"Tamiya have reached a whole new level with this Spitfire and there is not one part of it I could aim any serious criticism at..."

MITCHELL'S METAL MARV

Marcus Nicholls builds Tamiya's new 1:32 Spitfire Mk.IXc and comes to an interesting conclusion...

It's hard to know where to begin in describing this model. It must be one of the most hotly anticipated kit releases for some years, so it had a lot to live up to; it's also one of the most studied, discussed and scrutinised subjects imaginable, so it really had to deliver in terms of accuracy. Plus, it just had to have that extra 'something' that would elevate it over other similar models, giving it 'star quality'.

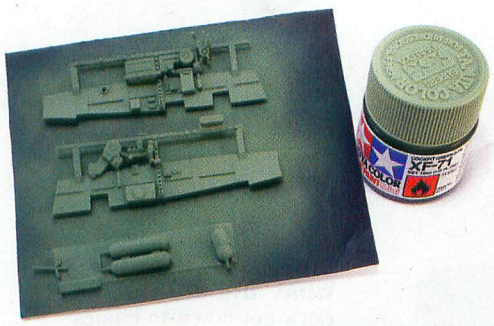
Well, having just finished this model, I can put my hand on my heart and say that it is really very special indeed; in fact, I will be so bold to say it resets the standard for model kit design. In their new Spitfire Mk.IXc kit, Tamiya have managed to perfect the art – because it has become an art – of model production to the point where it's hard to see how it could be taken further, although I'm sure it will be.

WHAT 'DYA GET?

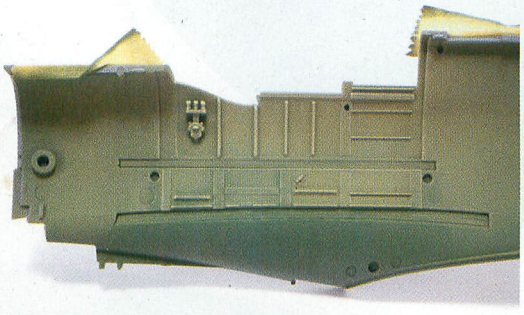
Let's get down to basics - what do you get? A fully detailed Merlin engine, the most complex and finely rendered powerplant I have ever seen in a model kit, is included here and thanks to the design of the Spitfire's cowling, most of it can remain on full view once the model is finished. The cockpit also ranks as the most comprehensively detailed example of this area I have ever seen in a kit – Tamiya's 1:32 Zero coming a very close second. It's clear that the designers have gone to great lengths to get this important part of the model just right, whilst not making it a complete nightmare to assemble, because that is truly the most amazing part of this model – it is so well engineered and the fit of parts is nothing short of breathtaking. It's all very well creating a kit that looks amazing in the box, packed with detail, all panels opening to show off the structures within, but if it's a misery to bring it all together (particularly in the most critical, finishing stages), what's the point? Tamiya have been acutely aware of this and have made sure that every part is as near a perfect fit to its neighbour as possible, turning the experience into one of pleasure rather than one that tests the patience.

This view was taken during the largely redundant test-fit of the cockpit parts. Note the module between the fuselage halves.

To obviate the need to scrape off paint where the cockpit fits in, tape was applied along the contact points.

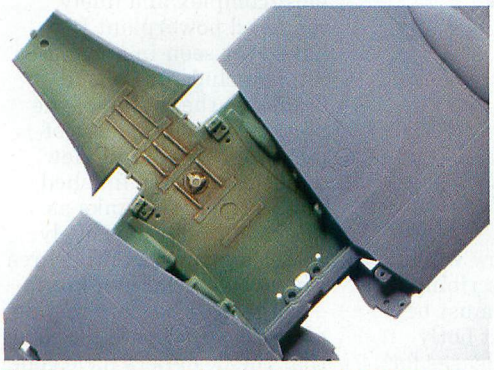


The cockpit elements were Blu-Tacked to a piece of card and sprayed XF-71 Cockpit Green.

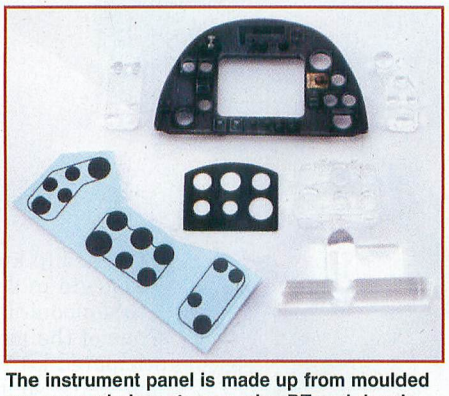


Light green mixed from Vallejo acrylic colours was drybrushed over the raised detail.

In reality, the Spitfire's seat was made from a type of red/brown plastic, not metal.



The floorless design of the Spit's interior means you can see all the way to the belly's inner face.



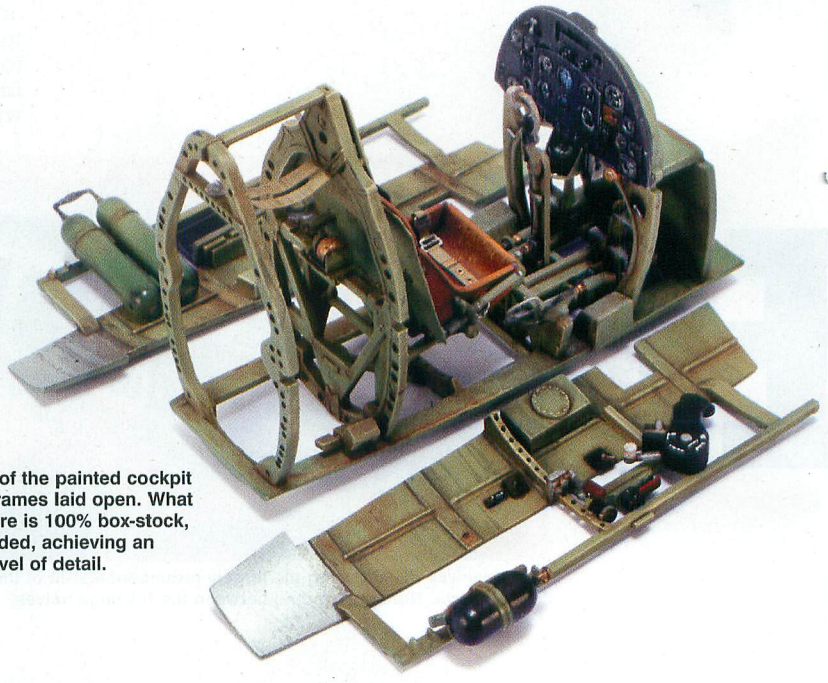
The instrument panel is made up from moulded opaque and clear styrene, plus PE and decals.

