

MENG



AFV 120

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modeller

20

FREAKING YEARS!

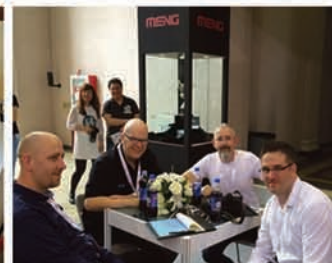
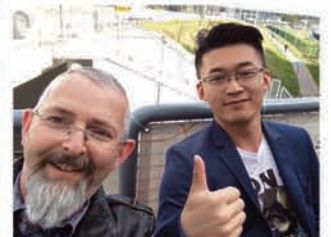


INSIDE JOB

FITTING OUT TAKOM'S BIG PANZER 1

MENG AFV modeller

2001 TO 2021





20 FREAKING YEARS!

Welcome to Issue 120 which marks the 20th Anniversary of the start of AFV Modeller back in 2001.

Its been quite a ride and David, Keith and Mark want to mark this moment by thanking all you readers and AFV enthusiasts for your support, enthusiasm and good times.

Now, back to the tanks!



1/35
SCALE



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PLA ZTQ15 LIGHT TANK

The ZTQ15 light tank is an important land equipment independently developed by China for plateau and woodland operations. Powered by a new generation of power system, this tank's maximum speed can be close to 60 km/h on the plateau above 4,500m above the sea level. It's equipped with a 105mm rifled gun which is capable of firing various types of rounds and launching gun-launched missiles. It's also fitted with a remote controlled weapon station armed with a 30mm grenade launcher and a machine gun. Although this tank weighs only 35 tons, its modular protection design allows the installation of reactive armor according to the combat intensity, to resist the attack of enemy heavy tanks. The ZTQ15 light tank has a new-generation fire control system and a complete on-board information combat system, which gives it powerful information processing capabilities and situational awareness capabilities. So it can maneuver first, discover first and attack first when encountering enemy forces. As an iconic tank among the information combat equipment, the ZTQ15 light tank is in service with the PLA Army and Marines. It's nicknamed Black Panther.

This MENG TS-048 1/35 PLA ZTQ15 Light Tank model kit is an accurate replica of the real tank. The new 105mm rifled gun is replicated in several pieces; the gun mantlet cover is designed by digital sculpting and the exclusive panther symbol is designed as a separate part for easier painting. All crew hatches can be built open or closed. Torsion bars are included to replicate the movable suspension system. The small diameter road wheels with lightening holes are accurately represented. This kit includes one-piece tracks made of high-quality material and clear lights and crew observation port parts. The auxiliary equipment for parade formations are also precisely reproduced. Two paint schemes are provided. Length: 280mm Width: 92.2mm



AFTER-SALES SERVICE

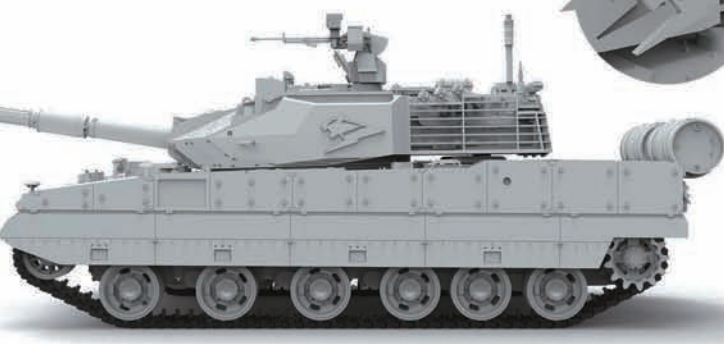
E-mail: after-sales@meng-model.com

If you have any questions, please send an e-mail to the above address.

MENG is willing to offer modellers excellent model kits and top-quality service.



◀ The exclusive panther symbol is a separate part for easier painting.



▲ The one-piece tracks made of high-quality material make the assembly process efficient and fast.



▶▶ The new 105mm rifled gun is replicated in several pieces.

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AFV Modeller Ltd
Old Stables
East Moor
Stannington
Northumberland
NE61 6ES
Tel: 01670 823648
Fax: 01670 820274

Editor and Designer: David Parker
email: david@mengafvmodeller.com
Deputy Editor and Designer: Mark Neville
email: mark@mengafvmodeller.com
Sales Director: Keith Smith
email: keith@mengafvmodeller.com

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NAMER

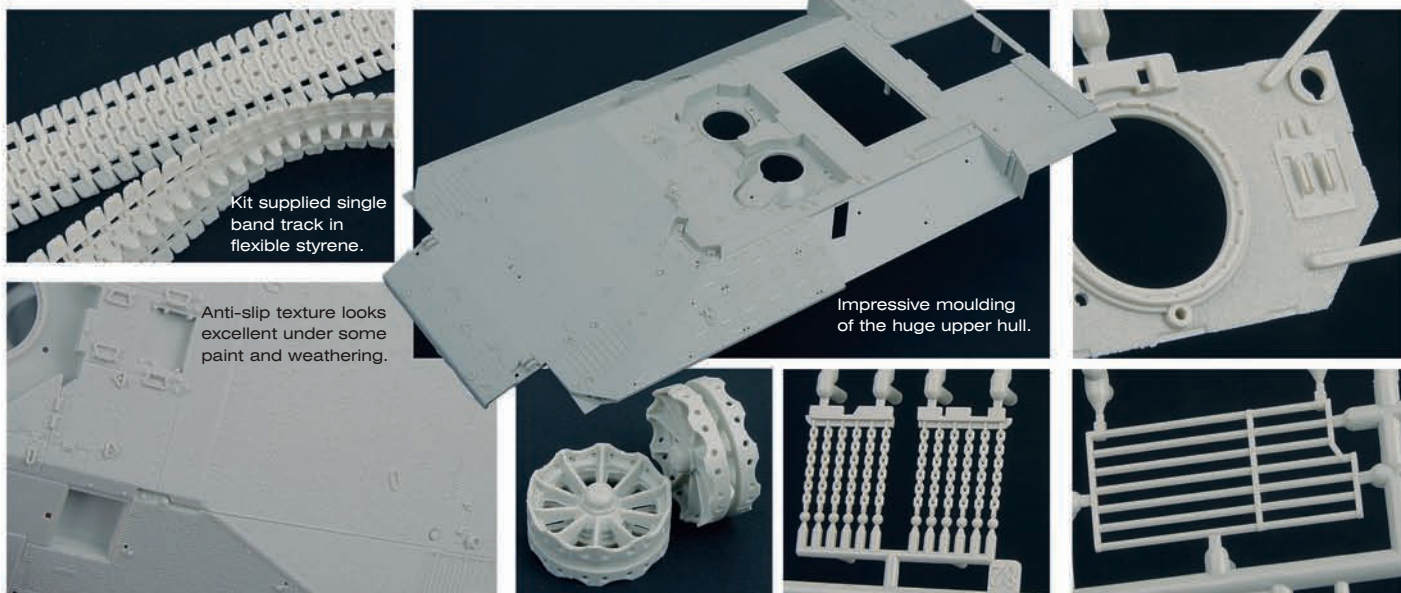


ANDY CANNING takes a break from his usual scratchbuilt IDF projects to build Meng's latest heavy APC straight out of the box...well almost...





1:35



SAY MY NAME-R

A brief history....from the M3 series if U.S. built half tracks that the fledgling Israeli defence forces started to acquire at the end of WWII (some variants of which still served into the 80's) alongside the newly procured M113's fulfilling an even wider variety of roles, from a simple battlefield taxi, to engineering and combat recovery versions, the IDF has demonstrated its ability to adapt many platforms to suit the roles it deemed necessary.

Indeed, when they found themselves with a whole fleet of Centurion tanks, removed from frontline and reserve service, they were modified to 'HEAVY' APC's....whose role was maximum protection for her foot soldiers and combat engineers. Many Nakpaddon, Nagmachon and Puma have only recently retired from active service.

A similar scenario evolved with the number of T55's that the IDF acquired after the 1967 and 1973 conflicts. It was here that the Achzarit 'HEAVY' APC was born and served needs well, but being based on older running gear, was also soon deemed in need of

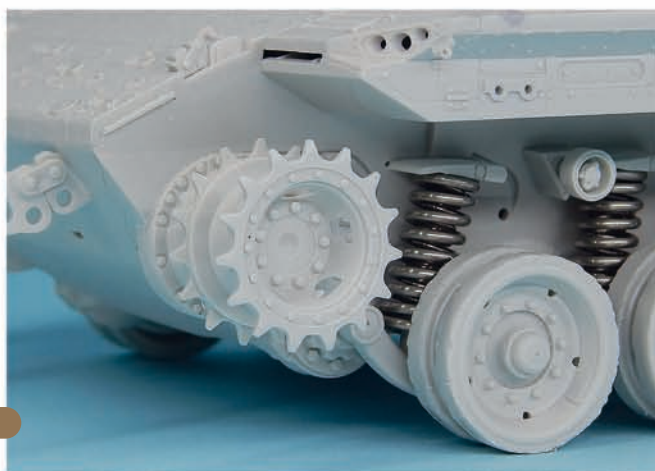
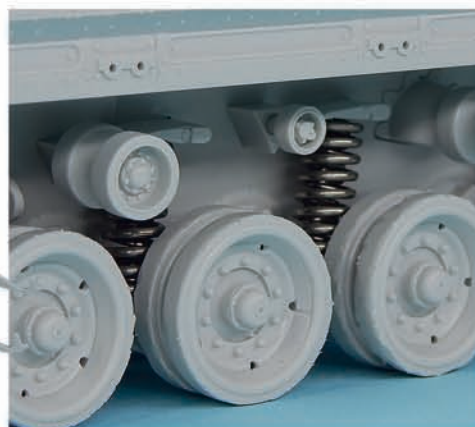
upgrading and replacement.

Again, never to waste an opportunity, as the Merkava MBT went through it's natural life cycle, where the MkIV serves with many units, the IDF had a supply of chassis, predominantly from the Mk3's, starting to be retired, that allowed them to improve again their 'HEAVY' APC capability. It was from here that the Namer came into being, now spawning a whole host of variants from APC, engineering, combat recovery and ambulance.

The Namer is the latest addition to Meng's impressive catalogue of 1:35 IDF subjects. Their collaboration with Michael Mass of Desert Eagle Publications really is a best-of-both worlds scenario with beautifully moulded and engineered kits with the highest levels of accuracy what more could modellers of Israeli subjects ask for?

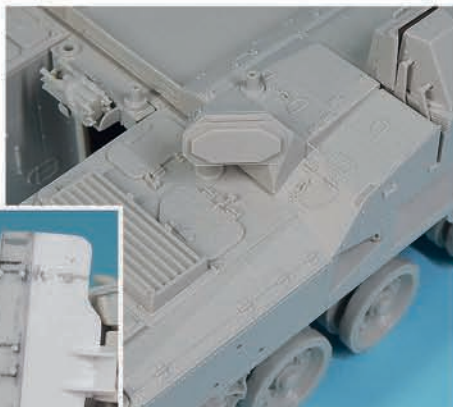
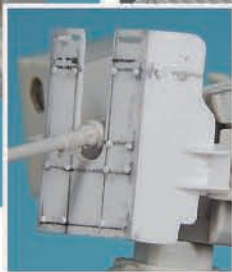


Having had the springs from an old Voyager set I put them to good use.





Using the kit part as a guide I built a less chunky shield from plastic card.



Evergreen tube for the smoke dischargers and brass rod grab rails were easy to add and give a little more finesse.

OUT OF THE BLOCKS...

With the majority of my modelling over the years being predominantly scratchbuilt or heavily modified, hours of reference study to ensure as high a level as possible of accuracy plays a big part of my building process. How would I get along with an out-of-the-box kit build? I needn't have been too concerned. Meng have produced another great IDF kit. The attention to detail and design ensuring ease of construction all brought a 'wee' smile to my face as I thumbed through the sprues, now moulded in Meng's usual pale grey styrene. From the 'anti-slip' texture on the front hull, (which is very commendable) right the way back to the ball and chain screens at the hull rear there's some beautiful touches of detail and features which have you itching to get started.

Everything went together really well indeed. There was little that I wanted or needed to modify...but I just can't help myself! Only the smoke grenade dischargers from plastic tubing, a scratch built .50 cal. shield (the kit part being a little thick) and the springs for the suspension....and that was because I had a Voyager etch set for the Merkava IV, of some vintage, with all the springs in metal, so I just had to use them!

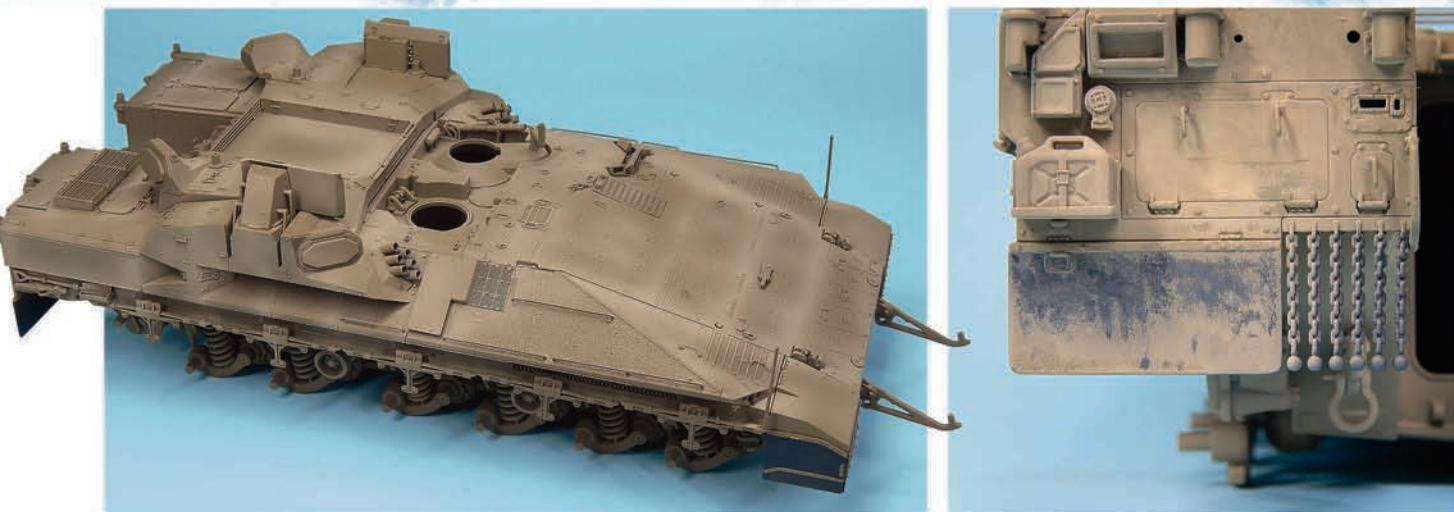
I had decided to leave the side skirts off after seeing some nice images of vehicles training, so I also replaced the kit tracks with the lovely Masterclub ones cast in metal. They went together really well, no drilling, and great little resin pins for ease of assembly. The kit tracks aren't Meng's usual individual links but moulded as 'bands' in a flexible styrene which will probably be welcomed by less experienced modellers or those short on time. If you're fitting the armour skirts very little track is seen. The road wheel rubber was 'modified' by using a scalpel to take small chunks from the rubber, simulating wear from road debris etc. For me though, pretty much OOTB and surprisingly satisfying. There really aren't any negatives worth mentioning, follow the instructions, take your time and it's all good.



Note the centre position of the access door providing protection for crew dismounting. Clear parts are provided for lamps and optics.



A few stowage items from the spares box add a little colour.



SIMPLE SINAI SAYS...

Other than the tracks, wheels and armaments, there was little that needed to be left as sub-assemblies to be painted.

I primed everything with a Halford's spray can primer....very 90's I know, but it works for me.....with AK Real colors used for the base colours. The IDF set, and in particular, the IDF Sinai Grey 90's (with a little more green added) went down in 2 / 3 light coats, with good coverage. Some shading and highlighting was done adjusting the base tone. This was then left to cure for 24 hours. The road wheels were finished in a slightly lighter shade, and Vallejo Black Grey for the rubber.

IN DUST WE TRUST

I knew that I wanted to replicate a very dusty vehicle, as those serving in the Golan region seem to be perpetually covered in lots of thick dust. This actually turned out to be a little harder than I anticipated. Being colour blind doesn't help, so Mrs Canning to the rescue, ensuring my mix of tones, and materials were kept reasonably in sync.

A couple of coats of her hairspray, and then a mixture of Tamiya XF59 Desert Yellow, and XF57 Buff went down, effectively covering

the whole vehicle. From there I worked in small areas, and gently scrubbed away with a damp flat edge brush, cocktail sticks and even a scalpel, to start the random dust removal. I need not have worried too much about that base colour!

Accidentally, I had a brush that I thought was dry, but still had some Tamiya thinner (X20A) on it and ended up finding a fairly progressive way of removing some of the dust coat as it hadn't had any time to dry properly. It allowed a slightly different effect to layer onto, which I duly did.

A gentle oil wash, with a mix of Abteilung buff and ochre, providing a similar tone, helped tie in the initial layers. I used this around some surface detail too, such as the larger bolt heads, and handles, again, where dust would gather naturally.

In some corners and recesses I used the oils almost neat and let them dry overnight then blended them out, again for a slightly different effect. Everything here was then left for a couple of days to dry and cure.





Next up was a pigment mix, initially for the running gear. Lots of dust 'n' muck gathers here referring to reference images, and in a variety of tones, being both damp and dry. I had a mid, light and darker tone, all used a little randomly both on the superstructure and the wheels. This was fixed with Tamiya X20A thinner misted on through the airbrush. Some more tones scrubbed on, speckled and then a little overspray of the Tamiya ochre dust mix I had ready from earlier. Any lubricant and oil stains, overall, were kept minimal, as these vehicles aren't involved in sustained combat operations, thus maintained and cleaned a little more often, only the usual fuel spillages are more often seen.

Now it was time for the little glory jobs to finish the model. Masking was removed from the vision blocks and lamps, items of crew stowage was added, vehicle ID panel and antenna masts (carbon fibre rods from Accurate Armour). As with most Israeli vehicles grab handles and maintenance points are picked out in red.

Another benchmark IDF kit from Meng which was an absolute pleasure. A quick and easy build but with great detail which allowed me to stretch my painting legs between my usual very lengthy scratchbuilds.





