



Pilot's Spit Mk II

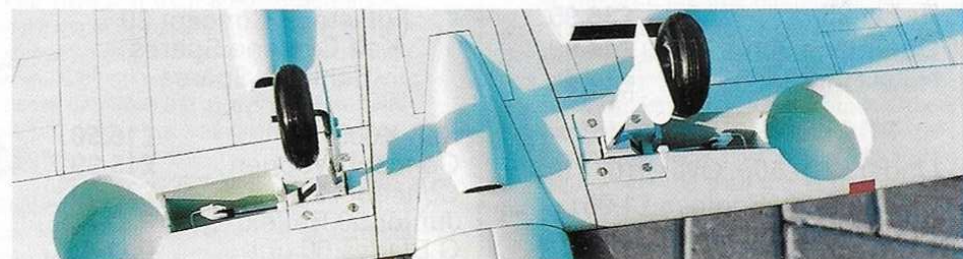
Dave Rowell builds the

Pilot Kits Spitfire Mk II

How appropriate, what could be a better subject for review than a Spitfire! With this being the 50th anniversary of The Battle of Britain I have no doubt we shall be seeing quite a lot about this aircraft and its slightly less glamorous counterpart the Hurricane...

Very few people will not have heard of, or seen a Spitfire at some time or another and more than a few will remember it with a great deal of affection. Fortunately for those who have never heard the growl of a Rolls Royce Merlin engine there are still a good number of these aircraft of various marks flying at most of the larger airshows or silent in aviation museums.

With the total number of marks of spitfire going from 1 to 24 there is obviously a wide variation of changes that took place to both the airframe and power units – probably the most significant being the clipped wing and in the later models the more powerful



£94.45 buys a well presented and comprehensive box of goodies; retracts will cost extra, however... Irvine Engines are the importers.

Griffon engine. As there are an awful lot more changes than I know of or am prepared to write about I will leave this to the recognised aviation historians and concentrate on the job in hand!

The model being reviewed here is the Mk II variant which, together with the Mk I, formed the total complement of the Spitfire threat to the Luftwaffe back in 1940, the only difference in these two particular types being a more powerful engine fitted to the Mark II.

The kit

What do you get for your hard-earned pennies? First thing you cannot fail to notice is the beautifully decorated box, very good clear photography plus specifications, the photographs being very helpful when it comes to finishing the model, especially if you do not have access to any other reference material.

Removing the lid reveals lots of louvered wood all of excellent quality. The die cutting is as per usual with the Pilot models - very good whether ply or balsa, the same being true for the sawn components. The only plastic bits in the kit are those for the cowl, canopy, and things like dummy radiator, oil cooler spinner (of which more later), etc. Also included is all the hardware excepting wheels, which will be required to complete the model. The excellent plans are contained on two sheets together with building instructions, full component list and illustrations of what various wooden parts should look like. The only adverse comment I would make at this stage would be concerning the instructions; these are, as usual with the far-eastern made kits, sparse and not very clear. Whilst this appears at times to be amusing this situation is long overdue for being sorted out; I cannot, for example, see any customer buying a new car or Hi-Fi putting up with instructions like we receive...

With this in mind do study both the plans and instructions very carefully; it is by no means always clear what is to be done even to anyone with a lot of experience. Whilst I know this model is not one for the beginner I shudder to think how anyone without a fair amount of experience would get on with it.

Having got that off my chest please do not think my grumbles are only about this one particular kit, they are not. It is more of a general moan about most of the far-eastern imports, this being no worse than a number of others I have seen.

Construction

As I am not trying to re-write the instructions, my description of the building will not cover the whole sequence of events but will be aimed at a more general picture. However I will try to point out any problems encountered.

Now to the more fundamental things. Where do we start? If one is a good boy and follows the instructional building sequence the first thing in line is the fuselage. Assembly starts with the building of two side frames. I would suggest adding the two wing

fairing blocks at this stage whilst the frames are still flat on the board.