The finished panel looks very convincing, although the artificial horizon shouldn't be blue.

COCKPIT

The odyssey begins, as you might imagine, inside the fuselage, with the cockpit. Before I go any further, it's worth pointing out that you need to decide on which of the three markings options you are going to depict from the outset, because there are subtle differences in equipment between options the wartime variants 'A' and 'B' and the post-war option 'C' and holes occasionally need to be drilled to accommodate various parts etc. Assembly follows the conventional pattern whereby the fuselage sandwiches the cockpit unit when the halves are brought together, but one usually reaches this point early on – here it's all the way down at stage fifteen! The reason for such a late 'mating of the halves' is thanks to the truly awesome cockpit, which takes a full twelve assembly stages to complete. The floorless design of the real thing has been duly observed and it's open all the way to the navigation light in the aircraft's belly, the upper side of which is represented inside; very nice.

The cockpit module is held together by two perfect-fitting (you're going to see this phrase a lot) side frames that lock into the central 'backbone' portion and in turn, fit into moulded grooves within the cockpit walls. The two structural frames that sit behind the pilot's seat feature moulded circular depressions to depict the lightening holes; I chose to drill them out, but in reality you can only see a handful of them once the model is complete. The kit comes with the two armour plates that are positioned behind the seat and for scale appearance, they are formed from photo-etched metal. These parts are very visible on the model, even with the access door shut and their effect is most impressive. The Sutton harness is also to be found on one of the two included PE sheets, and I decided to anneal



Two views of the painted cockpit with side frames laid open. What you see here is 100% box-stock, nothing added, achieving an amazing level of detail.

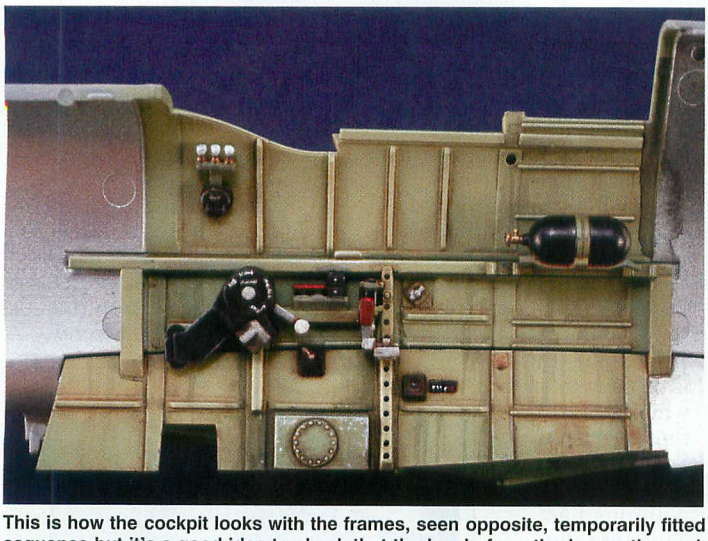
these parts to ease their handling and the formation of the webbing into natural positions. Aside for drilling out those holes, the cockpit, as was the rest of the kit, was built entirely 'box-stock'; you really don't need to add anything!

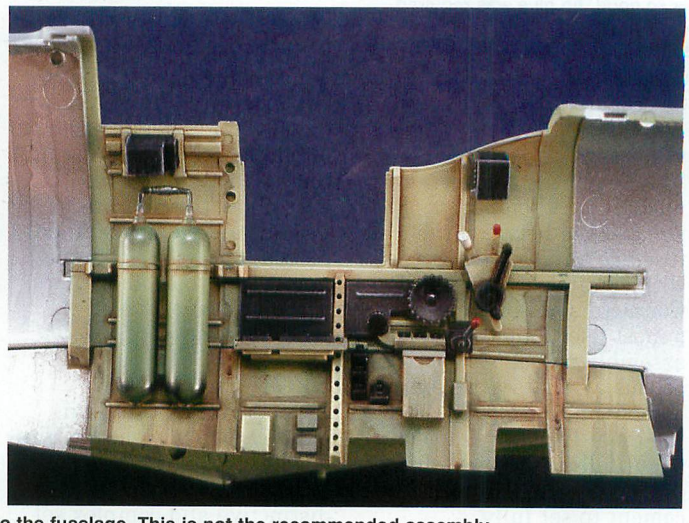
The instrument panel is moulded in opaque kit plastic with apertures where the dial faces should be; these are provided by two clear inserts that fit from behind, backed up by reverse-printed decals carrying the dial detail. The effect is flawless, but a word of advice; fit the clear parts before you apply the decals to avoid them being damaged during handling.

I followed the instructions and painted the cockpit structures with XF-71 Cockpit Green (IJN) which is a good match for the interior colour of Spitfires, if a little on the dark side. To counter that, I over-sprayed lightened layers followed by a light drybrushing and

The multi-part Sutton harness is included with the kit and is formed from photo-etched nickel-steel. It's quite springy, so it was gently annealed to allow it to be formed to the shape of the seat.

