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1/35 SCALE 

(PORSCHE TURRET)
德国重型坦克Sd.Kfz.182 “虎王” (保时捷炮塔型)

GERMAN HEAVY TANK
Sd.Kfz.182

KING TIGER



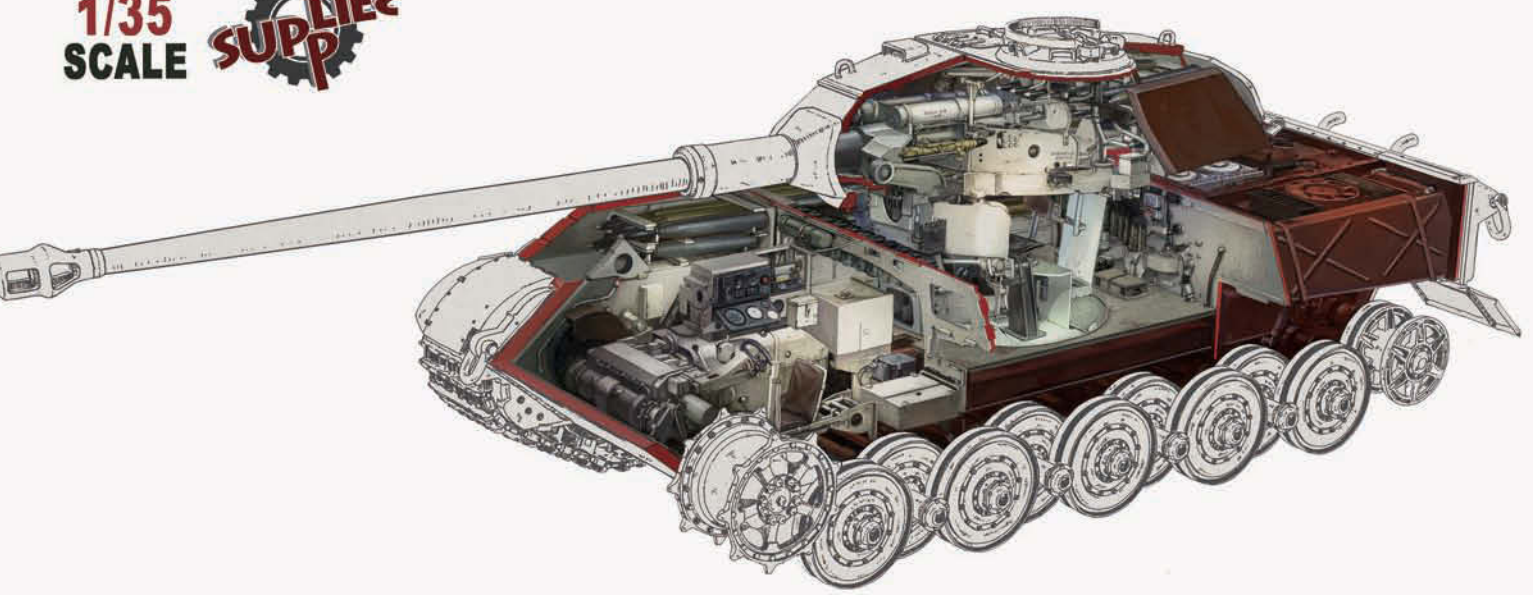
1/35 SUPPLIER SERIES SPS-062 (PORSCHE TURRET)

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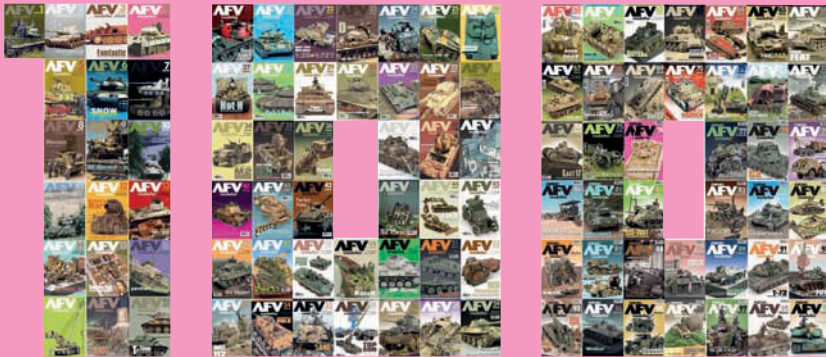
德国重型坦克Sd.Kfz.182 “虎王” (保时捷炮塔型) 内构组件 **INTERIOR SET**

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So we've hit a century! The one hundredth issue would have been hard to imagine back in 2001 when the first groundbreaking copy of AFV Modeller tentatively hit the press, as the only magazine devoted purely to armoured vehicles. It was hard to imagine the possibility that you could be reading this issue digitally on a computer or the yet to be invented tablet! So, around six hundred articles later and here we are in a golden-age of modelling with kits we could only dream of in 2001 and even the most obscure subjects available from mainstream