1 STEP BEYOND

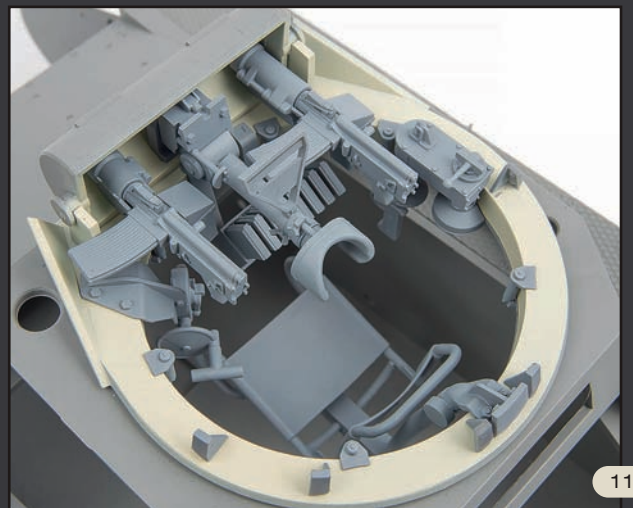
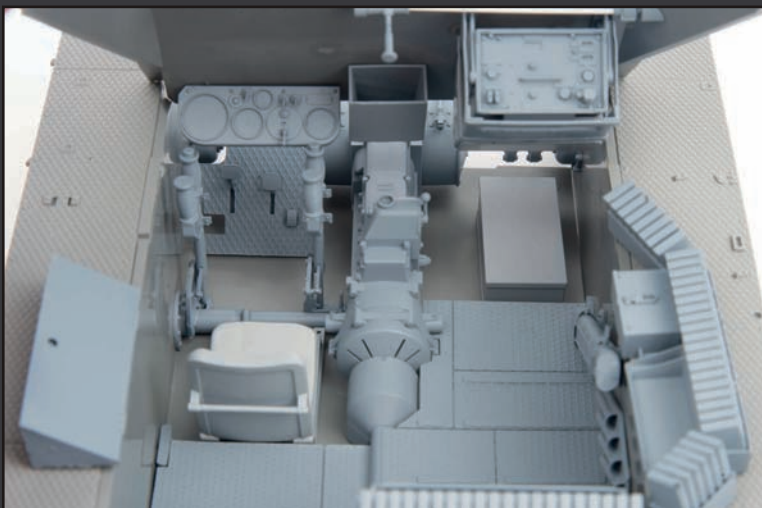
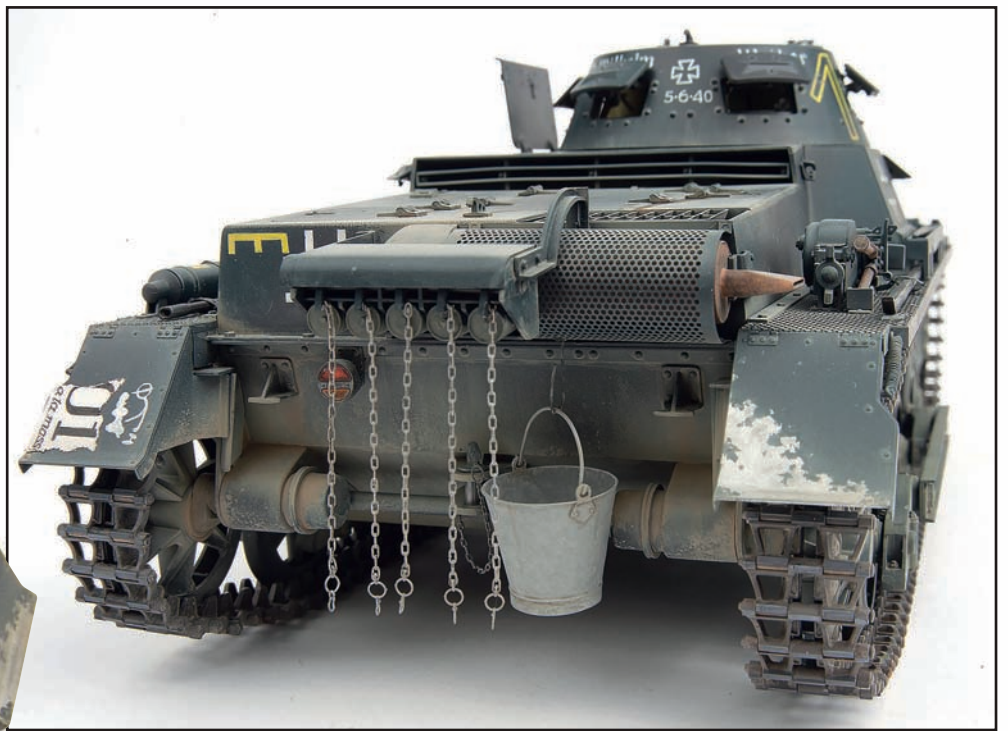
TAKOM'S 1:16 PANZER 1B WITH AFV MODELLER INTERIOR

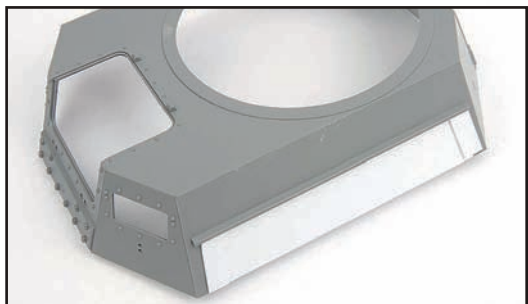
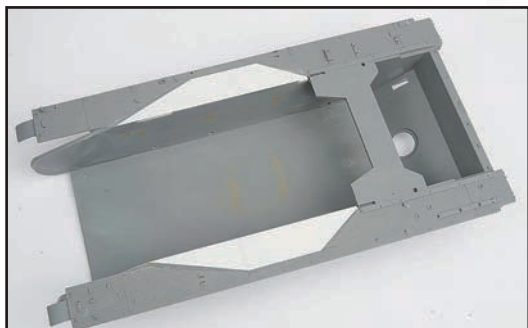
MODELLED BY DAVID PARKER

You would think that I would have learnt from experience that my over-enthusiastic assessment of the potential work required to realise a project is usually a massive underestimate, but no. When I built the 1:16 Takom Panzer 1A (Issue 112) I could see the need for some sort of interior with the large hatches of the tank offering good views of the cavernous empty interior even with a figure sitting on the edge of the turret.

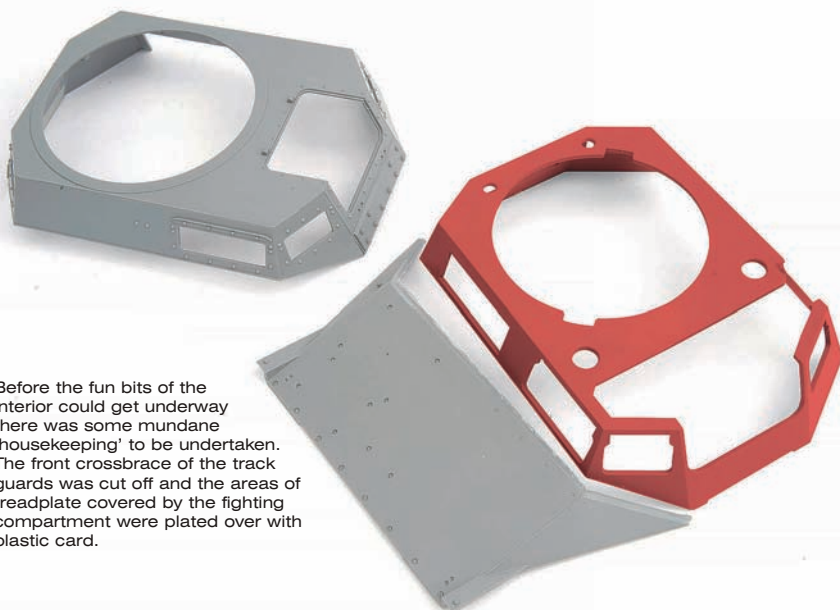
The Panzer 1 is a simple tank and in my enthusiasm I didn't imagine it would take me long to design an interior for the turret and fighting compartment using my freshly obtained 3D design skills. The reality of course as I see now with a more rational post-project perspective is a

considerable amount of work. I used the old Tristar interior kit as a starting point for my designs and to size parts, beginning with the gearbox. The design process taught me a lot along the way with some tricky elements to handle like the bungee suspension for the radio set whilst trying to keep assembly simple and to allow for the restrictions of the 3D print process. With the set completed and on sale it seemed only proper to take it for a test drive and to realise my original intention of fitting out the interior of the Panzer 1, taking it one step beyond.



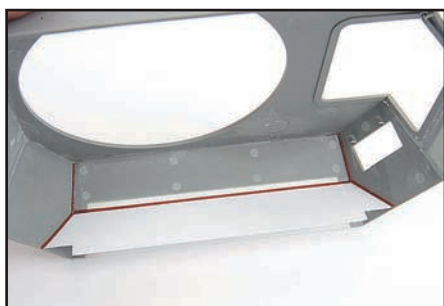


The back wall of the superstructure was then blanked off with plastic card.

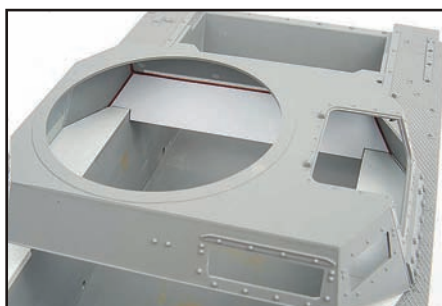


Before the fun bits of the interior could get underway there was some mundane 'housekeeping' to be undertaken. The front crossbrace of the track guards was cut off and the areas of treadplate covered by the fighting compartment were plated over with plastic card.

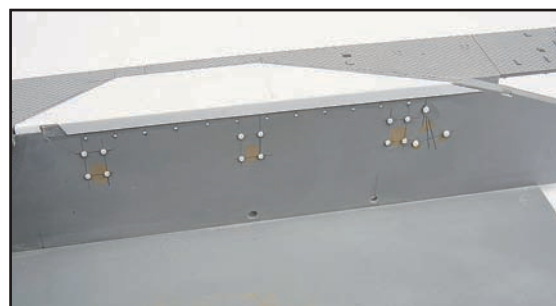
Takom use a supporting frame onto which the individual panels of the fighting compartment superstructure are glued. This obviously reduces the interior space and compromises the realism of the interior so I cut away the frame and carefully assemble the superstructure without the frame.



The angled top of the firewall demanded some careful measuring to make sure it fitted and connected with the track guards which it overlaps.



Inside I started to add the welds to all the panel joints using Slater's plastic rod which when liberally treated with liquid adhesive gives a good weld texture.



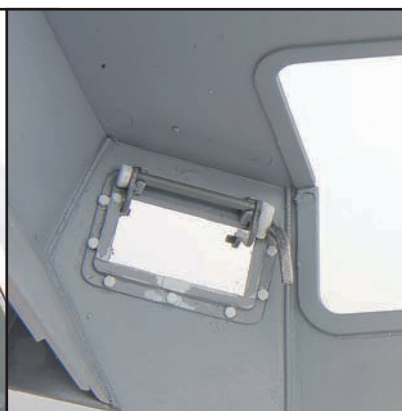
On the inside of the hull tub I added a strip along the top edge of the hull wall and added the bolts which mount the return roller brackets. Not show here is a control rod conduit that was made from plastic card.



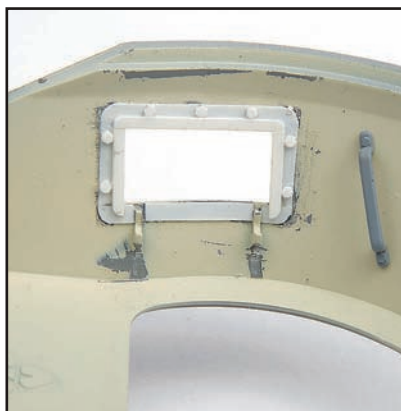
From a design perspective I could not devise a way to produce these internal visor mechanisms as a part of the upgrade set so they are not included. Although they are not very visible I decided to add the interior mount details for the visors, beginning by gluing a plate across the opening and drilling out the opening.



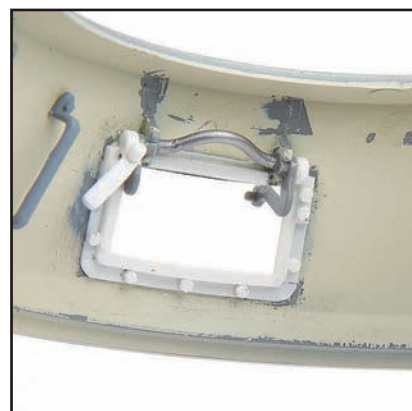
The openings were cleaned up and the bolt details added. I used the kit visor arms but added the missing details including the operating lever which were made from a flattened piece of solder.



The Driver's vision block is a more elaborate arrangement. I scratchbuilt the vision block using spare clear blocks from my Panzer IV. Again the kit visor hinge was used with additional detailing and lead solder was used to form the curved rubber strip at the bottom.



In the turret the process was the same but the curves of the turret make it a little more demanding.



The arms of the kit visors were retained but the straight bar was replaced with the correct curved version created from lead solder.

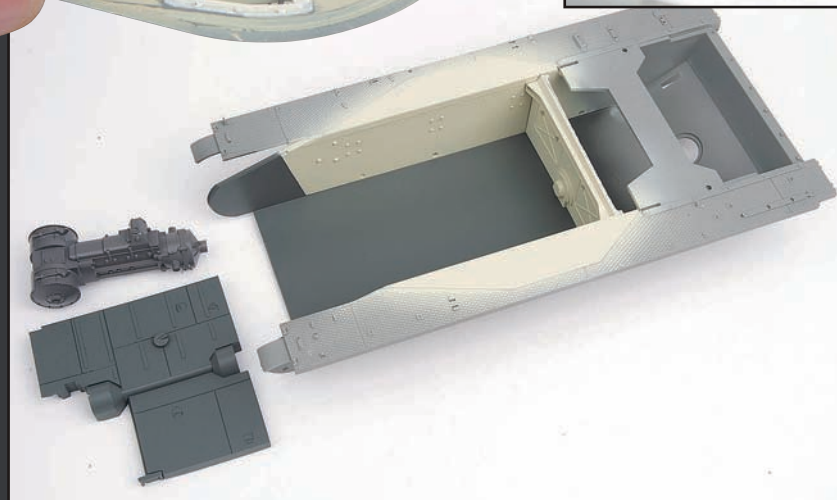
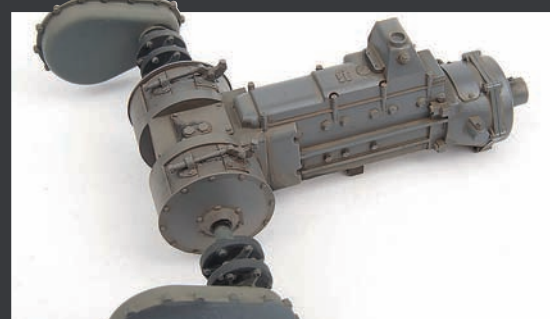


Further on in the build I designed and printed the vision blocks for the visors along with the locking levers and the curved rubber pads. Even when opened the inside face of the visors is not really visible but I find it hard not to add every detail.



Panzer Paint

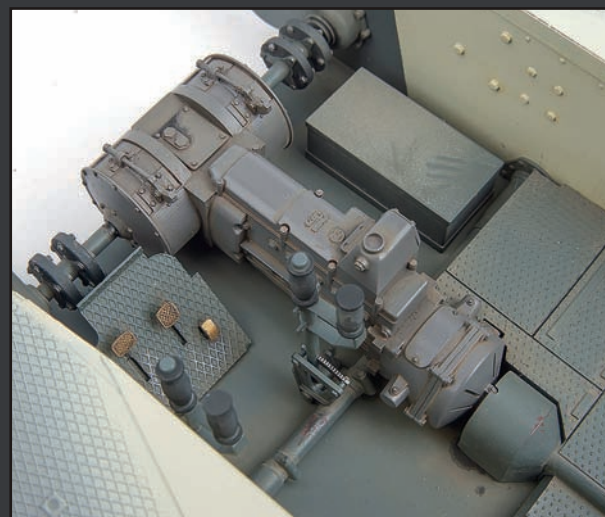
The interior is very much a paint as you go project simply because access is quite restricted. I began by pre-painting the hull tub, floor and gearbox. The floor and front hull walls were painted in Grau which I mixed myself using Mission Models paints. The rest of the interior was painted with my usual interior Elfenbein from Mission Models. The gearbox was painted with MRP Hellgrau RLM72.



Throughout the project I pre-weathered the various sub-assemblies rather than trying to work 'inside the box'. **Above** the gearbox ready to be fitted into the hull. I concentrated the areas of dust and grime on the horizontal surfaces where they would settle.

Left I decided not to go over the top with the floor keeping the dust effects reasonably restrained. Areas of wear on the drive shaft covers were added with red oxide chips showing through and touches of polished metal.

Above the hull floor was treated with acrylic washes and then some light airbrushing. Areas of the floor below the gearbox were kept deliberately dusty.



Left The gearbox and steering controls are installed. **Above** Followed by the Driver's pedal with colourful brass pedals and the battery box on the other side of the gearbox complete with hand print in the dusty lid.



Above The Driver's seat is next with typical accumulated dust.



Above The Instrument panel dials required some educated guesswork and I used the AFV Modeller Panzer IV decal set for the faces of the dials and gear shift diagram.



Above I decided to add signal flags to the container on the hull wall. These were made from rolled out sheets of Magic Sculp which were cut into strips and rolled around a brass rod handle. Rubber tipped brushes were then used to add the creases and seam details.

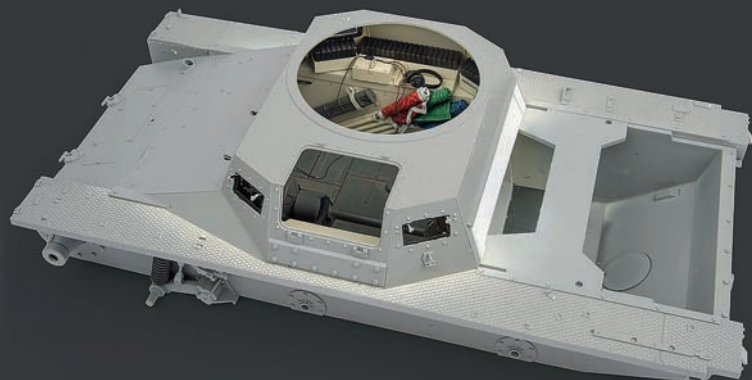
Right I found a black and white image of signal flags in a Panzer 1 command tank which clearly showed a light border on one flag which I decided to copy. I took a guess at the colours as I couldn't find any definitive information on colours. The flags were painted with acrylics.



Above The Ukwue radio was something of a design challenge with its bungle chord suspension but I am very proud of the finished thing and it is one of those little visual jewels in the interior



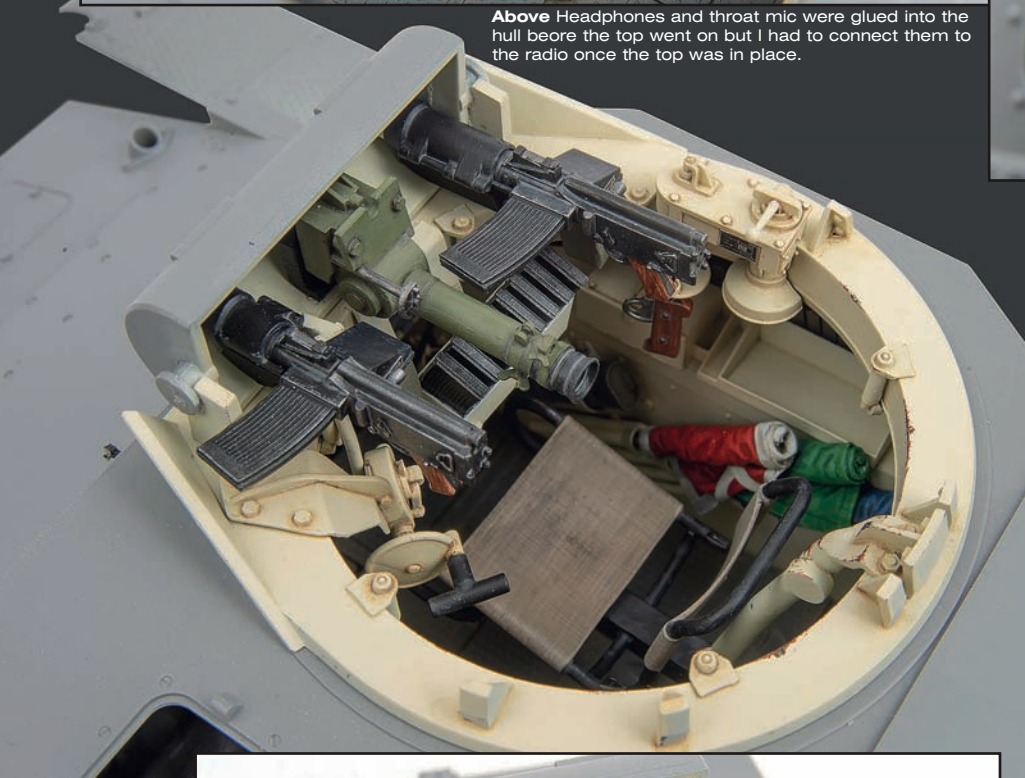
Above I put off building the RHS visor control arm as I tried to convince myself that I could skip it but I eventually had to give in. I used scrap photoetch, flattened solder and plastic rod to make the linkage.