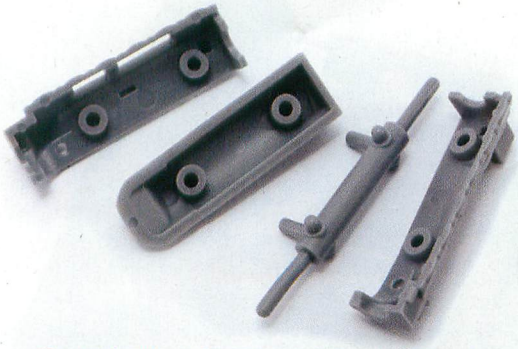
"The cockpit ranks as the most comprehensively detailed example of this area I have ever seen in a kit..."



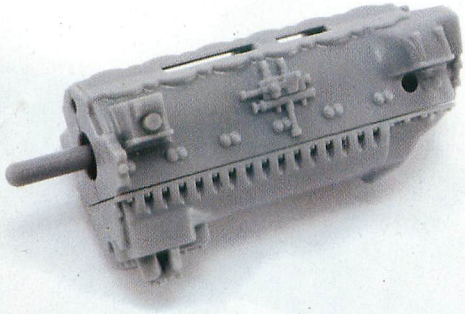


This is how the cockpit looks with the frames, seen opposite, temporarily fitted to the fuselage. This is not the recommended assembly sequence but it's a good idea to check that the level of weathering on the cockpit walls matches that on the frames.

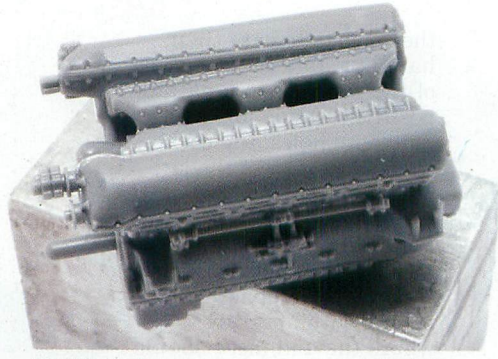
Handsome beast eh? The 'tropical scheme' is not to everyone's taste, but it does bring out the lines of this beautiful fighter well. The other markings options include Wing Commander J. Johnson's 'JE-J' and GC 1/4 Dauphine of the post-war French Air Force.



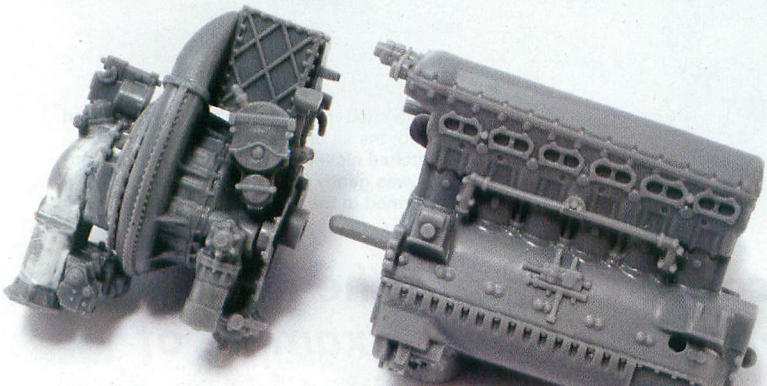
The engine block features a central 'backbone' to which the supercharger and gearbox fit and it also ensures perfect alignment.



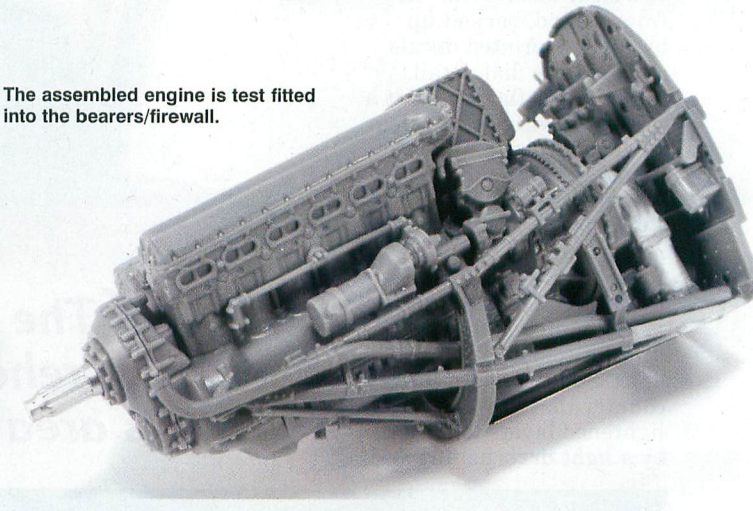
Here's the assembled block - the supercharger fits over the long peg.



The Merlin features some complex angles in its construction, captured perfectly by Tamiya.



Here's the supercharger (left) about to be united with the engine - the fit is so good, no glue was required.



The assembled engine is test fitted into the bearers/firewall.

some colour *washes* to bring out the detail.

