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CONTENTS

- | | |
|----|--|
| 2 | Pass the BUK
We take a look at Meng's new 1:35 air defence system. |
| 10 | An Heilgabend
Glen Bowen describes the techniques used in his Ardennes King Tiger Diorama. |
| 18 | Cast Aside
Fabio Sacchi's cast hull M3A1 Lee. |
| 30 | 38(t)
Panda's 1:16 Panzer refined by Dan Moore. |
| 36 | Panzerkampfwagen IV Part 22
The Editor continues detailing Trumpeter's 1:16 kit. |
| 46 | Keeping Track
New releases. |
| 56 | Cambodian T-54m
Zack Sex kit bashes one of the recent Miniart kits to replicate a Cambodian vehicle. |

SEASONAL GOOD WISHES TO OUR READERS
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1:35

MENG LAUNCH THEIR NEW
9K33M1 'BUK'
AIR DEFENCE SYSTEM



PASS THE BUK

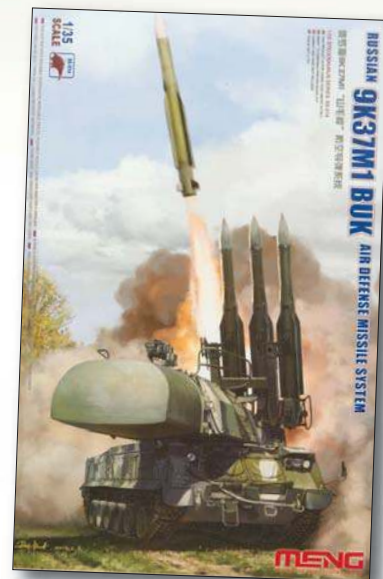
A bit of a surprise from Meng here with an all new kit of the Russian 9K33M1 'BUK' (which seems to translate into beech, as in the tree). With a NATO reporting name of 'Grizzly' or 'Gadfly' these effective Surface To Air missile defence systems have been operated by many countries from the 1980s to present with the usual Russian development approach of 'slowly but surely' and equally Russian robustness of the torsion-bar tracked chassis. The BUK system attained Worldwide infamy recently when it was used to shoot down of a civilian airliner. The system has a range of 35 Kms and a warhead weighing some 70Kg travelling at a speed of mach 3 these 9K37M missiles can counter most airborne targets.

So how have Meng tackled the complex design of the BUK in 1:35? The size of the box indicates that this will be no weekend-build and it's packed with Meng's usual sand-coloured sprues, all individually bagged. A small clear sprue provides

vision blocks and lamp lenses, a photoetched fret gives us nice mesh screens for air intakes and exhaust outlets and some soft poly-caps and hydraulic pipes allow moving parts of your model. Decals are present of course with a choice of Russian, Ukrainian and Finnish markings, there's no easy option with this one; all paint schemes are complicated hard-edged camouflage! With the large upper hull moulding in one hand and the equally gargantuan turret (ok...launch platform) in the other the Editor was clearly smitten, this was going to make a very impressive display piece in 1:35. The detail across all of the sprues and quality of the moulding is quite superb, certainly confirming once again why we're happy to collaborate with Meng and their mission to give modellers exactly what they want from their

precious hobby time.

Alas, there's only so many hours in the day and after assembling the hull David took stock of his list of unfinished and ongoing projects and passed the BUK to me...quite literally!



MODELLED BY **MARK NEVILLE**

BUILD YOUR BUK

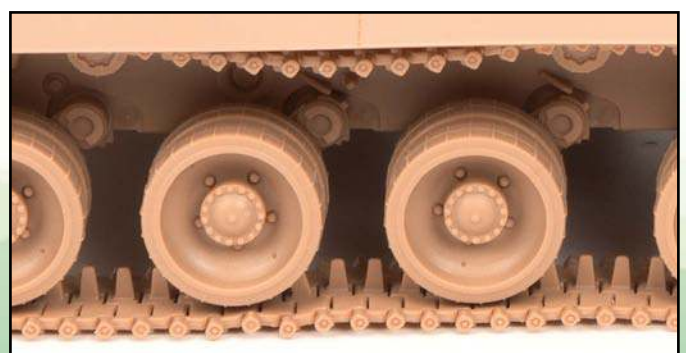
The kit breaks down as any tank kit would, the lower hull and wheels are pretty simple in their construction with crisp detail throughout including the backs of the road-wheels and hull floor all fully rendered. Thankfully the wheels all fit to the swing arms with poly caps allowing removal for painting and track fitting. We'd suggest fitting parts C11 and C10, mud scrapers, when all of the wheels and tracks are in place as they restrict the angle when fitting the sprockets. Regarding the tracks, Meng have a rather nifty system (similar to other kits in their ranges) of clear moulded jigs and pre-spaced track pins designed to push fit into the individual links, seven links at a time. The track links are very nicely detailed and using your best sprue cutters (We're very fond of the new Meng MTS026 cutters as is everyone else it seems) there's only two sprue gates per link which I found needed no clean up at all. The tracks are fully working when assembled and don't take very long to do; a word of

warning though, handle them carefully and when assembling make sure the pins are pushed fully home or it doesn't take much for a link to pop-out of place. The completed hull reminds me of the design of the 'Shilka' albeit somewhat bigger. I bucked (sorry!) the instructions sequence now and took a look at the missiles as I had in mind these would be like building four jet aircraft kits in succession...they weren't really that bad with only some sanding and polishing required along the joint. With the missiles set aside ready for paint it was back to the platform which is as long as the hull itself and rich with detail which means lots of parts and lots of assembly. All of the access panels are moulded separately which allows for accurate shape and detail, and of course if you fancy scratch-building the internals it's a help (we uncovered some images on-line showing all of the control systems; certainly not for the fainthearted modeller!) The missile launcher / cradle is the most

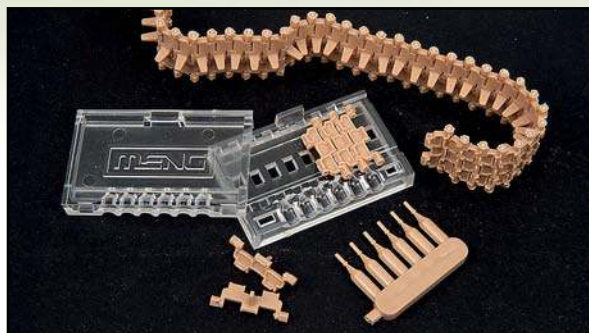
demanding part of the build but the results are worth the work with a fully posable and rotating platform. Some nice design touches are the soft vinyl hydraulic lines (which can be cemented with regular styrene glue) and the working piston / cylinder which all allows the missiles to be raised and lowered. I found the cylinder needed the opening enlarging very slightly to allow the rod to slide freely and the instructions could do with some diagrams of the platform in firing mode, the only mention of a firing / transport mode is with the options of the securing arm mounted on the front glacis in a raised or lowered position. Another option is the position of the front hatches, fully closed or fully open which would leave a gaping pair of holes onto an empty interior. The option here is between the two extremes with the windscreens on show. With the missiles and tracks dry fitted it was time to sit back and admire the beast and plan how on earth would be the best way to paint it!



Above: Photoetched parts are nicely done and limited to large sections of mesh, manageable even to more novice modellers.
Below: Heavy cables are provided as moulded parts but work well. Front screens (here masked ready for paint) and lamp lenses are provided as clear parts.
Bottom left: Separately moulded door panels ensure crisp detail, and they all fit beautifully. Here work begins on the launch platform.
Bottom: Wheel and hub detail is excellent, poly-cap attachment provides secure fixing and allows the removal of the wheels for painting.

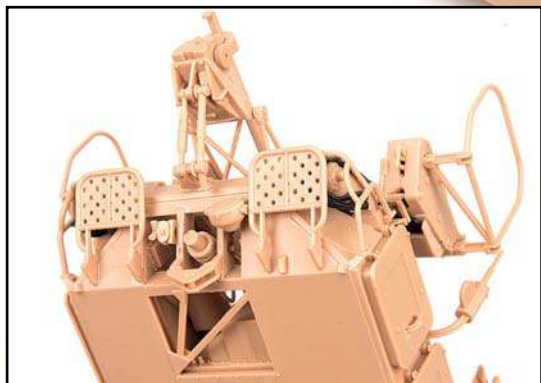


Right: Meng have put thought into making the track assembly as painless as possible, and while making tracks is always my least favourite process of any build these go together without major issues in no more than a couple of hours. We both found assembly easier when not using the top part of the jig, just make sure the track pins are securely pushed home before trimming them from the pre-spaced sprue



Below: The missiles have a horizontal joint which needs a little sanding and polishing, thankfully no filler was necessary.

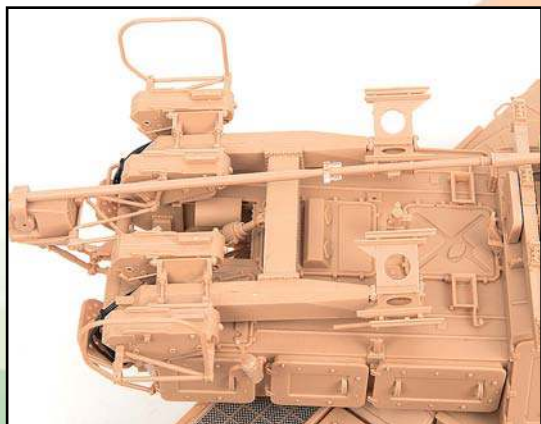
The huge fibreglass radar cover is nicely moulded as a single part. The sighting unit is movable thanks to a poly-cap fitting.



Above: The trickiest parts to assemble are around the missile platform. Poly-caps and moving hydraulic cylinder allow this all to remain moveable with very little fuss. Follow Meng's instructions carefully and the results are very satisfying.

All dry-assembled and ready for breaking down to paint.

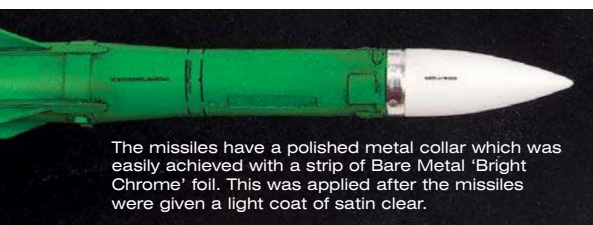
Below: A view from above of the missile cradle. Detail, fit and moulding finesse is excellent throughout. Note the hydraulic pipes moulded in soft blackflexible plastic to allow raising and lowering. Be sparing with liquid cement when attaching these as they are fine and will melt away before your eyes!



FINNISH FINISH

I began work using Mission Models paints with excellent coverage provided by Mission's own primer. I find the black gives a good base for most colours allowing pre shading when required. I allowed the primer an overnight drying time to be on the safe side. I actually started by painting the missiles as bright, shiny finishes can scare me! The starting point was a coat of Mr. Surfacer 1000 white which works a treat. The bright

green finish of the missiles may look a little 'Thunderbirds' but trust me, they are this colour as you'll find with a quick on-line search. Nothing in our arsenal of military colours came close so I turned to some of the primary gloss colours from Mr Hobby / Gunze (H26 Bright Green) for the initial hit of green which stays nice and punchy over the white base. The glossy finish proved ideal for detail washes and applying the tiny stencil decals. A little toning down and shading was airbrushed with a duller and darker olive green and weathering confined to a few rain marks.



The missiles have a polished metal collar which was easily achieved with a strip of Bare Metal 'Bright Chrome' foil. This was applied after the missiles were given a light coat of satin clear.

A big bonus when modelling more modern subjects is the fact that there is plentiful colour reference images available. Meng have referred to several of the images I found on-line to produce their colour profiles and markings of BUK systems operated by Finland. Although Mission don't yet do any specific Finish colours I was able to pick and mix from what's available now. The base colour dark green is 032 Russian Green Modern (I'm presuming the colour these vehicles would have been supplied in?). The brighter green is 018 RAL 6011 Resedagrun and the brown is 033 NATO Brown with about 20% 013 Red Oxide.

The black is 035 NATO Black and the radar cover and sighting unit appear a much more yellow/olive green which I found 028 Russian Dark Olive a good starting point. As mentioned, the black primer was used as a pre-shade allowing it to 'show through' in shadow areas and panel edges.





Note the paint damage to the aluminium rim of the wheels as shown in my reference images.

There's no quick or magic route to these sort of colour schemes but with hours of airbrushing I was happy I'd captured the look of the BUK in my reference images. The images also show these vehicles to be pretty clean in most cases as you'd expect; crashing through trees and wading in mud would probably be best avoided carrying four surface-to-air missiles on your back! Dust was the order of the day for

weathering; collected around details and streaked with damp and rain I followed the photos and exercised a little common sense as to which areas would get dirtiest such as the lower hull and rear. For the dust I've used Wilder Aqua water-based products 'Dark Earth' and 'Light Mud'. Being water-based I find these easy to use without the risk of spoiling a lengthy camo job, you can work the effects indefinitely

Deciding that the camo scheme would be too difficult to mask across the complex surfaces I found it successful to brush paint the outlines and 'fill-in' by airbrushing; still a lengthy process but there's no way to cheat this one especially as weathering was to be minimal.

until you're happy with the results. Make sure any decals are applied before hand as the moisture with water-slides will lift the 'dust'. Some discolouration with fine surface rust could be seen around some of the lower hull fittings which I've replicated with some light rust pigment powder.



Here you can see the effect of the dust washes and the dark washes, both helping to emphasize detail and add dimension

The dust washes worked well to lift the detail across the darker colours and I worked with some dark oil paint pin-washes around details on the lighter green and brown. Before any further detail painting I decided to fit the tracks. The reference images showed a very particular finish to the tracks with the colour contrasting strongly with the wheels and sprockets. I started by spraying the track a dark metallic grey with subsequent tones

of red-browns finishing with a light, random coat of an almost peach colour. The inner contact surfaces received a polish with some Ushi metallic powder and the outer surface and teeth got a gentle dry-brush of Vallejo bright aluminium and some scuffing with a soft pencil. Fitting the tracks is a delicate operation which would have probably been made easier by leaving off the side mudguards. I found the best way was to remove the turret and lay the hull

on it's back with all the wheels removed (wheels painted and wethered separately), I could then lay the lengths of track along the hull sponsons and then push all of the wheels into place. The track was then wrapped around the sprocket and idler and brought together with the final pin inserted. The track remains fully 'working' but to be on the safe side I fixed the track to the road wheels with a small dot of PVA white glue.





I could now complete the detail painting and some final weathering. The rubber mud guards had been picked out in Mission 'Tire Black' with the dust effects applied, one last touch was some damp diesel stains from the exhaust outlet. Lifecolor 'Dirty Grease' is ideal in this case, I was finding it hard to 'hang back' from my usual wartime weathering and had to restrain myself! The rear-view mirrors were given lenses with some Bare Metal foil and the lamp lenses added to the pre-painted light units; PVA glue again is the ticket here as there's no fear of melting surfaces of clear parts. Some subtle paint wear was added to the protective rails by sponging gently with black-brown and buffing with a soft pencil.



At last it was time to drop the missiles onto their cradle. Thankfully the missile body has a large slot and corresponding 'peg' on the launcher which provides a sturdy push-fit.

This is a big and impressive model in 1:35, probably not a kit for the novice but for modellers with a little experience. Although a complicated piece of military hardware, Meng have designed this kit to be very builder-friendly with precise fit of parts and excellent instructions. A lengthy build but enjoyable every step of the way. No doubt some crazy photoetch will hit the market soon but for the majority of modellers the levels of detail built straight from the box will be more than enough.



Glenn Bowen's Ardennes King Tiger

An (Christmas Eve) Heiligabend



008 of the Schwere SS Panzer-Abteilung 501.
It is moving towards its last engagement at Stavelot.
It was abandoned not far from here by its crew and
Commander Ustuf. Eduard Malinowski on the
24th of December 1944





1:35

008's Road To Disappointment.

I have been modelling now for many years but never got around to building a Tiger II. I've had the Tamiya big cat in my stash for a number of years and thought it was about time I gave it a go. I was chatting one evening to my good friend Phil Stutcinkas and it was he who gave me the idea to model it on the tank 008. 008 belonged to Schwere SS Panzer-Abteilung 501 and commanded by Ustuf. Eduard Malinowski. It was abandoned by its crew near Stavelot on the 24th of December 1944. I came across two or three photos of the abandoned vehicle but none of it in action. Although there is a newsreel clip showing it. (I think) moving through a town just before the battle. So with this little bit of knowledge it was time for me to start.

Tamiya's Tiger.

I would like to point out that the Meng or Takom models were not on the market at the time of completion of my model. So the Tamiya kit was the model of choice. As I've already stated I had this kit (35252 Ardennes Front) in my 'to do' pile for a while. Along with Abers photoetch and metal gun barrel. Plus a set of Modelkasten tracks. Don't get me wrong the Tamiya kit is an outstanding model straight OOB. But I wanted to give it that extra Wow factor. As with all Tamiya models it went together like dream. Apart from the aforementioned add ons. I also Added some weld seams by softening the plastic with liquid glue and then pressing a scalpel blade into the area I wanted the welds. There is not much more I can say about the construction as it was very straightforward with no hiccups. Now it was time for the painting.

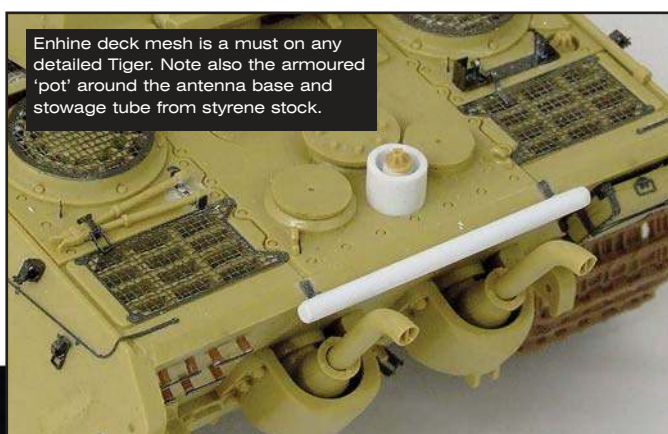
How many of us have shunned the Tamiya King Tiger in our stash for one of the newer kits on the market? Tamiya kits are always a pleasure to build and with a few old-school extras they still make excellent projects.

An Aber turned barrel and photoetched details (note I've coloured the 'etch with blackening fluid which I find helpful when painting) lift the levels of detail as they've always done.

Even with the huge choice of aftermarket track (and those supplied in modern kits for that matter) Modelkasten links still hold their own for detail and finesse.