Above Finally I was ready to glue the superstructure to the hull.

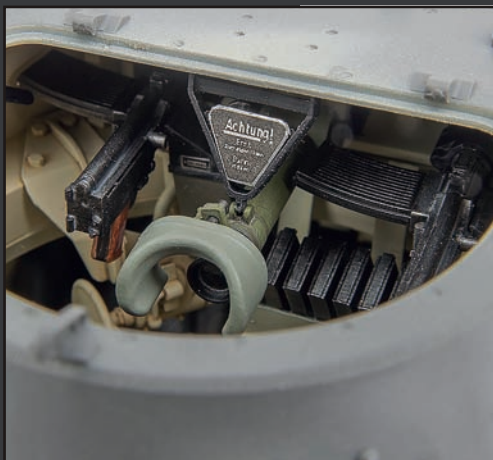


Above Headphones and throat mic were glued into the hull before the top went on but I had to connect them to the radio once the top was in place.

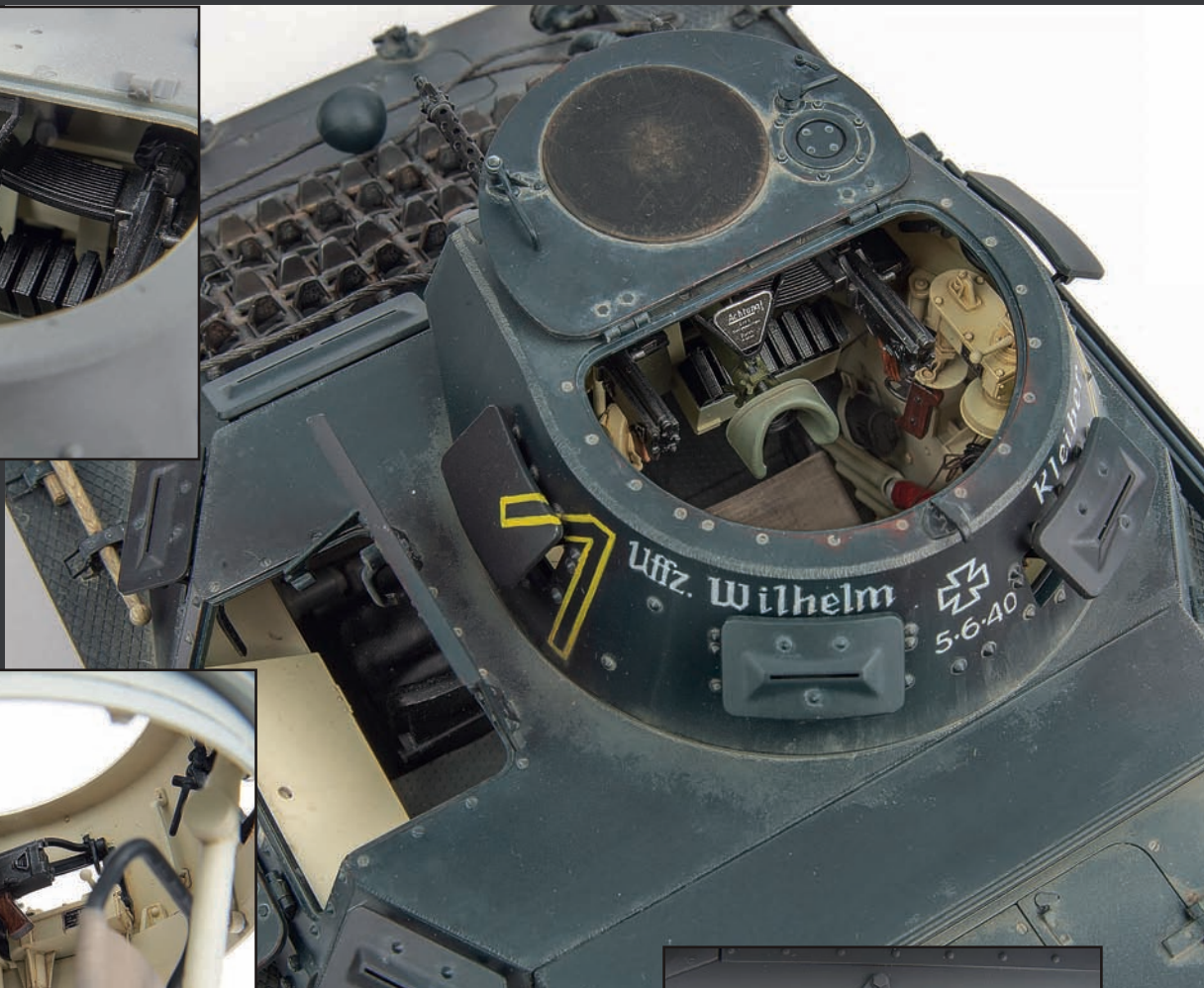


Turret

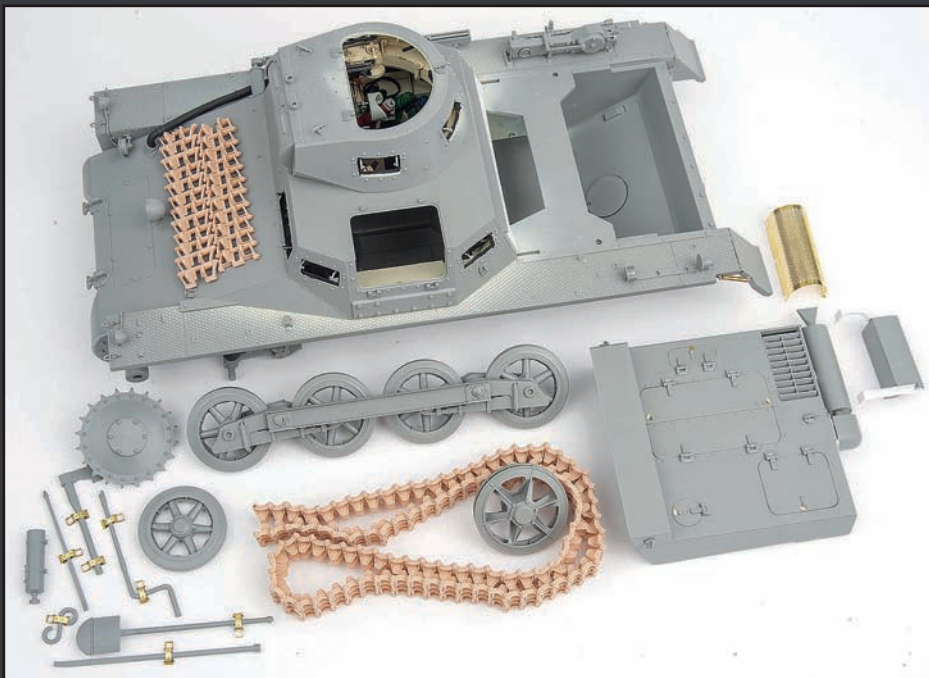
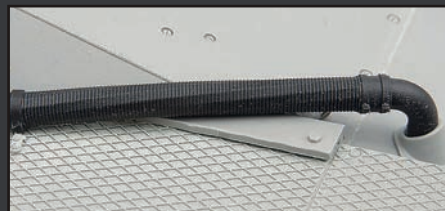
The turret interior was simply assembled from the my 3D printed parts with the exception of the work I had done adding the vision port mechanisms. With this done it was straight down to painting with the vast majority, like the hull, finished in Elefenbein cream. For the fabric seat I wanted to bring some texture into the finish so I built up multiple brush painted grids of different tones. I also wanted the seat to reflect the punishment it would take from being stood upon so I used the same grid technique to add darker dirt tones to the centre sections.



Above The warning placard on the sight was drawn up on the computer and printed onto decal film and then applied to a piece of self-adhesive aluminium tape.



Below The rest of the build was following the Takom assembly with the exception of the engine deck superstructure which I could not get to fit correctly. Eventually I trimmed about 1mm off the front edge where it butts up against the fighting compartment. There should in reality be a small gap between the two sections which this adjustment achieved. I also had to construct a mount for the smoke grenade rack, sadly the kit does not include the rack itself so I borrowed one from the Ausf A kit. I had to use some guesswork for the mounts one of which curves over the top of the exhaust. The solid plastic mudflap springs were replaced with new brass wire versions. I added some upgrades with ET Models photoetched tool clamps and T-Rex replacement front damper spring and replacement breather hose. I also used a set of T-Rex replacement tracks, they offer a choice of track styles and the benefit of having the tiny casting numbers moulded into each track tooth. I left the model in these sub-assemblies to paint them.

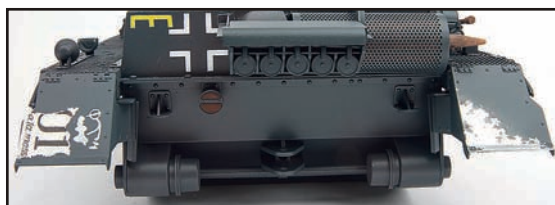




Getting Painty

I had selected a subject vehicle depicted in a series of published photos from the French Campaign serving with the 3rd Panzer Division and carrying unique memorial markings for I assume a dead crew member. Recreating these is the kind of challenge that I relish along with creating the two-tone grey and brown camouflage. Period colour photos show once again just how dark the Panzer Grey is and also how similarly dark the brown camouflage is, far removed from the milk chocolate brown that predominates on scale models.

I used Mission Models Panzer Grey as my overall base colour with the camouflage brown mixed by adding a small amount of Mission Models Red Oxide into the grey giving the brown a slight purple hue which the original colour seems to have had. All the markings were hand painted with the exception of the crosses which were masked and sprayed. The hand painting did not run smoothly for me. I used Mission Models white primer for the lettering because of its excellent opacity. I copied some artwork published with the photos for the name as the photo quality was not great and only later was it pointed out by the sharp-eyed Don Campbell that the name 'Wilhelm' was misspelt, both on the artwork and on the model. Some correction work followed as it did for the large number 1 on the RHS of the turret which I was midway through applying when I realised I had failed to reverse the number.



Left The rear of the hull had some unusual markings, what appeared to be part of a poster stuck on the mudflap, recreated with a torn paper label, a kind of painted stick man and what appeared to be stripped off paint on the other mudflap.

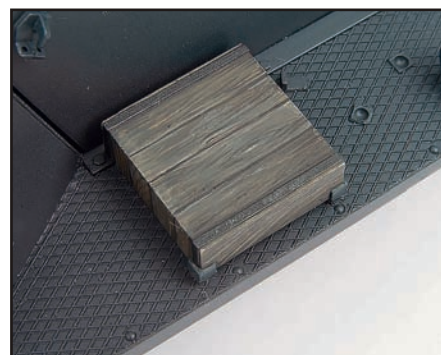
Above When I am lettering I am focussed on each individual letter as I work without much regard for the overall word which is demonstrated by my blind copying of the misspelt name. Fortunately I was able to make the correction to both this and the number without leaving an obvious trace.



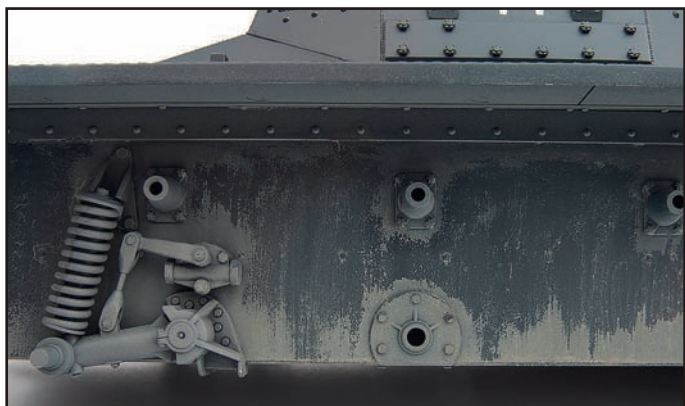
Above Work in progress here on the tools with the wooden handles painted using a mix of acrylic base colours and oils to add in the fine woodgrain lines.



Above The spare lengths of track (dry fitted at this point) were painted using a mix of shades rather than one flat colour.



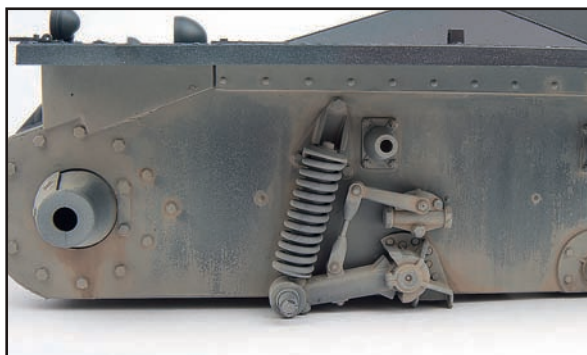
Above The jack block in progress using a darker set of wood tones than the vehicle tools.



Above Weathering started using hairspray technique with a coating of dust partly removed to create this effect



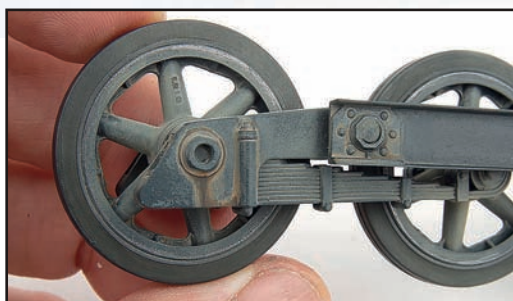
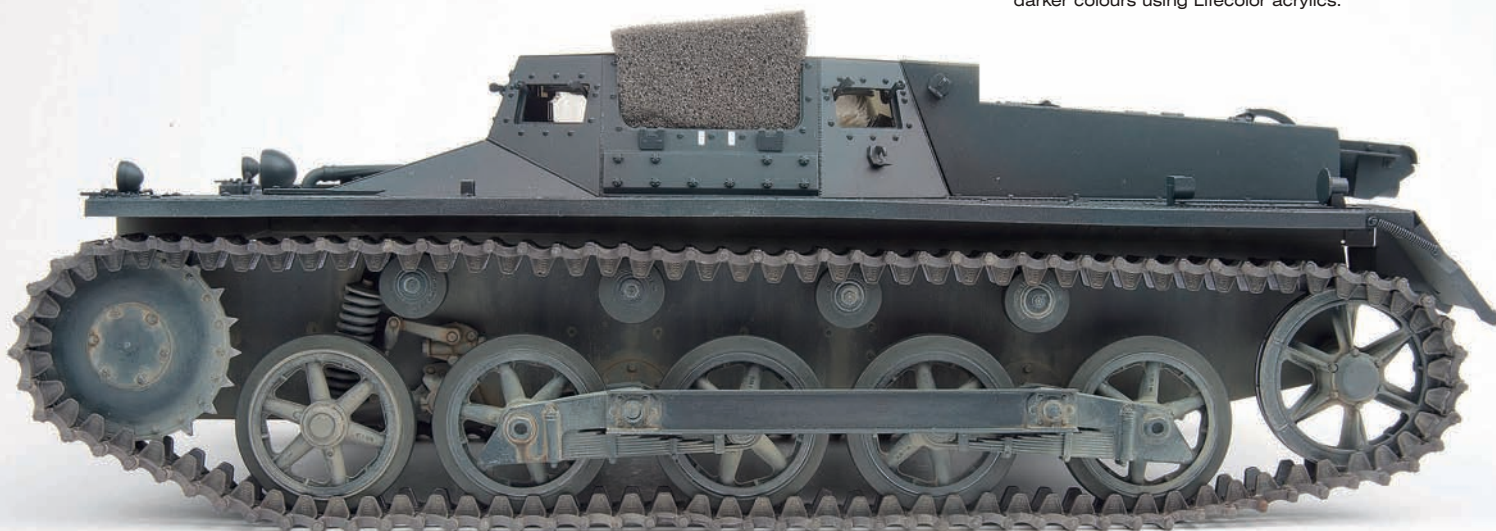
Above Using the same dust colour I then worked over the area airbrushing more dust deposits over the hull sides and the back of the hull.



Above I added some darker tones into the accumulated dust to indicate oil staining around the lubrication points. **Below** Unusually for me I decided to complete the lower hull and running gear before moving on.



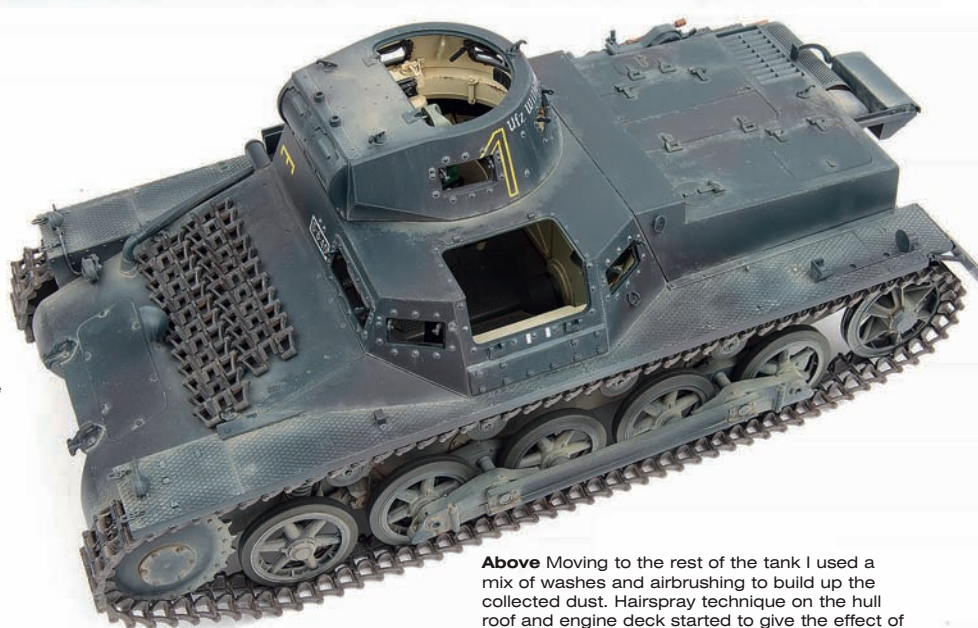
Above One of my favourite areas of the build is this leaking hub cap, built up with gradually darker colours using Lifecolor acrylics.



Above The lips of the roadwheels were given a hint of polished metal and the running surfaces of the tires were given a cleaner more polished finish than the rest of the tires.