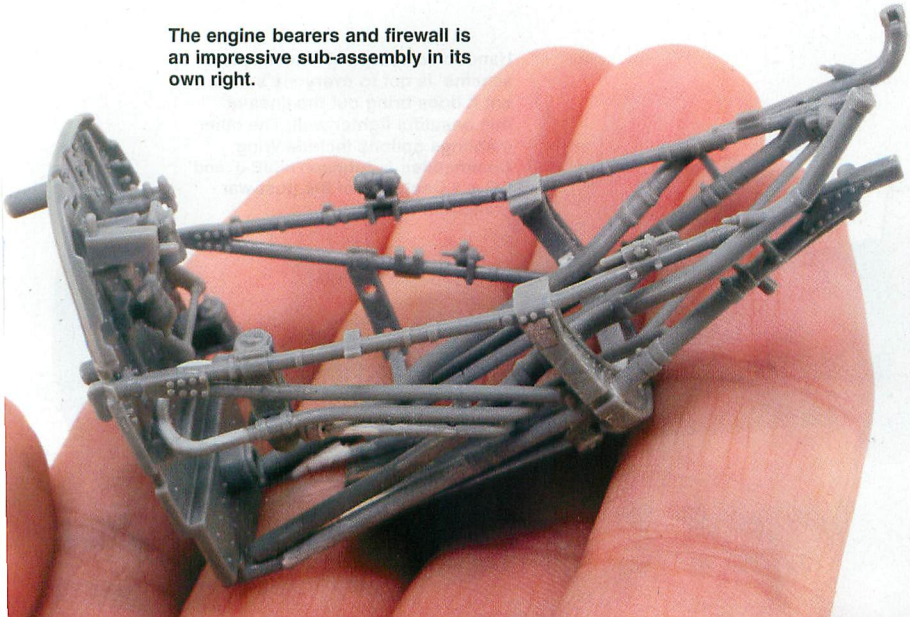
FUSELAGE

The completed cockpit module can then be sandwiched between the fuselage halves, secured with small drops of Revell Contacta semi-liquid cement, a most useful material for assembly procedure such as this, where a little extra 'loiter' time is required of the glue. The halves fit beautifully and were left overnight to allow the cement to set fully.

The control surfaces and wings come next. As with the Zero kits, Tamiya have employed an elegant system of photo-etched and metal rod parts to form slim hinges that allow the ailerons, rudder and elevators to be moved, and while this may not appeal to all modellers, it really is very effective – not gimmicky.

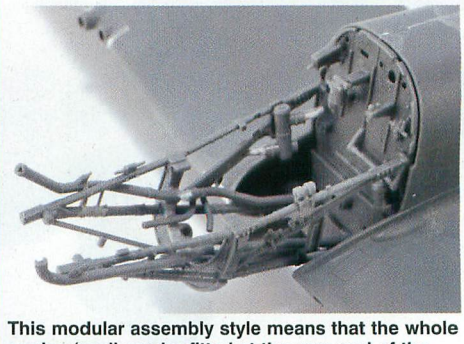
WING

In many ways, the semi-elliptical wing of the Spitfire is what this aircraft is all about and it's a very distinctive and complex set of curves; a challenge to get right, for sure. Without consulting scale plans (I don't have any) I would say that Tamiya have nailed it; no doubt those folks who take delight in pointing out fractions-of-millimetre discrepancies will get their kicks somehow, but to me this looks like a perfect rendition of that beautiful wing shape that is so easy to spot when a Spitfire flies overhead. Some extremely thoughtful planning has gone into the wing design and the main U/C bays in particular, making this sometimes tricky sub-assembly an absolute joy. When deciding whether to depict the landing-flaps in a deployed state, I posted a message on hyperscale.com to gather opinion on whether they might be seen in this position when the aircraft

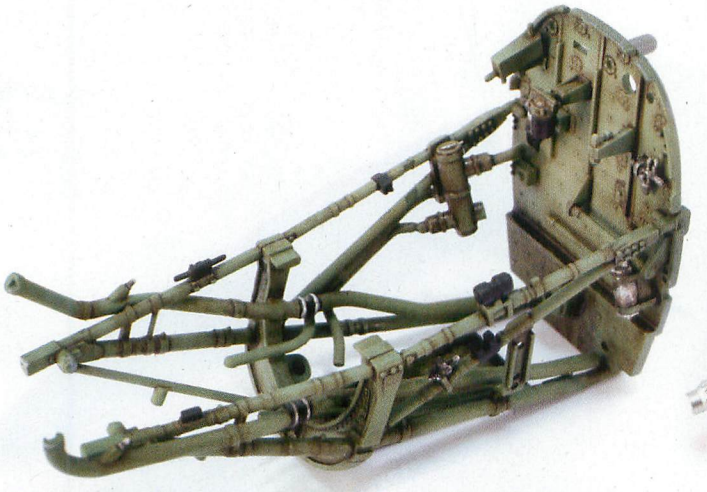


The engine bearers and firewall is an impressive sub-assembly in its own right.

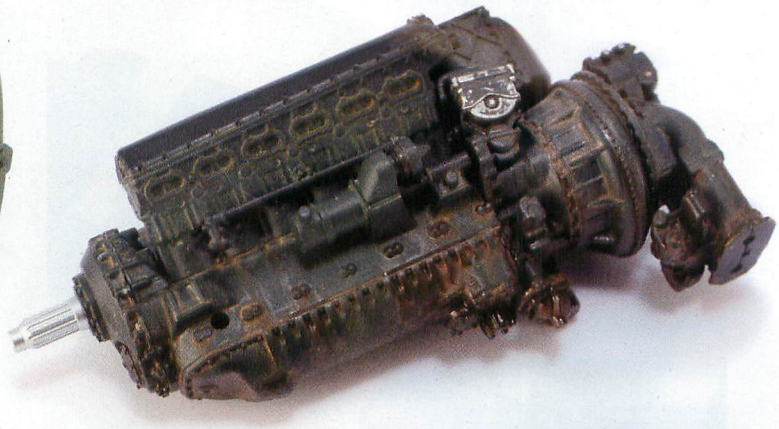
Two pegs on the reverse face of the firewall simply plug into holes in the forward bulkhead.



This modular assembly style means that the whole engine 'pod' can be fitted at the very end of the model's construction, a great idea.