What's changed along the years then for AFV Modeller? Well if you're a long term reader you'll realise not a great deal. The same Editor (for his sins) and pretty much the same format with the emphasis and vision of the highest quality and inspirational modelling from a wide range of subjects. It's true that the internet has changed our hobby tremendously with instant information and reference, once the unique

domain of magazines and printed publications, so much is available to view on screen and share through social media. Is there a place for printed media in our digital future? According to many readers who we chat with at various modelling shows around the globe the answer seems to be a resounding 'Yes', so thank you all for the continued support and here's to the next one hundred issues!

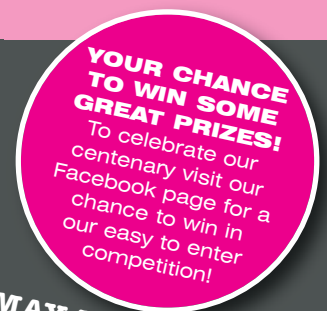
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MERKAVA

WITH TROPHY ACTIVE PROTECTION SYSTEM

4M

MODELLED BY DAVID PARKER

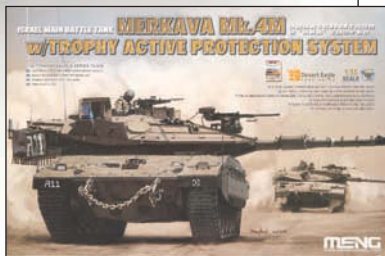


It is always good to see Meng return to the IDF pool of potential subjects and with no one else offering a kit of the most up to date Merkava 4M with the Trophy defence system this is a particularly welcome choice.

The Merkava 4 is a huge vehicle even by modern MBT standards and the unique front engine design and 'space age' turret festooned with fitting and details, the ball and chain skirts and the usually dusty working environment all combine to provide a striking and challenging modelling subject which is of course, exactly what we want!

From the box you get a very complete package with working suspension and tracks, clear moulded periscopes, a

comprehensive photoetched fret, braided tow rope and a tow chain. The kit features a textured anti-slip surface for anyone who is daunted about adding their own and like their Merkava 3 kits, the ball and chain is moulded in lengths making for quick, simple and effective solution. Available as a separate detail set, Meng have also released resin stowage baskets and a covered turret basket or you can use the empty baskets that come in the standard kit. One area where there has been a very welcome improvement are the turret mounted weapons, especially the .50 Cal which now comes with a choice of three separately moulded barrels, all on a separate individual sprue which I guess we will see included in any potential future releases which require this weapon. The Trophy system mounted on the sides of the turret comes with the optional protective cover or can be modelled



without as seems to be the common arrangement on the real vehicles.

Fundamentals

The assembly of the hull tub with its separate side walls is extremely straight forward thanks to very positive locators and then its on to the running gear which is it has to be said something of slog to assemble. With each of the 12 roadwheels having seven parts to assemble you can see that it will take a little longer than usual. The results however do speak for themselves and the working spring system for the suspension is very clever but sadly hidden behind the skirts. There was a small moulding issue on the initial kits where the square location hole on one

spring was replaced by a square peg where part of the mould had not reset correctly. We understand this has been fixed and I know some builders have received replacements. I simply cut off the peg and made a new hole myself.

The kit includes a choice of six different photoetched chassis registration numbers although their position on the lower hull makes them tricky to see. The belly armour plate is a separate part should you want to show a vehicle without it and you have a choice of front towing hooks or the more spectacular towing horns. I modified the mounts on the horns so that I could fit them at the end of the project to avoid them being damaged.

An iridescent plastic was used in the Gunner's sight.

Photoetched engraved armour tags were added

The lip of the mantlet above the gun was thinned

Holes were drilled in the lugs around the fume evacuator.

Check your references before fitting ALL the antennae like this!

Front mudflap was removed to create more interest.



The moulded texture supplied with the kit provides a useful guide if you want to add your own



The finished effect is quite hard to see and even harder to photograph! Here the small bolt detail has still to be cleaned up.