Left The tracks were treated with washes of the diluted mud colour and the contact points on the treads were painted with Mr Metal Color Iron and buffed with a metallic powder.



Above Moving to the rest of the tank I used a mix of washes and airbrushing to build up the collected dust. Hairspray technique on the hull roof and engine deck started to give the effect of dust that has been cleaned away.



Above First steps in the treatment of the engine deck were I must admit less than promising but I had to press on with what I had.



Above I wanted to recreate the look of dust thrown up and settling on the flat areas of the tank. I continued to work over the engine deck with further acrylic washes and more airbrushing. Having worked out which hatches were to access the fuel tank I brush painted a large fuel spill effect where the dust has absorbed the fuel, oil and other engine associated grime.



Above Dust was airbrushed on the area behind the spare tracks where it would collect.



Above I used fine lead wire to tie the spare tracks onto the hull.
Below The hatches were weathered individually and then fitted. This one still needs the hatch stay to be scratchbuilt.



Above Almost all the tools were weathered individually and then glued into place. This allowed me vary the finish so that here the starter handle looks like it may have been used recently.



Below The smoke grenade chains were made from fine chain that I soldered so that they were fixed with 3D printed rings and clips at the ends. The bucket is also 3D printed.



1 STEP BEYOND



Final touches were the smoke grenade chains all of which were hanging down in the photo of the real vehicle. I designed some 3D printed chains complete with loops and clips but with our print deadline closing fast I hurried the results without fully curing the prints. I then had problems with the chains curling and not hanging straight which just looked wrong. I switched to real chain which I treated with liquid solder so that the chains would be solid and I added the printed loops and clips. This gave me the look I wanted without fear of the chains swinging around and getting tangled.

I have to say that the finished model looks fantastic! These Takom Panzer 1's have such a presence in this scale and look really impressive on the bench. Having every hatch and vision port opened allows plenty of room to see inside and that interior that I feel like I have been living in for the past 6 months.

To order the AFV Modeller interior sets for your Panzer 1 Ausf. A and Ausf. B visit:

www.afvmodeller.com/product-category/accessories/afv-modeller-3d-printed-parts/





Above The hatch stay is not provided in the kit so I made one from plastic card.

THE TIP OF THE BULGE





ROB WESTERMAN'S STUNNING ARDENNES DIORAMA



BACKGROUND OF THE BULGE

The Ardennes offensive, or Battle of the Bulge has always interested me. Unternehmen Wacht am Rhein as the Germans called it, was one of their last major campaigns. The main objective was to split and encircle the Allied forces and to capture the port of Antwerp. On 16 December 1944 a large German force advanced through the foggy forests of the Ardennes in Belgium and Luxembourg. Ultimately, the German offensive was halted due to improved weather conditions, allowing the Allied air force to conduct their devastating attacks on German troops and supplies, lack of fuel and ammunition also played a significant role and of course the increasing Allied resistance. On December 24th elements of the 2nd Panzer Division made their farthest advance

in the West. The 2nd Panzer Division was divided in battlegroups, and it was Kampfgruppe Boehm that reached the small village Foy Notre Dame. Here the British 29th Armoured Brigade finally halted the Kampfgruppe.

I was inspired by a photograph of a collection of vehicles destroyed, or abandoned due to the lack of fuel of Kampfgruppe Boehm in this small village. This Kampfgruppe had several armoured vehicles in service including the Sd.Kfz. 234/2 Puma. As I always wanted to build a Puma, I decided to recreate a scene based on this interesting photograph.

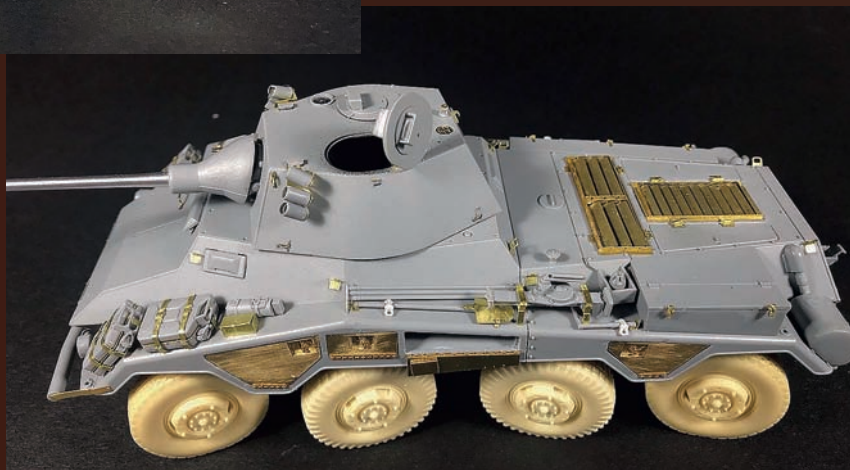
SUPER-BAD 8-RAD



If you want to build a Sd.Kfz. 234/2 Puma, the best choice imho is the offering from Dragon. Great out of the box, but I decided to tweak it a little bit with some photo etch from Aber and Hauler (louvres on the engine deck).

As seen on the photograph a balkenkreuz is visible on the turret and probably a tactical number. A picture of a Puma on a railway car, featured in Panzerwrecks vol 6 gave insight on the numbering style and the number on the storage bin.

The decals I used are dry transfers from Archer. The decals for the number plate are from the Dragon kit and each digit is a decal itself, so you can make any variation you want. A little Microsol set and sol was used for better adhesion to the matt surface.



The destroyed and captured vehicles of Kampfgruppe Boehm were moved to a collection point in Celles, south of Foy Notre Dame. There are some photos of these vehicles and also of some Puma's on which the foliage tie-downs, probably a field modification, can be seen on the turret. So I decided to add them, made from copper wire. The tires from the kit were replaced by resin ones from Voyager with a different tread.

To give the Puma a more dynamic appearance I altered the steering arms a bit to turn the wheels. One should note that these vehicles had eight-wheel steering and that the most outer wheels can turn more to the outside than the two inner wheels.

For painting I used Tamiya acrylics. These paints just work best for me when airbrushing, giving a smooth and strong base before weathering. I always use them with their Lacquer thinner. The first base layer was done with Tamiya nato black. Next was the dark yellow, which was a mix of Tamiya dark yellow and deck tan. Upper parts were painted in a lighter mix adding more deck tan or flat flesh. Next the camo stripes were airbrushed using dark green and red brown, both mixed with dark yellow and heavily thinned.



I usually start the weathering process by a pin wash going through all the panel lines and bolts. I use my own mix of oils for this, raw umber, Van Dyke brown and little indigo to obtain a nice dark colour. I do not spray a gloss coat before applying a wash, but one can do this to have a bit more control, making the wash to flow easy. I repeat the wash a few times; instead of applying one heavy wash I use multiple thin washes and doing this throughout the whole weathering process. Now I also start with adding scratches and chipped paint with acrylics. I use Vallejo acrylics for this and in a lighter colour than the basecoat. A fine tipped quality brush is essential for this work. Little rust chips are painted with a dark brown colour, in this case Chocolate brown. In this stage I also paint bolts, edges and small details with a heavily diluted lighter yellow or sand colour.



This brings out details and enhances the contrast between the shadows made by the washes. The next step in the weathering process is one I really enjoy, because it makes a model, in my opinion, more attractive to look at by enriching the colours of the base coat, bringing out more details and adding more depth. Here I'm talking about applying small dots of oil paint on the surface of the model and blending them, also downward, creating subtle streaking. You can call this "dot filtering" or "oil paint rendering", it really doesn't matter actually, these methods are described in detail by Mike Rinaldi in his fantastic Tank Art books. But the essence here is using oil paint to create a myriad of weathering effects. So for example you can create a filter, altering the base colours a bit and binding and fading them. And also adding more shadow along edges and darker areas using raw umber or dark earth oils is possible.

A nice little detail, to add some extra life into the Puma, is the open storage bin and adding some accessories like the oil can. The decal for the oil can was home made. The foliage on the Puma and the Pak 40 was made from a special kind of moss, painted in different shades of green Vallejo acrylics and fixed with diluted white glue.

To replicate mud I used pigments, especially at the lower chassis of the Puma and also on the wheels a little bit. To give the mud some depth and a wet or dry appearance I apply many subtle washes on the pigments, using raw and dark umber oils. To obtain all sorts of mud splashes stains and dirt I also used from the Mig Abteilung range like, Dark mud, Industrial Earth and Light earth. To apply oil stains the Mig Engine grease oil is very effective.

PAK-ING A PUNCH



The Pak 40 is a nice kit from AFV club, built out of the box. The two gun shields are provided in brass, which is a nice addition. One thing you should consider when building the Pak is that the sub-assemblies are painted and weathered before putting them together for easy access. For painting and weathering the same methods are used as on the Puma, but I added some more scratches with Vallejo acrylics to replicate extra use.



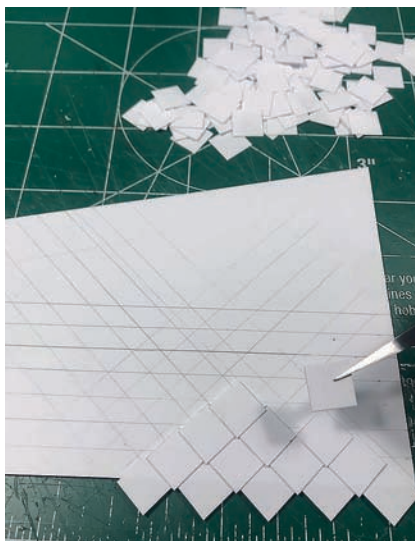
The ammunition and crates for the Pak are also from AFV club. The shells are painted with Vallejo gold which gives a smooth layer and after that some AK true metal brass colour is rubbed on giving a nice shine.

The bicycle is from Master Box and also contains the spoke wheels in photo etch. It takes some care to assemble, but it is worth the effort and it is a great addition to a WW2 diorama.

The building was made out of Styrofoam and plastic sheet. Styrofoam is very easy to cut and shape using a sharp knife, and is available in different thickness. The typical stone walls of the building, often seen in the Ardennes, is made by carving and shaping each stone into the Styrofoam. This seems like a hell of a job but once you are going it can be done in a relatively short period of time. You can use white (wood) glue to fix different plates together.

After construction, the Styrofoam is carefully sanded and sealed with black gouache applied by brush, to get rid of any microfibers sometimes present. Before painting each stone in a slightly different colour, AK Easy cast texture medium is applied and then removed with a wet cloth to fill all gaps and to replicate the mortar between the stones. When painting Styrofoam, make sure you use an acrylic paint, which doesn't damage or dissolve it. Vallejo and Tamiya acrylics for example, are paints you can use. Some subtle washes and streaks were applied to the walls with Vallejo smoke and Chocolate Brown. Damp effects on the lower parts of the wall were created with some diluted Vallejo Slimy Grime Dark green.

The typical slated roof is made out of plastic sheet. Each square slate is then glued to a thin plastic sheet, slightly overlapping, just as the real thing. The gutter is from a MiniArt set and slightly adapted.





The wooden door also is made out of plastic sheet, and scraping with a sharp knife simulates the planks and wood grain.

Painting the door was started by a dark grey base coat, followed by several thin coats of Vallejo light- and new wood colours. Then, a coat of chipping medium was applied and immediately after drying the final coat, in this case Vallejo Cavalry red, was applied. To get a worn effect some paint was then carefully removed with a water damped old brush.

GROUNDWORK

To make the groundwork, the first step was to cover the base using a filler for walls. Before drying it is important to add things like tire marks and foot steps and giving the vehicle and figures a proper "sit" by pressing them into the groundwork. After drying, AK muddy ground was applied which has a nice colour and gives some extra texture.

When this was still wet, some stones, crushed dried leaves and some tufts of grass were pressed into the groundwork and fixed with diluted white glue. The AK muddy ground can be diluted with water and several thin coats mixed with some Vallejo smoke were applied to give some extra colour and depth. Then many dried leaves from various brands, like AK and Plus Models were fixed to the ground with again a little bit of white glue. To tone down the bright colour of the leaves some heavily diluted mixture of Vallejo smoke and Slimy Grim dark green was applied.

Puddles were made with epoxy with some drops of Vallejo smoke and Slimy Grime dark green added.







The figures used are from, Alpine Miniatures, Black Dog, the Bodi and Dragon. Sometimes figures need to be converted heavily to fit the scene, but this time only some were slightly adapted with Magic Sculp, and some were straight out of the box. Usually I swap the heads with ones from the excellent Hornet and Alpine range to alter the figures expression.

As I am no figure or uniform expert, and I do think it is important in my opinion to aim for a certain historical correctness in diorama making, I consulted fellow modellers for which figures and uniforms were appropriate for this era or war period. And as the 2nd Panzer division was a Heer unit, the "feld grau" uniforms and overcoats are the ones to use, so no fancy camouflage or oak leaf patterns on these figures. For painting the figures only acrylics were used. Primer coat was airbrushed with Tamiya Nato black and for the rest Vallejo acrylics were used.

To paint the uniform, I start with a basecoat colour and gradually add more flat flesh to create the highlights. Shadows are made with the basecoat colour and then adding some German Camo black and Chocolate Brown. It is important to mix the paint to a milky consistency before application. For the extreme shadows and folds, I add some flat black to the mixture.

For the faces I use Vallejo Brown sand as a base colour. Usually I start with painting the highlights, but this time I started with the shadows. First the deepest shadows were applied with a mixture of Burnt Cadmium Red, Black red and a little flat black. Adding more and more base colour to this mixture, you build up the further shadows. Then the highlights are blended in with mixtures of Brown sand and Basic Skin tone to almost pure Basic Skin tone for the last highlight. Last step is a coat of AK ultra Matt to get rid of any shine on the uniforms.

I really liked working on this diorama, trying some new techniques and products. I worked on this diorama on and of over a period of almost a year, just long enough not to lose interest, at least for me!

THE PLAYERS







RED THUNDER

Graeme Newman
captures a moment
from the brutal
'Rzhev Meat Grinder'.



As the 1942 German offensive in the east was directed against the Caucasus and the Volga an equally titanic struggle was taking place in the Rzhev salient, this was a finger of territory some 200 km in length that the Germans hoped to use as a platform for a future attack on the Soviet capital. The Soviets were equally determined to destroy this threat and a series of offensives were undertaken from February 1942 to until November 1942, attacking in-depth prepared German defensive positions; these failed to create any major breakthroughs but gradually gnawed away at the German positions forcing them to defend an extended length of front.



Casualties were enormous, approximately 1.5 million dead and wounded on the Soviet side; the Germans lost 750,000 weakening their forces for months to come. Conveniently ignored in the history books until recently the 'Rzhev meat grinder' failed to achieve the strategic success of the offensives taking place in Southern Russia it did however achieve some positives drawing important German manpower reserves away from the crisis in the south and inflicting lasting damage to Army Group Centre. Ironically the Germans performed similar attacks within a year attacking prepared in-depth Soviet defences at the Kursk salient with similarly unsuccessful results.

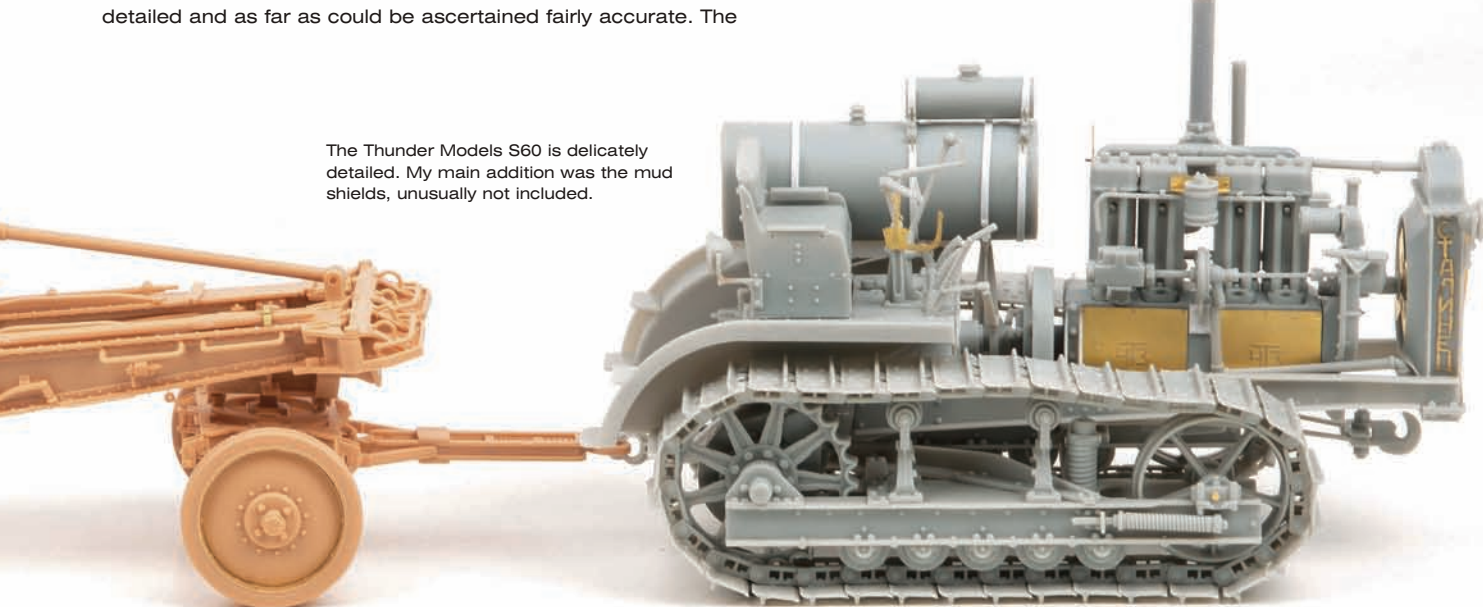


I've always been attracted to antiquated artillery tractors maybe it's in the genes my Grandfather was in the field artillery in the First World War and its probably the main reason for his having survived three years at the front. The Stalinets S60 is a classic example of primitive design, a direct copy of the Caterpillar 60 some 70,000 were produced from 1932 until 1937 featuring a 4 cylinder gasoline engine. The upgraded S65 featured a diesel engine and both were extensively used by the Red Army. When Thunder models released the S60 I quickly purchased one with a project in mind, essentially the kit is built straight out of the box with some additions in plastic card such as straps for the fuel tanks and mud shields on the running gear which strangely enough are not included in the kit. Further additions such as lenses for the lights and wiring and fuel lines added with reference to the superlative "superlative" "Tyagatshi" by Jochen Vollert, a tankograd publication some 360 pages packed with hundreds of photos of all World War II Soviet tractors. Russian artillery had a fearsome reputation since the Napoleonic Wars, the Red Army didn't neglect this branch of service and produced some of the best artillery pieces of that period. The 1937 ML20 152mm howitzer saw service throughout World War II, the gun being fitted to self-propelled guns as well as being manufactured in large quantities as a field howitzer. Trumpeter produce this gun complete with towing dolly, the kit is well detailed and as far as could be ascertained fairly accurate. The

centerpiece of this gun is the huge barrel, RB models produce a superb aluminium offering complete with the distinctive slotted muzzle brake, a small amount of surgery to the kit and the barrel fits neatly enhancing the gun which has a presence all of its own. Further additions in the form of plastic card strips replaced the etched brass gun shield braces which were a bit of a nightmare to sit at the right angle. I wanted to create a sense of destruction which in many areas resembled a WWI battlefield with the artillery piece being towed through the edge of a town. The length of the model dictated the size of the base as I wanted to include heavily damaged infrastructure and a shell/bomb crater. As with all scenes the orientation must not run parallel to the edges of the base but obliquely at an angle.