Aber barrel cleaning rods are also an improvement over the kit parts. Note the additional fuel tank breather pipe.



Engine deck mesh is a must on any detailed Tiger. Note also the armoured 'pot' around the antenna base and stowage tube from styrene stock.



Weld detail was improved and Bosch headlamp wiring conduit added.



German Camo.

This is where the fun really began. It was the first time I had ever attempted to do hard-edged camouflage pattern. I believe by the photos I've seen that 008 was finished in the standard factory applied camo scheme which was applied to King Tigers produced from October 1944. Which is a very distinctive pattern. The first thing I did was to mix up some Tamiya Matt Black and Earth Brown. This I sprayed over the entire vehicle. It was going to be the base coat, shadow coat and act as a good key for the paints which followed. For the Dunkelgelb I used AK Interactive modulation set. Once this was done it was set aside to harden off. The following evening I began to mask off the areas that were to remain yellow. With this done I then sprayed the second colour which was Olivgrun. Again once dry this was masked off and the third and final colour was added Rotbraun. With all the camouflage base coats done It was the moment of truth, seeing what the tank looked like with all the masking removed. I will say it did look very bright. But I knew that the weathering stages would tone it down. This is a complex scheme and time-consuming one at that. It took me an whole week just to get it this far. But sitting back and looking at it. It was worth it.

Weathering.

Before I could start weathering the decals had to be added. Again these were supplied by Phil. (What would I ever do without him?) With these in place the whole thing received a coat of Johnson's clear. This is applied to protect all the hard work that's just been done. The first thing I did when weathering this beast was to apply the filters. This will help to tone everything down and make it look more harmonious. Next came the chipping. I love this part of the painting. It really starts to come alive for me. I did not want to over do this part as 008 would have not been in the field for that long. Although the side skirts and the tooling is missing I did not want it to appear a complete wreck. Again this can be a time-consuming process. Working on a panel at a time. A pin wash was then added. This was done using AK's winter streaking grime. This is a perfect colour for this and on this type of camo for where the vehicle was to be set. Dirt and mud splashes were then added using AK products and Mig pigments. With the tracks inplace and all weathered and muddied up. The tank was complete and I was ready to move onto the diorama.

This hard-edged factory applied camouflage is notoriously difficult to apply, not without reason! Patience and plenty of reference are the key.



From The Ground Up.

Dioramas. I love them. I would say 99% of my models end up in a diorama. This is probably why I only do two models a year. I always start off with a good idea of where I want to go with it. Not to say that this may change somewhat along the way. The Tamiya kit I'm using for this diorama comes already with a scenario in mind. Containing a tank and motorcycle rider giving instructions, all you need to do is build your scene around this. I always do my dioramas raised up off the wooden base. This is done to add more interest and is more eye-catching to the viewer. It's also good if you wish to display an name plate. For this I use insulation foam board with the sides covered with plastic card. Moving onto the building. The taller of the two dwellings is a heavily converted Great North Roads product. Looking at photos on the internet of buildings from around that area I noticed that some of them carried tiles attached to the front and sides. So this was something I wished to replicate on mine. For this I simply glued balsa wood battens to the front and sides. Then I attached plastic card embossed floor tiles which gave me the look I wanted. The roof started out again from a piece of plastic card cut to size. I then attached individual plastic roof tiles which I purchased from Roy Schurgers at Dio Dump. The third storey window, again the frame was made from plastic card but this time overlaid with strips of balsa wood. All doors and windows came from Miniart. The smaller dwelling was scratch built from a piece of insulation board. Again windows, doors and roof came from Miniart. The building were sprayed, painted and weathered before they were attached to the base. This was all done with just as much care and attention as the tank itself. With the building now in place I focused on the ground work. For this I simply used fine sands, powders and small stones sprinkled over some household filler.

I then took some wheels from my spares box and ran them over up and down the road way. I then took the rubber band tracks that came with the model and pressed them into the soft filler. Sixtyeight tonnes would leave it's mark. This was then set aside to dry for about 48 hrs. I then added tufts of grass and small roots. The groundwork was then sprayed with Tamiya earth tones. To make the ground look all wet and damp I used semi-gloss and gloss varnishes. While this was still wet small leaves and debris were added.

A touch of life.

Now that the diorama was done and the tank inplace. It was time for me to add some movement and action to the scene. The figures and motorcycle. The tank driver and gunner come from Dragon with replacement heads from Hornet and arms from the spares box. The commander comes from Pegaso I think and is an outstanding figure. The bike was updated with an Eduard etch brass set and the rider had his right arm replaced. The flesh parts were painted in Vallejo Model colours. And the uniforms were done in Humbrol enamels.

Conclusion.

This article is a very brief insight into what was really a long build, taking in total ten months from start to finish, which is quick for me! People say I don't know how you've got the patience. My reply is simple. I love doing it. So I hope you the readers enjoy it as much as I did doing it.

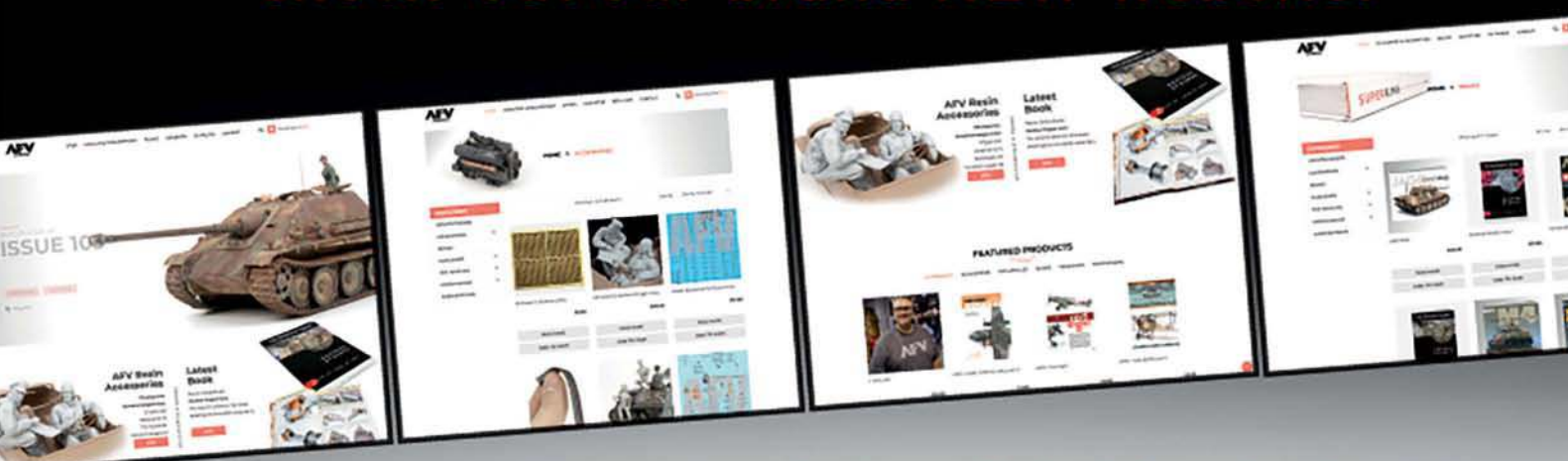






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CAST ASIDE

FABIO SACCHI's cast-hull M3A1, Tennessee Training Manoeuvres, October 1942

The M3 Lee was an interim design. Initially intended to be produced in just a few hundred units as a 'stop-gap' before a 75mm turreted tank would be ready. However its fate was different. The necessity of re-arming an expanding US Army as well as the British Army's desperate need for medium tanks, encouraged the decision to go into full production with the Lee. Being obsolete as soon as it entered service, it was swiftly replaced by the M4 Sherman when it became available and, as a combat medium tank, only M3 (Riveted hull, Wright Radial Petrol Engine) and M3A5 (Riveted hull and Twin GM 6-71 Diesel engine) saw action in North Africa, Eastern Europe (lend lease) and the Pacific. Its tough life continued in the form of the M31 heavy recovery vehicle and M33 prime mover as well as being the base for M12 GMC and M7 HMC.





Another important consideration is that the M3 was used as a test bed for several engine units, as well as manufacturing designs, paving the way to its successor, the M4 medium tank. One of these variants was the M3A1.

Produced in a very limited number, it experimented with a complete cast steel upper hull. This design had several advantages such as reduced vehicle weight and it was more economical to produce due to reduced assembly labour required. The 300 vehicles were produced by the American Locomotive Company from February to July 1942 and during production several design improvements were introduced.

Amongst the most evident was the deletion of side hatches and the introduction of a bullet splash in front of the turret ring. The M3A1 was never deployed in combat and all the vehicles were used in training in the U.S. except some which were remanufactured as CDL tanks and deployed during the Rhine crossing.



CONVERSION OF A CONVERSION

I've always liked the very archaic design of this tank and even more so with the cast hull version. Unfortunately no kits were then available apart from a resin conversion based on the old and inaccurate Tamiya Kit. When Academy introduced their M3 Lee kit, they announced also a M3A1 version which unfortunately never materialized. Having done some master patterns for my friend Rob Ervin, founder and former owner of the cottage company FORMATIONS, I proposed to him a crazy idea to make a master of the M3A1 based on the Academy kit. I was able to get my hands on an Ordnance drawing of the early production type and with that I started to scratch-build the upper hull. After a couple of months all the pieces were ready to be sent to Rob for the casting tests which were successful and the kit was put on the market. Rob was kind enough to send me a couple of complete resin sets. This happened back in 2010.

A couple of years later I finally decided to tackle the subject, but with some variations. First of all, in the meantime Dragon released an M4A1 DV Sherman Kit. Its lower hull and bogie details were light-years better than Academy's rendition. Secondly I fell in love with a photo of one of these tanks during the October 1942 manoeuvres in Tennessee. Unfortunately the subject is a mid-late cast hull, so I had to make some changes to details of the

resin upper hull. First of all, both side hatches had to be sanded away. To smooth everything out I then used a layer of Mr Dissolved Putty. Other major modifications were the application of a cast bullet splash in front of turret.

It was somehow the most challenging part as in the real tank this detail was included in the casting process, it had to be blended across some different levels and contours. I therefore could not use a solid piece.

I decided to recreate the shape relying on MrDissolved Putty's tendency to shrink when drying. I glued a thin ministrip following the rear part of the bullet splash. After that I applied several thin layers of MrDissolved Putty in front of it, waiting some days between putty applications, so that by shrinking, the putty created a convincing concave shape and blended to the left side with the slope of the vertical wall. It took a while, about 10 applications of putty, but final result is very convincing.

On the right side in place of deleted side hatch, I applied a pistol port, recovered from the spares box. Its bullet splash was recreated with same dissolved putty technique. During production the gunner hatch hinges were rotated to improve function, I had therefore to do the same by carving away moulded hinges and replace them with plastic strips. The final major modification was the addition of a tool box on the rear of hull.



My original cast hull conversion mastered for Formations and sold as an early cast hull version designed to work with the Academy Lee kit.

All of this was long before the new Takom M3 releases, their cast-hull kits would be a better starting point for this mid-late version.



Note the counterweight on the 75mm gun, often seen on shorter barrelled early M3s.



The well-known colour images of the early M3s training in Tennessee show a very heavy coverage of dust.

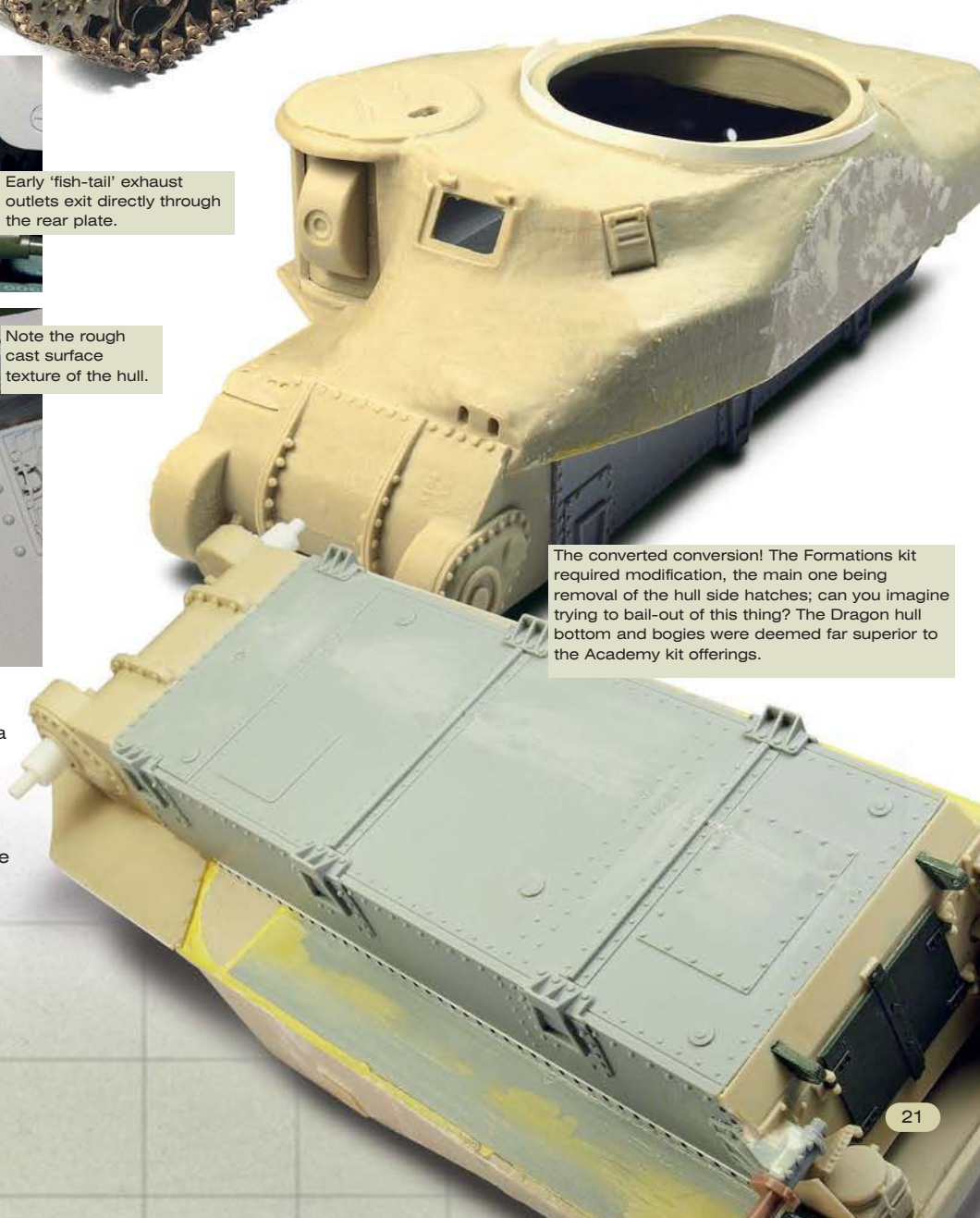


Early 'fish-tail' exhaust outlets exit directly through the rear plate.



Note the rough cast surface texture of the hull.

As said before. Dragon produced a M4A1 DV kit some years ago. This kit has a superbly rendered early lower hull, probably the best in Dragon's Sherman offerings, as well as a very convincing early style bogie. I decided therefore to use this hull instead of the Academy one so that I could also use these great bogies.



The converted conversion! The Formations kit required modification, the main one being removal of the hull side hatches; can you imagine trying to bail-out of this thing? The Dragon hull bottom and bogies were deemed far superior to the Academy kit offerings.

Unfortunately Dragon's hull is (correctly) 0.75mm wider than Academy's and I had to decide how best to modify the parts. A major challenge was a gap between the hull and resin transmission as well as the rear wall. I decided to saw through the Dragon hull and re-glue together the two pieces. Using a coarse saw, it cut out exactly the right amount of plastic and once reglued together the gaps were solved.

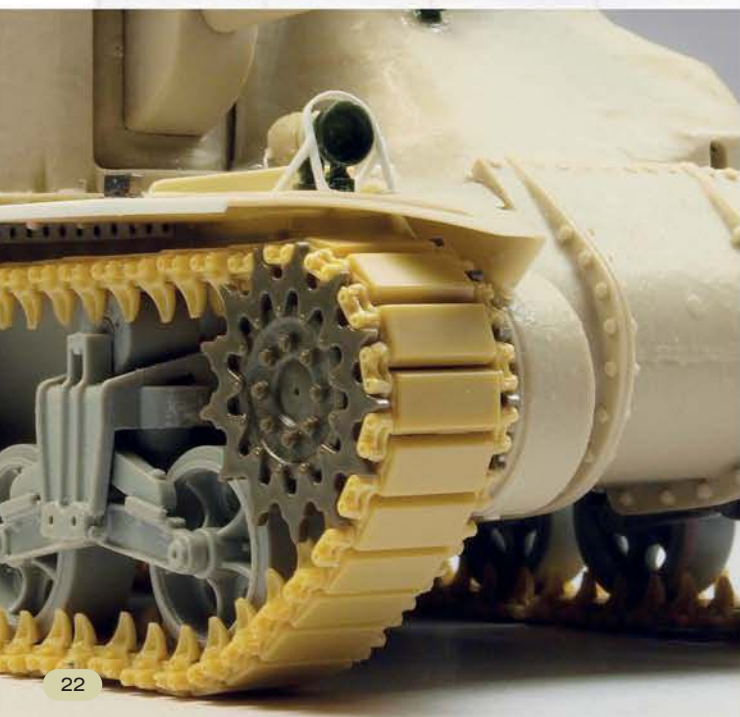
This modification made the resin hull to adapt perfectly and no additional surgery was needed.

Engines in the M3 were rather visible through the rear engine deck

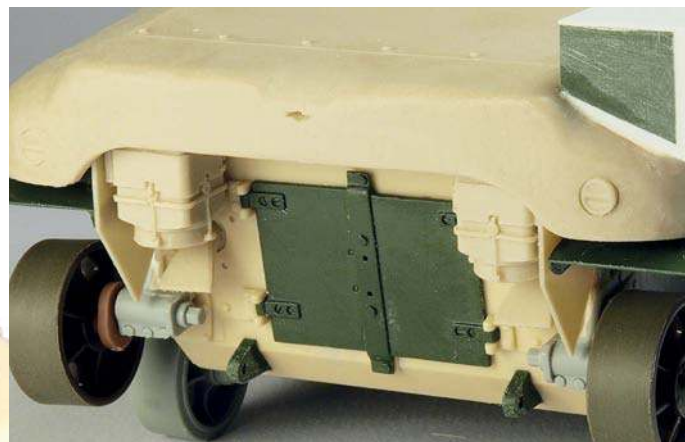
grille. I did not want to build a complete engine and engine bay. Also because as per my previous experience with an M3 kit, once complete it hardly possible to see all the internal work...So I cheated a bit. I glued beneath the air intake grille a plastic box which was painted in black. This would have given a nice depth feeling but without being able to see anything.