The frames are then joined together using all the fuselage formers from the front bulkhead backwards taking great care to ensure everything remains straight and true. When all is dry the next addition is the engine bearers but do try the width for suitability for your choice of engine. Width is more easily adjusted prior to glueing permanently in position. This done, the top and bottom deck sheeting can be put in place. Not quite as easy as it first seems as the top decking is partially double-skinned.

To complete the fuselage building requires the tailplane mounting platform added and now an awful lot of carving, shaping and final sanding. A word of caution here though; do not finish off totally all of the wing fairing. It is far better to leave this until the wing is finished so that you may blend the two together.

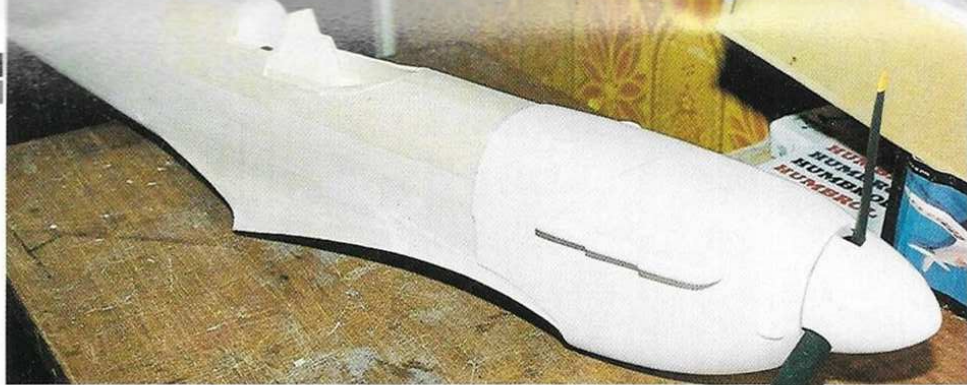
When the rest is contoured to your satisfaction cut out, glue together and fit the ABS cowl components. No difficulty here, cement is supplied and all parts fit easily together to form a very nice cowl, so nice it's a shame to have to cut bits out to be able to fit the engine!

The wings are built in two halves as per normal, one on the front of the plan and one on the back (a sheet of plain white paper under the plan at this stage will enable you to see quite adequately). The first thing to do before any building though is to decide what type of undercarriage you are going to use. Parts are supplied for fixed or the optional retracts.

To start, all the wing ribs are glued to the leading edges, the trailing edge and the aileron spars are then fixed in place. When this is dry the top and bottom spars can be positioned. I would suggest both at the same time so when they are pulled together at the tip no distortion or warp is built in (do remember the wing halves are somewhat fragile at this stage). The front lower leading edge sheeting is now added and left to dry.

Before any more actual construction takes place a bit of soldering is now required to assemble the aileron torque rods after which these must be set into the wings. Although not fully explained in the instructions, to get everything correct you will also have to partially build and fit the ailerons in place. With the shape of the Spitfire wing this again is not quite as simple as it sounds if you are to get the curvature correct. It requires a reasonable bit of patience and fiddling about. Having now got both halves of the wing to the same state the rest becomes fairly easy. The two halves may now be joined using the two ply dihedral braces.

When dry the top 1/16th sheet skinning can be carefully put in place. At this point I made one of the few changes to the original



ABS cowl is a
it's a shame to
to make room

work of art;
chop it about
for the engine!

design. I did not like or feel it appropriate that the wings should be of an open frame construction so, at the expense of what I felt to be very small weight penalty, the wings were completely sheathed all over, the finished result more than justifying my decision.

With all the sheeting now finished, cutouts for the servo(s) and wheels if necessary can be cut out and lined. Trial fitting for these items is now a very good idea especially if you are fitting the optional retracts as I have.

The retracts I chose are the Hanno Prettner design; either these or the M.K. types should fit. Fitting the actual mechanics using the mountings supplied is a relatively simple task. Getting the servo and linkages in the correct position is not so easy and requires a fair bit of fiddling around. The other thing to be taken into account now is the size of wheels to use. As quoted on the plan they are of 2.75ins dia. This, however, is much too large for retract use and mine ended up at 2ins. and I think you will find this is about the maximum size that will fit using everything as shown.