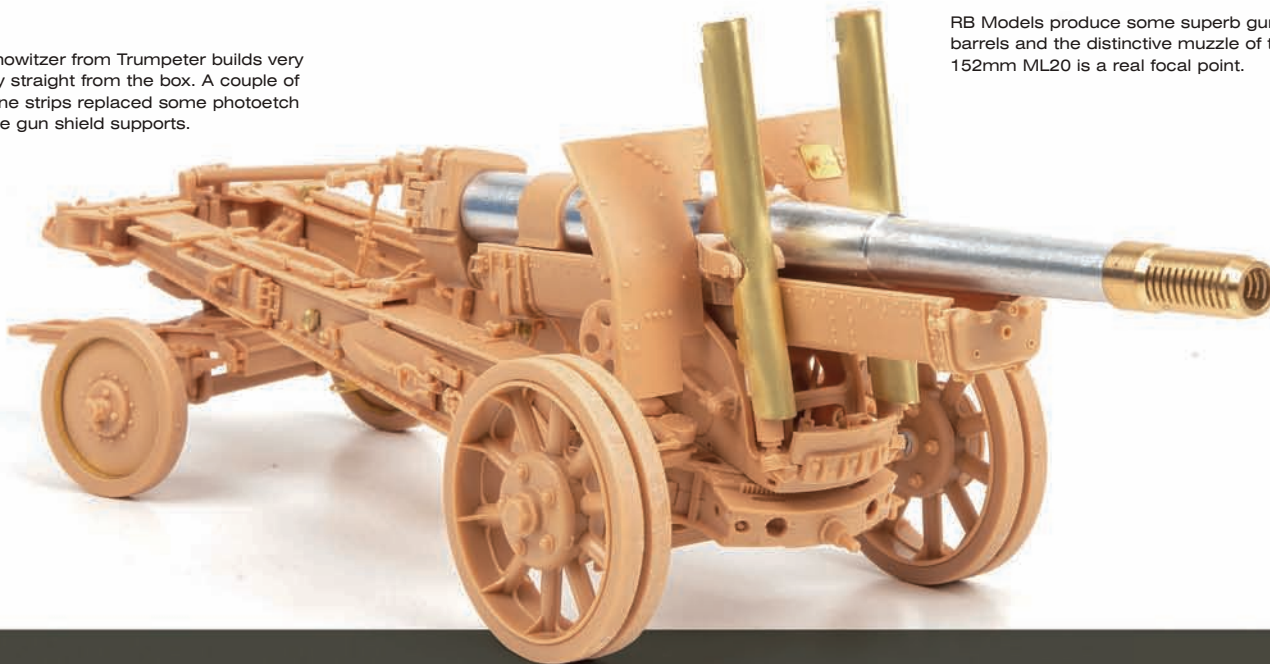
I used a commercially available picture frame built then built up edges as I wanted to create depth to the scene, I mapped out approximate positions of the building shell hole and road in cardboard before or priming and spraying the base satin black. I marked the area of the road, building and shell hole on a cardboard template so I had an idea of the basic dimensions of relevant areas. The building was created using foam board of varying thickness, this medium is a godsend to modellers as it can be sanded, scribed, sculpted and is very lightweight.

The Thunder Models S60 is delicately detailed. My main addition was the mud shields, unusually not included.



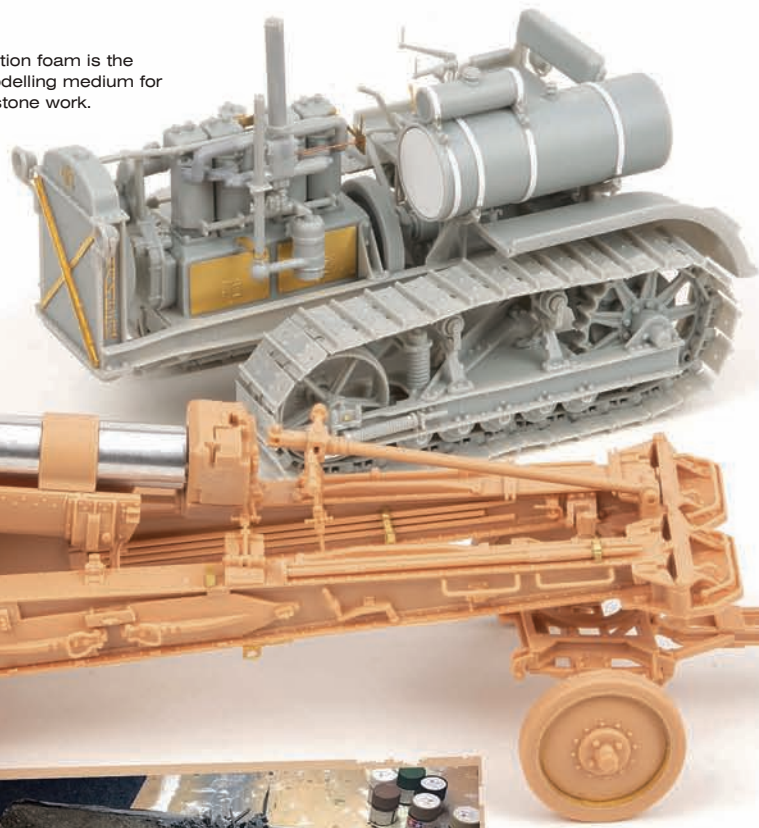
The howitzer from Trumpeter builds very nicely straight from the box. A couple of styrene strips replaced some photoetch on the gun shield supports.

RB Models produce some superb gun barrels and the distinctive muzzle of the 152mm ML20 is a real focal point.





Blue insulation foam is the perfect modelling medium for brick and stone work.



The figures on the tractor were self-sculpted to suit utilising Hornet heads and kit parts.



Dried lentils were used to create the distinctive style of cobble stone; old school!





Architectural features were added as can be seen on the model ,scribing, brickwork, damage with little more than a cocktail stick and scalpel. The door and window frames were simply made with basswood and damaged to suit the scene. Compared to the building the roof was a little more time consuming as it was constructed as a real roof would be with the timber frame and individual roof tiles as I wanted to show damage. The tricky part is getting the roof, the walls and the edge of the base to mate at a perfect parallel edge, once this was achieved black card was used to blank the rear of the building where it is cut through. I mounted the building on a piece of card so it could be easily painted then positioned exactly where required. Thanks to Miniart who provide an extensive range of diorama accessories the guttering and insulator mounts were added. The building was then sprayed in an acrylic grey, never use a solvent based paint near foam board as it eats into and destroys the surface.

Thanks to the many colour photographs of the region that have made their way into publications and the internet, associated features were painted accordingly.

The pathway was created in a similar fashion using foam board of a suitable depth, individual paving slabs were scribed and damage added. As had raised the surface to allow various levels of depth I was now in a position to create the roadway with a slight camber and drainage ditches. Although far from universal cobbled roads could be found in this region especially in towns, unlike Western European cobbles they appear to be a more rounded stone. Harking back to old school modelling I decided to use lentils to emulate this feature however it was not without some minor problems.



After creating the roadway with Polyfilla I sprinkled the lentils evenly across the surface, as it began to dry bedding them in with the reverse of a spoon. Left overnight I found to my disdain that the lentils had absorbed the water leaving a crumbling surface, quickly thinking I mixed a dilute PVA solution which was lightly brushed over the surface, as this began to dry I gently rolled a rolling pin across the surface. Once completely dry a dilute polyfilla solution was brushed across the surface filling any gaps, damage to the edge of the road was easily replicated using a small screwdriver. Moving on to the rest of the landscape this was moulded bearing in mind any debris such as fuel drums, timber, branches and masonry have to be embedded before drying to give a sense of being buried adding to the sense of devastation. The groundwork was painted using a variety of mediums, acrylics from Tamiya, Lifecolor and enamels with some oil washes to emphasise detail; this process was revisited several times enabling realistic and variety of tones.

The Stalinets and ML20 howitzer were painted using a set of MIG acrylics, I chose these as I felt they offered decent matches to the colours I had chosen for the vehicles, 4BO green for the Stalinets, Protective green and 7K Sand on the gun. These were chosen to add a subtle difference in shade to "all green" vehicles, highlighting and shadowing was applied by subtly tweaking the colours with white/yellow for highlights and black for the shadows. Washes of Raw Umber were applied and some dry brushing before the mud and grime added using AK muddy ground to give texture, dried areas were painted Earth and buff tones, damp areas were painted very dark with oil washes added to give a slight sheen. The upper chassis of the gun and the tractor were coated with a mix of liquid detergent and water, this was allowed to dry then dust coloured acrylic was washed into areas where the dust gathers, this gives an opaque coating and can be built up or washed off using washes to suit the intensity required. The final touches were added

using pigment again focusing upon areas of build up with steaks chips and fuel stains added. The engine block was painted a gun metal /steel shade washed once dry with shades of umber oil paint areas of grime added and finished off using graphite pencils. the tracks were finished in a similar manner but mud a grime added as previously described again highlighted with graphite and silver pencil.

Other features were added to break up the uniformity of the vehicles such as the captured fuel drum and foliage which is sea foam with punched leaves from aluminium foil laboriously glued and painted, adding features like this adds an "on campaign" feel.

The figures are a mix of stock Stalingrad who offer a superb range of miniatures, many Red Army options are available in their range, minor modifications were made by cutting off epaulettes and adding collars and pockets to the gymnastierka tunic backdating to pre 1943 pattern. A great all round reference is published by Histoire and collections "the Soviet soldier of WWII" packed with photographic reference that has everything most modellers would require.

I knew I was going to have to sculpt the figures on the tractor and the gun, the nurse is also heavily converted. Using hornet heads and hands, boots from plastic fig kits, wire armatures along with magic sculpt and Duro putty I set to work. This process was time consuming but rewarding with results some pleasing some so-so. All figures were painted in Lifecolor acrylics drying beautifully matt for uniforms whilst for the flesh oils were used. Once the main components were completed some trial and error was undertaken until I was reasonably happy, there is always some conflict in the positioning and interaction.





To add to the sense of destruction torn clothing/ fabrics were displayed entangled upon debris, a rat added to the shellhole and a stray dog adding extra interest. Finally I added water to the shellhole using AK resin water coloured with mud coloured acrylics. Several layers were added after drying. A nameplate from 'NAME IT' was added. They provide a superb service and offer a wide range of finishes, thoroughly recommended. One of the challenges in creating a scene of this size is keeping the sense of detail uniform throughout with the same attention to detail as a

smaller undertaken, each area must have an element of interest or a feature without being too contrived. I must confess this was not a quick project and took around nine months with painfully slow progress at times, you lose some sense of objectivity when working on things for that long and it is worth putting it away for a few days and revisiting detail. This actually happened quite a few times until I finally said "enough!"





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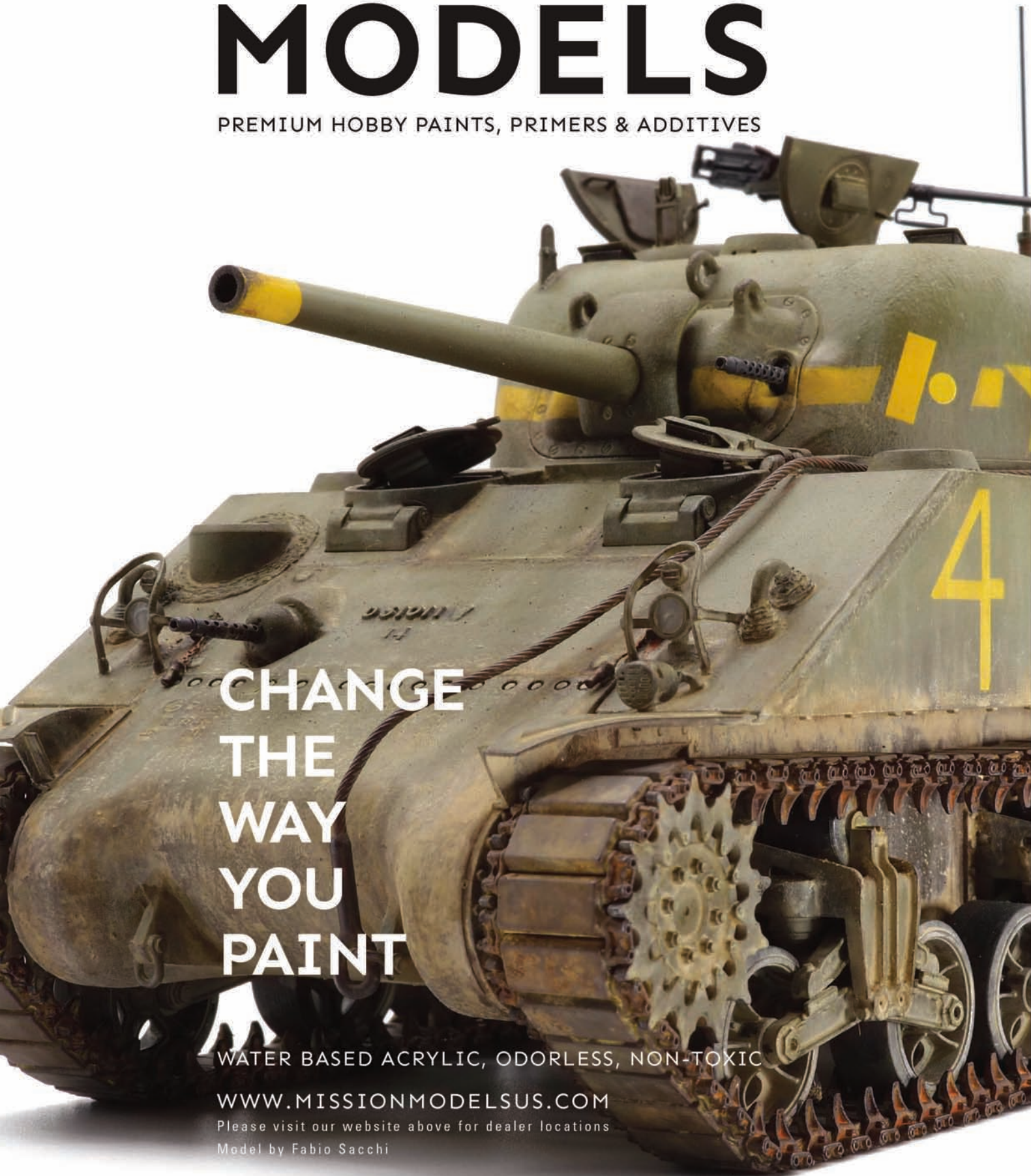
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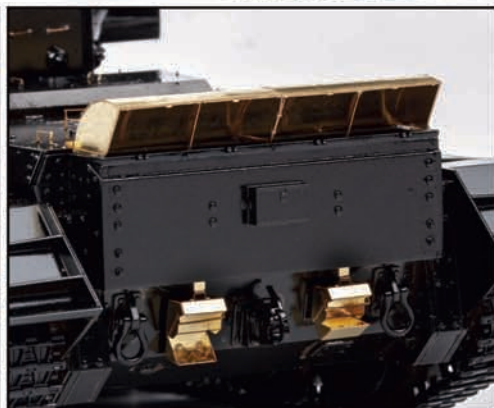
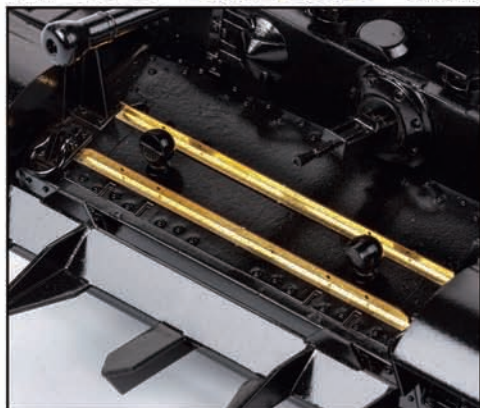
BEST BRASS AROUND

eduard

Cromwell Mk.IV

1/35 Airfix

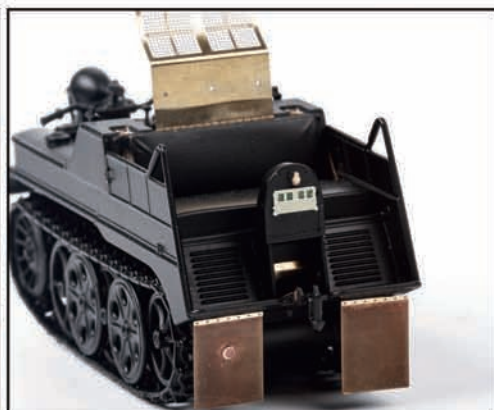
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Sd. Kfz.2 Kettenkraftrad

1/35 Tamiya

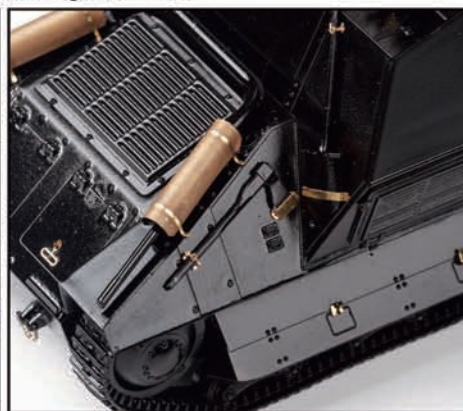
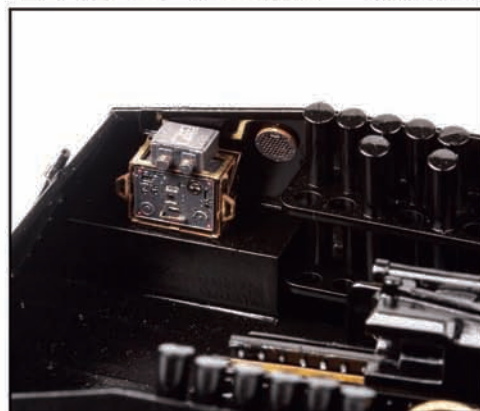
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Marder I on FCM 36 base

1/35 ICM

Cat. No. 36470 general set



Panzerkampfwagen

David Parker builds Trumpeter's 1:16 kit

W

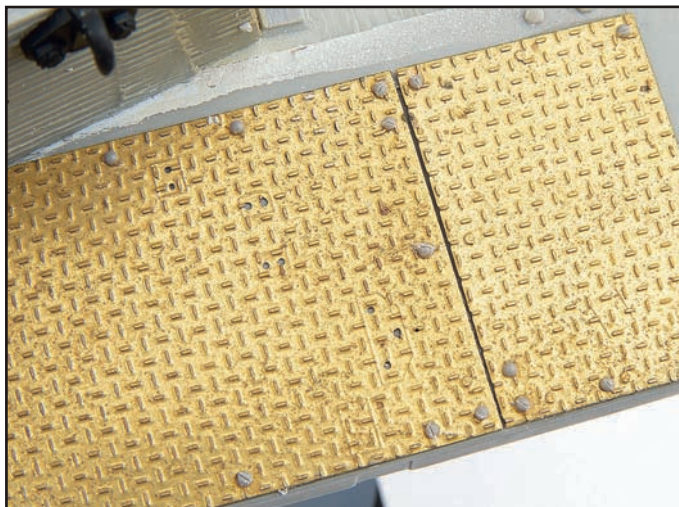
Part Thirty Eight

Part Thirty Eight is I am afraid a little less extensive than I had hoped it would be as many of the time-consuming procedures involved failed to generate as much in the way of photographic coverage. Work has at last shifted to the outside of the hull focussed mainly on the back of the hull but there has also been some jumping about between areas. The unwelcome revelation that my subject vehicle was evidently manufactured a month or so later than I had assumed prompted a small crisis. Should I search for a new subject with the pre-December 43 angled engine bay floor or make the corrections to the hull to match my original choice? In the end I decided to stick with my original choice and to

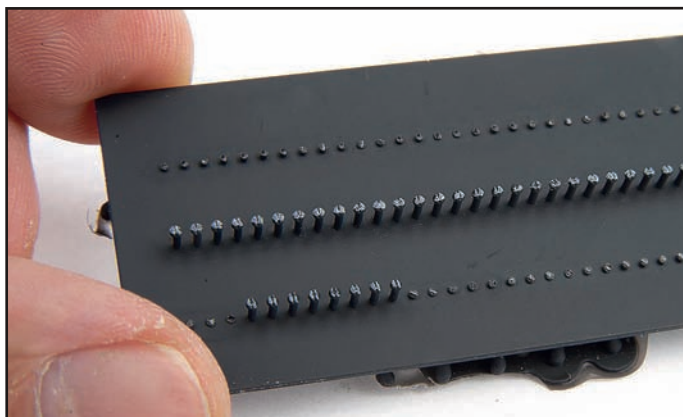
make the changes but this would mean that the floor of the engine bay would not be correct, still being sloped. The floor is almost entirely obscured when looking into the engine bay and I did not think the potential devastation that cutting out the section of floor to correct it would cause was justifiable, so it stays and we will never talk of this again. This allowed me to simply plug a wedge onto the existing hull to recreate the new shape. Correcting the front of the hull was more demanding with the extended hull sides needing to be grafted onto the existing hull and the interlocks created.