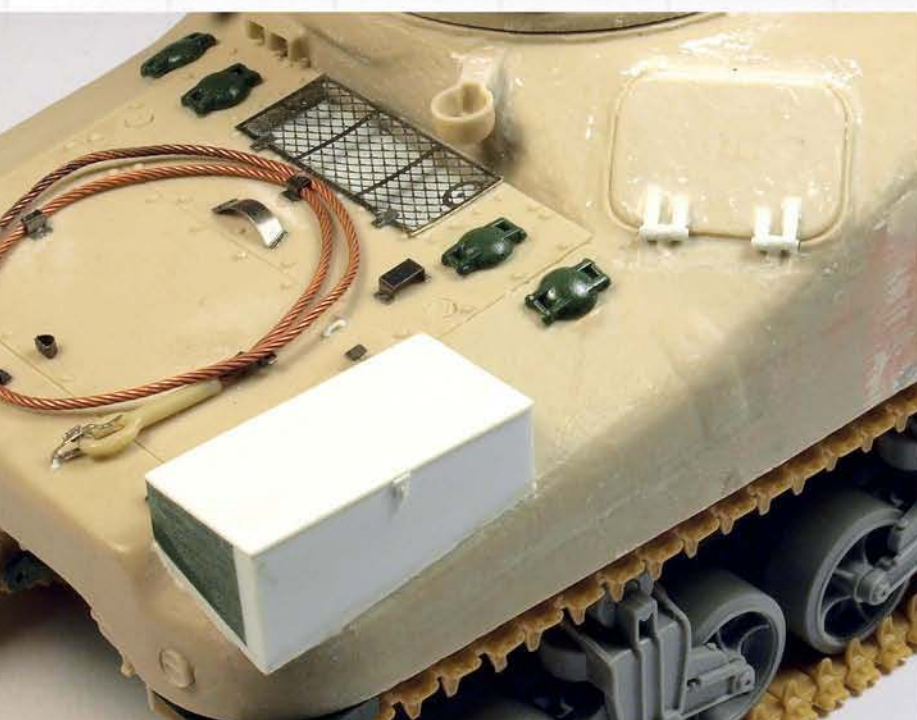
Tracks are the Bronco T51 offering. Their outer pads are rather short in eight and simulate effectively early T41 reversible type used on M3A1s.



The grille itself is a leftover in my spare box.
 Rest of construction was then pretty straightforward and parts came from FORMATIONS resin set or from Academy kit.
 I changed 37mm and 0,30 barrels with Armorscale metal turned offerings and I used Tasca sprockets and return rollers as they are better than Academy ones.



Note how little of the Academy kit was used (dark green parts on the hull and turret). As already mentioned, the release of Takom's new generation M3's makes modelling one of these early Lees so much easier without all of the kit-bashing!



To avoid installing an engine a simple plastic card 'box' was assembled and installed under the rear grille. This was painted matt black and avoids looking into the empty hull.

DUSTY 'DRAB



Note the strength of colour and contrasts necessary due to the heavy coats of dust effects to be added. Anything less would be barely visible on the finished

After a basecoat of Vallejo polyurethane black primer, the model was sprayed with Lifecolor Easy 3 Olive Drab set. I started with Olive drab Deep shade and I took care not to completely cover the black base in crevices and recesses. After that I applied the base tone (Olive Drab ground colour) and as last the flashed tone. With this latter I insisted more on upper horizontal surfaces and I also created some sort of streaks on vertical surfaces. At last with a "0" pointed brush and the Olive Drab Flashed tone I painted all prominent details.



Tracks were painted with Lifecolor Tracks set and on the rubber pads I added two shades of grey from Lifecolor Rubber colours set.

This helped to add some tonal variations before weathering.

Bogies wheels rubber bands were painted with Lifecolor rubber grey and return rollers as well as upper rollers were painted with Gunze Dark steel colour. Once dried the painted surfaces were polished with a cotton swab.

After a coat of Vallejo satin varnish I applied insignias and stars with Archers Transfers. The number "4" inside turret Stars was then hand painted with Red acrylic paint. I also hand painted the white band around turret to match the photo. Most likely it was roughly applied by crew during the War Games exercise.

To add some tones and make the green more interesting I then applied oil filters in the form of dots of different tones blended with a flat brush moistened with enamel thinner.

At this point the model's colours are still very contrasted and actually not really pleasing, however they will be toned down during the weathering process.



One of the reasons that I found this such an appealing subject was the weathering. In almost all photos taken during the training exercises in Tennessee in 1942, the tanks are covered with a thick layer of dust especially on the front hull. Achieving this effect is a little tricky as it is very easy to obtain a rather flat final result.

The first trick is to exaggerate base colour contrasts, second one is to use at least two different shades of dust. This is adding volumes to final result helping to preserve some contrast on details. To achieve the effect on this model I used two enamel washes tones : Dust and Sand, from Humbrol enamel washes range.



Note the hastily applied white turret band and the faded markings on the hull rear.



I am used to Humbrol enamel colours but it was first time I used their washes range. Compared to standard tins, washes are somehow more thinned colours but with much more pigments. Actually you need to thin the washes further! I sprayed the lower hull and side walls behind running gears with a mix of Dust and Sand tones. After a few minutes, as soon as wash looks dry, I started to work it with a pointed brush moistened with thinner.

As paint is not yet truly dry, you can "move" the pigments around achieving quite interesting results. Once dry (after a couple of hours) I added some dots of Dark brown wash on some areas as it simulates still fresh earth. The Good thing about enamel washes is that you can correct effects 3-4 hours after application, making it a very flexible media. Once everything was dried, I finally glued bogies to hull and I proceeded to apply washes to them. For this part I used a #3 pointed brush and a lighter mix obtained by adding more Dust tone than Sand.

Again once applied and left to dry for a couple minutes, I started working it with a pointed brush. Once I was satisfied with final effect (darker dust on hull surfaces, lighter dust on bogies) I let it dry for a couple of days. The upper hull weathering took a little more of time. The first step was to spray

a mix of 40% Sand tone and 60% Dust tone to which I added a drop of Lifecolor "dry earth" pigment. I applied a little more on front hull than on the rear. After few minutes with a round brush moistened with thinner I worked the layer adding "clean" areas scuffed by crew boots, or adding more pigment in corners. Once completely dry I added a wash of Dust tone, this time applied with a round brush and thinned at 50%. This layer was not applied uniformly but it was applied in areas where some more contrast was necessary such as front hull, engine deck, hull roof, turret and the same treatment was applied on tracks.

After a couple of days, some light pin washes, made with thinned Raw Umber oil colour, was applied to details. Burnt Umber oil was also used to depict fuel spillages on left side tank fill. Some may question this practice, as gas does not attract so much dust and evaporates clean, but, this specific tank point is for the onboard auxiliary generator. This generator had a pre-mix fed 2 stroke engine. At that time for the mix, mineral oil was used (sometimes even the exhausted engine oil!) hence oil sticky spillages. A final very light drybrush with Sepia oil colour was added on some parts of models. Sepia when drybrushed, tend to leave a brownish shade which simulates quite convincingly worn olive drab colour.



Base is a simple piece of polystyrene foam with wooden baseboard sides. Ground is made with cellucloy and painted with Tamiya acrylics. Vegetations is a mix of Noch turf and Mininatur tufts. The figure is an old release from Lincoln County Line and represents an early war US tanker in coverall painted by my friend Pino Ortolani.



FINAL-LEE...

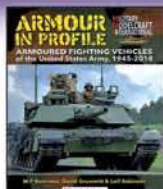
The M3A1 is an important part of the story of U.S. tank development. The new Takom kits offer an easier route to an accurate cast-hull Lee but if you are familiar with any of my other articles, I don't usually take the simple route anyway!



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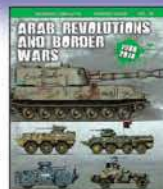
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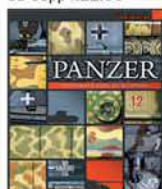
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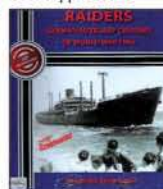
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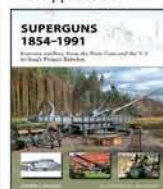
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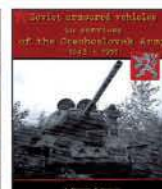
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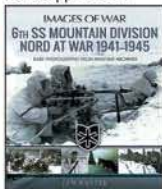
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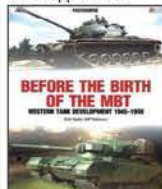
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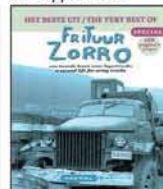
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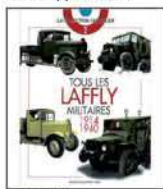
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Dan Moore modifies the Panda Hobby's Pz.Kpfw.38(t) Ausf.E/F to an Ausf.G

After the German occupation of Czechoslovakia in 1939 the German Army found to its delight to have inherited a relatively new Czech medium tank design, designated the "TNH" by the manufacturer ČKD (Praga). This modern vehicle was currently under production to be exported to several other nations, as well as originally destined to serve the Czech army in the future under the designation LT vz. 38. Compared to the contemporary light and medium tanks used by the Germans, the TNH was well armed with a 37mm Skoda A7 gun and 2x 7.92 mm ZB-37 MG's, had decent thickness armour (which would prove to be brittle and prone to shattering) and above all proved reliable. The new inclusion into German service required some internal layout changes and other minor details, and was pushed into production

under the "new management" of the ČKD factory which by this stage had become the well-known B.M.M. After vehicle trials were completed and incorporation into the Panzerwaffe the vehicle was re-designated under the name of LTM 38, and by 1940 had become the Sd.Kfz.140 Panzerkampfwagen (Pz.Kpfw.) 38 (t). Throughout its life the Pz.Kpfw.38 (t) went through various model changes as well as providing a solid chassis base and drivetrain for the successful Marder series of Tank destroyers, Grille SPG's, and other designs utilizing Pz.Kpfw.38 (t) components such as the Jagdpanzer 38 Hetzer. The Pz.Kpfw.38 (t) would battle on through all the major early-war conflicts that the German Panzerwaffe faced and could still be encountered occasionally in limited numbers right up until the end of hostilities in 1945.



1:16

Panda's Big 38(t)

Panda Hobby released their kit of the Pz.Kpfw.38 (t) Ausf.E/F in 2013 (Kit No.16001) in the not so common scale of 1/16, a wise choice to offer the modeller wishing to build a vehicle in a larger scale without swamping their workbench. The kit contents include 275 styrene parts, clear styrene parts for the periscopes, a sheet of photo etch, turned barrel, waterslide decals and 200+ individual track links moulded on brown styrene for the track sets. Panda's 38(t) has now been around for some time and there are various in-depth build reviews of the kit available to the modeller. I will mention at this point to be wary of Panda's kit instructions – steps 6-7 and 15-17 list incorrect numbering of parts, the old adage of check twice, glue once applies here!

Project Planning

Panda's offering of the 38(t) is labelled as having an option of Ausf.E or F versions. However, it also appears to have certain features that also feature on the Ausf.G. After perusing the excellent Panzer Tracts publication on the Pz.Kpfw.38 (t) it was noted that the Ausf.G production was between October '41 and June '42 which was the peak of the 38 (t) development in German use. In the end I decided to modify the E/F version to an Ausf.G so I could incorporate some of the late-production features. A set of Spade Ace metal tracks was purchased, along with Aber's stunning brass ZB-37 MG barrels. I already had an Aber aerial and workable tool clamps left over from another project, so anything else would have to be scratchbuilt or modified as necessary.

Construction Underway

The lower hull was quickly built up, which fits together nicely. The frontal lower hull plate unique to the Ausf.G (included in the kit) was added. The Ausf.G featured upgraded armour on frontal armour sections, made up of 50mm homogenous plate. Panda supplies this as two 25mm sandwiched plates, however in reality it was produced in one-piece sections. After some sanding and a stippled-on coat of Tamiya Liquid Surface Primer the visible join line was eliminated. This process would also be repeated for the frontal armour on the hull superstructure and turret. On the hull superstructure frontal armour several rivets were shaved off and re-added to the correct locations as per Ausf.G specs. The running gear was quickly assembled and dry fitted to the lower hull to test fit the Spade Ace metal tracks. These proved to be the most torturous part of the build. The wire supplied with the track was far too small a diameter, so 200+ track pins were cut from fine brass rod for a better fit. Each track link then required some degree of cleanup and reaming by hand with a small drill to fit the new track pins. After assembly the kit plastic track pin ends were added to the track links. With the track runs successfully test fitted and hit with a bath of Blacken-It the runs were sprayed with a decent coat of Tamiya X-18 Semi-Gloss Black with some XF-64 Red Brown added.



Onto the G details

The side trackguards were thinned at the ends and the odd dent added for interest. These are quite fiddly but look the part once on using the kit-supplied photo etched brackets. Several rivets and bolts were added where needed using Meng's handy rivet & bolt sets. The Notek light and mount had detail added and relocated to the correct Ausf.G location. The aerial mount was also rebuilt and detailed at this stage. Wiring was added to all electrical components on the vehicle where necessary using various diameter copper wire. The early-war rhomboid vehicle I.D plates were scratchbuilt from scrap brass and added to the sides and rear. At the rear of the vehicle small grade chain was added to the rebuilt tow coupling and upper engine deck flaps. The rear engine cooling/heating grill unique to the last Ausf.G's and Jagdpanzer/Marder derivatives proved to be quite tricky to scratch build – brass and plasticard was used but proved to be quite delicate and fell apart several times! As mentioned earlier on Aber's workable tool clamps were used, as well as the kit supplied tool straps. Lastly the vehicle Jack, onboard tools & perforated toolbox received some extra detailing and re-working to sharpen these components up a little.

Turret Turning

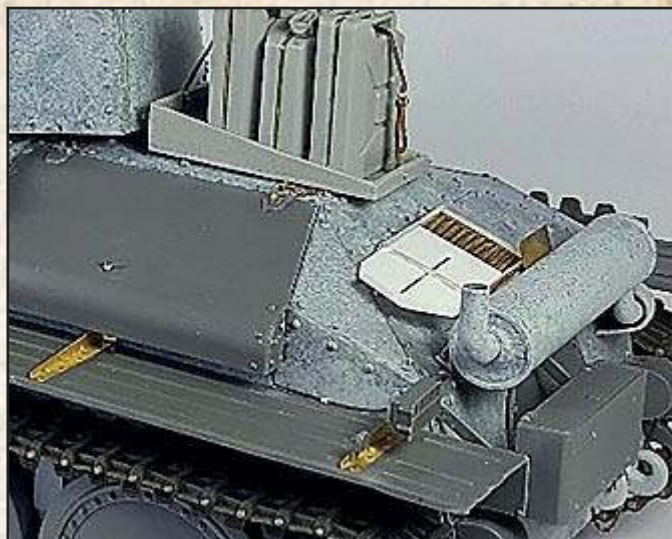
The turret was a very quick build and fitted together nicely. Apart from removing/adding rivets where necessary for the Ausf.G and adding the Aber MG the only other modification was the commander's hatch that had to be drilled and pinned to be workable. After the hull and turret received a lightly stippled on coat of thinned Tamiya Liquid Surface Primer on the armour sections the rear of the Panzer appeared a little bare. I found a reference picture of a vehicle belonging to the Pz.Rgt.21, attached to the 20.Pz.Div. which displayed a unit-level fitted Jerrycan rack. This was quickly scratched up and leftover Classy Hobby Jerrycans from another 1:16 scale build fitted.

Accessories

Aber – German 2m Aerial 16032, Set of 2 ZB-37 Barrels 16L-06,
Tool clamps 16013
Spade Ace – 1/16 SAT 16022 Metal Track Pz 38t
Arsenal35 1/16 ARS1601 Panzer Commander
Tamiya 1/16 Helmet, Classy hobby Jerrycans

References

Panzer Tracts No.18 Panzerkampfwagen 38 (t),
Osprey New Vanguard 215 Panzer 38 (t)



A comparison of the 1:16 38(t) alongside Meng's 1:35 Whippet. The scope for detailing in this large scale is endless (well demonstrated by the Editor with his ongoing Panzer IV project!)

Build Complete, Onto the Paint

As this was going to be an early war build there was only one real option colour wise – of course, German Grau! The entire vehicle and all of its components had a coat of thinned Tamiya Liquid Surface Primer airbrushed on to give the overlaying paint layers a solid key. I had never tried using Tamiya's new lacquer paint range before, so decided to try their new LP-27 German Grey. This was thinned with lacquer thinners and a few drops of XF-85 Rubber Black added. The main colour was built up in several thin layers to give some degree of modulation and contrast. The German Grau in reality was quite dark, and I was reasonably happy with the results. An overall "filter" of thinned Rubber Black and a few drops of X-22 Clear was misted on for a tough exterior final finish.

The outer roadwheels and idler wheels had Rubber Black applied for these items and hit with Testor's Dullcoate to kill the sheen.

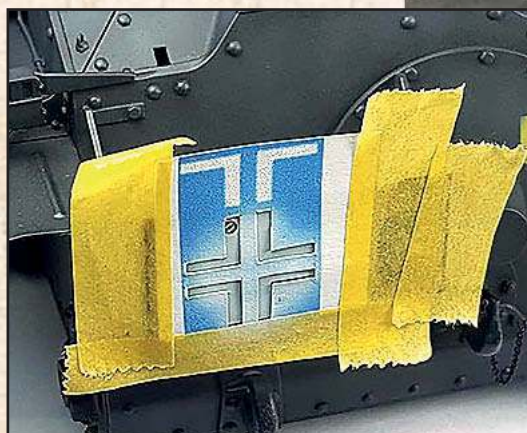


Masking Up

With the main painting now complete I realized the kit decals were never going to do the job in this larger scale. I researched and found some suitable pics of Pz.Kpfw.38 (t) belonging to the Pz.Rgt.21 operating on the Eastern Front in 1941-42. I thought I might try to attempt to make some homemade paper masks to simulate these markings. Suitable Balkenkreuz and vehicle numbers/markings were sourced, printed and carefully cut out using a new knife blade. These were held in place with Tamiya tape and the vehicle markings applied using thinned Tamiya acrylics airbrushed on at low pressure. In the end, there was surprisingly little paint bleed and I was satisfied with the results. The vehicle markings were then sealed in with Tamiya Clear.