With the wings now complete you can go back to the fuselage and finish off the wing fairing and fit all of the tailplane components. A trial fit of engine and radio equipment at this stage would also not go amiss.

Finishing

The finish on this model can be of any type but do remember, keep the weight down. I chose Solartex on my model which has come up very nicely, paint used was Humbrol enamel fuel proofed with satin Cleercote, all leading to a very satisfying result.

Provided trial fitting of the radio gear was done no further problem should be encountered; the only comment, I think I will make here is that, ideally, fairly small or mini servos are definitely preferable with the space available.

Flying

Having completed a model it is very annoying to find the weather non-cooperative. Before even bothering to go to the field for the first time I have had to wait for five weeks for it to either stop blowing a gale or bucket down with rain. In fact, the only time that it did become flyable during this period the local rugby team were playing a match. Sometimes you just can't win!

Unfortunately I now have an editor who wants his review and I still can't fly. Due to these unforeseen circumstances I am afraid my comments on the model's flyability will have to wait until the next issue of RM...

Pilot's Spit Mk II

Finally airborne! Wheels up with Dave Rowell

One of the advantages of doing a review in two parts is that you get a chance to be able to see what you have missed in the original words and hence be able to correct them!

First thing was I had mentioned nothing about the fitting out of the engine bay. Having decided to fit a 40 size engine the next question was which one? With the thought very much in mind that I would like to keep everything inside the cowl, the main consideration for selection was based on the length of the front housing. The Irvine 40 ABC being the longest, ended up as being the best engine available. To go with the engine a club colleague was kind enough to volunteer his services in building me a special silencer to my design, again inside the cowl.

With these two nicely in place the next thing was to fit the battery pack, in accordance with the instructions, over the top of the engine bearers. This meant a mounting had to be made up out of thin sheet. Brass was the chosen material with its weight, hopefully, being helpful...

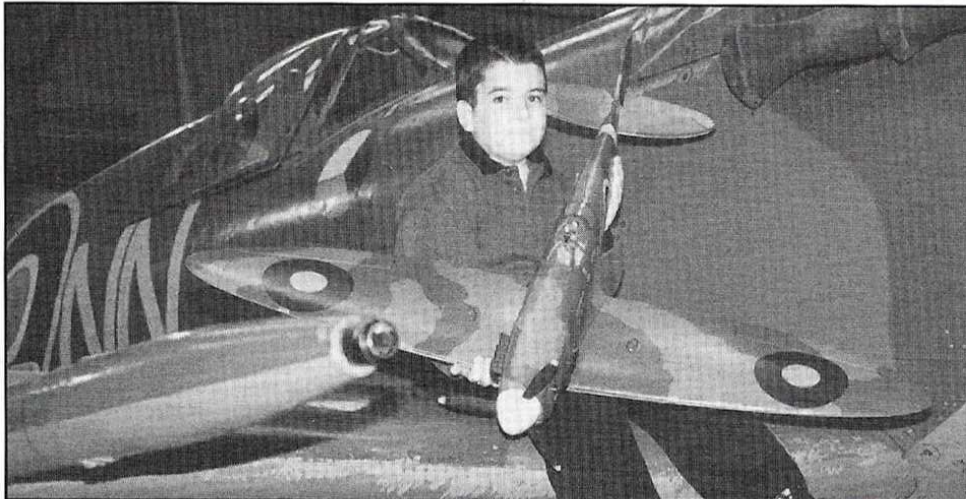
The last thing in the engine bay following the instructions is the addition of some balance weight. It was at this point an error in the plans/instructions became evident. On the plan the c.g. is shown at one position whilst in the instructions it tells you somewhere different, about half an inch away. Having taken a decision to use the position as shown on the plan I was surprised how much lead was required to bring the balance right (around 7ozs) especially as this was the most rearward position of the two choices. As I said, this was very much a surprise especially as I was using a larger than specified engine.

With the omitted bits now out of the way let's get back to the real point of this part 2 edition, the flying!