Onto the outside and I needed to add the screw heads that secure the treadplates on the track guards. I started using MasterClub rivets for this.



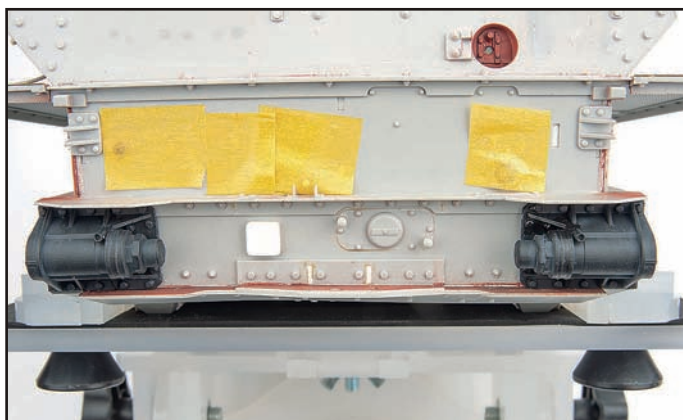
I decided that the slots in the heads were reasonably visible so I used a fine saw blade to cut the slots. This was reasonably successful but not as regular as I needed.



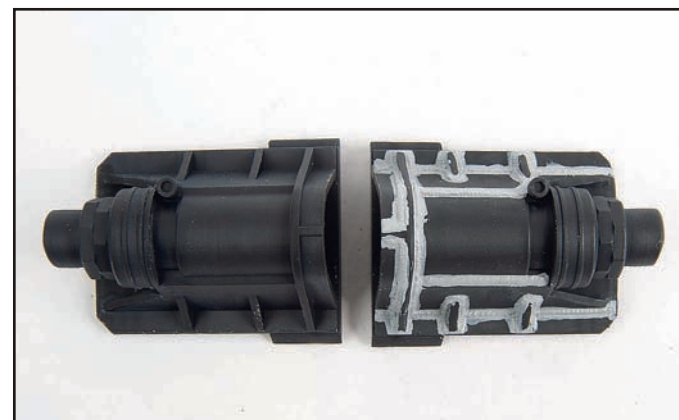
Instead I drew up some appropriate slotted domed screw heads and printed them. They were so small and black that I drybrushed the heads so that I could see their orientation more easily



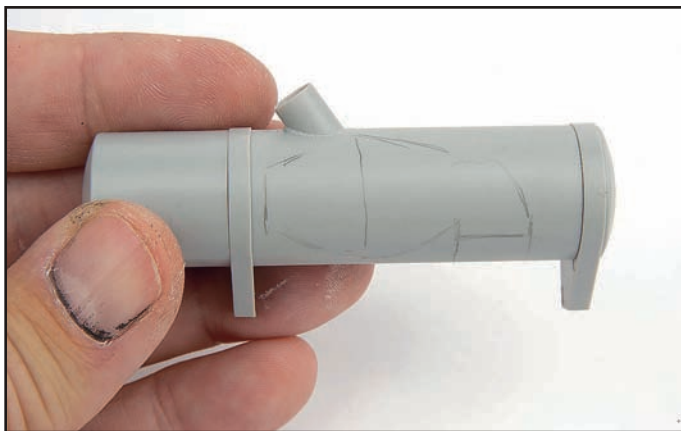
I stripped off the 90 odd MasterClub versions and replaced them with my new versions. The new screw heads look much better.



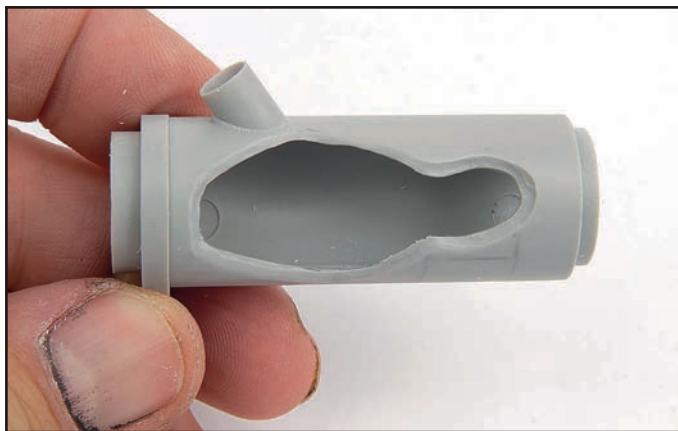
Moving to the rear of the hull a closer examination of the kit idler wheel brackets showed that they had some critical inaccuracies which would be difficult to fix. I decided instead to draw up my own and print them.



As I have yet to master a suitable package to add the welds digitally so I had to apply these traditionally. Quite a job as every edge is welded. Bolt heads were printed separately and applied after the welds.



My subject vehicle features a large dent in the exhaust muffler which was something that I was keen to replicate. I began by marking out the shape of the dent on the muffler.



I then used a burr in a motor tool to open up a hole in the muffler.



I started to pack out inside of the muffler with Magic Sculp putty, leaving this to part-cure before adding the top layer.



The dent was then sculpted and blended into the rest of the muffler, using rubber tipped brushes to smooth and blend the surface.



I was however not completely happy with the look of the sculpted dents so I switched to a new strategy and created a cylinder from annealed sheet brass which I soldered together. To avoid a massive distortion of the tube I stuffed it



with blue foamboard with a cutout corresponding to the dent. The ends of the tube would still need to match up with the kit end caps of the muffler so I inserted 1mm plastic discs into each end to help maintain the profile.



I drilled a hole for the exhaust pipe and enlarged it with a grinder as the hole is not a pure circle.



The pipe was also made from brass sheet, rolled into a tube and soldered into place.

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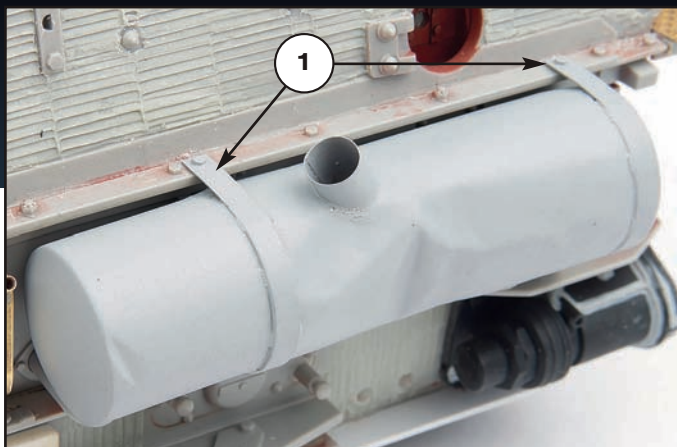
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Nothing resembles crumpled metal more than actual crumpled metal! I added the tiny welds along the muffler straps using melted plastic rod and then I primed the whole muffler.



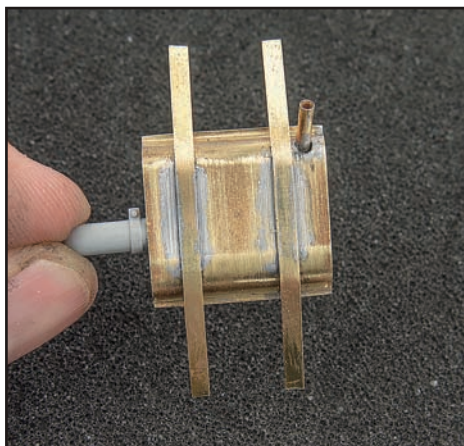
The top straps 1 were replaced with brass strip so that they sit on top of the hull bracket instead of under it as provided by the kit.



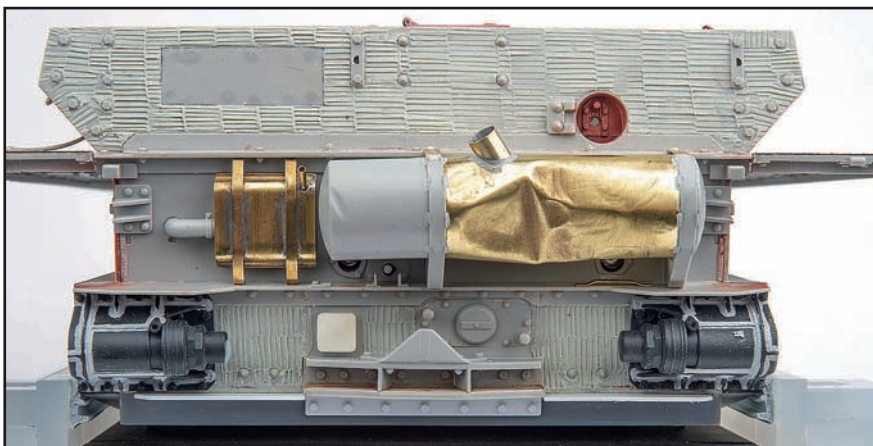
emboldened by the work of the muffler I decided to remake the auxiliary generator muffler from brass as the thickness of the brass better replicates the real thing. I formed the outer cover and soldered the two halves together



and reworked the end pieces with a spacer so that it would slide into the brass sleeve. The overhanging lips were then trimmed back and cleaned up.



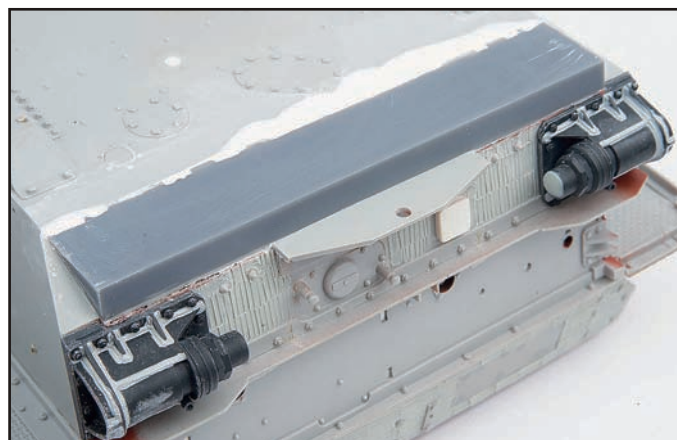
The exhaust pipe was added using brass tube and the mounting strips were made from brass strip.



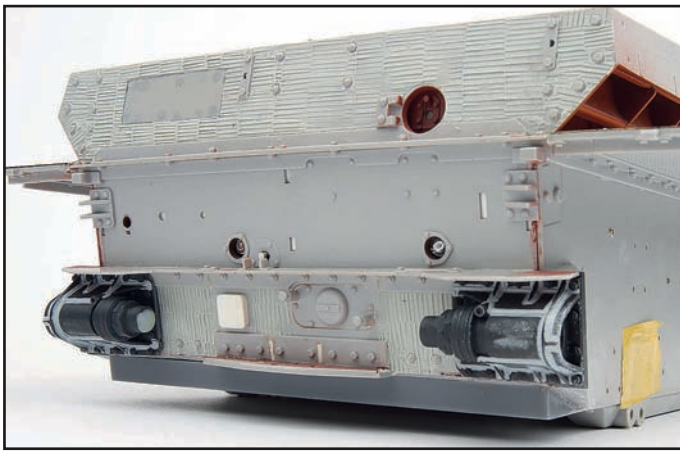
Both exhausts dry fitted on the hull. I will try to ensure that the main exhaust muffler remains a separate part to make it easier to paint. You may also have noticed that I have applied the zimmit to the rear hull using Magic Sculpt as usual and a strip of brass as a trowel.



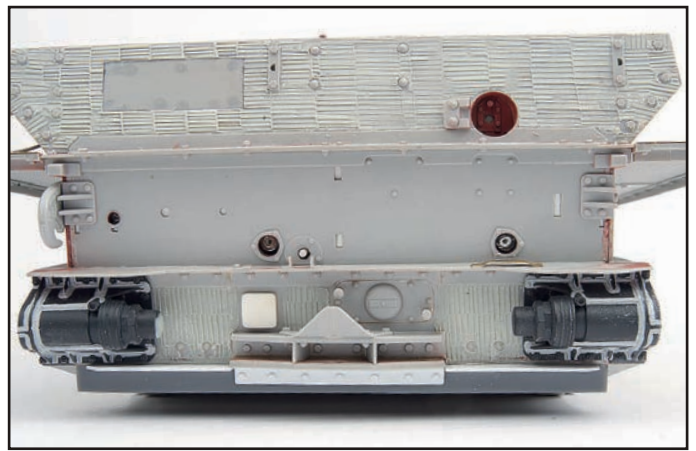
I had relatively recently discovered a rear view of my subject vehicle which is obviously a huge help but it also threw up an huge issue in that it showed that vehicle was manufactured in or after December 1943 as it has the flat



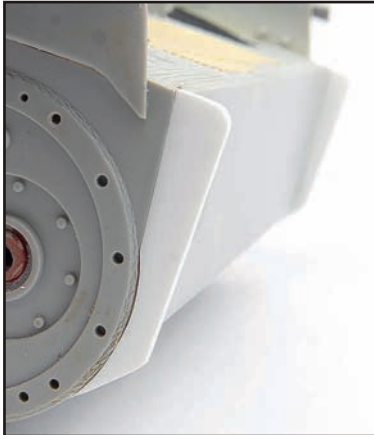
rear floor and consequently the extended front hull. After removing the existing hull floor details I printed a new floor section this was glued into place using 5 minute epoxy.



The new floor fitted reasonably well all things considered.



I then added the new rib detail below the idler housings and the tow bracket plate below the existing bracket.



Good old trial and error hacking around plastic card was required to extend the bow armour. I laminated the card together to match the width of the hull sides. On the inside face I added the weld bead using Magic Sculp, sealed with Mr Surfacer.



Creating the interlocks was a bit of a challenge. I marked out the shape and cut the outline with a P cutter. I used a motor tool burr to remove the section and then cleaned up the rebate with micro chisels. Finally the welds were added using Magic Sculp.



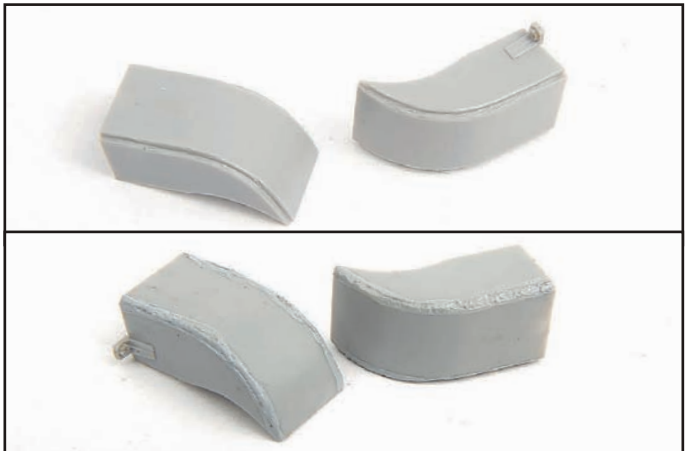
The final drive housings had a cast texture applied using stippled Mr Surfacer and I used a fine brush to paint on the casting numbers, building up the height of the numbers layer by layer.



The kit sprockets are a mix of quite nice detail and a terrible engineering so that the two halves won't actually fit together without considerable adjustment. I preferred the challenge of designing my own sprockets and printing them.



I used Mr Surfacer to add the cast surface texture to the inside surfaces of the sprockets.



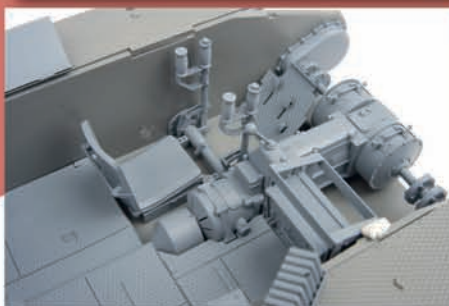
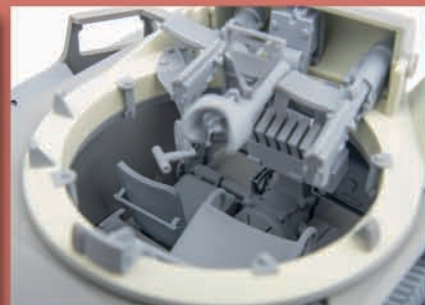
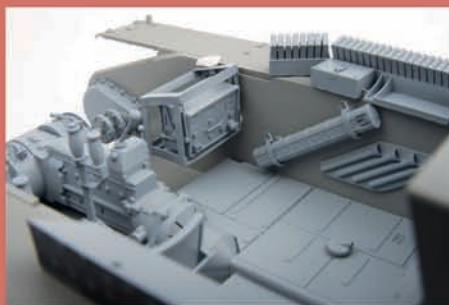
The armoured exhaust housings lack the welds so I used a burr to cut a slot along the edge of each housing. The welds were then applied into these slots using Magic Sculp.