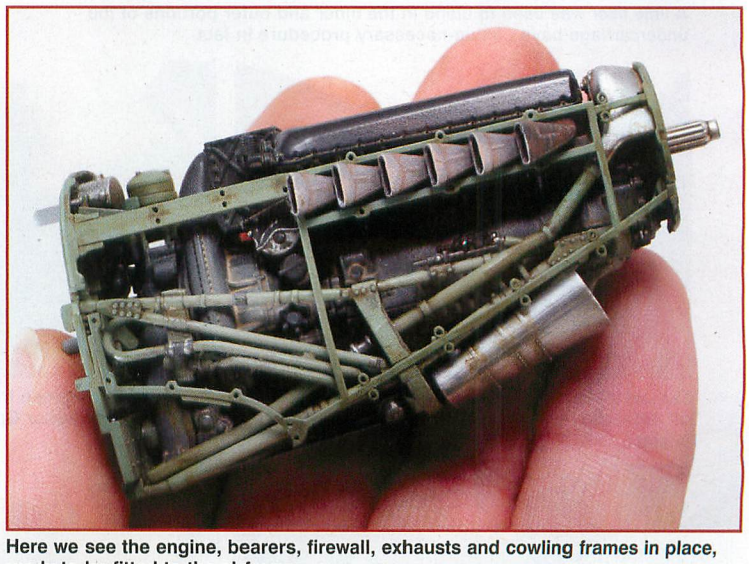
The bearers and firewall were painted XF-71 and given oil paint washes to impart a well-used look.



The engine was quite heavily weathered too. Most of it is semi-gloss black, but this monotone colour can be enlivened with colour washes.

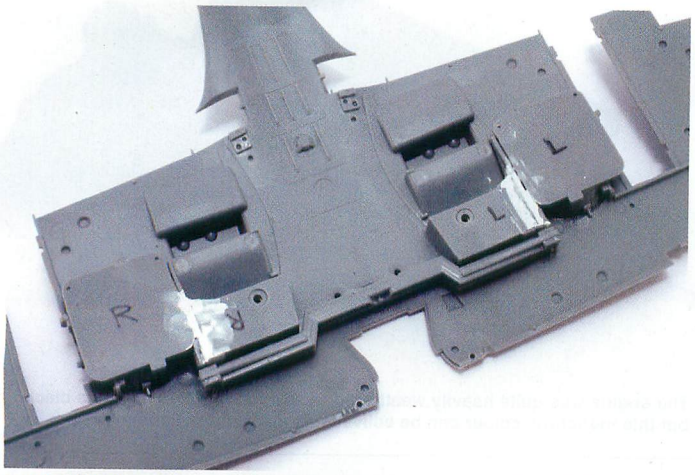
was at rest. The conclusion was that while they were opened for landing, they were rapidly closed again once the aircraft had slowed in order to prevent damage during taxiing, however they could have been seen open during maintenance, so open it was to be! Thanks to all those who offered feedback one this matter.

Unlike the Zero kits, Tamiya have chosen to offer the undercarriage as fixed up-or-down options rather than a movable system, an eminently sensible idea to me, as even the highest grade of kit plastic can quickly fatigue leading to potential collapse. The reason for the 'up' position is to allow the included display stand to be used, depicting the model in-flight, although you could of course have the U/C down and on the stand as if coming into land - then the flaps could be down for a genuine reason! I went for the 'parked' option as my test shot of the kit arrived without the stand, so the decision was made for me... The undercarriage includes flexible vinyl brake lines - but don't worry, these are not the over-scale kind with impossible-to-remove mould part-lines, they are extremely refined, in-scale and fit like a dream. The tyres are also in soft vinyl and are excellent, although I did skim them on the mini-drill to remove a slight seam around their

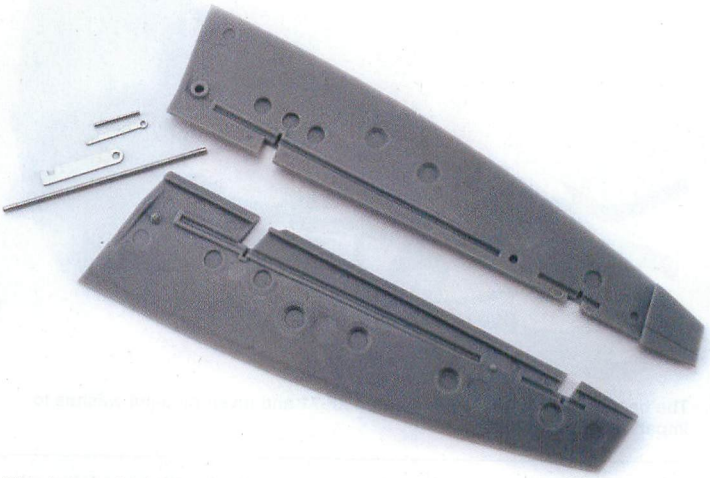


Here we see the engine, bearers, firewall, exhausts and cowling frames in place, ready to be fitted to the airframe.

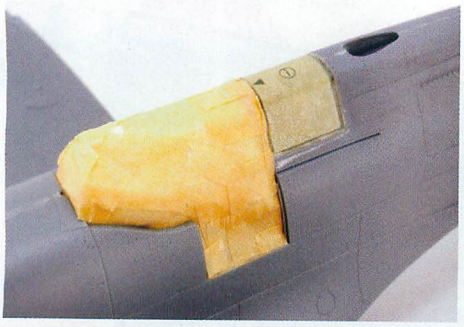
"...the most complex and finely rendered powerplant I have ever seen in a model kit..."



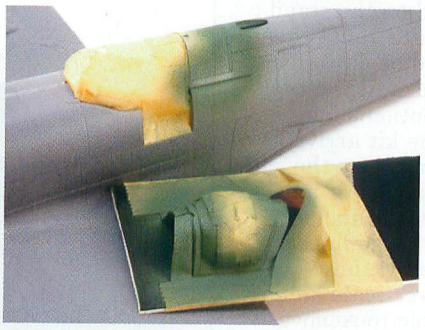
A little filler was used to blend in the inner and outer portions of the undercarriage bays - an un-necessary procedure in fact.