I thought I would save myself additional work by masking the small details but my old masking fluid caused more work. VMS Hull Tex was applied panel by panel



Nitty Gritty

Although the kit comes with a moulded anti-slip texture it is impossible to recreate the real texture of the vehicle with any injection moulding process. I think adding your own texture significantly enhances the appearance of the model and helps when recreating the particular weathering effects it produces. The advantage here is that the areas needing to be textured are already marked on the kit! I used VMS Hull Tex for the first time although I switched the VMS adhesive for AK Interactive Sand & Gravel glue. I masked some of the smaller details that I wanted to keep clean with a rather old Mr Masking Sol. This proved to be past it's best and problematic to remove, causing more problems

than it solved! I used a brush to apply the adhesive one panel at a time and the VMS grit comes with a really effective applicator nozzle which allows you to 'puff' the grit out over the panel giving a great even coverage. When I have done this previously it has always been difficult to find an effective way to transfer your chosen grit texture to the model without clumps or gaps. The VMS bottle provides the perfect solution. Any areas of unintended 'overspray' were cleaned up by scraping off the texture and I took the time to clean around all the rows of small bolts and other fixtures on the hull and turret before applying a sealing coat of Mr Surfacer and then a coat of Mission Models Tan primer.



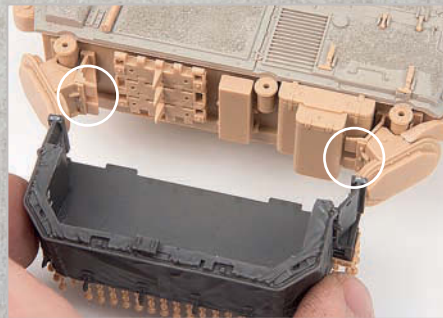
I replaced the moulded handle on the Loader's hatch with a strip of pewter foil.

Armour tags would also be added to the side skirts

A notch would be cut into this lug to allow a chain to be fitted.

Basket Case

As I waited for the basket upgrade to arrive I had followed the instructions up to stage 28 but when the new basket arrived it has parts E25 and E26 moulded into the resin basket. These were tricky to remove from the back of the turret so keep this in mind when considering your assembly sequences.



Tiny Tweaks

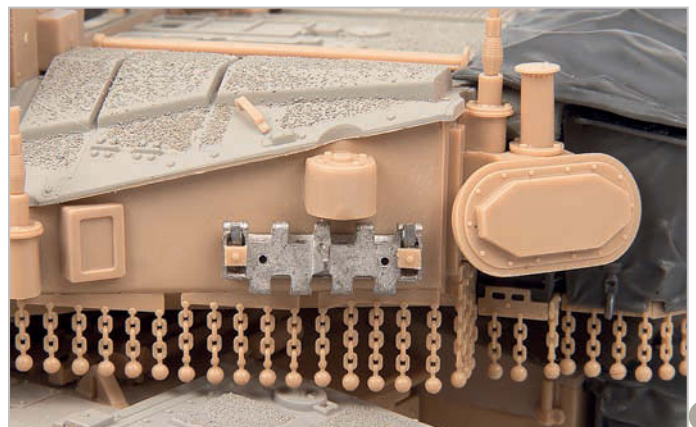
With the anti-slip completed I was able to push on with the rest of the assembly which was a delight and I made some very small enhancements along the way. I added the small photoetched armour tags using the ET Models Merkava 4 detail set for these. I added the pair of guide lips to each side of the .50 Cal ammunition feed chute using plastic card. The kit tracks were substituted for a set of Friulmodel tracks which have the tiny casting numbers on each link and I used a spare link with new brackets to replace the spare stowed on the side of the turret. Small stowage items like the spare MAG ammunition boxes were not added yet to make painting easier but were detailed using photoetched stowage straps from the ET Models set. The turret mounted weapon, trophy sensors and side skirts were all left as separate parts at this stage.



The new tooling of the .50 Cal give you an excellent result without the need for any upgrades.

Colour Co-ordination

IDF Sand Grey is one of the most demanding colours to replicate partly because it varies so much in photographs and it falls somewhere in the hard to define area of the palette between grey, brown and green. Using Mission Models Sand Grey MMP-037 as a basis I added a touch of green and grey as a base colour. Looking at the colour afresh the next day I applied another coat of MMP Sand Grey mixed with RLM 02 for a more green shift in the colour. All the details were then brush painted including the markings rather than relying on the decal sheet. The barrel stripes were hand painted rather than relying on the complex masking needed to spray them. Before moving on the whole kit was given a coat of satin varnish.





Left Painted and pristine and ready to go!
Above Acrylic washes are great for replicating the heavy dust deposits on the Merkava - my initial colour choice was more pink than I wanted so it was reworked with a more orange tone.