Flying

It would be nice to say, as I have done many times in the past, that it was great, straight from the building board into the air. Unfortunately this time it was not. After a wait of nearly five weeks for the first reasonable weather conditions a trip to the field was quite an event. With the first tankful of fuel through the new engine on the ground it was time to see what the flying capabilities were.

With the tank filled for the second time and the engine running sweetly the model



Rowell Jnr with test model and the real thing. Both fly supebly!

was finally pointed into wind and released. It then proceeded to travel forward about five yards, lift off to about six inches, develop a vicious swing to the left, and simulate a ground loop with its nose in the ground.

Net result of this was broken engine bearers and the front bulkhead out – disappointing after waiting so long. Having dried the tears it was time to think about what went wrong. Two things came to mind from past experience, one too much control throw, and two, c.g. problems.

Fortunately with the model back on the bench the damage was found to be not too severe. After making up two new bearers and a new and thicker front bulkhead, the model was back ready for the second attempt after about three hours. The opportunity was also taken at this point to take some of the load off the bearers and bury the lead weight inside the fuselage. Next thing to check before taking it out though was control throws which were reduced, and c.g. position. As this appeared to be slightly more forward now, it was left.

Round two. This time a slightly longer take off run, a short climb, everything looking good. Oops! I spoke too soon. The wind gusted, caught the wing and it was back to an untimely collision with the earth. This time I am glad to say with much less damage, a cracked cowl, small dent in the wing and the wing breaking free when the plastic retaining screws broke (another change, the supplied ones are metal). Repairs took slightly less than an hour but, bearing in mind what happened, this time I was taking no chances. The c.g. was taken forward another half inch by the addition of another 8ozs of lead.

Round three and now I was confident even though the model was beginning to feel decidedly heavy. Back to the field, this time with no wind and almost perfect conditions. The only thing I was not certain of was the date (Friday the 13th) but, on the other hand, it was Good Friday so maybe one would cancel the other. With everything ready to go the model was released once more.

Why did I have any worries? This time it took to the air like a duck to water, with the wheels up it looked great although a bit small at any distance. After settling down the

nerves it was time to see what it would do. This roughly equated to anything I asked; it is a very smooth flyer and will loop, roll or aerobat with the best of them although don't forget it is not a pattern ship.

Flown in a scale-like manner it both looks and feels right, the Irvine 40 proving a very good match for the model, plenty of power and quiet, thanks to the custom silencer. Having now thoroughly enjoyed myself for the last 10-15 mins it was time to bring it down. The landing as expected was fast but totally controlled, no evidence whatsoever of tip stall or anything. Only problem was the model ran out of runway, tipped over and broke the fin, another untimely end to the day but not one I can blame the model for.