This is how the hinges for the moving ailerons work - steel rods trapped with the two halves and photo-etched metal 'pins' that fix into the wing.



The completed cockpit was thoroughly masked off. Note the rear canopy section is already glued in place.



To simulate the green framing, the first colour to go on was Interior Green.

Over the pre-shading (XF-69 NATO Black), Hannants' Middle Stone was airbrushed in thin layers.

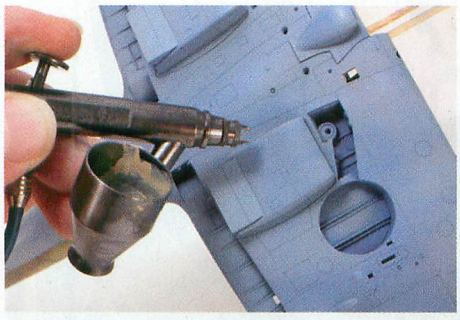
The slightly translucent properties of the Xtracrylix paint greatly helps in preserving the shaded look.

Next on was the Dark Earth, again, airbrushed in layers.

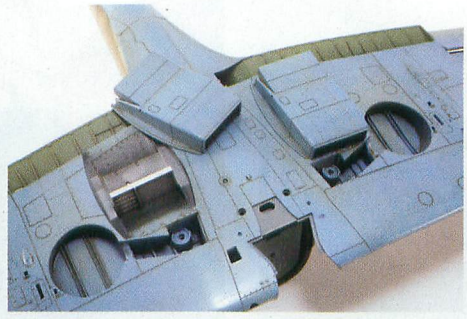
Finally, the Azure Blue was applied, again over a treatment of pre-shading.

The colour boundaries are soft-edged on this machine, so freehand spraying was perfectly acceptable.

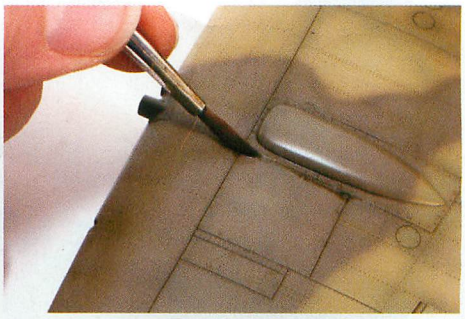
"All airbrushing of the model's exterior was carried out with Badger's 'Rage' double action airbrush from the 'Renegade' series and it performed brilliantly..."



Here we see some shading being applied to the underside, again with Badger's excellent 'Rage' airbrush.



The radiator housings were Blu-Tacked in place during painting, then removed for the installation of the radiator faces.



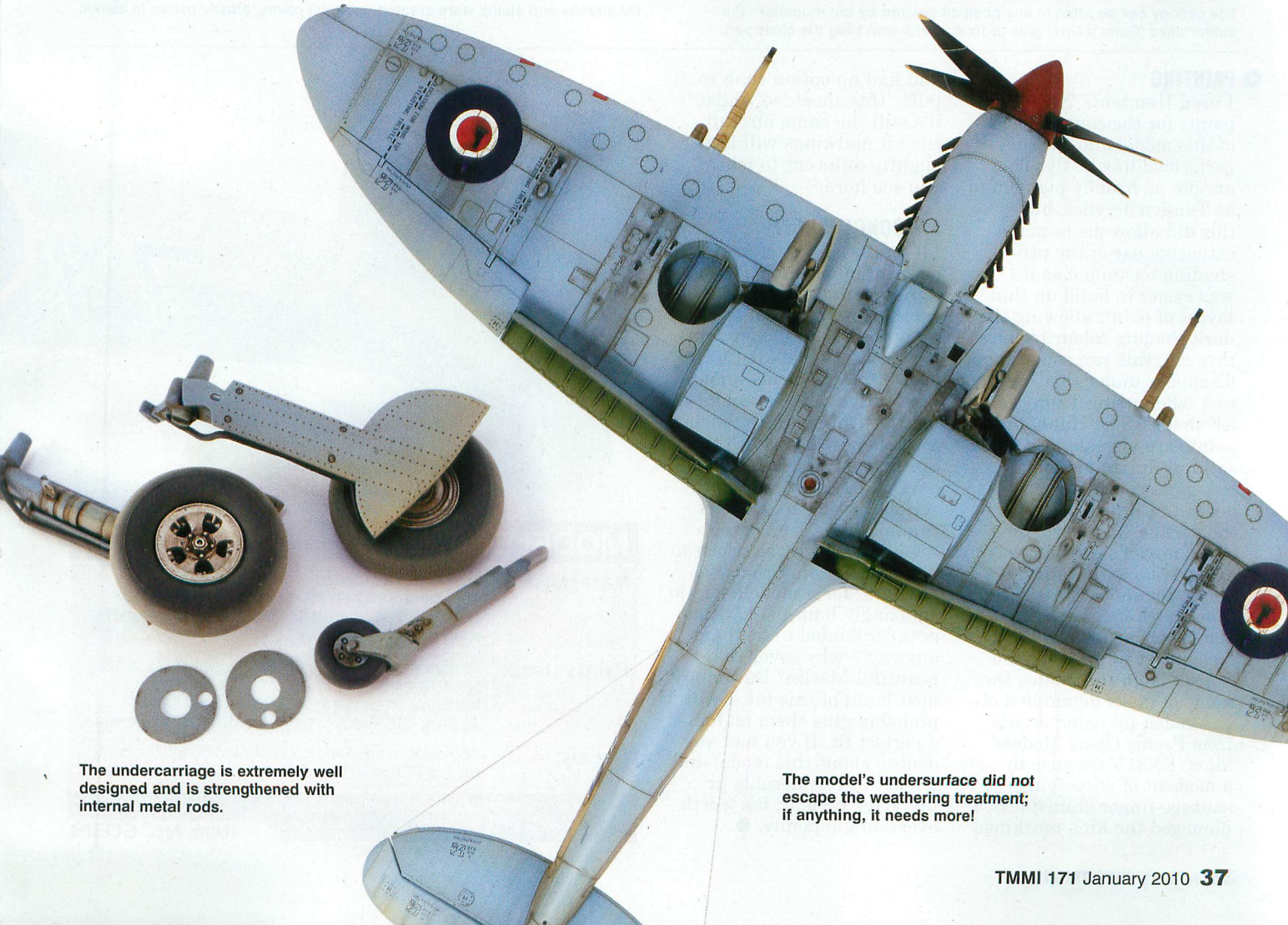
Dark-brown oil paint washes were applied to emphasise the panel lines on the model's exterior surfaces.