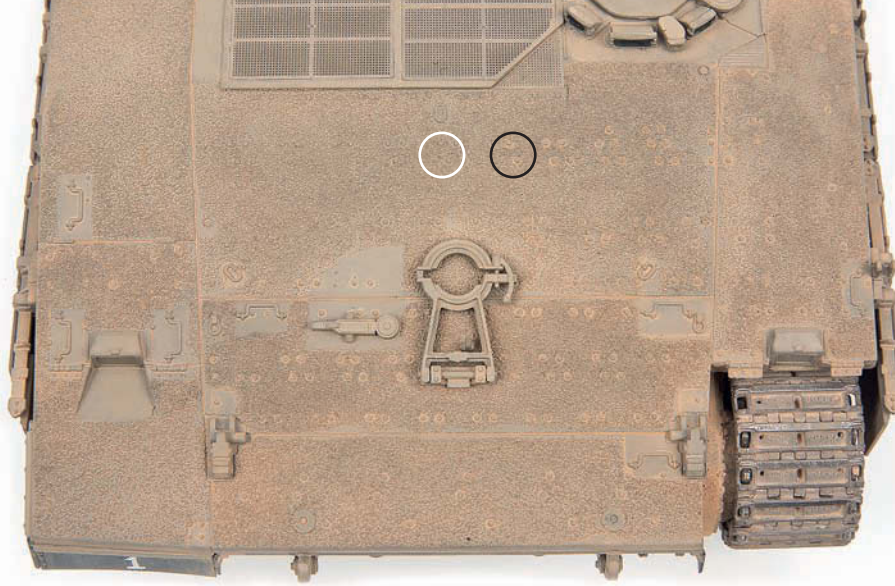
Muckin' up the Merk

Straight into some heavy weathering now using washes of Lifecolor acrylics and again colour balance is key as I found out with my initial choice of colour for the wash which didn't seem to match what I was seeing in photos of the real vehicle. I altered my mix of UA 423 and UA 020 by adding UA528 to bring a more orange tone to the dust. I started working on the hull roof panel by panel by wetting the surface with water before adding the colour. As the dust settles onto the horizontal surfaces I deliberately kept the wash here very dense whereas on the hull sides it was just allowed to collect around any raised details. On the front edges of the turret I applied undiluted paint and allowed it to naturally bleed back across the anti-slip texture

Tracks

The beauty of using Friulmodel white metal tracks apart from their innate toughness is that they can be blackened avoiding the whole hateful business of painting them. Once this was done I applied a very dilute acrylic wash using the same mix of colours used on the rest of the tank. I then used an abrasive pad to burnish the tread contact points and I masked the edges of the inner face of the track and burnished the teeth and the contact area of the tires. I then selected a similar tone of pigments to my dust colour and used white spirits to create a pigment wash which was applied to the tracks and allowed to dry. A stiff brush was then used to brush off the tracks leaving a suitably dusty residue in all the recesses and gaps.

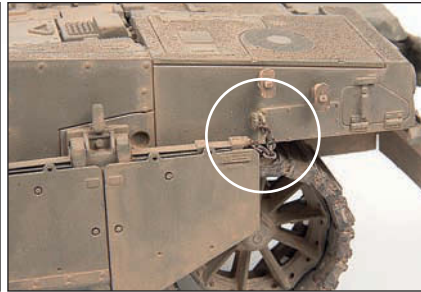




With the tracks fitted I was able to install the skirts and begin to focus on more detailing of the finish. I outlined all the bolt and fastener details with my dust colour. The picture here shows the bow mid way through this process with the bolts ringed in white yet to be treated compared to those which have been ringed in black. The whole front edge has been treated and you can see how it defines the detail and the panel lines have also been painted in the same colour.



The tow chain supplied in the kit was treated in the blackening solution and the shackles were finished in green.



I also added the small section of chain blackening solution and the shackles were finished in green, connecting the rear skirt to the hull.



Oil stains are a particular favourite effect where dust collects around lubrication points. Successively darker and smaller washes were applied to achieve this.



The Merkava carries a combat simulation system around the edge of the turret, secured by Velcro pads. These are often missing along with the top layer of turret paint, an effect that I wanted to replicate. I used strips of self-adhesive medical tape to create the Velcro strips and I freehand painted the areas of exposed primer with a



fine brush, adding a few random darker tones. The Velcro was painted in a dark grey and the slight texture of the tape really captured the look of the Velcro, the texture being enhanced with a wash of dust tones.



4M



I made a pair of tiny spring clips from brass wire to control the solenoids on the .50 Cal.