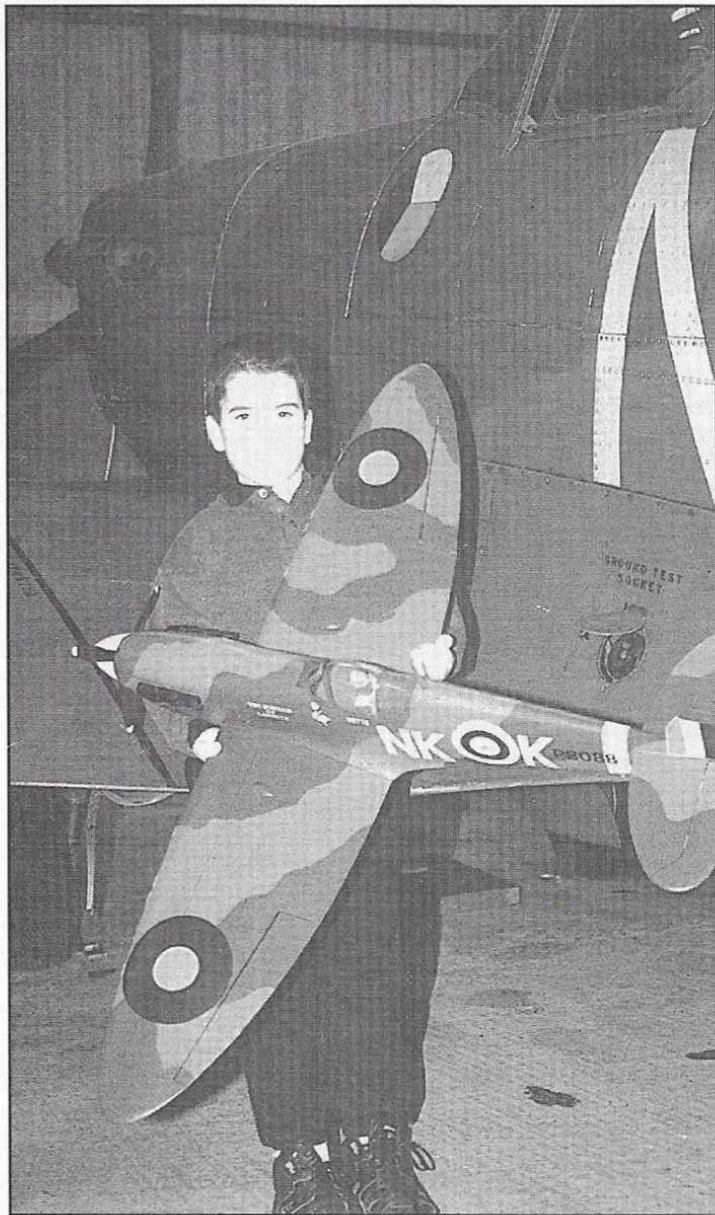
Conclusion

After getting over the initial trials and tribulations I can finally say I believe I have ended up with a very fine little model. If I were to build it again though I do think I would go to extremes to lose some tail weight. I would also probably not put in the optional retracts. There is no doubt that, in the configuration I have it, it is very much suited to either a tarmac runway or very short grass. Fixed undercarriage with larger wheels would fix this problem.

As stated earlier it is by no means a beginner's model but for someone who has the experience it is a very satisfying model to build. Like other kits in the Pilot scale range I believe it represents good value for money; quality is always evident throughout and, with a bit of effort, the finished product is well worth the time spent. I will always look forward to further examples from this stable.

Specifications

Length	37ins
Wing span	49 ins
Weight	5.75lb
Radio	Sanwa 5 channels
Retracts	Hanno Prettner
Suppliers	Irvine Engines Ltd
Price	£94.45



PILOT SPITFIRE

Dave Rowell could not resist the lure of the ever attractive Supermarine fighter

for cowl, oil coolers etc, clear canopy, bag containing hardware, decal sheet and plans. As usual with kits from this manufacturer everything is so very good quality with wood and all parts matched very well to their intended function.

Building

The first thing you will find out after reading the instructions is that this is very much a builders kit, certainly not of the start it Monday, fly it Saturday type of kit. This is normally one you will put aside for the winter months.

Construction of the fuselage is started by building two side frames flat on the plan. These are then joined together with the fuselage formers ensuring everything is nice and straight. When dry the engine bearers and top and bottom sheeting can be put in place. The top sheeting though is a little different to the rest being partially double skinned. To complete the fuselage assembly requires the tailplane components to be added followed by a lot of shaping and sanding.

The plastic cowl components can also be assembled and fitted at this stage preferably with the engine in place. Wings are of the standard open frame 'D' box type of construction with parts supplied for either fixed or retracting undercarriage. Apart from fitting retracts on the review kit the only change I made was to fully sheet the wing instead of leaving it open framed.

Nothing within the kit should present any problem for modeller who has one or two fully built up kits under his belt already. Finish on the review model was Solartex together with Humbrol Enamel providing the artwork, the whole thing finished off with matt Aerokote.

Flying

As mentioned in the complete review this was not a model that took to the air as in the old phrase 'straight from the board'. In my experience it required quite a bit of 'frigg'ing about'. However, once it was right the model was, and is, a delight to fly. Apart from being a bit small it looks right both on the ground and in the air. Somewhat different to many models which can look good but do not have quite that correct 'sit' about them. Something which is not easy to describe but can be easily seen with a practised eye.