periphery. There's a choice of wheel hubs according to the version you have chosen, plus photo-etched cover plates which I can safely say are the most perfect-fitting (see, there I go again) model kit parts I have ever experienced; they drop into the hubs leaving an ultra-fine rim of aluminium colour that looks just magnificent. It's a small thing, but it made me happy... The legs are a glueless fit into their bays, secured by sturdy blocks that are retained with self-tapping screws, hidden behind further magnetised panels.

ENGINE

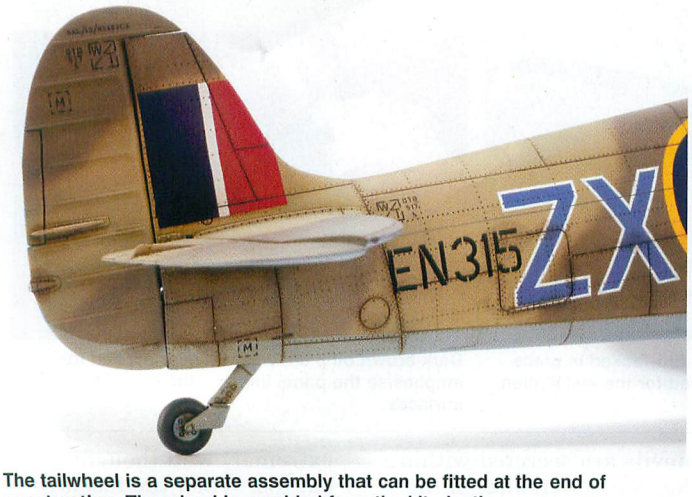
The engine, as I mentioned earlier, is a masterpiece of complexity and detail and is without doubt the most comprehensive example I have seen in a kit. A very quick parts-count reveals it's made up from over forty-five parts, not including those on the firewall and apart from wiring, it needs nothing adding at all. It's also a very easy paint-job; semi gloss black for almost every component! This is where we see more of Tamiya's secret weapon in this model; micro-magnets. These powerful little devils are secreted within key sub-assemblies of the engine and are there to hold the cowlings in place, which themselves have both magnets and metal plates fitted. Ingenious; but does it work? More on that later...

The engine bearers are worth a mention here; these crucial structures are sometimes an afterthought in a kit that includes engine detail, but here they are given the royal treatment and like the firewall to which they fix, are really quite magnificent. The way the whole engine module fixes to the airframe is extremely well thought-out too. When the fuselage halves were brought together, a bulkhead carrying a pair of trapped polycaps was installed just forward of the cockpit and this is the key to the engine's mounting; the firewall's rear face sports a pair of corresponding pegs that slide effortlessly into the polycaps, holding the whole assembly in place; quite simply brilliant. This allows the engine to be left off until final assembly, massive easing the airframe's painting and decalling stages.



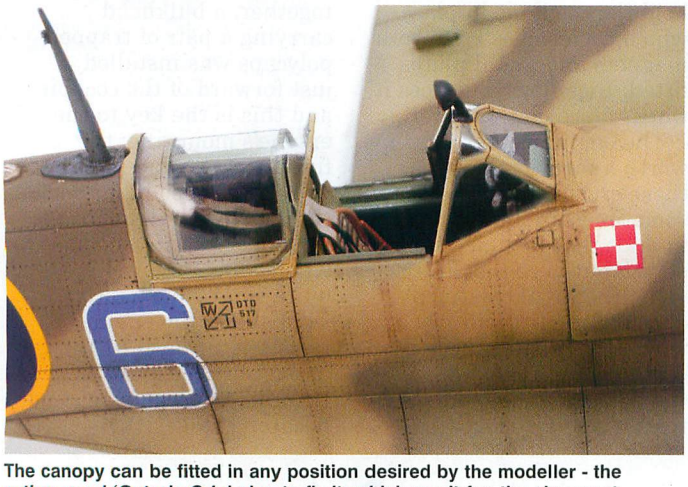
The undercarriage is extremely well designed and is strengthened with internal metal rods.

The model's undersurface did not escape the weathering treatment; if anything, it needs more!

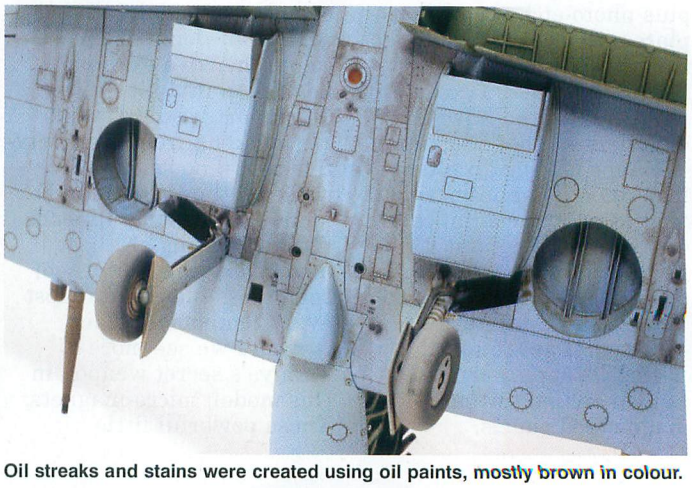


The tailwheel is a separate assembly that can be fitted at the end of construction. The wheel is moulded from the kit-plastic.