The project continues in the next Issue

NEW 1:16 PANZER I

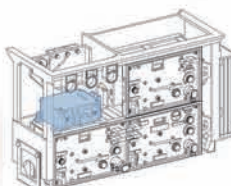
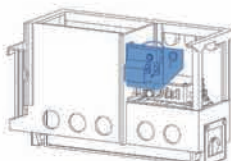
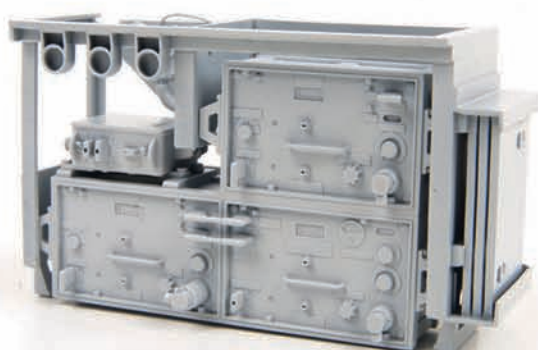
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1:16
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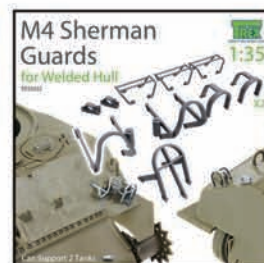
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JEEP



1:35



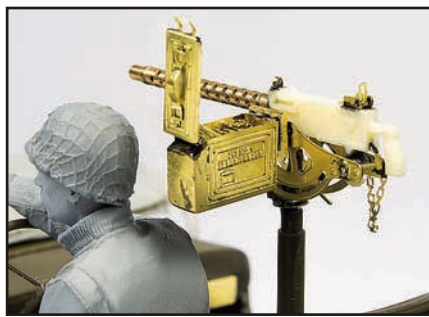


Oscar Ebr̃ Casola enjoys a nostalgic project revisiting Tamiya's Willys Jeep

One of my very first models was a Tamiya Willys Jeep. I probably built it back in 2005 when I was 15 years old. I still remember entering the shop during a short weekend trip to Andorra. Back then, I already was an eager reader of WWII history books, so when my mother asked me to choose a kit (most of them Tamiya WWII classics) I didn't hesitate it for a second. I enjoyed the Jeep so much that I've always planned to do it again using all the skills I've learned since then. For me, this was not just "another" model, but one of those special projects that now and then appears on the bench and leaves you a great feeling of the time and effort put into it.

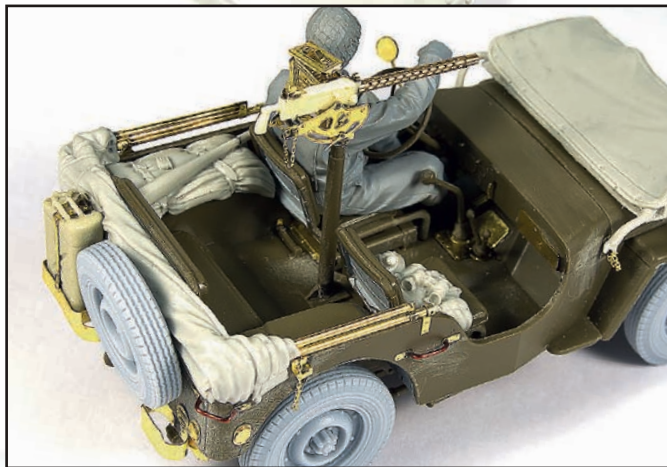
The Tamiya kit is a classic and deserves the same love as any other kit from the brand. It is still an excellent choice if you want to do it out of the box but I decided to improve it somewhat.

I chose the MAC12 Accessories for the Willys Jeep from Mantis which is an excellent set. I also added the resin wheels from Def.Models DW30004 and the PE set from Voyager PE35194.



PHOTOETCH FUN

Before starting to glue the PE and resin parts, many of the kit details needed to be worked on or removed. To do this I prefer a flat knife, 600 sandpaper and a bit of patience. I also used Mr Surfacer to cover any moulding marks. After fixing this, I moved onto gluing all the PE and resin parts, dry-checking as many times as needed. For the build, I only used Tamiya cement and black CA with an accelerator. Black CA works very well and lets you spot any excess easily. Everything was left in sub-assemblies to make it easier to paint.



ANYTHING BUT DRAB

Over the years I tried to find ways of representing complex and textured surfaces while maintaining a balance between the final look and the realism. This is a very personal topic as it depends on your taste. I tried several approaches similar to what some now call the "distressing" technique. Some people like to add complexity to their base colour using this two-layer system for the effect. They start first with the base colour, after that they would apply chipping medium or hairspray, and then cover it all with a slightly brighter variation of the base



After removing part of this final layer you get the appearance of a worn-out surface. In the case of Olive Drab, I've found out that what worked the best for me was using the speckling technique instead of the distressing.

The procedure is quite simple and starts by spraying a base coat of Olive Drab. You can choose whatever mix you like, but this model was sprayed using AK Real Color RC024 with a touch of RC507.



This is a rather 'bright' mix of OD. Then, using a lighter Dunkelgelb I made some speckling over all the surfaces. Next, I repeated the process by using a dark colour. Once the paint is dry we cover the whole model with another (very thinned down) layer of Olive Drab.



The finish can be adjusted by how strong the contrast of the speckling effect is and how opaque is the final layer of OD. In my opinion, this technique works way better when used with dark colours. A realistic yet eye-catching result can be achieved when this effect is complemented with weathering techniques and

balance. To finish with the base I applied the decals and sealed it all with several thin layers of gloss varnish. Before proceeding with the oil paint effects though, all the details like covers and tools are painted using acrylic paints. I also painted the base for the lights using bright metallic paint.





BODY BEAUTIFUL

In this phase, I normally spend a lot of time working with oils. Rather than rushing to apply the chipping and final effects with enamels, I like to take my time building the contrast and richness of the surfaces. Working with oils is usually a slow process. But, this gives me time to better understand the volumes and to recreate subtle effects that will probably go unnoticed on social media pictures.

I like to start with the 'dots' technique. This helps a lot to blend part of the effect of the base, but also adds richness. When working with OD I like to work with Light Grey, Sienna, Green, Ochre, and Orange. I simply drop small amounts of oils over the surface and then blend them with a long round brush dampened with white spirit.

After this first phase with oils, I move into building up some contrast. The great thing about working with oils is the level of blending you can achieve. So for making lights and shadows, you

can perfectly adjust the level of contrast depending on your style, your preference, or your mood! What I do is simply apply some bright variation of the base directly where I want the light. Then, using a dry flat brush we can easily blend the oil and adjust it. I use no thinner for this. If the brush retains too much oil, I clean it with thinner and then dry it using the airbrush. I repeat the same process for the shadows applying some Sienna and then blending it with patience.

To be able to work in this manner is absolutely imperative to work over a satin or glossy surface. The parts where you apply the oils will appear matt or close to matt when dry, so I will be achieving a nice and rich surface at the same time.

Before moving to the running gear and chipping I take some time to paint the lights using transparent paint. I also worked the wood of the shovel by painting the wood grain using a dark colour. After that, I tint the wood using a mix of orange and red transparent paint.



CLASSY CHASSIS

To start weathering the running gear I apply a general coat of some light dust enamel with the airbrush. After letting it dry for about 20 minutes I start to remove parts of that coat with a long round brush dampened with thinner.

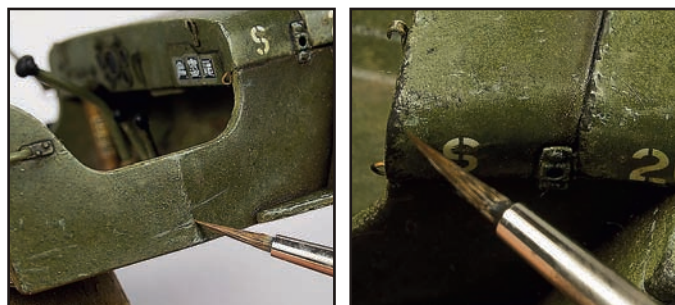




This will give a nice and dusty appearance. Now I had to keep building up some more dust. I do that by applying earth enamel tones but this time I do it using a brush and focusing only on certain areas. To represent extremely dusty surfaces I add a third layer of enamel or some liquid pigments.

The wheels are also a part of the model that needs some care and attention. I think it's always preferable to go for a realistic subtle weathering unless we have a good reason not to. After painting them with acrylic paints, I apply enamel earth tones that after some minutes I blend with thinner. Once dry, I dry brush the tire using the same colour of the base to recover some details. You can see here the difference between the dry brushing done on the left and just the enamels applied on the right. I considered it was enough, but one can always apply some oils or washes after that.

CHIPPING



Chipping it is somehow a controversial subject. Especially given how easy is to overdo it and how cool and dramatic it can look. I am going to overdo the chipping here for effect and I'm fully aware! I decided to first apply a layer of superficial scratches using a light variation of the base. This is perhaps the most unrealistic effect of the model, yet it helps a lot to outline the lines and volumes. I apply the first round of chips by using acrylic colours with a bit of retarder. Use always a good, pointed brush if you want the process to be less frustrating. Next, I apply a layer of dark Sienna chipping, concentrating on places where paint should be worn out because of the everyday use.

DUST AND DIRT



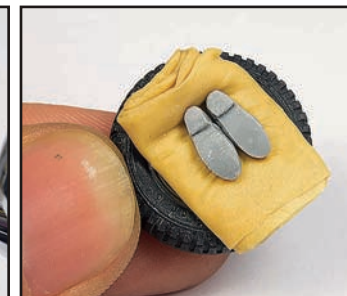
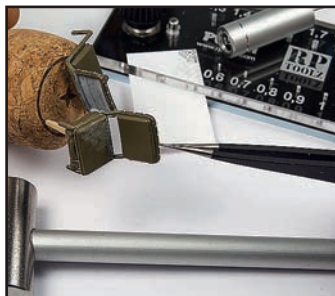
Dust, like anything else on a model, can be achieved by using any type of paint. Most of the time I use enamels because they leave a sharper edge and are a bit harder to blend than oils. In this case, I applied some dust on the interior in the early stages using oils. First I apply a thick amount of oil that I carefully blend using almost no thinner. A nice trick is to add some real earth or pigments over the oil while it is still fresh, and they will stick to it creating texture. On the outside, I decided to use the same enamel colour that I used on the wheels. It is as easy as applying some spots of enamel, letting them dry for ten minutes, and then blending them with thinner.



THE DEVIL'S IN THE DETAILS

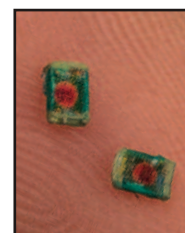


The .30 Cal machine gun is painted in black as a base. Then I apply dry brush using metallic silver. To give it some warmth I do several light filters using oil paints. The mount is weathered



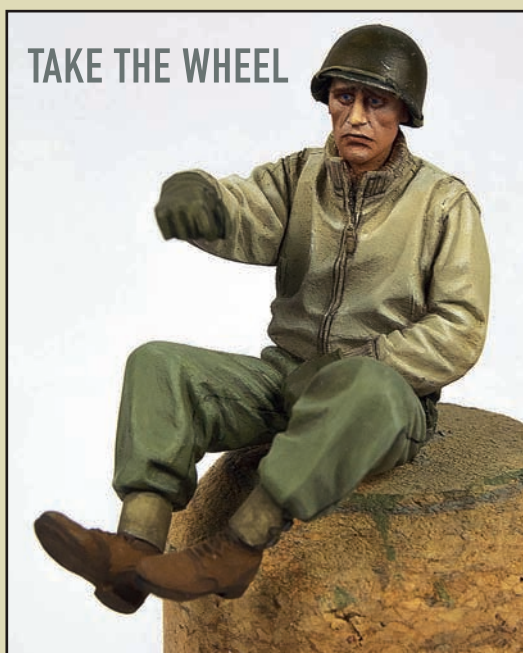
Most of the equipment was from the Mantis set, but some parts like the seats were improved and then painted separately using acrylics. As I'm not an experienced figure painter and I haven't mastered yet the transitions using acrylic paints I normally use the airbrush to apply the basic shadows and lights 'directionally' and then I finish stronger contrasts with a brush.

This method was used on the spare wheel, where I moulded a blanket and a pair of shoes.



I used black as a base coat. After that, I applied a layer of the base colour and then I finished the airbrush work by doing the highlights. This was later finished using a brush again.

Sometimes it's difficult to come up with ideas to give to your models a human touch with the small comforts troops may carry with them. I'll often study period images of vehicles in the field. For instance, I added this map holder which was painted with acrylics and home-printed waterslide decals. I also did some Lucky Strike packets using the same decal method.



For the driver, I used the excellent Alpine 35242 reference. I added a hornet head from the ref.HH26 and I adapted a Tamiya M1 helmet. The figure was entirely painted using acrylic paints. The base coat of the different parts was applied using an airbrush and liquid mask. The first layer of lights and shadows were also applied in this manner, but taking into account the angle of the light source. The following lights and shadows were applied with a brush. For the maximum lights, I used only a very thinned mix of 70.918 Ivory. For the darkest shadows and outlines, I used Vallejo 70.822 German Camo Black Brown.

Jacket

Base: 70.884 Stone Grey + 70.976 Buff
Lights: Base + 70.918 Ivory
Shadows: Base + 70.822 Ger. C. Black Brown

Pants

Base 70.318 US. Army Crew
Lights: Base + 70.918 Ivory
Shadows: Base + 70.822 Ger. C. Black Brown

Gloves

Base 70.887 US Olive Drab
Lights: Base + 70.976 Buff
Shadows: Base + 70.822 Ger. C. Black Brown

Leggins

Base: AK3076 Canvas Tone

Lights: Base + 70.884 Stone Grey
Shadows: Base + 70.822 Ger. C. Black Brown

Boots

Base: AK3031 Brown Leather
Lights: Base + AK3033 Leather Highlights
Shadows: Base + 70.822 Ger. C. Black Brown

Skin

Base: 70.341 Flesh Base
Light1: Base + 70.845 Sunny Skin Tone + 70.342 Highlight Flesh
Light2: Light1 + 70.918 Ivory
Light3: Light2 + 70.918 Ivory
Shadow1: Base + 70.343 Shadow Flesh
Shadow2: Shadow1 + AK3016 Reddish Black
Shadow3: Shadow2 + AK3016 Reddish Black

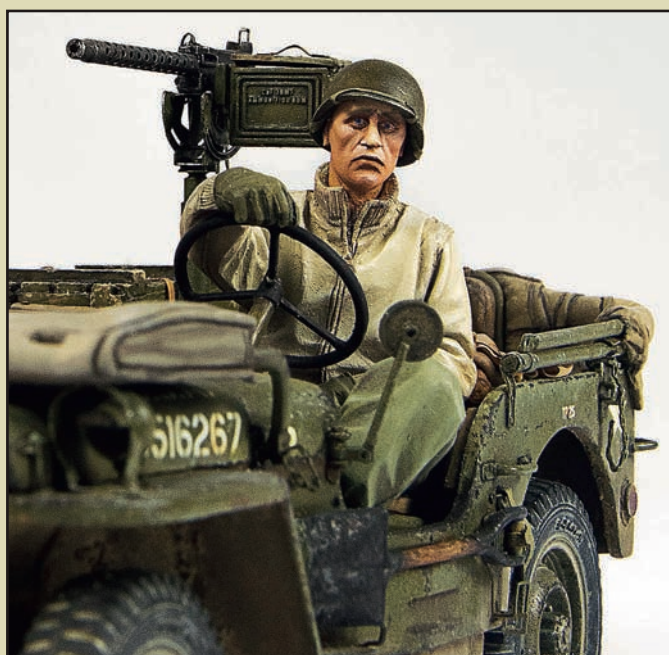


To improve the classic M1 helmet from Tamiya, and give a natural fit to the resin head I start by removing most of the interior with a rotary tool. The care of the edges; these can be done manually with 400 or 600 sandpaper. To get a nice smooth finish just apply some liquid cement and let it dry before touching it. Compare the before and after. Now, using 0.05mm thin aluminum foil I made the two straps. Paint starts with a layer of matt black, followed by

a layer of steel metallic paint. Once dry, apply a layer of chipping medium and then a layer of OD. After moistening the surface with water, I applied some chipping with the help of a toothpick. Gloss varnish is next to seal and protect. Using acrylic paints the straps are picked out and to finish the oil dot technique is used as described previously.



It was great fun to revisit the Jeep and exercise all of the skills I've learnt over the years. Using some of the best aftermarket parts now available, Tamiya's Jeep is taken to another level.





The sWS (or Schwere Wehrmacht Schlepper) series of halftracks was born out of a need to find a replacement for the Sd.kfz 6 & Sd.kfz 11 series of halftracks. The design order was issued personally by Hitler on 07 May 1942.

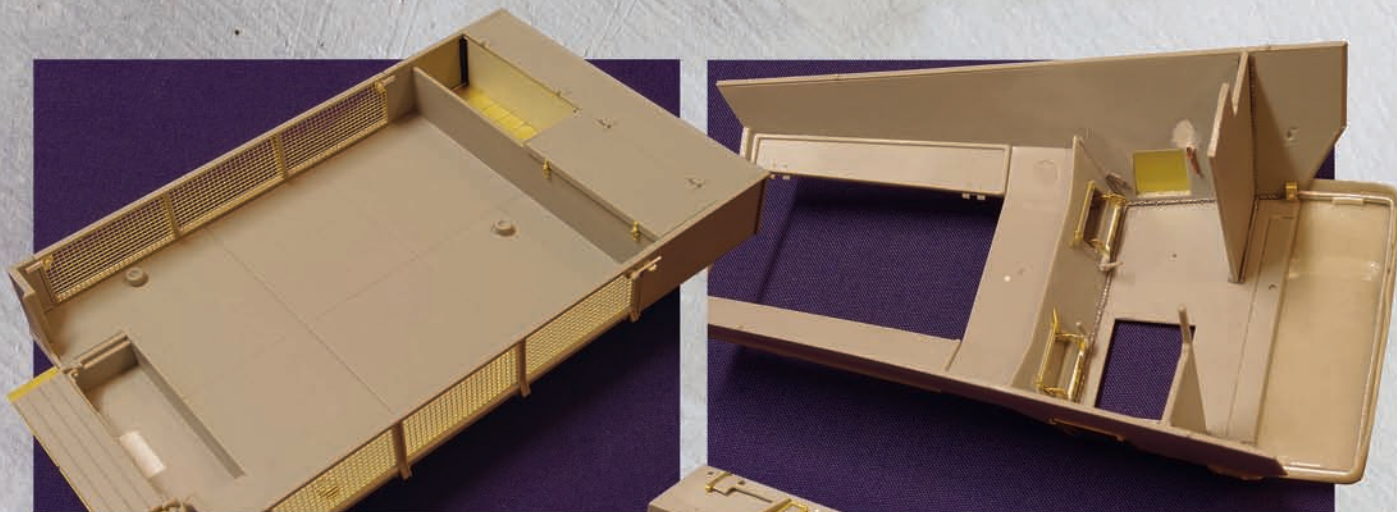
Built by Bussing NAG, the first prototype was completed in the spring of 1943. It was built in 3 basic versions, an unarmoured prime mover, an armoured version and a mobile air defence platform. While one of the features of the design was a simplified construction compared to other halftrack series, only 825 were completed by wars end. Of interest, a version of the halftrack was continued to be built post war by Tatra in Czechoslovakia.

