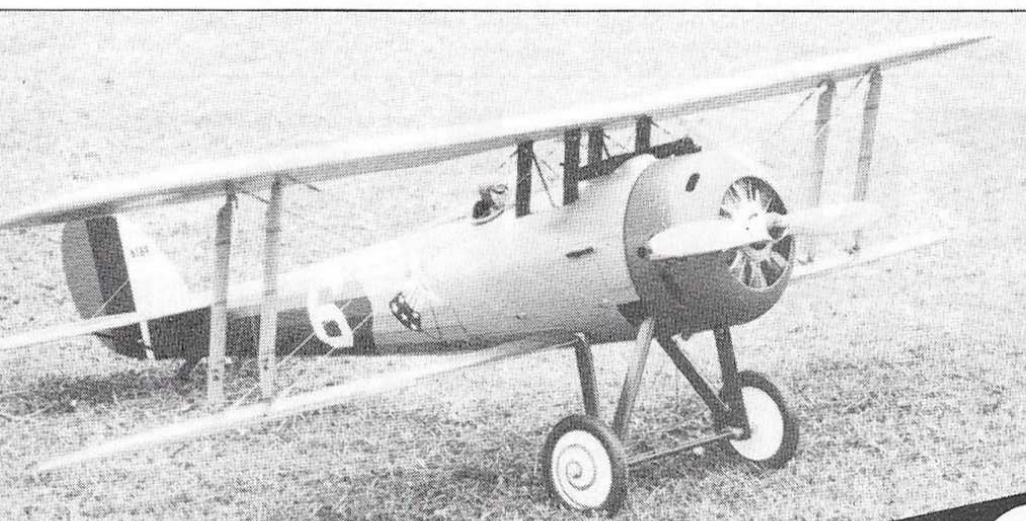
Formers and stringers

Fuselage construction is started with the front five formers being assembled with the cabane strut mounts, keels and landing gear mounts. This is done using a snap together technique in the hand which is surprisingly strong, even without glueing.

Next stage in the fuselage construction is to fit all of the stringers to the rear of the fuselage. This, on the review kit, proved far more difficult than anticipated. A trial fit of the first stringer ended up with it shaped more like the proverbial 'donkey's hind leg'. On checking the rest of the slots in the formers all were found to be similarly misaligned. This resulted in a lot of recutting of slots and filling the remaining gaps. Prior to assembly I did check all formers against the plan outlines for any specific orientation — if there is any it certainly was not apparent, with all stringer spacing appearing equidistant.

With all stringers finally in place, and the whole assembly thoroughly dry, the front part of the fuselage was then covered with $\frac{7}{64}$ in. sheeting. Provided the sheeting was adequately clamped prior to bending to shape, no problems were encountered.

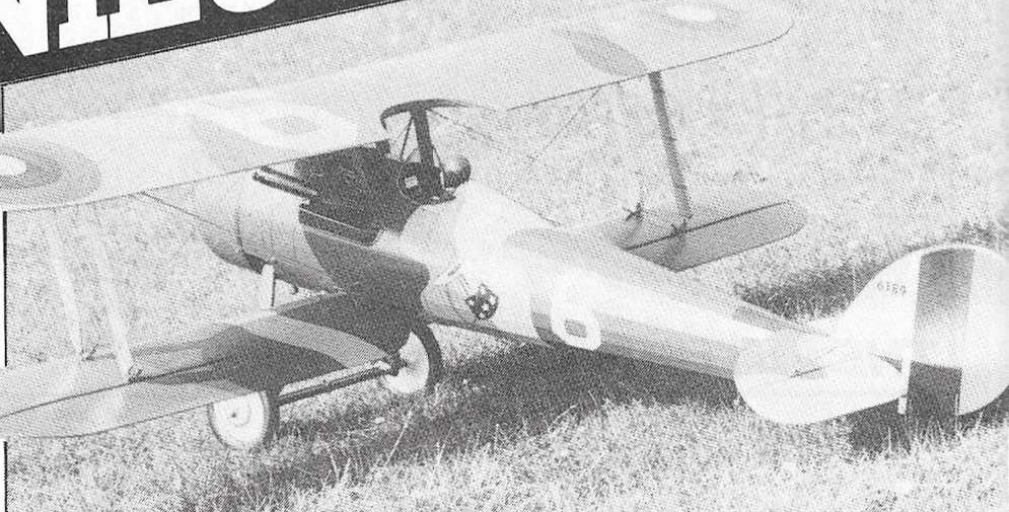
When satisfied with the contoured shape, holes may be cut in the sheeting for the cockpit and the fitting of the cabane struts. Keel members that cross the cockpit opening and the lower wing mounting position, should be cut away and removed.