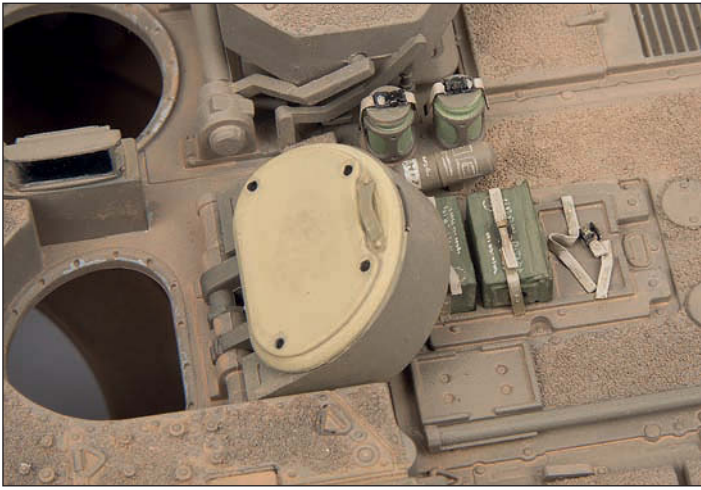
Right 0.2mm lead wire was used to make the control cables for the gun with a brass wire triangular and circular handle added to the end. The MAG mount is given a similar dusty/oily finish with a heat-shaped Live Resin ammunition belt.



I wanted to depict the really dust-encrusted look of some of the roof-mounted weapons where the oil attracts the dust. Working from pictures of the real thing I worked from lighter tones to the darker areas. Whilst I was doing this I decided to extend the spent shell sack so that it rested on the mantlet using Magic sculp to do this. The sack was painted and stecilling brush painted on the side. Oil stains running down from the gun onto the front of the ammunition box and the corner of the sack were also added.



Above I added detail to the towing horns by drilling out the line of holes along the lower edge, adding the bars along the inner face and the wire loops on the outer face. They were then test fitted before final weathering was applied.



ET Models photoetched straps add a welcome touch of extra detail to both the ammunition boxes and the smoke grenades behind them.



Above Crafty crew - IDF tank crew overalls are not that different from any other overall and I have found it useful to look outside the narrow band of available figures. This pair of Soviet tank crew from Tank offered a possible starting point. I removed the moulded on head and removed the arms keeping the hands. Copper wire allows for easy posing as I test out my idea.



My idea quickly takes shape and the casual pose is working well although I have selected the older style tank helmet by mistake, but I like the sunglasses.



Now with the correct helmet courtesy of the Hornet range, I add my own shades and sculpt the new arms and flak jacket. The second figure is underway, based on a Blast Models IDF torso with new arms and a Hornet head again.



The second figure's arms are sleeved and both are ready to be painted.





To create the reflective sun glasses I began by masking off the rest of the head and spraying a chrome base. Over this I sprayed a transparent orange and then transparent red on the upper half. The masking was carefully removed to prevent the freshly applied paint peeling off and the faces were then painted in my usual way using Lifecolor Flesh acrylics and a small amount of oil paint to redden the cheeks. The helmets and uniforms were all painted using Lifecolor acrylics and working from references I could see some variations in colours on elements like the flak vests which I introduced into the figures. The delicate boom mics come with the Hornet heads and I used 0.3mm lead wire for the cables.



Constant companions throughout the project were the excellent Desert Eagle books, packed with the photo references.





Final touches were to fit the Trophy sensors and rather than choose the striking bright blue training units I chose to model the live example, using the same reflective plastic as for the gunner's sight. The finished model has an undeniable presence and IDF subjects have their own unique colour palette along with a mix of bold shapes and intriguing details and the kit is a real pleasure to work on!



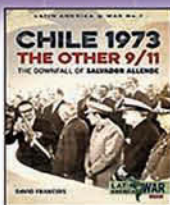
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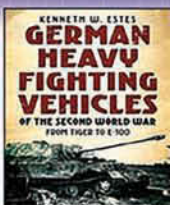
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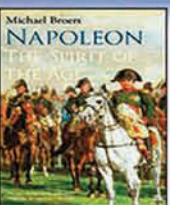
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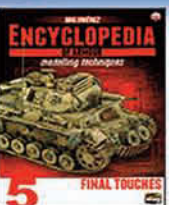
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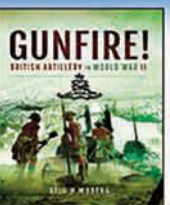
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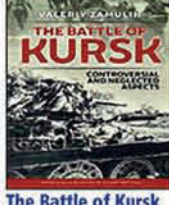
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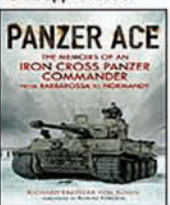
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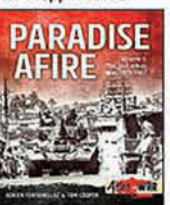
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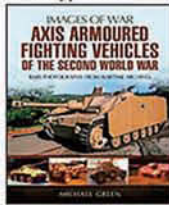
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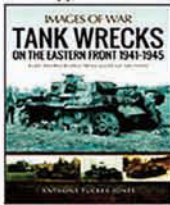
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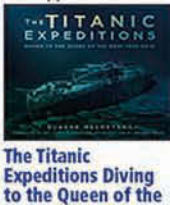
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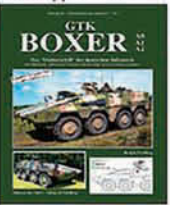
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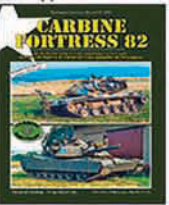
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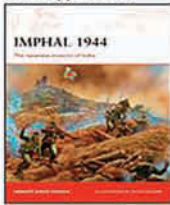
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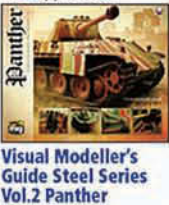
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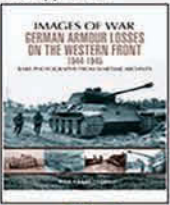
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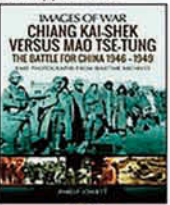
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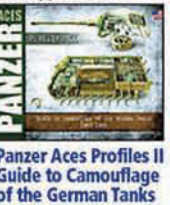
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BROTHER LEE LOVE