Weathering the Ostfront

I had decided early on not to totally swamp all the grey in a heavy layer of muck, preferring a well-used but not heavily abused look for this particular build, keeping in mind that the time setting would allow for a relatively new vehicle. Mig AMMO and AK Pigments and enamel products were firstly used overall for dusty and dirty washes around bolt & rivet details. A combination of garden dirt and pigments were applied to the tracks, running gear and lower hull and set with Abteilung 502 pigment fixer to simulate a buildup of semi-dried mud and dirt. Pigments and various shades of artist's oils were used on the upper areas of the vehicle to simulate dust and dirt settling in all the usual places. Black artist's oils were lightly drybrushed on to show areas that were rubbed by the crew.



The rear exhaust muffler was painted in various shades of pale flesh and rust tones for areas affected differently by the heat. Ground lead pencil was sparingly applied with a cotton tip to handles and other highly-wearing spots. After lightly sanding the track pads the track sets were carefully added to the now re-attached running gear. The spare tracks were also weathered using the same approach as the main runs and were added to their required locations for an Ausf.G. The ZB 37 MG's received a coat of primer to seal in the brass, then were sprayed in Semi-Gloss Black. A dark rust wash was applied to the MG's then ground lead pencil was applied to the barrels and ball mounts with a cotton tip and worn paint brush for a metallizing effect.

Last Touches

The onboard tools and straps were painted with Vallejo acrylics and suitably weathered, with a helmet leftover from the spares box slung from the turret side. The jerrycans were also

painted and weathered and added to their onboard rack. I had purchased a resin commander figure early on in the build produced by Arsenal35. As there are very few early-war Panzer crew available it was fortunate that this figure had been sculpted with the Panda Hobby 38 (t) in mind. As much as I usually dislike painting figures I decided to push myself somewhat and painted up the 3/4 figure with Tamiya and Vallejo acrylics. After the commander was snugly placed in his cupola, the build had come to an end.

Final Thoughts

While the kit isn't perfect, it does provide great "bang for buck" and an excellent base for a more detailed build, with a side bonus being good parts fit and not being overly large. It did get me thinking though, imagine a mainstream Marder or Hetzer in this scale...



Panzerkampfwagen

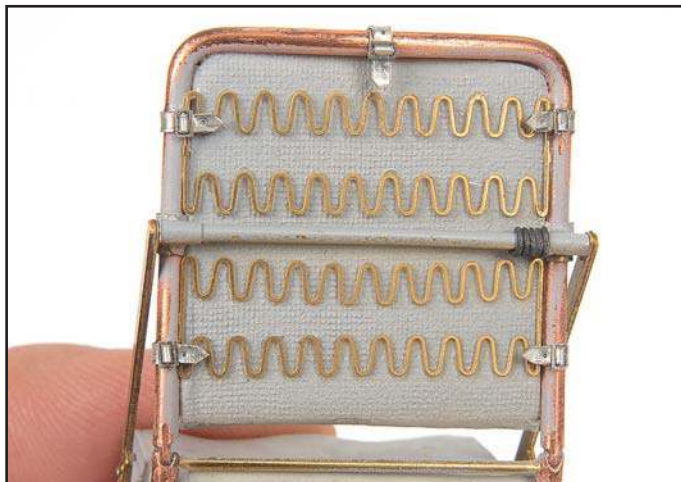
David Parker builds Trumpeter's 1:16 kit

M

Part Twenty Two

In this installment work continues on the front of the hull finishing the crew seats with some final details to be added and then painting and weathering. My attention then turned to the cross brace which divides the front compartment from the fighting compartment and supports the hull roof. I had neglected to do any work on the brace during the earlier construction phases but as I began to plan how I would be fitting the radios I realised that this

part would be critical for the radios. Most of the beam had to be reworked or completely replaced along with the vent pipe mounted to it. Earlier in the build I had assembled a pre-production set of radios and racks from ABER but I had to adapt the mounting frame to replicate the real thing. I also had to devise a method of mounting the radios so that they hover above the gearbox, being bolted to the hull roof in reality.



Time to go back and finish the Driver's seat so that it could be painted. I needed to add the seat cushion straps which I made using pewter sheet cut into strips and some spare HGW seatbelt buckles from one of their 1:48 Luftwaffe sets.



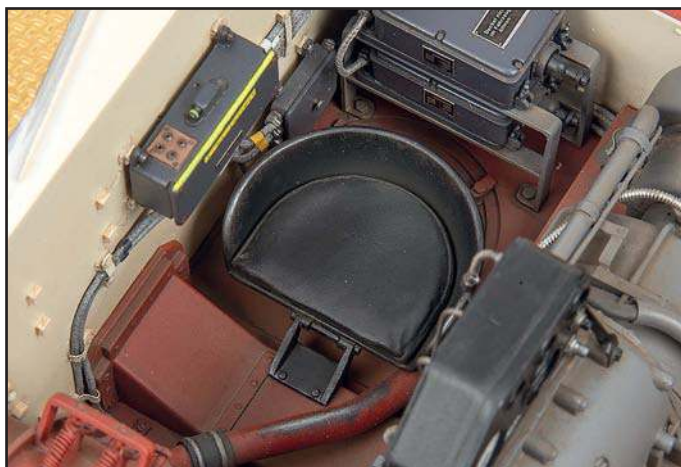
The same straps were also added to the bottom cushion, running around the seat frame.



The Radio Operator's seat was painted black using Vallejo Air Black which dries with a lovely soft sheen finish. I used tones of dark brown to add signs of wear around the top edges of the seat.



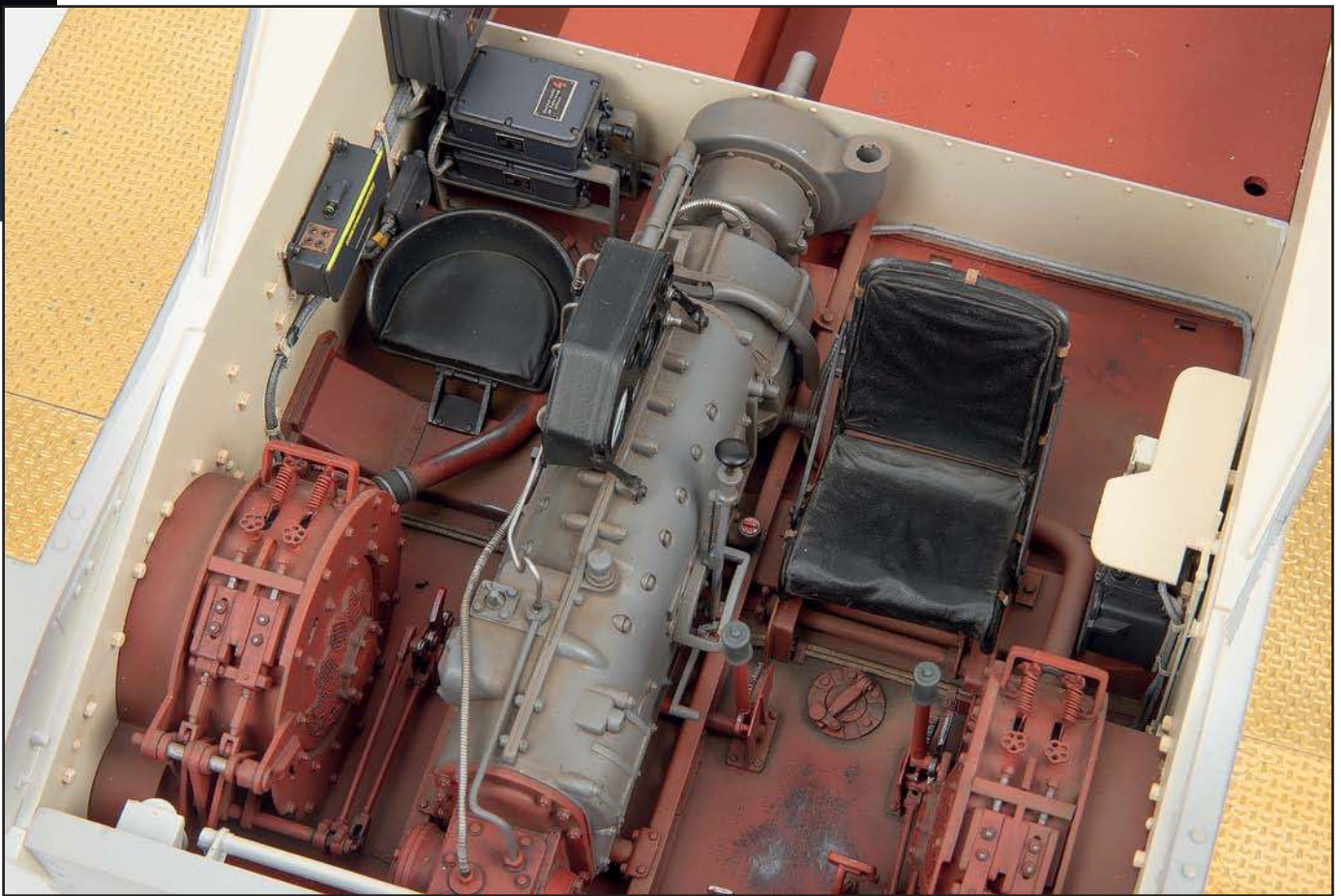
I used Ushi van der Rosten Polishing powder to apply a polished metal finish to the rounded corners of the seat back. The lower inside back of the seat was very slightly airbrushed where dust would collect behind the seat cushion and the cushion was glued into position.



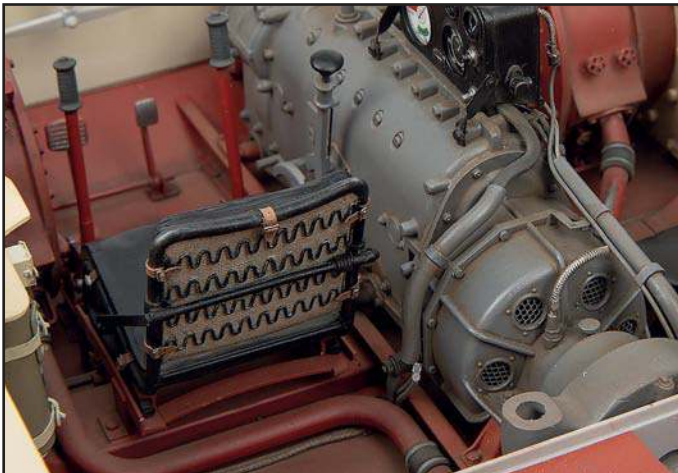
The seat was test fitted in the hull to check the appearance with the rest of the compartment.



The Driver's seat was finished in a similar way. I srayed the cushions with Mr Finishing Surfacer 1500 black using a spray can. This added a very subtle texture to the cushions. A wash of Lifecolor acrylics was applied and quickly wiped off to create the look of ingrained dirt.



The top corners of the Driver's seat frame were given a polished effect to reflect heavy wear. Both seats were test fitted in the hull to see how everything was looking.



The seat cushion straps were painted to replicate leather with Mr Metal Color Chrome Silver used to paint the buckles.



I started to look at the cross brace which supports the hull roof and quickly realised that the shape of the centre support was wrong so I made a new one.



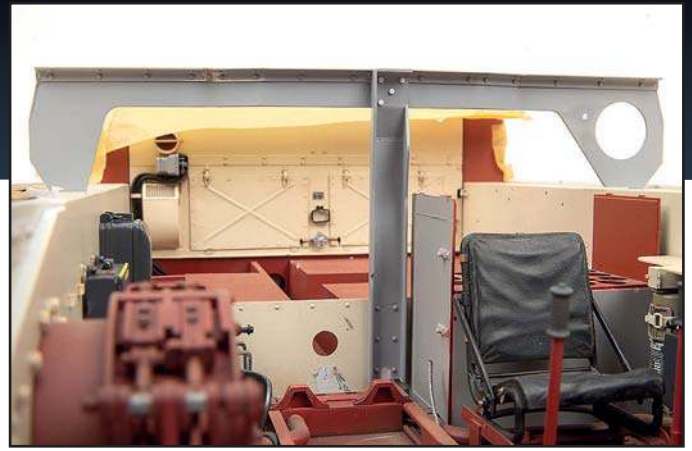
I removed the old centre support and I used 'L' profile strip to add the missing bracket along the top edge of the cross beam.



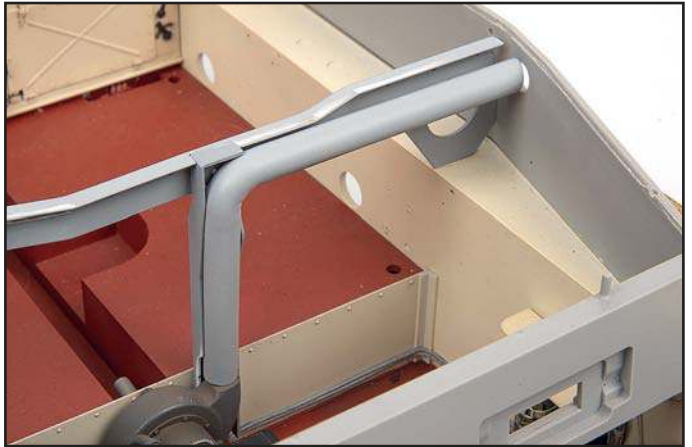
Any gaps were filled and the new centre support was fitted and a coat of Mr Surfacer was applied to check the finish.



The cross brace was then detailed using Masterclub 1mm rivets. The ends of the cross brace were also cut away to reflect the real thing rather than the straight ends of the kit version.



The kit vent pipe had to be replaced as it is kinked to follow the shape of the crossbrace but in reality it is a straight pipe. I used EMA Butyrate tube and connector to make a new pipe. The rippled inner face of the curved section was made with a burr.



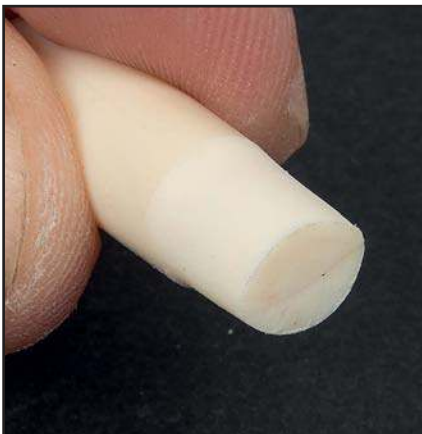
The pipe was test fitted and cut to size, multiple coats of Mr Surfacer were applied to make sure the joint lines in the pipe were completely eliminated.



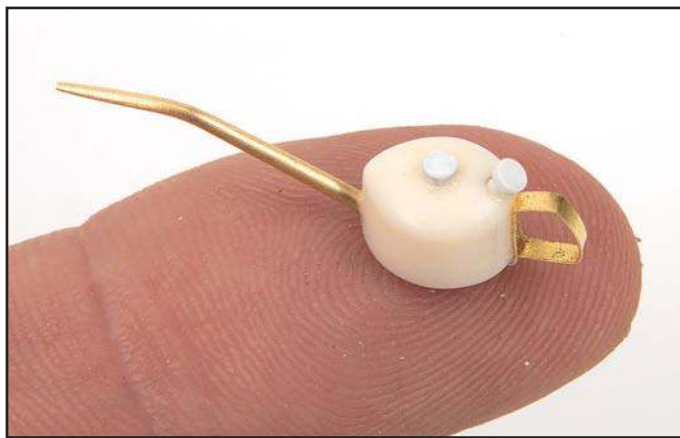
I went back to the ripples on the bend and boosted the effect with some Magic Sculp to replicate the finish on the real part.



I used pewter foil to make the rubber seals at each end of the pipe and self-adhesive aluminium foil for the clamps.



Mounted on the cross brace is a stowage point for a small oil can. I set about making a can first using a piece of scrap plastic which was filed into an elliptical shape. The edges were then softened using foam sanders and the shape was polished. This forms the body of the can and it was then cut from the rest of the rod and the cut surface was cleaned up.



I used brass rod for the spout because of its strength and this was tapered and then bent to shape. Scrap photoetch was used to make the handle and discs of plastic were used for the filler cap and plunger.



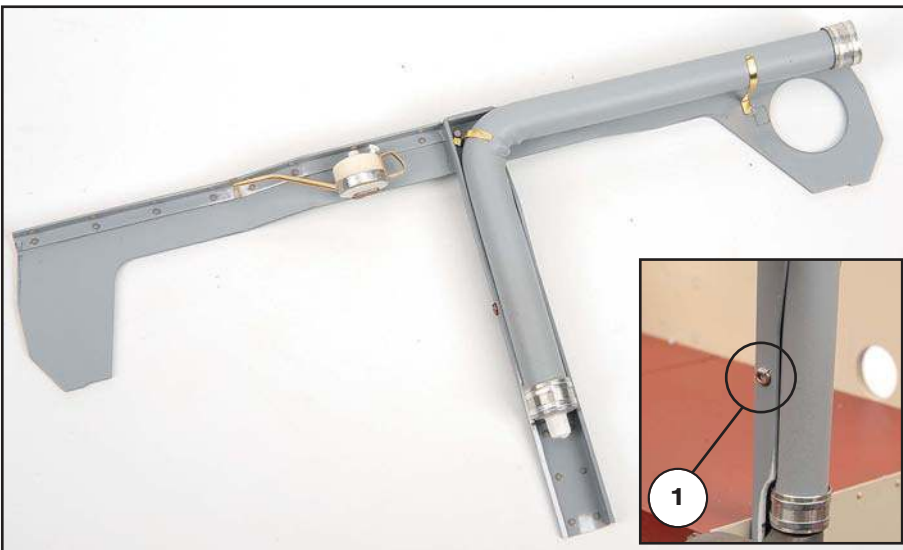
The mounting bracket was then constructed around the oil can with spring clips on each side to hold the can securely.



The kit does not provide any of the gasmask stowage points so I set about making my own. I modified a gasmask container, extending the length of it to the correct size and adding the correct latch detail. I used some scrap photoetch fret to construct the mounting frame. I used flattened lead solder



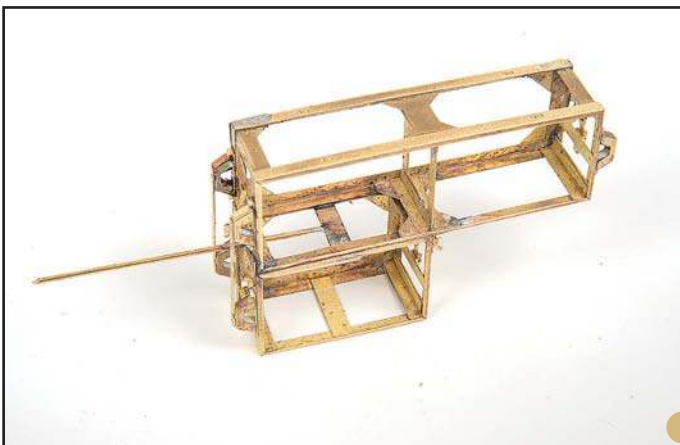
to make the leather padding on each of the support arms. The case was then glued into position and I used pewter strip and a photoetched buckle to make the strap to hold the case into the frame. I then arranged for resin copies to be made of this part.