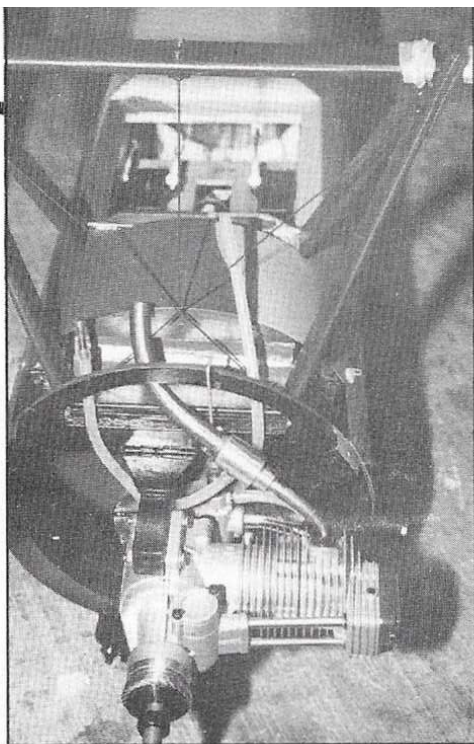


Pilot Kits NIEUPORT 28

Reviewed by
Dave Rowell

Pilot kits are distributed by Irvine engines, the Nieuport 28 costs £109.50. Wing span is 56in., weight of review model was 112oz and power was supplied by an OS FS61.





If one follows all instructions to the letter the main undercarriage should now be assembled and fitted.

One style of construction I had not used before was the placing of a $\frac{1}{8}$ in. round bamboo spar through the fin bottom to top to stiffen the structure. Simple but effective.

Assembly

With all major components now finished the time had come for a trial assembly 'in-the-wood', as they say. To be able to do this one or two jobs still need doing that so far I have not mentioned. Namely, the fitting to both wings of all the brass strut mounts and the making of the interplane struts. Nothing difficult, but I would advise leaving these until this stage so that the correct length of each strut may be accurately measured and set into the structure. The kit instructions actually indicate these should be made at a much earlier stage — which does not allow for any adjustment.

One other small component can also be finally shaped and check fitted now, this being the small head fairing behind the cockpit. I do not advise glueing it permanently though, it makes life much

easier if it is left until after covering.

With all bits and pieces assembled it is a good time to consider the fitting of the controls, radio and engine — especially, if like myself, you intend putting that little bit of extra into the scale authenticity.

Surprisingly, for the age of design of the Nieuport, it was a remarkably clean aircraft, the only exposed controls being the closed loop to the rudder. As the wings were already fitted with torque rods no further work was required in this direction. To sort out the elevators all that was required was the fitting of a normal type wire horn and joiner. As the hinge line of the elevator is well in from the end of the fuselage there was not much work required to totally enclose the operating lever. Fitting of the closed loop to the rudder, which completes the control connections, only requires two small guide tubes inserted either side of the fuselage, in line with the made-up control horn.

Radio and Engine Installation

I have deliberately put this section prior to covering and finishing as you may find that some cutting and fitting may be needed to suit your requirements, I certainly did.

Most people, I am sure, feel that a four stroke engine would be the only motor appropriate to this type of model, my choice being the new OSFS61.

With this offered up to the bearers came another nasty surprise. Checking for alignment of where the throttle cable or rod would run it was easily seen that it was impossible to make it go anywhere near the servos — if they are mounted to the mount supplied. This also leads to another problem — the fitting of the fuel tank. The wrong choice gives more problems with the throttle cable. I finally ended up with a 7oz. rectangular tank mounted on its side, in its own little bay between the engine bearers directly behind the front bulkhead. This just left enough room for the throttle cable to be routed in a straight line to the repositioned servo.

Prior to finally fitting everything in place however, remember the battery pack also needs a home. As the model has a fairly short nose my thoughts were of the C of G and the battery needing to go as far forward as possible. I decided the only place it could go was between the front two formers and underneath the fuel tank. This again required a certain amount of 'building-in'.