Conclusion

As in the full review I will re-iterate my words there, after the initial trials and tribulations a very worthwhile model. It is a model which I am equally happy to see sitting at home on the workbench as well as on the flying field. In fact one I should be very disappointed to lose for any reason.

How is it standing the passage of time you might ask? Well the only thing that has shown up so far is a very severe case of paint cracking which will eventually need some renovation. What I do not know is why this has happened, it does not seem to be the Solartex as this is still stuck well down. The only thing I can think of at this point is the Aerokote being too brittle. Unfortunately as with a lot of other things I probably never will know the full answer.

Apart from this one problem I still have a very nice model, one which I hope will give me pleasure for a long time to come. Should any of you feel like taking the plunge and need more info, as stated previously a full review was featured in the RM May/June issues. Happy flying.

HAVING RECENTLY COMPLETED a full review of this subject for ASPs sister magazine the Radio Modeller (May/June issues) it does not come to me easy for a second write up quite so early. However, it does give me an opportunity to give some more in depth impressions of what the model is like.

Before this though maybe there are some of you out there who do not read the RM or maybe (heaven forbid), have not even heard of it.

The subject model of this write up is the Pilot Spitfire MkII, in the 50th Anniversary year of the Battle of Britain, an aircraft very few people will not have heard of. What not so many people will be aware of though is that this particular mark, together with the slightly less powerful MkI and the slightly less glamorous Hurricane, were the main opposition to the Luftwaffe threat back in 1940.

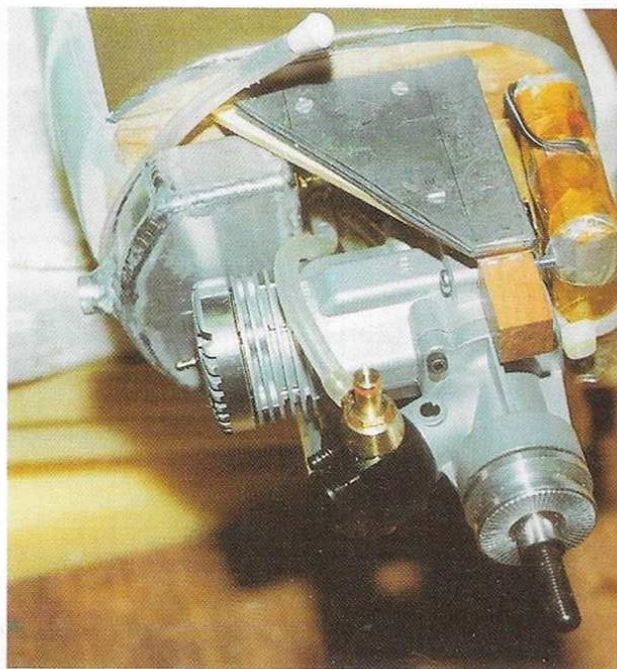
Numerous marks and variants followed during the next few years ending up with the Mk 24. However, I digress, back to this review subject and less about the Spitfire history. As mentioned previously a full review has already been published so I will aim this write up to be more of a fairly brief description of the kit, if you require more information might I suggest obtaining the two copies of RM as quoted.

So, what do you get for your hard earned pennies. First thing you cannot fail to notice is the extremely well presented packaging. A substantial box covered in excellent quality colour photographs. Opening the box reveals it to be crammed full, not something to be unpacked too quickly if it all has to put back, without taking note of where it all goes.

What does the box contain? Spreading everything out carefully you will find lots of wooden components, balsa, ply and hardwood, ABS mouldings



The curvaceous lines of the Supermarine Spitfire are well reproduced in the Pilot kit. Dave Rowell's son passes in front of the Shuttleworth Spitfire, heading picture. ABS moulding helps to give the correct engine profiles.



Hanno Prettner retracts, also available from Irvine stockists, were fitted to the review model, it can also be flown with a fixed undercarriage, or no wheels and hand launched. Neat engine installation, with close coupled silencer and battery pack positioned above fills the available cowl space. Contents of the kit, priced £94.45, are quite comprehensive and high quality, plenty of ABS mouldings to reduce carving time. In common with other Pilot products the box lid is highly decorative and makes one keen to get started.