We take a look at the Lee's British brother from Takom, the **M3 Grant**

modelled by
Mark Neville



Takom's prolific release rate (like us here at AFV Modeller they've recently hit 100 releases to date!) has recently seen them tackle the M3 'Lee' family, very welcome indeed for Allied armour fans who can now rejoice in having a modern tooling of this popular subject. Hopes were raised a few years back with the release of Academy's 'Lee' and 'Grant' but these turned out to be a bit of a damp squib with dimensional and detail inaccuracies, yes, an improvement over the vintage Tamiya offerings or the ancient Airfix 1:32 kits (oohh remember the box art though..) and the Monogram 1:32 kit including the Shep Paine diorama images...enough nostalgia, it's just not what it used to be. I think it probably is those childhood

modelling memories though that stirred something when we feverishly scrambled through a somewhat generous case of samples recently sent direct from Takom. So first impressions? Well very encouraging as you remove the stout box lid and very typical of the kits we expect to see from the brand with their squared sprues and sometimes unusual connecting gates to the parts. The 'primer' grey plastic is always a good start and the moulding quality is as good as it should be from a modern tooling, nice and sharp throughout with some fine detail and features such as a realistic cast texture to the turret and 75mm gun housing.

Takom look to have done their homework with subtleties like slotted screw-heads

instead of rivets in certain places (maybe due to access problems for the riveters on the assembly line?). Bigger features are the different (to the Lee) turret with extended bustle, to house the radio equipment requested by the British, and the simple split lid hatch. The tracks are WE210 type and supplied as link-and-length with good detail and are perfectly useable. If you're a track-snob Bronco do offer an inexpensive individual link set in styrene, most of the top run is hidden by the bespoke desert skirts anyway. A small etched fret includes the rear deck intake mesh (not great) and lamp guards which are better than overscale plastic but lack the look of the separate leg supports. Decals are provided for four marking options including Monty's command tank.



My aim here is an out of the box build to show what this kit offers in both general detail and building pleasure (remember, we build models for pleasure!), I'm by no means an expert on the subject of Grants or it's sibling the General Lee, scratch the surface and you're almost into Sherman territory with factory details and production changes, lets just clear the bench (or at least part of it) and see what this new M3 family from Takom is like to build.



The distinctive Grant turret looks well proportioned and has a good moulded cast texture. Some basic interior would have been a bonus with that large hatch.

Stowage bin shape is typical of most Grants differing from the Lee. Fixing tabs and latch detail was added.

This kit provides the earliest style of exhaust outlet. These were changed early in production due to overheating of the rear surrounding panels.

The kit tracks are decent but Bronco produce a very nice and inexpensive individual link set.

New side rails from styrene strip were easily made and an improvement on the kit parts.

Some damage to the rubber tyres was added with a scalpel blade.

Referring to period images some Grant crews appear to have removed the 37mm gun counterweight seen here (under the barre). The .30Cal. has had the muzzle drilled and a slot added with a Microchisel.

Most Grants in North Africa seemed to carry some degree of stowage, much of which was suspended from the side rails. A rolled tarpaulin and covers were made from Magic Sculp epoxy putty rolled very thin (with the aid of talcum powder) and left to cure for around half an hour before forming to shape. Some resin packs, cans and boxes were dug-out from the spares box.

Light guards in photoetch are a nice touch and come with a jig part to achieve the shape. In reality the legs are separate welded-on pieces. Wiring conduit was added with brass rod.

The hull-mounted .30 Cal. MGs appear to have been deleted and blanked on the majority of Grants as depicted in the kit...

...so it seemed to make sense to leave off the .30 Cal. tripod from these brackets.