The vent pipe was glued into position on the cross brace using 5 minute epoxy for maximum strength. I added a pin on the base of the pipe to locate into the fan housing on the back of the gearbox. I also added the pair of support brackets using scrap photoetch strip to make them. The oil can is also test fitted in position.

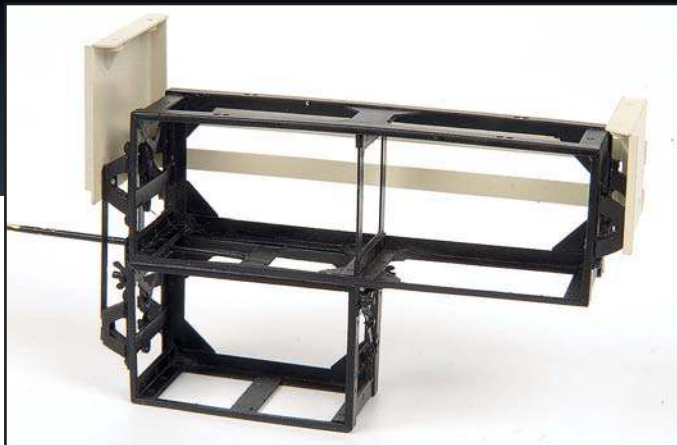
In the Panzer IV the radio racks are bolted to the hull roof. As my roof will be detachable I needed to find an alternative method of mounting the radios which will 'hover' above the gearbox. My plan was to use a brass rod on the side radio rack to mount it onto the vent pipe in the correct position. Although the pin is cheating it will allow me to correctly wire up the radios into the hull and my hope is that the rod will not be very visible between the vent pipe and the radio rack. A small stowage loop was added to the upright 1.

The radio rack was assembled from an ABER pre-release test as I felt it offered more finesse than the kit version but it is quite demanding to assemble. I left the rack as subassemblies and the radio facias (still to be detailed) separate too. I soldered a 0.6mm brass rod in between two of the racks in the frame to act as a mounting point.





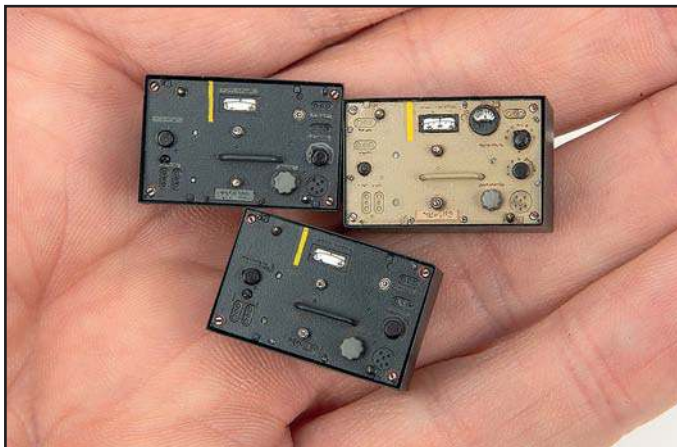
The radio facias were detailed using ABER screw heads and dials shaved off the kit radio sets.



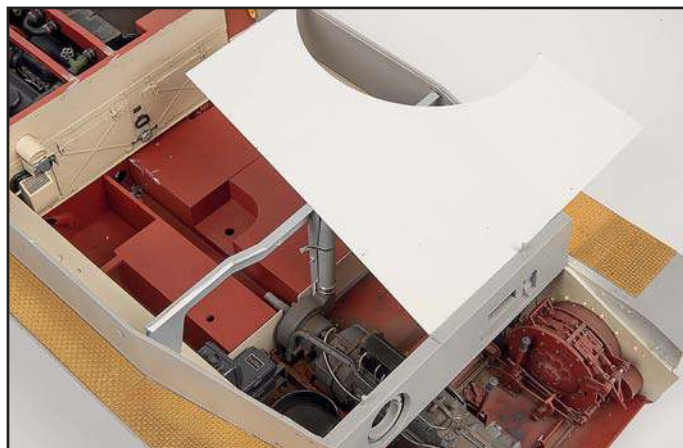
The two parts of the rack were painted separately and then assembled. The differing heights of the two end plates are to account for the sloped front section of the hull roof.



The radio facias were painted with a mix of different base colours to match the variations in colours on the real sets.



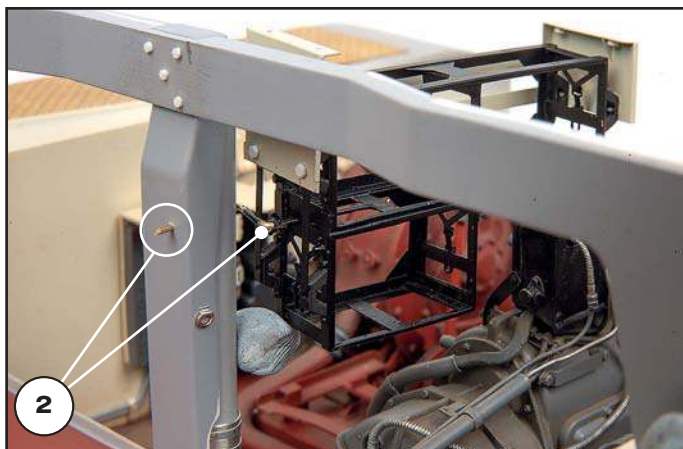
The facias were weathered and glued into their cases.



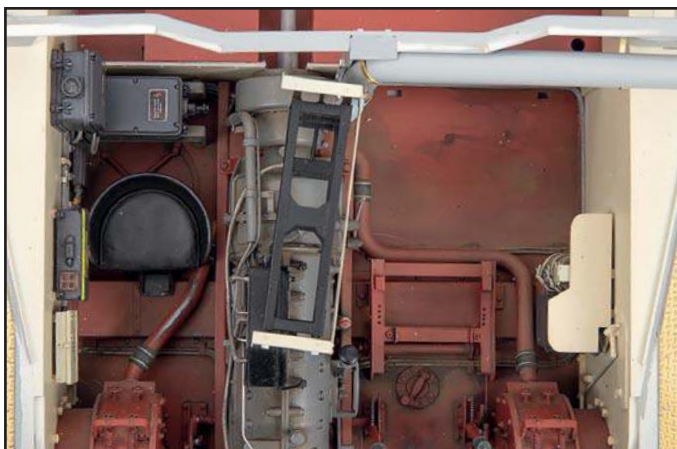
To establish the exact position of the rack which is mounted at an angle rather than perpendicular to the crossbeam I made a template from plastic card. This required a lot of adjustment and checking many times to work out the alignment.



Eventually I managed to achieve the desired result with the radio rack 'floating' above the gearbox.



Here you can see the pin from the radio rack **2** which had to be bent into a 'Z' shape to get the correct position for the rack. The pin passes right through the vent pipe and the upright for maximum strength. Once it is finally fitted the excess pin will be trimmed off.



An overhead view shows the angled arrangement of the radio rack in the hull.



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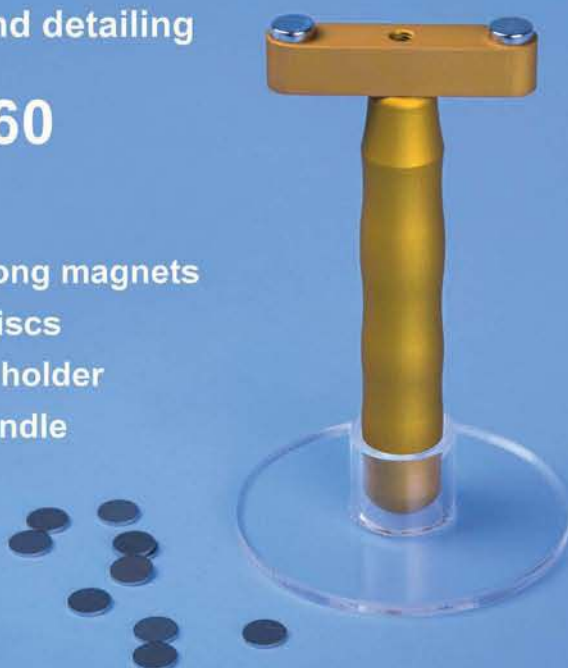
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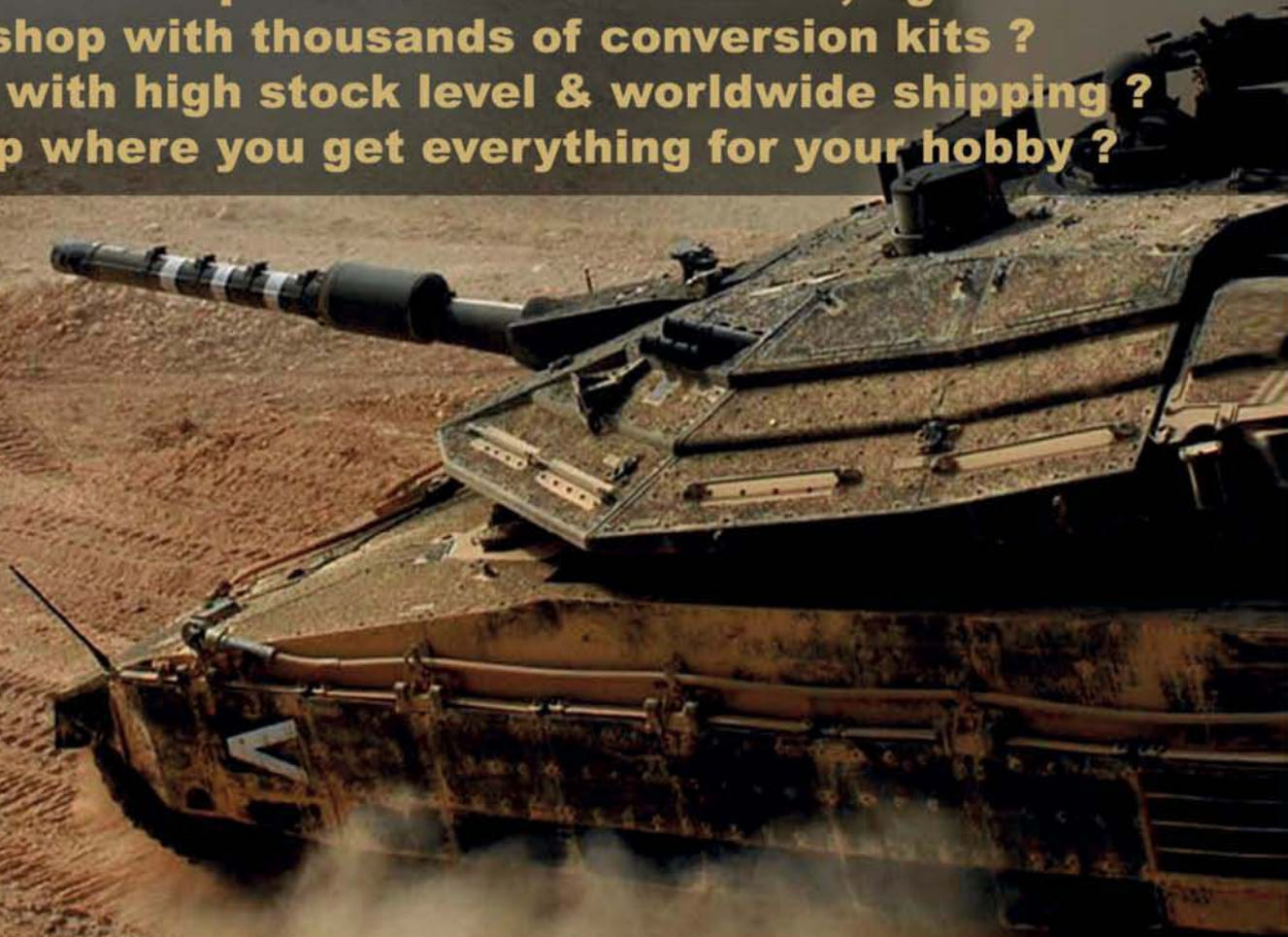
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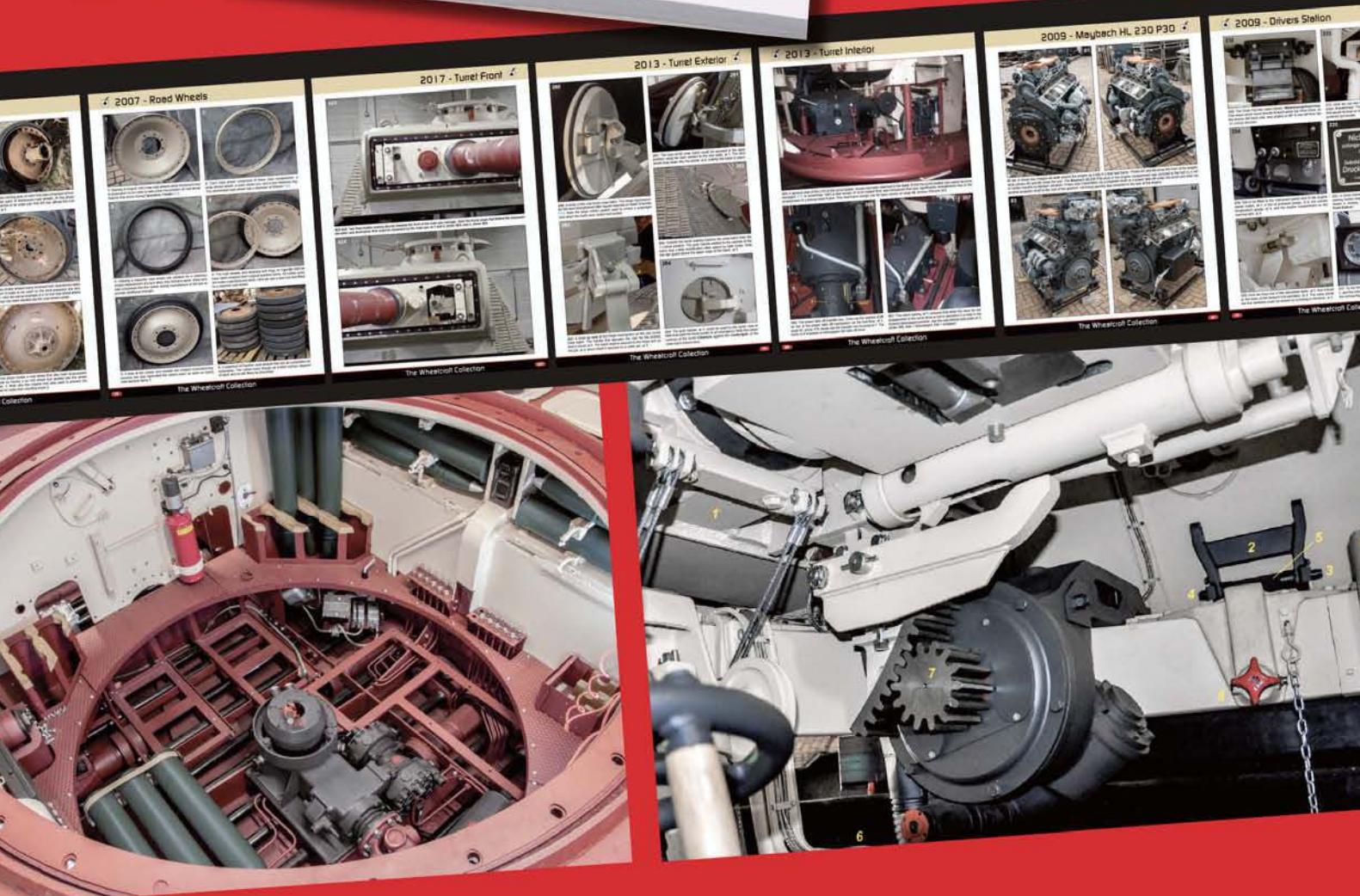
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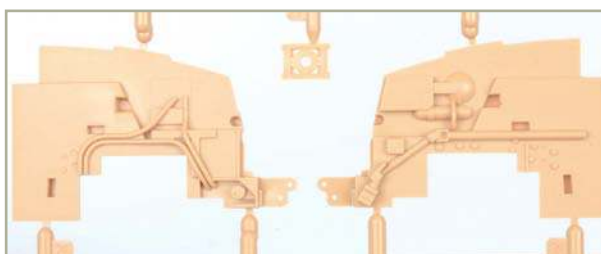
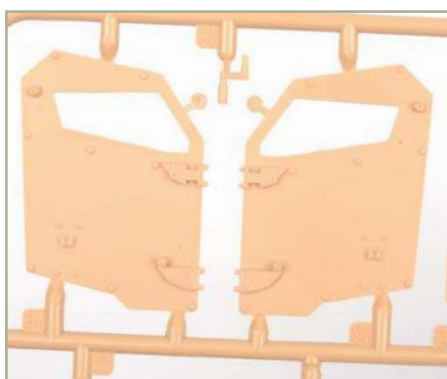
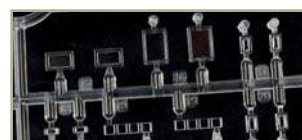
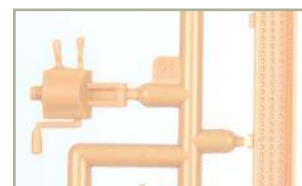
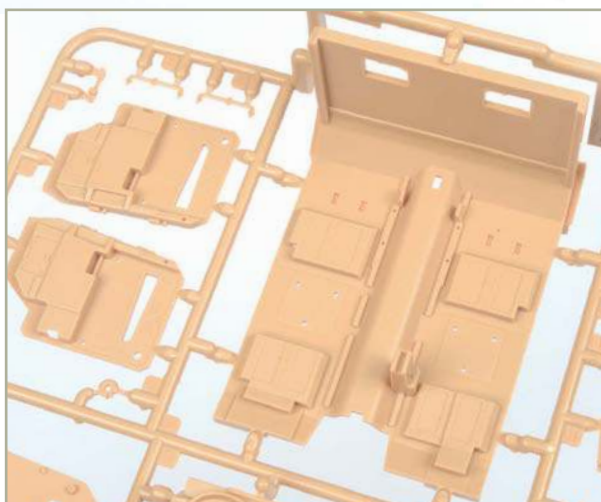
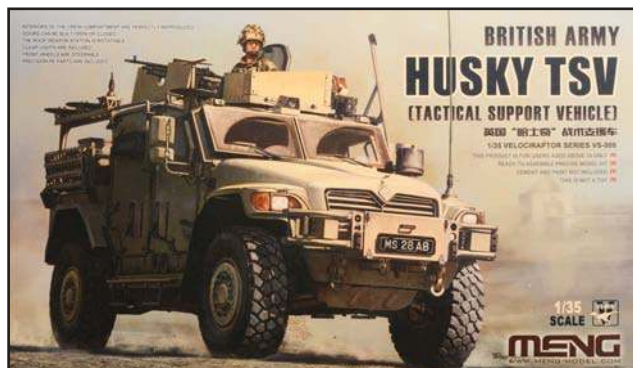
AL-03