The open access hatch and canopy reveal that marvellous cockpit. The realistically thin, PE metal armour plates can be observed here.



The canopy can be fitted in any position desired by the modeller - the author used 'Gator's Grip' glue to fix it, which won't fog the clear part.



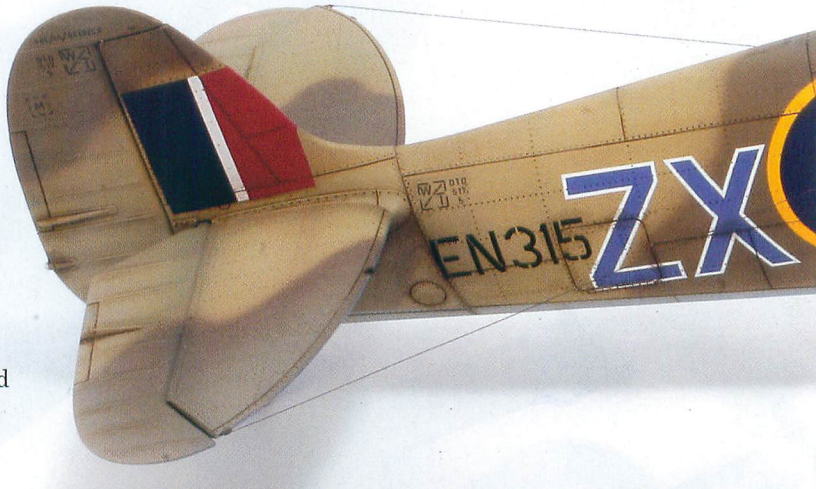
Oil streaks and stains were created using oil paints, mostly brown in colour.

PAINTING

I used Hannants' Xtracrylix paints for the camouflage of this model and they performed flawlessly. They are not as heavily pigmented as Tamiya acrylics, but this did allow me to make extensive use of the pre-shading technique as it was easier to build up thin layers of paint, allowing the dark shading colour to show through; this can sometimes disappear under the first coat when using Tamiya's XF shades. The Hannants paints are also slightly satin in finish, meaning less gloss coating was needed in preparation for the decals. All airbrushing of the model's exterior was carried out with Badger's 'Rage' double action airbrush from the 'Renegade' series and it performed brilliantly, I was most impressed; you can see from the photos the range of tasks demanded of it. I ended up using decals from Pacific Coast Models' kit of 'EN315' because in a moment of stupefying sausage-finger clumsiness, I damaged the kit's markings and had no option than to pilfer this sheet, so whilst it's still the same aircraft, the kit markings will look slightly different to what you see here.

MY CONCLUSION?

I'll leave the rest of my description of the model to the photos and their captions now, except to sum up with this statement; this is the best model kit I have ever built, bar none – not a declaration I like to make lightly. Tamiya have reached a whole new level with this Spitfire and there is not one part of it I could aim any serious criticism at, apart from perhaps the engine cowlings, which are tricky to align, but I think that was my fault; for a modeller I am amazingly ham-fisted. I had never intended to fit them anyway – why cover that beautiful Merlin? But on my next build of this kit, I will probably glue them on for a perfect fit. If you had any doubts about this model and it's not inconsiderable price tag, have no fear, it's worth every single penny. ●

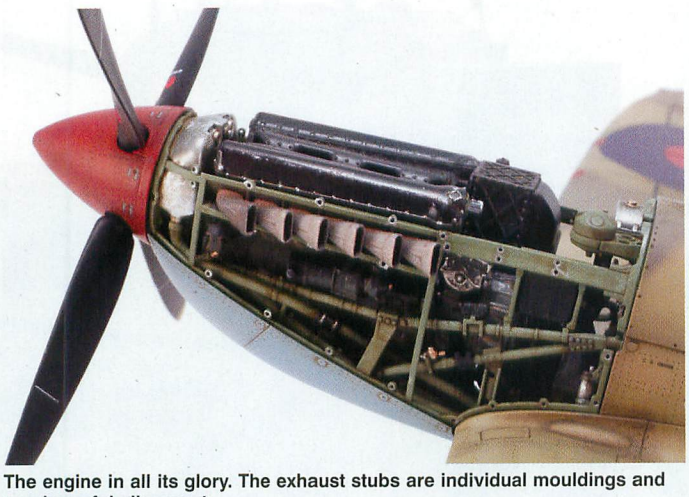


MODELSPEC - TAMIYA 1:32 SPITFIRE MK.IXC

Materials:	Injection moulded grey and clear polystyrene, ABS, photo-etched nickel steel, synthetic rubber, polycaps, waterslide decals, micro-magnets, screws, metal rod.
Paints Used:	Tamiya acrylics XF-71 Cockpit Green (IJN), X-18 Semi-Gloss Black. Hannants Xtracrylix XA1002 RAF Dark Earth, XA1009 RAF Middle Stone, XA1026 RAF Azure Blue.
Decals:	Borrowed from Pacific Coast Models Spitfire Mk.IXc PCM32005

⚠ Always ensure that you work in a well-ventilated room when using aerosols and solvents

Item No. 60319



The engine in all its glory. The exhaust stubs are individual mouldings and need careful alignment.

Dropped landing flaps would rarely be seen on a parked Spitfire, but to show off their internal detail, they were fitted 'open' on the review model.

"This is the best model kit I have ever built, bar none..."