FUNKY FLAK TRACK



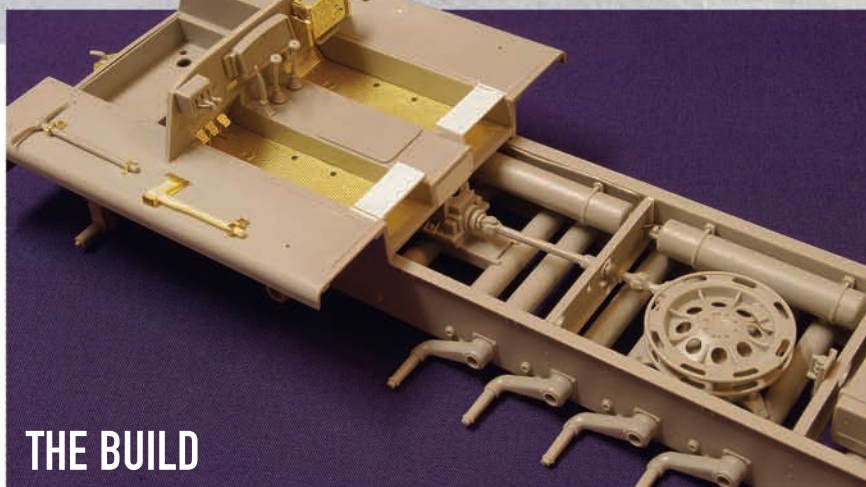


CHRIS LEEMAN BUILDS GREAT WALL'S sWS 3.7cm FLAK 43



THE KIT

Great Wall Hobby released this kit in 2010. This was a completely new tooling and had nothing in common with previous kits released by other manufacturers previously. The quality is first rate, with beautifully fine details, individual track links and photo-etched parts. It has a very DML feel to it that's for sure. I purchased the a few weeks after it was released, along with the separate upgrade kit Great Wall Hobby that came out at the same time. Now, unusually for me, I started the build of this model almost as soon as I got it. Most new models for me get looked at then put on the storage shelf for another day. I loved the subject and wanted to bog straight in. This began an on/off building process that lasted 8 years. Read on to as I cast my mind way back and try and remember what I actually did.



THE BUILD

Construction starts with the chassis, suspension and the wheels. This covers the first 7 steps. Detail is very good and no real issues encountered. The front suspension is quite complexed but generally goes together well. I used etched parts from the add-on set to replace the front tow pintle and added weld seems with Milliput. I built up the wheels at this stage although I didn't install them. The front wheels are made up of multiple disks that are sandwiched together with the hub to form the wheel. These look amazing when finished and certainly no need for aftermarket sets here. The rubber rims on the track wheels were all distressed with a coarse file to give them a worn look. I added air hoses to the compressed air tanks using florist wire bent to shape.



Stages 8-11 deal with the construction of the armoured cab/front fenders. I detailed up the interior using parts from the etched set, including new flooring, rack for radio, data plates and etched foot rests for the driver's pedals. The area between the internal seats and fighting platform didn't look quite right compared to the reference I had at the time, so I rebuilt this out of 10 thou plastic card. I used parts from the add on set to detail up the drivers' and radio operators front visors. Weld seems were added inside using lead wire superglued into place and then textured by pushing the tip of a needle file into the wire. I also added handles for the side shutters. The particular vehicle I was bases my model on seemed to show some sort of canvas cover over the rear of the fighting compartment. This made sense as this area is where some of the crew sit and being open wouldn't make it a great spot in inclement weather. Without any reference available to me, I fashioned a frame from aluminium tubing and plastic card. I then rolled out some two part epoxy putty and added it over the frame.

SWS



There also appeared to be a piece of wood sitting upright on the armoured cab roof. I haven't seen this before on any other SWS and I can only speculate that this might be some sort of gun deflector. I added this with 10 thou plastic card. On various pictures I've looked at, there are 2 brackets on the left side of the armoured cab. I haven't been able to find out what these were for but it certainly appears on a few vehicles so would appear not to be just a one off. I added these with copper wire bent to shape. A power lead was added to the Notek light. Various missing bolt heads were added around the outside of the armoured cab as per my references.



Steps 12 & 13 deal with the rear cargo bed. This was built almost straight from the box. I added drop gate locking handles for plastic card and rod. Stop plates were added to the inside of the drop gates also from plastic card. Small photo-etched latches were added to the ammo storage lockers as well as the storage lockers on the rear plate. A power lead was added to the rear convoy light using lead wire.

Steps 14-19 are the construction of the gun. The separate detail set comes with etched shields for the gun, to replace the kits plastic ones. To be honest, I could see no real benefit in doing this as the kit parts are commendably thin plus I felt some of the etched parts were not as well detailed as the plastic items. I

did use the etched ammo feed chute and bracket, as well as the foot pedals. The small curved shield over the gun barrel was also taken from the etched set. The gun barrel itself was replaced with the beautiful turned aluminium & brass item from RB Models.

PAINTING AND WEATHERING

I had always known what scheme I was going to do this in. It was to be based on a vehicle seen at a vehicle dump in Meppen, Germany photographed at the end of the war. It featured a very cool, hard edged squiggly pattern. I was lucky enough to have pictures of both sides of this vehicle and what it showed was the appearance that the camouflage may have been applied by 2 different people. This is most obvious on the armoured cabin. I only say this because one side clearly shows the different colours in swirls and curves, while the other side it's all straight lines. It certainly makes for a different look.

Due to the different materials I used during the build, the model was given a spray of Gunze Mr Surfacer 1200 straight from the

can. This gives a good smooth, tough surface for the next layers of painting and weathering. The whole model received a base colour that I mixed from Tamiya Dark Yellow (XF-60), Desert Yellow (XF-59) & Buff (XF-57). The ratio would be approximately 30, 30, and 40. Sorry for not being more specific but I don't really use a formula, I simply use what looks good to me.

I painted and weathered the inside of the armoured cab before I had to glue the top down onto the front fenders. I did this with a combination of enamels, acrylics and oils. Once completed I used Tamiya masking tape to cover up all the openings before gluing the top to the fenders. The tape would protect the finished interior from the rest of the painting to be done.

From the pictures it appeared to me that the camouflage had been applied by hand, having a hard edged finish. Originally I was going to apply this with a brush, but to be honest I don't trust my hand painting abilities. So I decided to mask off all the colours instead. For this I used Blu-tak. I rolled it into thin "sausages" and using the pictures I had, applied it onto the model. This was an extremely time-consuming job. I had the pictures of both sides so had to try and carefully follow the pattern as it appeared in those pictures. I had nothing of the rear of the vehicle so I had to fudge these areas a bit. Once the Blu-tak was applied for the first colour I went around and lightly pushed it down so I would get a solid hard edge when I sprayed. The first colour applied was the green, for which I used heavily thinned Gunze Olive Green (H 405). Once dry I then masked off the areas for the red brown using Blu-tak. For this I used heavily thinner Gunze Red Brown (H463). Both these colours were applied in a patchy application. I wanted to create a bit of variance in the colour that I hoped would give an appearance of hand applied paint. Once all the blu-tak was removed there were only a few touch-ups here and there and I believe the end result was far better than if I had attempted hand painting.

Next step was markings. The only visible markings I could see from the pictures were the registration number. I had some licence plate decals and numbers that came with the Kagero book on the Sd.Kfz 7. I sprayed the areas on the front and rear where they would go with Gunze clear gloss (H030). Once dry I then applied the plate and number decals to match the pictures. Once dry the entire model was given a sealing coat of Gunze flat clear (H020)

Next step was the chipping. For the lighter chips I used Humbrol Pale Matte Stone (No.121). This was mostly applied with a small piece of sponge. Scratch Lines were applied using a 000 paint brush, with the paint thinned slightly. I then added the dark chips. For this I use Vallejo German Tank Crew Uniform Highlights (No. AV70337). This was also applied with a sponge and 000 paint brush. The rubbers on the wheels were spray painted with Gunze

Tyre Black (H077), using the excellent QuickWheels masks (QW-102).

Next stage was the washes. For this I use only oils. First of the model received a wash using Abteilung 502 Starship Filth (No. ABT510), thinned with artist turps. I went around all the areas removing excess oils, blending and streaking them to give a ground in look. For this I use a number 2 brush, regularly cleaned and re-moistened with artist turps. This was left to dry for a day before I applied a second wash, this time using Abteilung 502 Cream Brown (No ABT240). This colour was applied a little more sparingly with most removed using vertical strokes to give gravity to the dust streaking effect. Using a heavier version of the two oils washes, dirt spots were added by simply loading a brush and running a finger over the bristles, flicking spots over the model. The model then received a very light dry brushing using Humbrol XYZ mixed with Windsor & Newton Titanium White. I used a flat brush to apply, and just lightly whisked it over the surfaces. I didn't want a stark contrast, but just a subtle picking out of detail.

The lower chassis now received an application of pigments. First I created a slurry, using various brown shades of pigments, thinned with just water and a tiny drop of dishwashing liquid to take away the water tension. This was applied with a brush over the entire lower chassis. After it had dried I then used a large brush, moistened with water to remove excess pigments. All strokes were once again vertical to help create the effects of gravity of the dust and dirt. I then went over areas with more pigment, this time applied dry and simply set with pigment setting solution. Finally using thinned oils, I then went over random areas to give the effect of grease and oil build up.

Tools and other smaller items like the ammo cans were then painted using enamels, acrylics and oils. I went around certain areas of the model with a 2B pencil, to give the effect of areas worn and exposing the metal underneath.



Great Wall Hobby sWS 3.7cm Flak 43 (Kit No. L3516)

Accessories:

Great Wall Hobby sWS 3.7cm Flak 43 Upgrade Set (Item No. L3516-T)

Lionroar Flak 43 Ammo & Cartridge Cases (Item No. L3506)

RB Models 3.7 Flak 43 L/60 Barrel (Item No. 35B54)

Friulmodel sWS workable white metal track (ATL-44)

The tracks I used were Friulmodels (ATL-44). The kit tracks are actually very nice but I like workable tracks as I find them easy to work with and install. Using a tip from my friend Dimitris Ioannidis, I made a 50/50 mixture of bleach and vinegar. This works the same as these white metal blackening fluids on the market. The individual track links were then soaked in this mixture, but I did these in batches, and I soaked these batches for different time lengths. What this does is it gives different intensities to the links of the amount of discolouration which give the links a more random look. I pre-cut the track pins to size using the wire supplied. These pins were then also soaked in the mixture. This takes away their silver appearance and hence blends better with the links. I constructed the links into the appropriate length and then gave them a wash with the same pigment slurry I used for

the lower hull. Once dry I used a old tooth brush and scrubbed over the tracks, removing the excess pigments. I then went over the cleats and the guide horns with a piece of fine grit and paper, lightly rubbing them to remove the top coat of paint, leaving the white metal to show and giving the appearance of wear. The tracks were then installed. I then went over the model giving it a very light spray of heavily thinned Tamiya Buff. I concentrated more on the lower surfaces and the idea behind doing this is to help blend everything in together.

So that's it, a great kit with excellent detail. With the release of the new Nut & Bolts book on the sWS I can see myself being inspired to build another one in the near future. Happy modelling.

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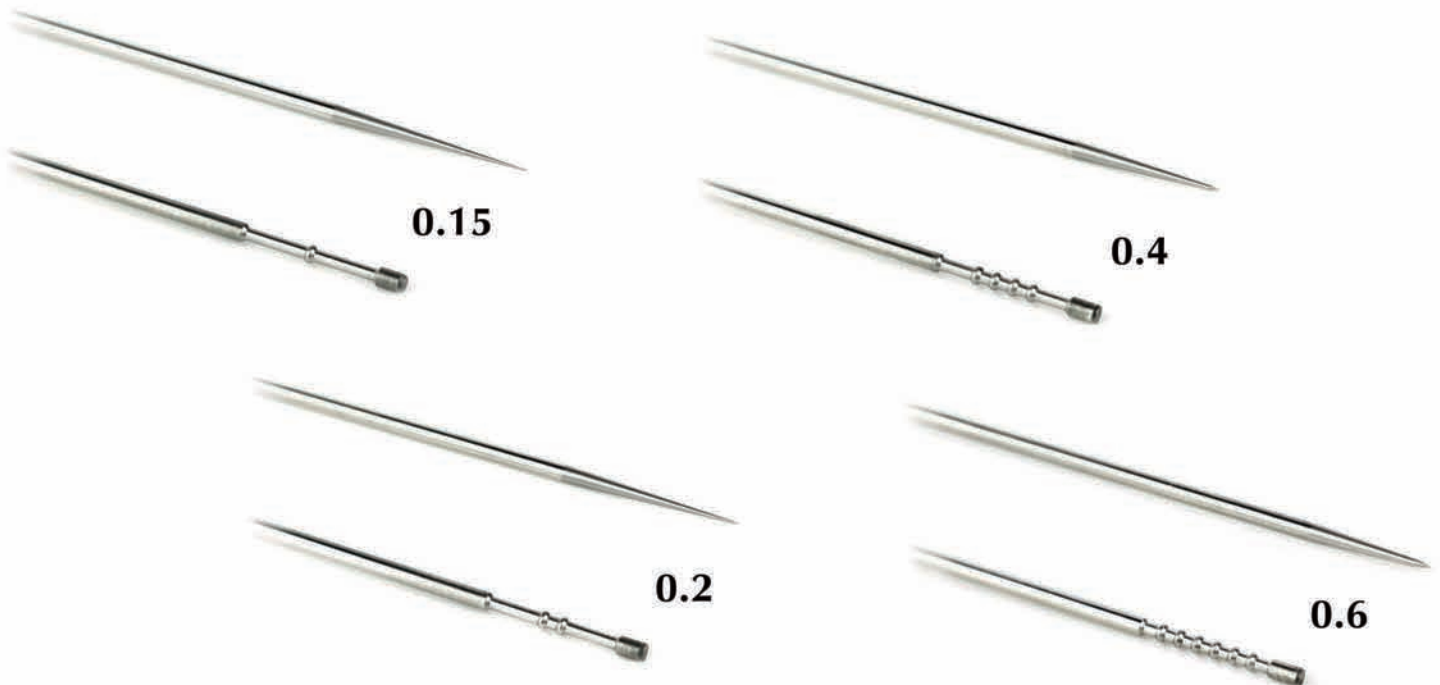
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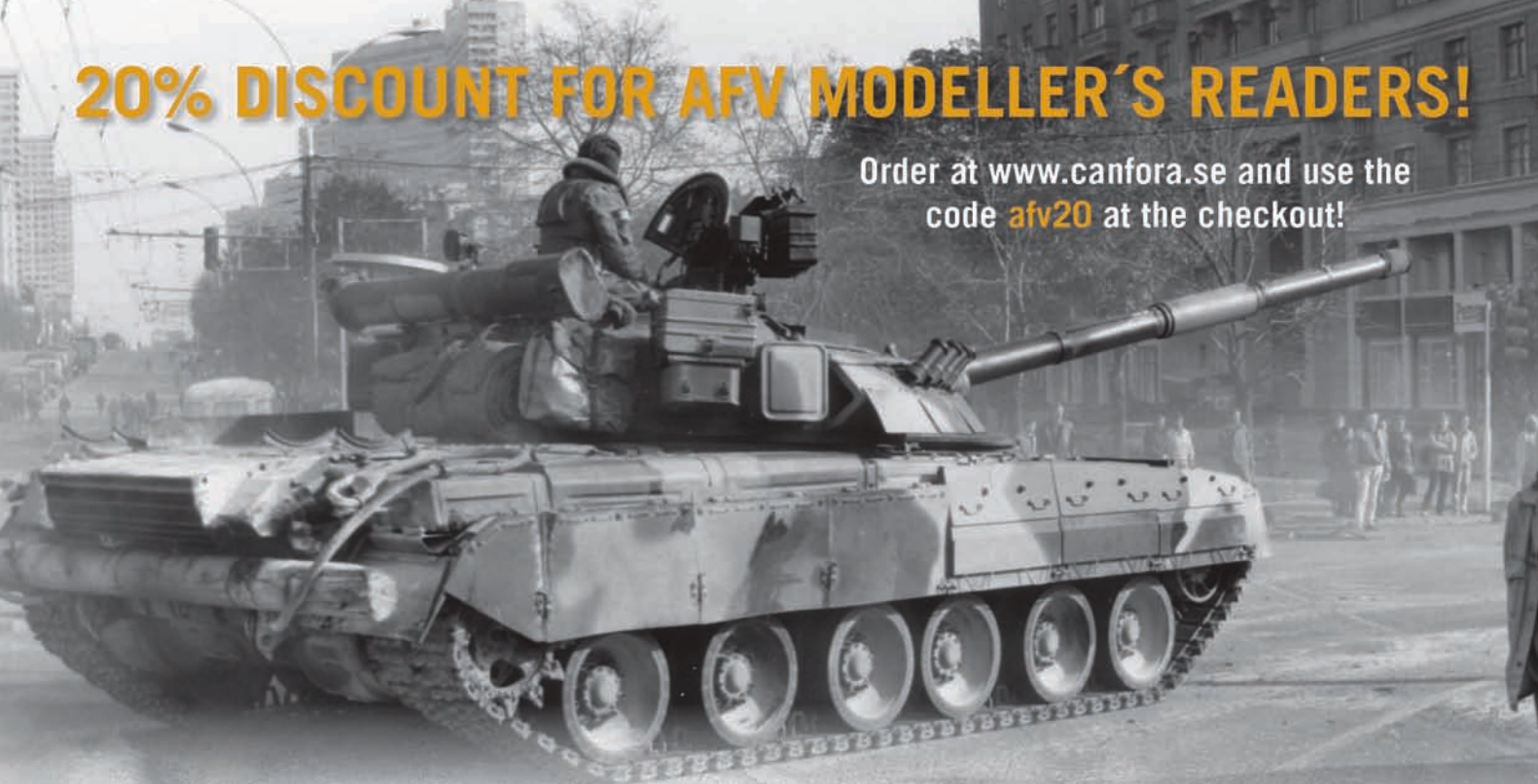
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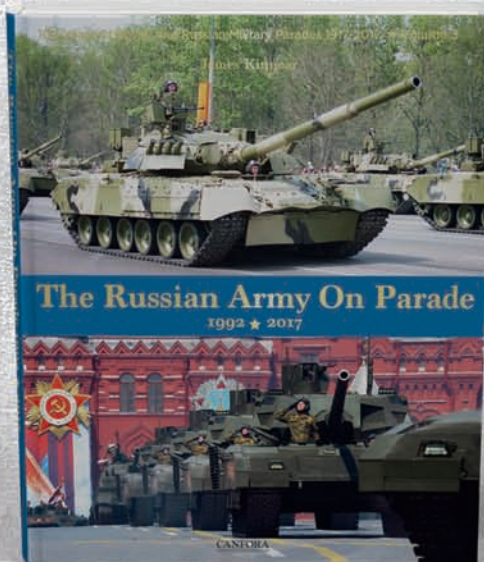
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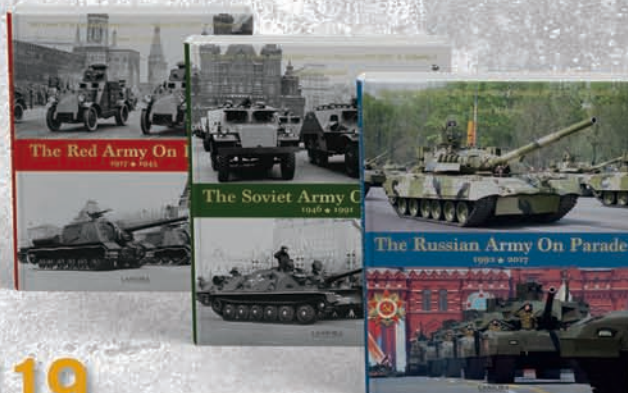
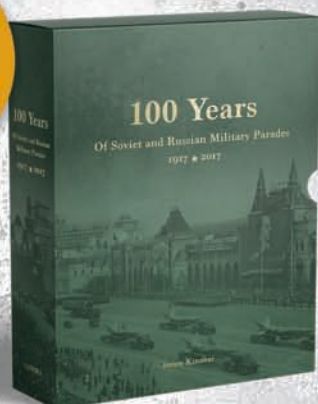
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