LC-CS45



LC-CS43

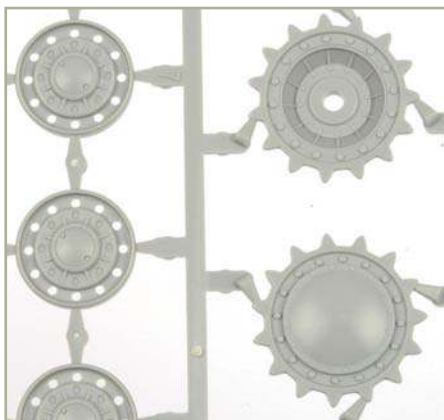




Meng 1:35 'Husky' Tactical Support Vehicle

With a need for better crew protection than the serving Land Rover based 4x4s the British Army purchased the U.S. built MXT-MV derived from the heavy pick-ups produced by Navistar. Named 'Husky' it's certainly equipped for harsh environments such as Afghanistan. This new Meng kit offers the modern vehicle modeller something brand new and on opening the beautifully presented packaging we're surprised to see the abundance of parts and the size of the Husky in 1:35; this truck is big, even by American standards! The box is packed with superbly moulded sprues in Meng's now usual sand-coloured styrene, a single piece cab, cargo bed and bonnet (ok, hood!) are quite stunning and have you suitably wound-up to get started on the build! The usual clear glazing (wrapped in a protective shrink material) is there

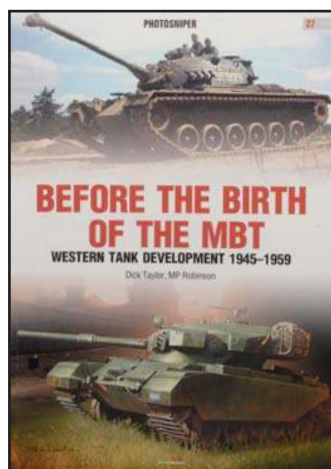
along with soft vinyl tyres which are nicely detailed. Suspension detail is very complete but unlike the actual vehicle which has four ride height settings, (including a complete snake-belly setting for accurate fire) the kit can only be built with suspension mid-range; understandable when you look at the design. Front wheels are posable which is always a welcome feature. Onto the main event, the cab. All doors can be positioned open should you wish and are highly detailed all round, the cab interior itself should look stunning with stowage racks and seating all faithfully reproduced. The weapon station is nicely done and remains movable as do the 'can racks at the side of the cargo bed. A really impressive kit with a great level of detail straight from the box, a great candidate for a little modern vignette.



Takom 1:35 Soviet Heavy Tank SMK

In a period of some quite bizarre design concepts by the Soviets comes the SMK (named after an assassinated Communist party official) which sits somewhere between the KV series and the T-35 multi-turreted land-ship. Only one of these test vehicles existed but a few images show it was used in the 'Winter War' with Finland where a mine disabled the SMK and it sat for a couple of months, good scope for a diorama! First impressions of the kit are that it's huge and reminiscent of the KV1 with similar running gear and turret shape. The main hull is provided as a single piece with some reinforcing internal webs to hold the shape, the bottom plate is separate. The kit is a pretty simple affair and well moulded throughout, only the individual link track looks to be time consuming but with only two sprue gates shouldn't cause any frustration. The mudguards have very positive

attachment points and detail extending to the undersides although a few pin marks are present. The turrets shells are split but join at their narrowest parts and the roof sections drop in as separate pieces, gun barrels are nicely done with hollow muzzles. The surfaces are covered with rivets and hex-head bolts, all crisply detailed promising some full-on painting and weathering pleasure, especially if you go for the whitewash option. A couple of 'What If' camo schemes are illustrated which would look terrific but please Takom, print your painting instructions larger. Some Photoetched mesh and woven copper tow cable are the only trinkets in this straight-forward kit; around half of the 500 parts count is down to the tracks so if you're after a swift build and painting fun this SMK could be just the ticket.



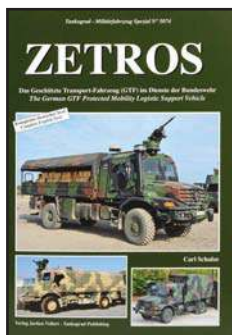
Before the Birth of the MBT Western Tank Development 1945-1959

Dick Taylor, MP Robinson
Published by Kagero
Softback format, 107 pages
ISBN 9788395157585
www.casematepublishers.co.uk



This new release from Kagero is sure to please post-war allied modellers (Western World to be more precise) as it charts the development of all the favourites such as Centurion, M48, Conqueror, AMX, Chaffee and Pershing with a great selection of images, some in colour, and factory

illustrations. Six pages of colour profiles also offer a good selection of modelling ideas. Some lesser known armour is also featured (Str74 and AMX50 to name a couple) which provide a full picture of the race to produce and sell the ultimate in armoured vehicles. Very interesting and nicely presented.

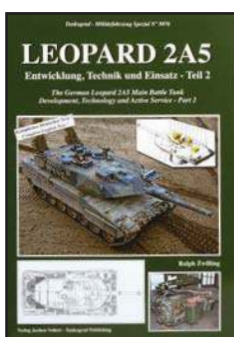
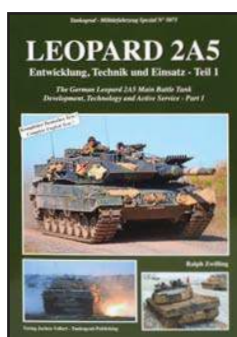


Zetros

Carl Schulze
Published by Tankograd
Softback format, 65 pages
English / German text
www.bookworldws.co.uk



The 'Geschütztes Transportfahrzeug 5t Zetros Protected Mobility Truck' to give it its full title, is yet another cool-looking German truck which is sure to be released in kit form at some point. This new Tankograd Special No 5074 covers the development by Mercedes-Benz illustrated with plenty of top-quality colour photos focussing on most of the military variants. A great collection of walk-around close-ups will provide excellent modelling reference, the armoured cab with remote weapons station looks particularly inviting as a kit, surely one for Revell to look at?



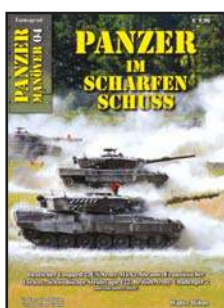
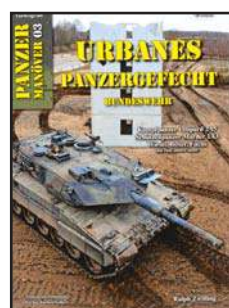
Leopard 2A5 Part 1 & Part 2

Ralph Zwilling
Published by Tankograd
Softback format,
Part 1-65 pages, Part 2-145 pages
English / German text
www.bookworldws.co.uk



Tankograd's new study of the Leopard 2A5 is split into two parts which combined give an excellent all-round reference of this popular modelling subject. Part one gives details of the background development and upgrade packages of the 2A5 and the deployment in the various Panzertruppe with some inspiring overall views of the big cat. Part two digs deeper and in more detail with great walk-around images of the technical aspects

(including sighting and gun control) and interior function with crew stations shown in detail. The photos are backed-up by factory-style technical illustrations and a good selection of 1:35 plans. Along with quality, Tankograd also offer excellent value. Always available from the UK's Bookworld, catch them at a model show or online at www.bookworldws.co.uk



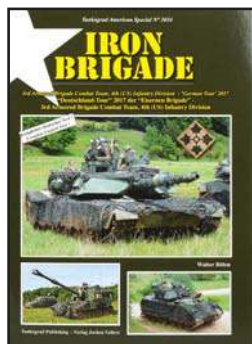
Panzer Manöver 3 / 4

Walter Böhm / Ralph Zwilling
Published by Tankograd
Softback format, 40 pages
German text
www.bookworldws.co.uk



Even if you don't read German the photos in these two manoeuvre specials are what we're interested in! Number 3 covers an urban combat training exercise by German forces with a collection of superb images of in-the-field Leopard 2A5, Marder, Fuchs, Wiesel and supporting infantry. Some excellent field camouflage is shown and proof of how filthy vehicles get on exercise. More of the same with Number 4 with the subject in

focus the 'Tank Challenge' of 2018 featuring U.S., U.K., German, Polish, Swedish, Danish, French, Austrian and Ukrainian tank crews competing against each other to show a 'Strong Europe'. Plenty of superb action shots to please any modern armour fan but my favourite (from a modelling perspective) has to be the T-84 Oplot fielded by Ukrainian forces. Germany won the competition if you're interested...probably on penalties.



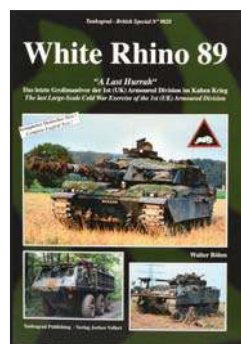
Iron Brigade

Walter Böhm
Published by Tankograd
Softback format, 65 pages
English / German text
www.bookworldws.co.uk



'American Special No 3034' from Tankograd is a great photo album of the U.S. 3rd Armored Brigade Combat Team, 4th Infantry Division tour of Germany 2017. A hugely diverse range of subjects are featured in quality large format images; Abrams, Bradley, Paladin and all of the

associated maintenance, engineer and supply vehicles provide modellers with superb colour and weathering reference. Colour illustrated tables throughout show the unit make-ups at a glance. Recommended to anyone modelling up-to-date U.S. armour.



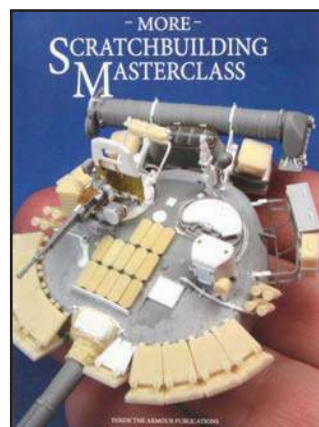
White Rhino 89

Walter Böhm
Published by Tankograd
Softback format, 65 pages
English / German text
www.bookworldws.co.uk



'A Last Hurrah' documents the final major cold War exercise of the British 1st Armoured Division (hence 'White Rhino'), it made my shudder to think this was thirty years ago! Looking through the vehicles certainly dates proceedings with Stalwarts, Chieftains and Challenger I's on display. A great collection of

images, descriptive text with diagrams and maps gives a great insight to this huge exercise (over 7,500 square kilometres, 11,000 troops and 237 MBTs!). With vehicles hard at work in the field were offered fantastic painting and weathering reference for British classics of the period.



More Scratchbuilding Masterclass

Published by Inside The Armour
Softback format, 94 pages
ISBN 9780993258848
www.insidethearmour.com



Even if you can afford the latest and greatest mega-kits nothing will impress your modelling peers more than scratchbuilding. Whether it's a conversion or a complete vehicle the research, skill and perseverance is as much admired now as it's always been. Following their successful 'Volume 1', ITA bring us another great collection of methods and materials to provide the novice with knowledge or even the seasoned builder with new tricks and tips. The four authors have all graced the pages of AFV Modeller in the past and the projects in focus are 'live' builds; Chris Meddings tackles a complete construction of a 1:350 ship (ok, a ship but the fundamentals remain for any subject), Alex Clark (the World

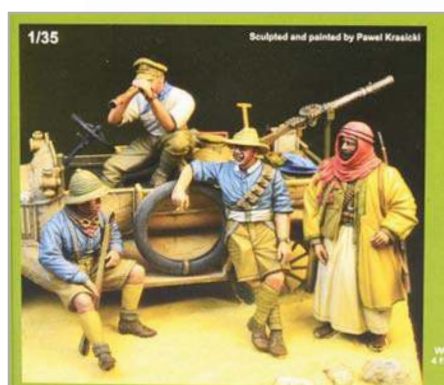
renowned small scale armour modeller) builds a T-84 turret, Andy Canning converts an IDF M3 halftrack and Darren Thompson tackles some serious detailing and conversion of WWII German subjects. Everything is explained in detail with large accompanying images taking the reader through the processes, materials and tools necessary. An in-depth look at designing and producing your own photoetch will be very useful to the serious detailers and certainly makes it all look do-able. Some fascinating reading once again and packed with tricks and tips for any modeller.



Lifecolor

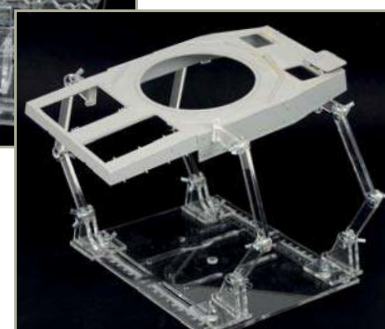
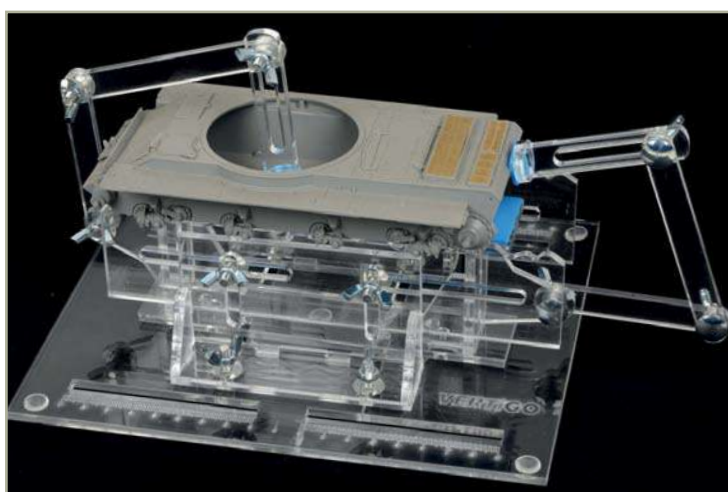
As long term users of Lifecolor we're always pleased to see new colours from the Italian manufacturer. All colours airbrush beautifully (their own thinner makes all the difference in our experience) but brush painting is where they really excell. This is obviously a big help for figure painting with strong pigment and dead flat finish but bearing in mind some complex camo schemes may be easier to brush paint, this new Caunter Scheme set is a

welcome addition to their authentic colour sets. Our own contributor Fabio Sacchi has helped with the research of these colours which look very good indeed. Another set to please modellers of Commonwealth subjects is a set of six WWI uniforms and equipment shades. Lifecolor product ranges are always available from The Airbrush Company, the UK distributors. www.airbrushes.com



D-Day Miniature Studio

Always ones to throw some creative figure sets out there, D-Day have come up with the goods again especially for modellers of Great War subjects. This set of three Anzacs and Palestinian local are designed to fit around the 1:35 Model T Ford but look like they'd easily adapt to many vehicles. The figures are full of character, beautifully sculpted and cast in keeping with the rest of D-Day's inspiring range. Some excellent vehicle stowage is also included. Take a look over at www.ddayminiaturestudio.com



Vertigo AFV Jig

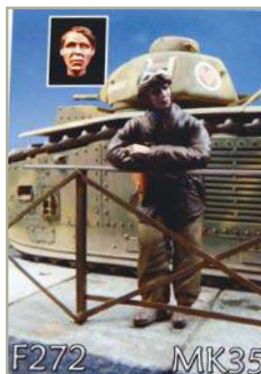
Already impressed by the helping hands offered by Vertigo's aircraft assembly jig they have now released an armour version. Basically the set provides a multitude of helping hands and clamps to allow you to work comfortably with both hands with multi-posable jigs and guides to aid suspension component assembly. The suspension jigs have both straight edges and a series of curves if you were setting articulated positions. We can see the safe and steady nature being ideal when placing photoetch, tracks and other fiddly components; far better than having your latest creation teetering on a couple of old paint tins. As well as assembly the unit will be very useful when painting and weathering, holding your model at the optimum angle and height and leaving both hands free. The stout corrugated box contains the laser-cut acrylic parts required and fitting hardware (small

coach-bolts, wing nuts and washers). A piece of thin foam is also included to be used as protective anti-slip pads. Instructions are basic but pretty clear (we're model builders after all!) and assembly takes around a couple of hours as it's quite involved. The precision cutting means much of the assembly is a push fit but some adhesive is essential for several parts, CA or epoxy will work fine. Once assembled adjustment is simple using the wingnuts, posing is almost infinite and most 1:35 and 1:16 vehicles should be accommodated easily. The unit certainly looks pretty swish and if your one of those modellers who can work tidy enough to see any of your cutting mat amongst the clutter it will certainly raise the 'cool factor' of your workspace. A high quality piece of equipment that could prove very useful indeed. Available from www.vertigo-miniatures.com



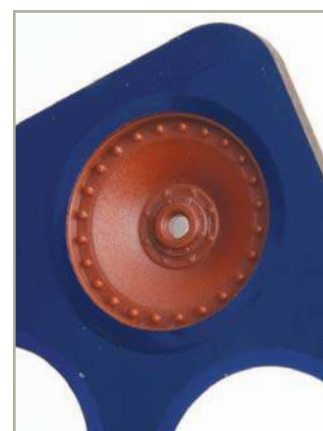
Blitz 1:35 resin figures

A superb new 'Premium' range of resin figures will please modellers of French subjects of both WWI (three excellent artillery crew) and WWII (tankers and officers). Sculpting and casting have lovely finesse and the poses are natural and would suit many French guns and vehicles. We flashed these over with primer to photograph them. Great additions to Blitz's excellent range, if you have a French fancy take a look at www.blitz-kit.fr



MK35 Editions

France's MK35 have for a long time supplied diorama builders with some excellent figures. Known for their range of civilian subjects, F270 represents a brick layer who would suit any scene from 1920s to '50's. Also expanding their wide range of French WWII figures is a tanker from 1940 and for German modellers a couple of releases depicting StuG III crew; F273 has a commander and gunner posed in their hatches and F275 compliments them well with a crewman tying a cover to the gun muzzle. MK35 have their own web-shop over at www.mk35.com



Quickwheel

There's no denying that road wheel tyres on tanks are laborious to paint, that's also what the guys at Quickwheel think so they developed their unique masking system. The masks are made from a durable and re-usable material with an absolute precision fit (sets are designed for specific kits) and new releases are well catered for (if only we'd received our samples before painting the Meng BUK in this issue!). The principle is simple; airbrush your

choice of tyre black and allow it to dry. Insert the wheels into the back of the mask so the soft 'lip' masks the tyres up to the wheel rim and spray the wheel the required colour. Once dry, pop out the wheels and voila; perfectly painted tyres. Ideal especially when you have a high contrasting colour.