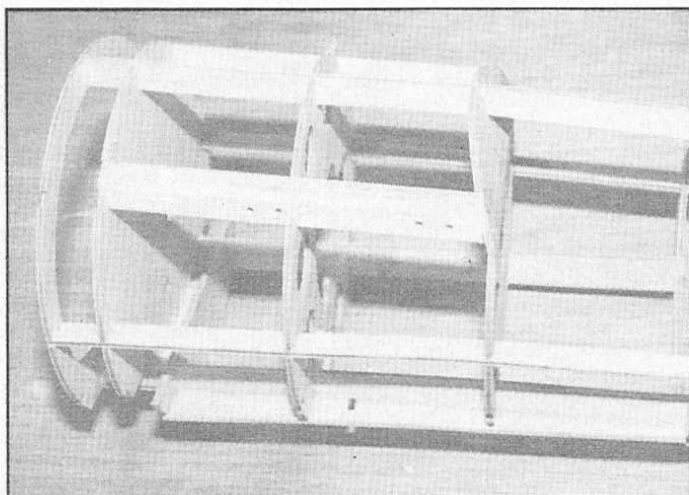
Finishing

What else could one use for covering this type of model other than doped nylon or Solartex. As my wife declares dope is somewhat anti-social, my choice was for the latter, in its antique variation. The whole of the fuselage was covered in one piece with the only join being a quarter inch overlap on the underside.

After numerous visits to the bookshops, libraries etc., I had all but given up hope of finding scale detailing when a chance conversation with a fellow club member brought forth a rather ancient but excellent condition Profile Publication. I now had a basis for detail plus colour. With respect of the colours used I



Top illustration shows the installation of the engine and neat routing of the exhaust. There is ample room for the radio equipment (above right) note the repositioning of the throttle servo. Initial construction of the fuselage is based around the front plywood formers and stringers (right).



must put a great note of thanks to Messrs. Humbrol Limited. Their Public Relations people assisting in every way possible endeavouring to find the correct colours and eventually supplying these free of charge for this review model. All the paint used was of the ordinary enamel variety in a matt finish. The whole model was then given two thinned coats of the same manufacturers satin finish fuel proofer.

To finish the model required the fitting of the gear plus engine and the excellent self-adhesive type decals of the Amer-squadron aircraft. A word of warning here. The two roundels for the top surface

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of the upper wing do not go on willingly. With the double curvature of the wing tip they crease rather badly. My choice, after trying to put on the first one, was not to bother, as a better finish may be obtained by painting them on.

Final embellishments were the fitting of the vintage style wheels, machine guns and dummy engine. These were all made up from the Williams plastic kits which are imported by Dudley Pattison at Flair Products. Well worth a phone call if you are having difficulty obtaining these parts.

Contact

As always, at the end of the building phase comes the moment of truth, will it fly or not? Will the butterflies in the stomach settle long enough to enable you to get it off the ground?

After forcibly being put off the first slight trials due to bad weather, I could delay no longer. I have to admit, though, the day chosen for its first flight was far from ideal. With all of my club colleagues having given up and gone home I was still fortunate enough to be on the flying field when a slight break in rain occurred. With the tank full and the engine running the model was pointed into what little wind there was and the throttle opened. My fears were groundless, with the model taking effortlessly into the air. Once airborne things became slightly

difficult, with it being very obvious that the C of G was too far to the rear. Proof that it does pay to check and recheck before flying!

Another 8oz. of ballast added to the nose and the next session proved much easier — the model being far more stable in pitch. Unfortunately, a lot of down elevator was still found necessary — indicating a change to the angle of incidence of the top wing being required. This was very easily accomplished by just replacing the rear strut mounts on the upper wing with new ones, made slightly longer.

Having now corrected, hopefully, all the errant tendencies the next session was approached with more confidence. At last, after a smooth take off the model was behaving well, the engine developing more than enough power, even at half throttle. As the original was certainly not what one would call an aerobatic pattern ship nothing out of the ordinary in the flying manoeuvres was attempted. Flying is what one could imagine to be a scale manner now and presented no problems; the model being very responsive to all controls. Appearance in the air is superb, especially in those low, slow fly pasts. After any successful flight though, comes the landing, this must be accomplished carefully, allowing the model to settle towards a three point landing and then

applying a little throttle together with a touch of up elevator.

This takes practice, but is well worthwhile perfecting as the model does have a tendency to pitch over on to its back. Once on the ground taxiing is very easy, provided plenty of up elevator is applied, the model being easily steered with the rudder.

Summary

Definitely a builders model, total time taken for building was about 275 hours but, even taking this into account, I believe the model to be well worthwhile. It is an unusual subject and one which is rarely seen. If you are of a mind to do some research and apply a decent finish the Nieuport looks superb.

As a negative mark though, with the established reputation of Pilot Models, I was disappointed with the kit in the areas which I have mentioned. I do believe, as this is by no means an inexpensive model, these problems should be corrected.

Note:- On checking a further stock of Nieuport 28 kit at Messrs. Irvine Engines it was found that all the plywood parts were adequately die-cut and marked. It would seem, therefore that the reviewer was indeed unfortunate in his particular sample. Pilot kits have always been noted for their first rate diecutting of balsa wood and plywood.