I carried out a little re-shaping of the cast part of the casemate for the 75mm. Textures of some cast parts were improved with Mr Surfacer stippled with an old brush.

More production variations come to light with the 75mm barrel. Some appear to have a separate end (perhaps a counterweight added similar to the 'bolt-on' counterweights seen on the short M5 guns?) so I haven't smoothed the gap which remains from the two kit parts. Takom have included a single piece barrel in some of their Lee kits so I can only presume this version here is most common on the Grants.

A GRAND GRANT?

Building begins at the bottom as usual with a single piece hull tub, the rear of the sponsons on our kit were a little distorted and the back panel needed to be fixed at one side, allowed to set fully, then the other side cemented and held until set. I'd say this is an area to get right as it will throw-off the fit of the multi-plate upper hull. Remember, Mr Cement Thin is your friend in these situations. The three-piece transmission cover main part looks a little disappointing as it's perfectly smooth (an easy fix) but does include nice casting numbers, as do the side 'bulges'. The mating flanges have good bolt detail and the correct step running the entire length (don't mistake this as a moulding joint and remove it!). Suspension bogies are well detailed although a fiddle to assemble, they can be articulated as-per the real units should you be using indi-link tracks and display your Grant on uneven ground. The tracks fit together pretty well although appear a little rigid and may be difficult to add later if you prefer to paint tracks separately due to the large mudguards (which obscure the upper run).

I found the upper hull to assemble a treat; make plenty of dry runs before committing to the cement and you'll need very little, if any, filler. We've seen and heard some modellers struggle with the multi-part nature of all of the separate plates and chamfered joints, but I never paid any special attention here and had no problems.

Vision blocks and openings are all separate with internal details, as do the large side doors although (unlike Academy's kits) there is no offer of interior parts to show if you leave these open. The 75mm hull mounted gun can be made to elevate and traverse and there is a pivoting arm assembly to attach to the moving sight which I found a nonsense as it doesn't move in unison! Not being a fan of moving gimmicks I glued everything in a fixed position. Due to the separate parts that make-up the hull gun casemate I noticed a few profiles were a little off from the images I'd gathered, quite a pronounced lip appears to run around the bottom and the join between the side and top looked somewhat smoother, all easily altered with some Magic Sculpt putty. I have to admit to shying away from creating my own dust cover for the 75mm and I should have really indicated the tiny fasteners at least but there are plenty of images in the desert without the covers fitted.

Bucking the out-of-the-box principle very slightly I've created my own side rails. The kit parts look undefined and are so easily replicated with Evergreen styrene strip for a much sharper look. More slight deviation from the kit was to use more styrene strip for the

small attachment tabs and latches on the rear stowage boxes (easier to position than the kit's photoetch parts) and supports for the open vision ports. No stowage is supplied in the kit but most images of Grants in action show them to be pretty loaded-up with gear so a rummage in the spares box produced a few resin pieces which I adapted (from Blast and Resicast) and some home-made items which means you can get them to conform well to the vehicle.