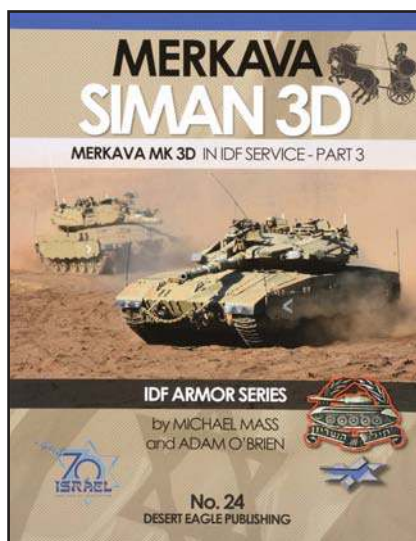
www.quickwheelstore.com is the place to view the full range and shop.



The Airbrush Company

If you're looking into purchasing an airbrush it's probably one of the most significant outlays you can make in modelling equipment so whether you're upgrading or looking for something to do a different job it's important to make the right choice. The market for airbrushes these days is massive, you can pay anything from £40 to £400 and as with most things, you pretty much get what you pay for. A new initiative from the long established experts at the Airbrush Company and their excellent Iwata range will help everyone make the right decision to suit their needs. '5 Ways To Spray' sensibly categorises and colour-codes the Iwata range into 1:Absolute Precision, 2:Total Control, 3:All-Star Versatility, 4:Effortless Coverage and 5:Full Finish. Basically, 1 is the ultra-fine end of the scale and 5 for airbrushes capable of a broader coverage (probably too much for the kind of aircraft most of us are building). We're great fans of 'trigger' style airbrushes, with a larger fluid cup and comfortable trigger action they are excellent

for primers and base colours. The Iwata High-Line HP-TH falls into category 2 and is a superb quality trigger airbrush which not only can lay down a good coverage but also is capable of some finer work too. The Micro Control valves of the 'High Line' series allow fine tuning of the air flow and in conjunction with the adjustable needle-stop handle you can achieve constant fine lines with relative ease (perfect for 'squiggle' pattern camo). The HP-TH also includes an optional nozzle allowing a fan pattern of spray (along with the standard circular pattern we're used to). With a 0.5mm needle size this 'brush is pretty forgiving of any modelling paint you might want to pass through it. The quality of manufacture and materials are first rate, an Iwata should last a lifetime if cared for and a five or ten year conditional warranty is offered from The Airbrush Company on all Iwata manufactured ranges. Check out the new 5 Ways to Spray information and absolutely anything airbrush related at www.airbrushes.com



Merkava Siman 3D- Part 3

Michael Mass and Adam O'Brien

Published by Desert Eagle

Softback format, 82 pages

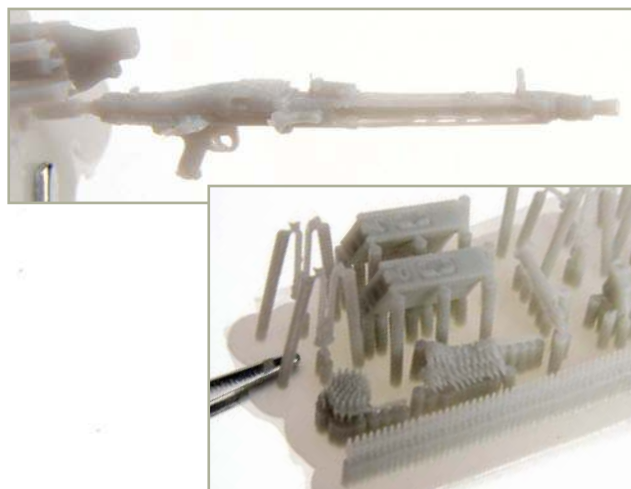
ISBN 978965 7700 112

www.deserteagle-publishing.com



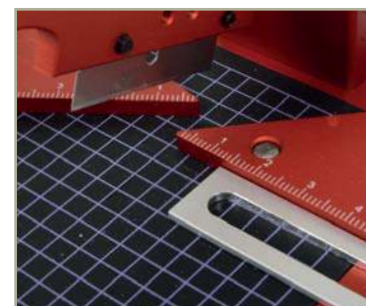
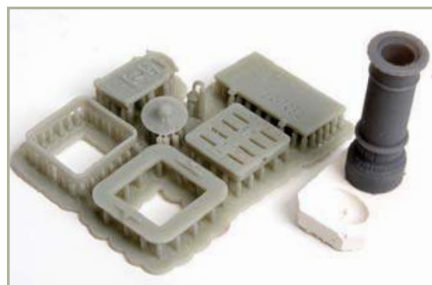
The IDF's Merkava 3D is revisited by the Desert Eagle team with Volume 3 providing the usual Desert Eagle approach of quality large format colour images and detailed, knowledgeable research resulting in the perfect visual modelling reference. With unique access the author's photographs capture perfectly not only these monster machines at work but also the smaller details that will really bring a model to life. Some superb reference is offered of

the powerpack and instructor's chair with the front mounted 'battering ram' also included in great detail. Working crews, weapons and insignia also receive great coverage resulting in another essential addition to the library of any IDF modeller and always highly recommended. Our thanks to www.aviationbookcentre.com for our sample copy.



HD Models

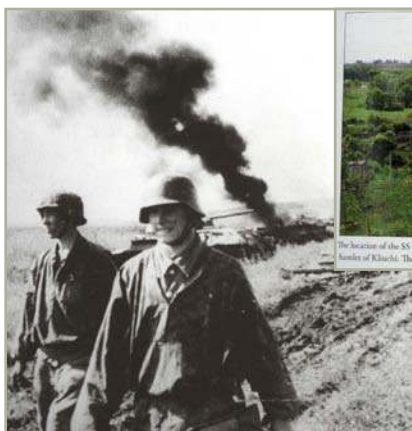
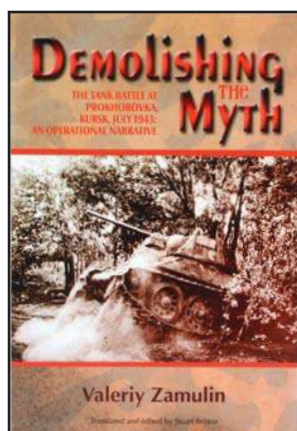
A recent company to the market with some very fresh ideas using the latest technology combining high-end 3D printing and quality resin casting, we were recently introduced to HD Models from Rome. They offer a diverse mix of modern diorama accessories, such as dumpsters and port-a-loos, and more traditional detailing sets such as the MG42 are all available to view and order on their website. We received a sample of HD's 'Panzerneest' MG bunker which is beautifully detailed complete with a full interior; a few scenes spring to mind...perhaps a crane installing the bunker into it's hole or just an interesting backdrop to some figures. Another nice scenic accessory is the Roman water fountain in resin, plaster and 3D print. The pair of 1:35 MG42's is another incredibly well detailed piece with open cooling slots along the barrel sleeve. It comes with a choice of open or closed bipods, two superbly detailed ammo boxes and three different groupings of ammunition. HD also offer 3D printing services and 3D scanning, details of this is also available on their website, well worth a look www.hdmodels.it



RP Toolz cutter

Quality tools are always an excellent investment and they don't come any better than Hungarian manufacturer RP Toolz. We're already avid users of their Punch & Die sets, rollers and folders but this superb cutter would take pride of place on most desks for looks alone! This type of chopping tool has been available for many years, but never like this; precision machined from aluminium and anodised the action of the moving parts make it an absolute pleasure to use and the quality of manufacture means it should last a lifetime. There is complete control and none of the flexing that undermined to operation of plastic

guillotine cutters. A cutting mat insert prevents slipping and saves the edge of the blade when cutting styrene, wood or equivalent materials. If you're left handed, no problem as the holding clamp can be moved side to side and each side has an angle setter for precise mitres. A spare blade is included along with an allen key for changing it. This is a superb high quality piece which handles fabulously and is manufactured to provide decades of cutting action. If you ever dabble with a little scratch building of parts, converting or photoetch work this range of tools are invaluable, check out www.rptoolz.com for full details and secure shopping.



Demolishing the Myth, The Tank Battle at Prokhorovka, Kursk July 1943

Valeriy Zamulin

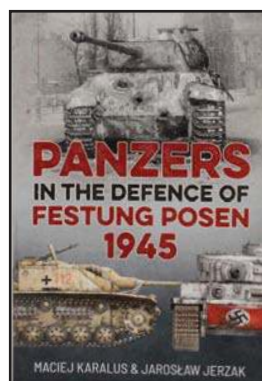
Published by Helion and Company

Softback format, 646 pages

ISBN 9781912174355

www.casematepublishers.co.uk

Now available in English, first published in Russia in 2005 this book is the result of five years intense research of previously secret Russian Ministry of Defense archives and throws-up a whole new wealth of information for the historians of the famous battle of Kursk. Very much a history book there are a selection of period images, maps and some fascinating 'then and now' photographs. A very interesting and in-depth study especially from the Russian side which establishes the importance of the counter attack at Prokhorovka.



Panzer in the Defence of Festung Posen 1945

Maciej Karalus, Jaroslaw Jerzak

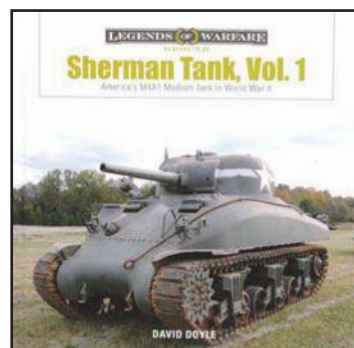
Published by Helion and Company

Softback format, 96 pages

ISBN 9781912390168

www.casematepublishers.co.uk

Another in-depth WWII study for the historian with the first detailed study of the month long battle to defend the Polish city declared a Festung (fortress) which was occupied very early in WWII. With information based heavily on witness accounts and free of any distortion and censorship by the communist propaganda. A good selection of small format images (which appear to be from private sources) are included with several tables, maps and 'then and now' images. Informative reading if you have an interest in the desperate 'thrown-together' German units towards the end of the war.



Sherman Tank, Volume 1

David Doyle

Published by Schiffer

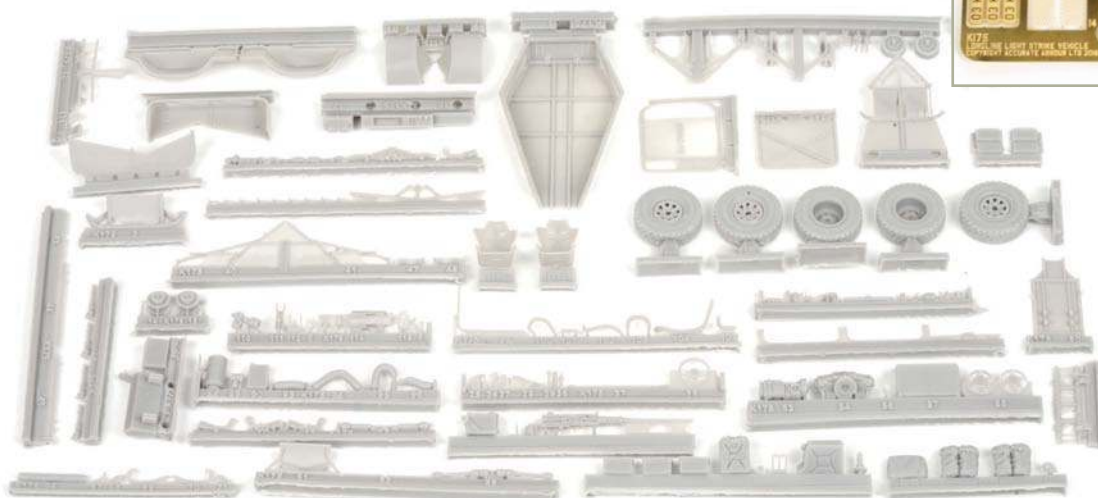
Hardback format, 112 pages

ISBN 9780764355677

www.daviddoylebooks.com

If you don't know your direct vision from your large hatch here's a great place to start! This 'Legends of Warfare' series have impressed us so far with their excellent presentation hardback format at a price-point you'd expect to pay for a smaller softback publication. If anyone should be able to put together a good guide to the M1A1 it's prolific U.S. military author David Doyle, and he does just that taking the reader through the development and subsequent versions with a superb collection of images ranging

from factory illustrations and images to contemporary shots of preserved Shermans with walk-around style close ups of features and interior reference. An 'In Action' chapter has some great old favourites on show along with original colour photos. There's certainly no shortage of in-depth books on the M4 but here the modeller is offered a good concise affordable reference in a nice format.



Accurate Armour 1:35 SAS Longline Light Strike Vehicle

Since 1987 suppliers of subjects deemed a little unusual for the mainstream manufacturers, Scotland's Accurate Armour, are still going strong and introducing new kits and accessories regularly to their huge range. Well known for their post-war British subjects this latest vehicle release is typical of what AA are all about, these Special Air Service operated armed 'buggies' are based on the principle of off-road sand rail racers (typical of the Californian Baja desert competitions) with tubular frames and bolted-on VW suspension and engines. This version is a 2WD LSV as trialled in the 1991 Gulf War. Finely cast in resin, the kit includes photoetch, carbon fibre rod, a spring and clear parts where necessary.

Embracing modern technology this kit has been CAD designed and mastered which shows in the finesse and production which is excellent. Multi-media kits are for the more experienced modeller but with modern technology and much improved full-colour instructions they are certainly more accessible than in the past, around 150 resin parts and 20 photoetched pieces for a jeep-sized vehicle mean this kit is packed with fine detail and everything is on show. The wheels are beautifully done as is the .50 Cal. and VW 1.9 water-boxer engine. Take a look at the photos of the finished kit over at www.accurate-armour.com, very impressive.



Hotchkiss H35 and H39 Through a German Lens

Alan Ranger
Published by Stratus / MMP
Softback format, 72 pages
ISBN 9788365281845
www.mmpbooks.biz

The 'Camera On' series continues, this being number seven, providing great modelling inspiration and reference with large format images and detailed captions. WWI and WWII French subjects make great modelling subjects with their colourful markings and camouflage which are epitomised by the Hotchkiss cavalry tank (cast your mind back to the Editor's project in issue 89). This series of books concentrates on images taken by the troops on the ground, this means the quality

can vary somewhat but it's preferable than seeing the same 'official' images that have been printed many times before. Most of the images are previously unpublished and are of abandoned vehicles snapped by German troops but a chapter of the Hotchkiss pressed into German service has some great pictures of anti-partisan operations, some wearing winter whitewash. A great collection of images, great value and a must have for fans of French WW2 armour.

1:35

ZACK SEX updates the Miniart T54 model 1949 to a later variant that saw service on many hot fronts during the Cold War



CAMBODIAN

T54M

Having been watching with some amazement the assortment of superb early T-54s, standard variants, T-55s and now the BMR mine clearing vehicles that Miniart have been churning out, I was determined to build a few if not most of them. I first tested out their T-44M which I planned to alter a fair bit, I found it a reasonably complex kit to assemble, for example you can assemble Tamiya's T-55 lower hull in twenty minutes, not so Miniart's T-54/55 hull which contains multiple assemblies, torsion bars and requires careful construction and cleaning. It must also be said that you get the etch you require and many of the kits can be purchased with stunning complete interiors and engine bays. On a personal note I found such exactness and precision slightly intimidating in the sense that I felt it was a bit risky chopping away kit parts to alter the kit to a later variant, but screw your courage

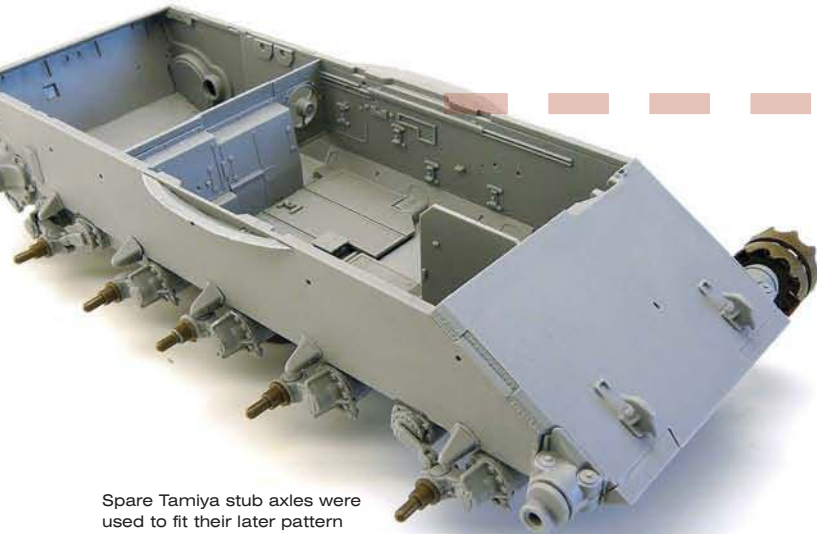
to the mast and you'll be grand! The late model 1949 update had been exported by the Soviets to Syria, Afghanistan, Vietnam and Angola with the Vietnamese passing on a number to Cambodia while Syria donated at least one along with standard T-54s to Lebanon. The Afghan DRA mounted rubber side skirts to a number of their T-54M and used a number of them as mine clearing tanks, but it was the somewhat shabby Cambodian versions that appealed to me. Not all T-54 model 1949 were updated to the same standard Syrian variants used in the failed attack on Jordan in 1970, some had 'star fish' wheels in place of the original spider web pattern, but retained the older commander's hatch and simple periscopic sights. The Cambodian variant I had my heart set on had a more extensive update package added as we shall see.



LOWER HULL

While not a major scratch build or chop up job, I set about altering the Miniart kit in a systematic fashion, not wanting to ruin a perfectly good kit. The first area I tackled was the lower hull and in particular the torsion bar arms, Miniart's one weak area is the join between the torsion bars and spider Web wheels provided. As I would be using later Tamiya Starfish design ones I simply cut ten attachment ends off spare ones I had collected from Tamiya kits over the years (there are two spare in each kit) and super glued them to the Miniart torsion bar midsection. The Tamiya road

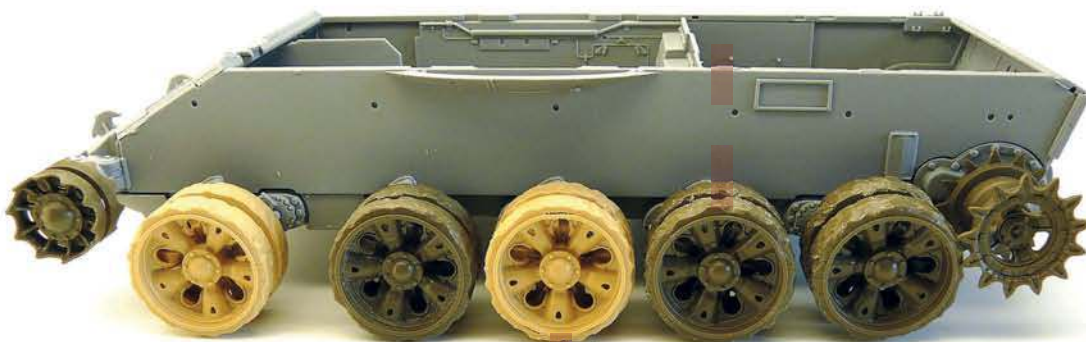
wheels got a rough dremeling followed by a rub down with a wire brush head to clean off any plastic flecks. The front and rear sprockets were also replaced with more modern parts these were super glued into position and the Miniart tracks which my pal Arthuras had taken away cut out, cleaned up and glued in lengths were then shaped around the wheels in a loose fashion as indicated by my reference shots of Cambodian T54s in the field during operations.



Spare Tamiya stub axles were used to fit their later pattern 'Starfish' wheels.



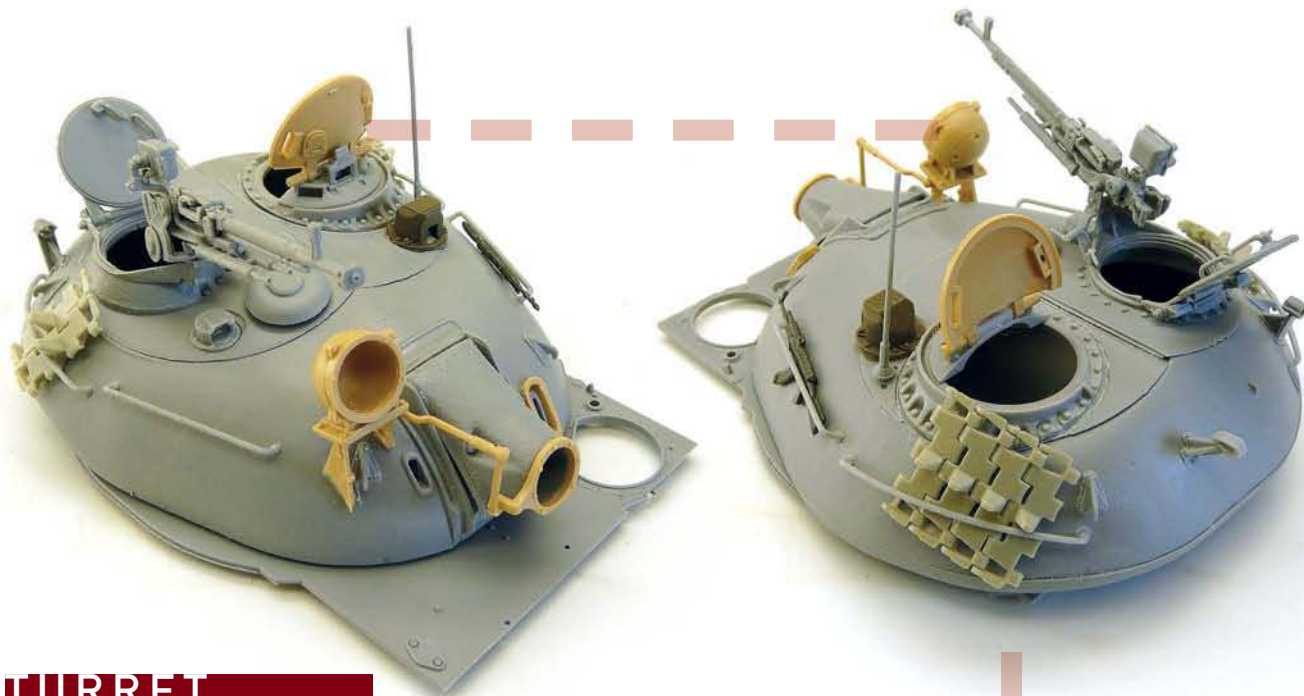
My reference showed heavily damaged tyres replicated with a Dremel motor tool.



Later style Tamiya sprockets were also used for this Cambodian custom-build.

Miniart provide fully detailed interior options with their T-54 and T-55 kits; just the basics of the bulkhead and hull sides can be seen here in this 'external' kit. Miniart's individual link tracks in their kits are superb; detailed right-down to casting numbers on each link.





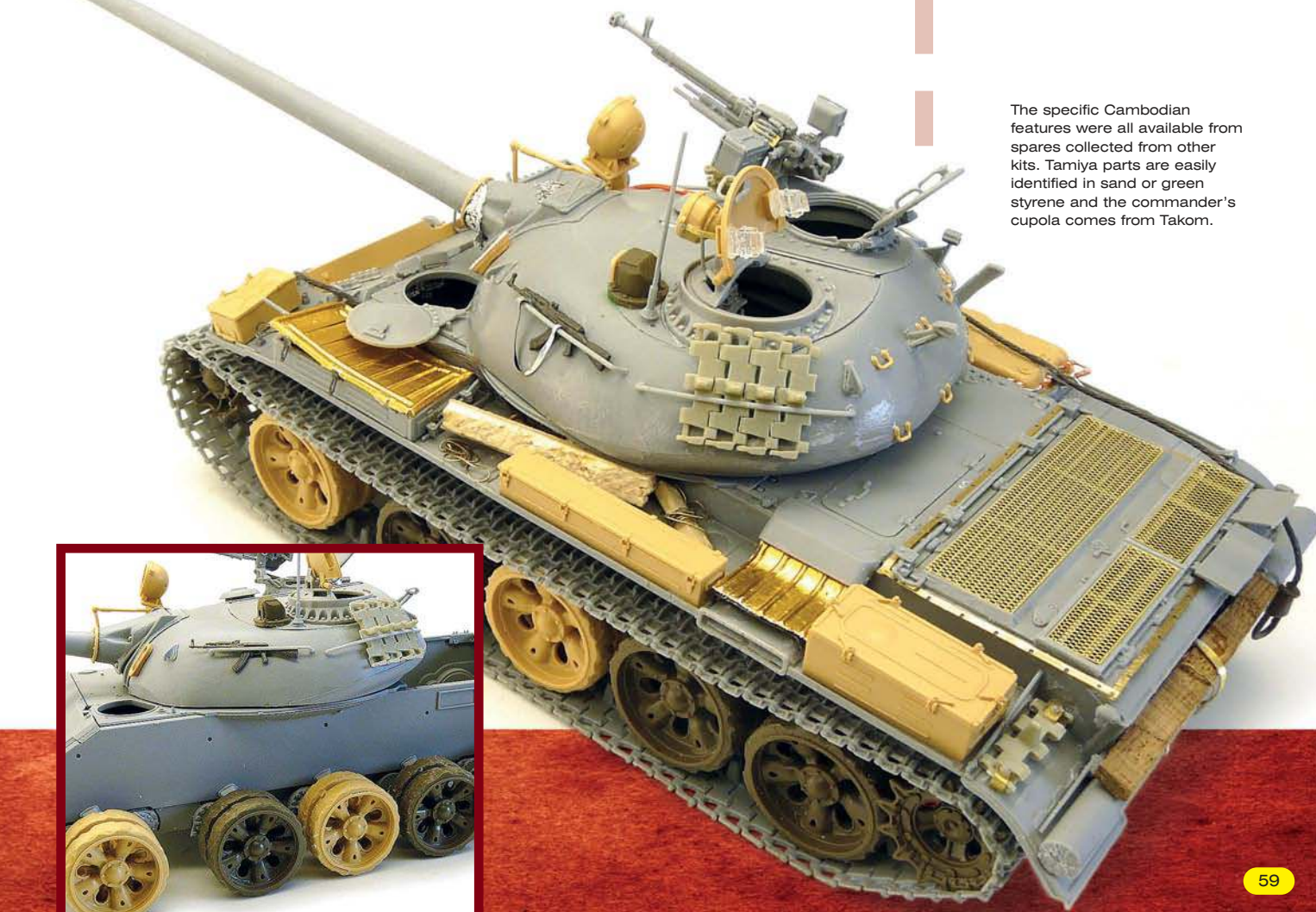
TURRET

At this point after a discussion on the Facebook T55 group I began to focus on the turret rather than the upper hull. The Miniart turret required a TPN-1-42-11 Night sight (many modellers will know this as the standard gunner's sight on the T55/62 series), the corresponding L-2 Luna IR spot light and smaller commander's OU-3 spot light, all of which I had as spares from various Tamiya kits. The clincher of this bit of work was dremel-ing off the commander's cupola ring and replacing it with a correct Takom offering on which to attach the commander's hatch and fittings.

Having completed this part of the operation I added a counter weight to the end of the 100mm tank barrel made from a section of ESCI T55 fume extractor

which fitted very well.

I also dremel-ed out the L-2 Luna lamp lens to depict a battle damaged or broken unit and glued an empty ring inside the hollow casing. It is worth mentioning that the Miniart DSHK 12.7 mm AA gun that comes with the kit is extremely well detailed, with ammunition feed going in from the left and an empty cartridge belt exiting the right of gun. Finally I detailed the inner face of the driver's hatch with two periscopes and a access handle from the spares box and added an AK-47 and some spare track behind the turret grab handles as depicted in a Cambodian Army reference shot.



The specific Cambodian features were all available from spares collected from other kits. Tamiya parts are easily identified in sand or green styrene and the commander's cupola comes from Takom.



UPPER HULL

The last phase of alterations or construction centered around the rear engine deck and KMT fitting added to the front upper and lower hull.

Having come across images of a Russian T54M abandoned in a old tank depot I noticed that the engine deck had a wading frame work attached around the rear decking area and that the hinges for the air filter unit hatch were moved on updated variants to the side of the hull rather than their rear original rear facing position.

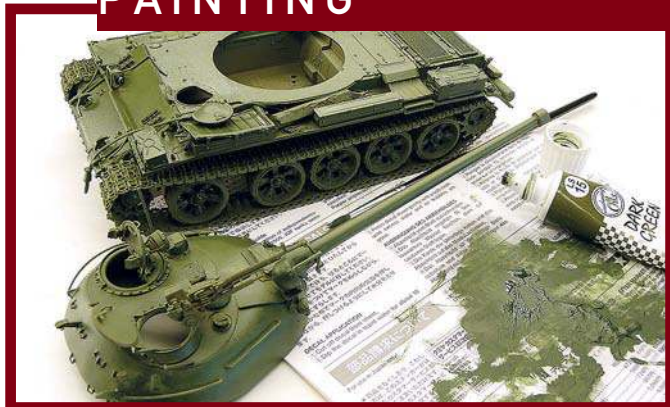
I trimmed back various fitting and super glued a Takom etched wading frame into the appropriate position and careful removed and repositioned the hinges in question. The front KMT attachment points were also Takom spares to which I added Tamiya mine plow tubing ,two of which are positioned on the hull front plate.

Other minor alterations were a late Zip box fabricated with a tin foil lid, a late model fuel cell with appropriate pipelines, a late exhaust guard and various bits of detritus along the slightly buckled running boards.

Humbrol matt Light Olive Acrylic Spray provides a good initial primer colour and provides a tough finish for further work.

No airbrushes were harmed during the making of this model!

PAINTING



The final phase is always the fun bit with as much construction done as possible (there is always an extra bolt or detail to add) I start by priming the whole model in Humbrol acrylic spray. Over this I applied Wilder Dark green LS 15 oil paint, these can be smoothly painted on and then buffed back and left to dry (quicker than regular oil paints). Some highlighting was done with AV acrylic catching just the very edges of sharp angles. I then gently high lighted upper turret and hull areas with Daler - Rowney Yellow Green 388 which is also blends nicely on to the surface areas in question.

I now focused on the lower hull using an old favourite of mine, watered-down Mig Productions Gulf Sand pigments over which I applied European Mud and some Wilder pigments, dark washes and 2B pencil burnishing for a metallic glint in places. A series of pale blue and dark brown dry brushing added to the subtle tones over the model and some Lamp black oil stains thrown in for good effect. Happy with this I now added the Empire City decals Cambodian Army markings; these are from the Hun Sen era after Vietnamese forces had left Cambodia and there was a drawn out conflict which involved the finishing-off of the Khmer Rouge as a fighting force. Empire's decals went on well but were far too bright and clean, after some more weathering they toned down nicely. Then to my annoyance I noticed that the temple markings had three towers rather than the correct five of the national flag, this required some small strokes of Tamiya XF-3 to correct. All that was left to do was some blending-in of the AK47 and spare track and some pencil metallic highlights and scuffing.



T54M



I have to ask Empire City decals to correct your Cambodian markings and perhaps Minart should consider releasing the updated T-54 model 1949 or T-54M as a standard kit? I for one would like to build a version in Afghan DRA markings, Taliban or for that matter Lebanese, Vietnamese or Angolan colours and reckon I'm not alone in that. On a more serious note I look forward to building more of the Miniart excellent T-54/T-55 series including at least two of their already announced BMR mine clearing vehicles series; keep up the great work guys!





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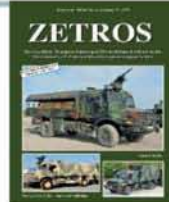
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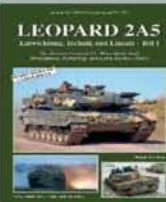
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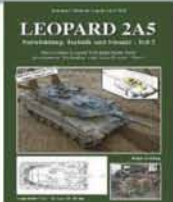
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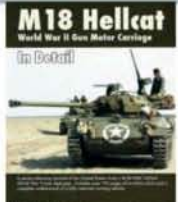
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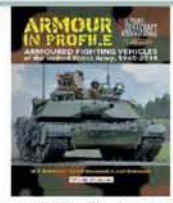
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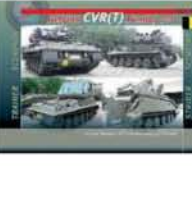


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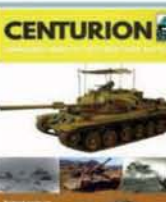
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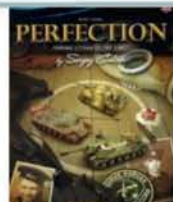
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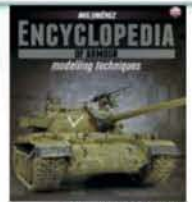
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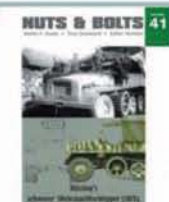
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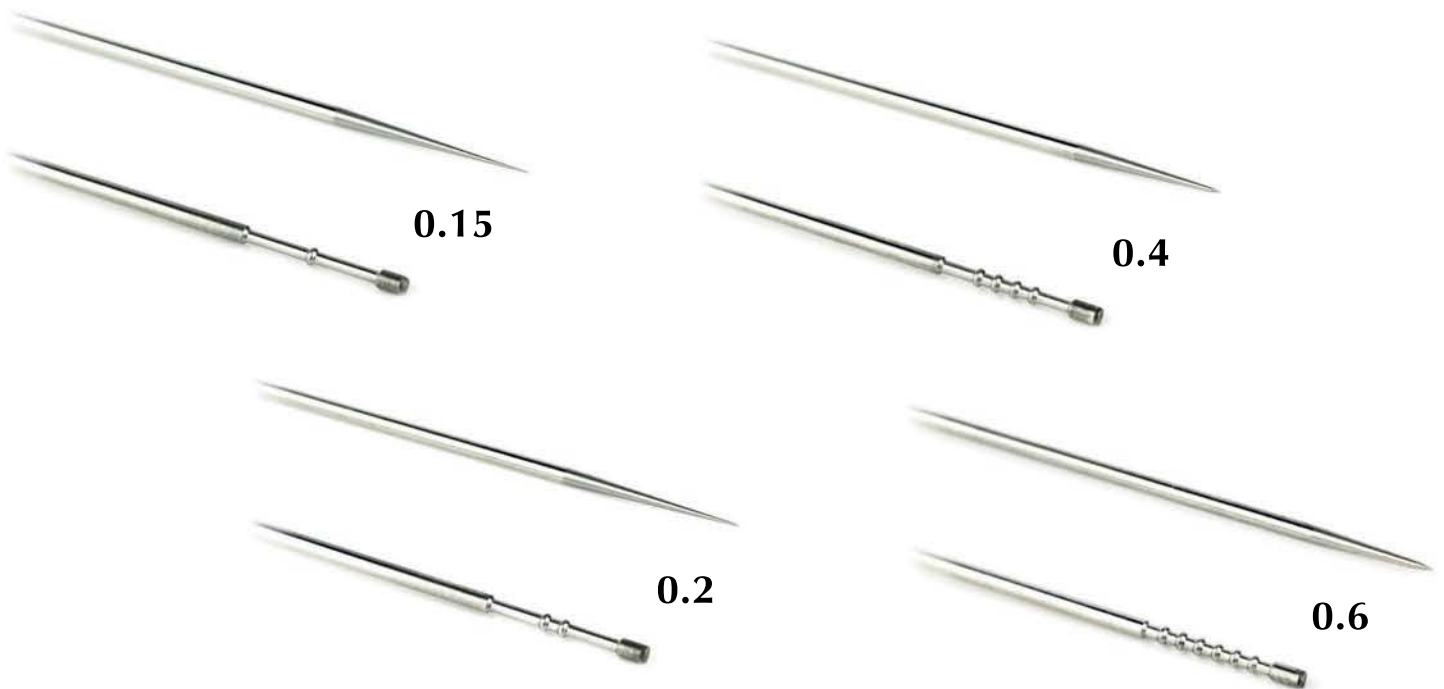
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