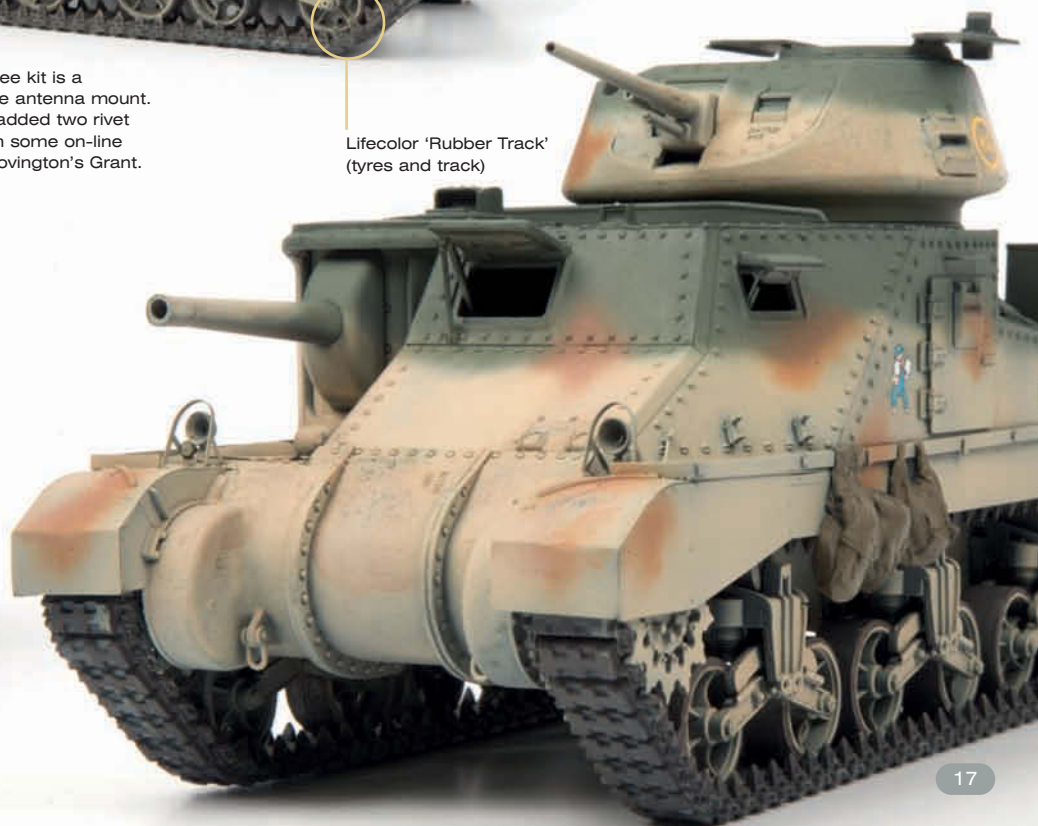
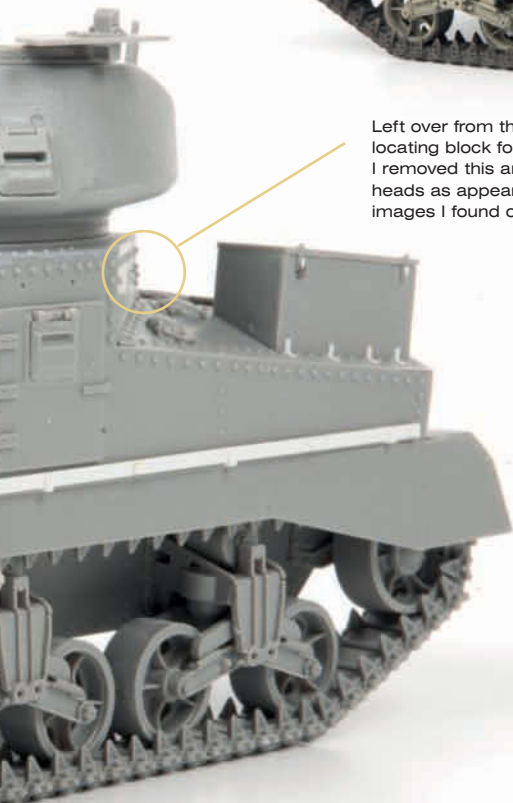
BASE COLOURS

We're impressed with the new Mission Models acrylic range and I decided to give their black primer a spin (very good) followed by green overall, then sand and finally the red-brown patches. Knowing I'd be applying some heavy dust I chose colours by eye which were quite punchy to replicate one of the schemes detailed in the kit's colour profiles and decals. The green acted as a shadow colour and the sand was applied creating highlights and also bearing in mind in reality this was probably sprayed over the green applied in the factory. Patches of clear gloss and setting solution helped the decals sit down nicely. Markings depict an M3 Mk.I of 'C' Sqn., 3 RTR, 7th Armd.Div. May 1942 where it was unfortunately destroyed at Bir Harmat, North Africa. This group of Grants had neatly applied cartoon characters, this one being one of the Disney '3 Little Pigs' (albeit wearing boxing gloves!)



Left over from the Lee kit is a locating block for the antenna mount. I removed this and added two rivet heads as appears in some on-line images I found of Bovington's Grant.

Lifecolor 'Rubber Track' (tyres and track)





Designers' gouache water based paint is great for dry and dusty finishes. This is the effect of washes of gouache over the base colours.

DONE AND DUSTED

Many of the period images of Grants in the North African deserts show a very heavy covering of dust (as you'd expect from the harsh conditions), so we're presented with that modelling dilemma of realistic versus attractive. I didn't want my Grant to look like I'd just tipped a tub of pigment powder over it nor to look too rich in colour with lots of saturated oil paints. I turned my favourite water-based gouache colours to create the all-over dust effect. I've used Windsor & Newton Designers' gouache for many years, it's of high quality and lasts for years with basic colour sets providing modellers with primary colours to create various shades of dirt and dust. In essence, it's somewhere between a pigment powder and acrylic paint. Knowing I'd be applying some filters later (which would tint the dust colour) I kept the gouache very light in tone mixed to a milky consistency with water. This can be airbrushed or applied as washes with the benefit of remaining workable with a damp brush indefinitely.

After the dust I began to add a little life back into the surfaces with some filters created with enamel thinner and Yellow Ochre oil paint in various degrees of intensity. Working on one section at a time some pin washes were also added while the surface was still damp from the filter in both Burnt Umber and Lamp Black oil colour to create shadows and contrast and also light tones to enhance the dust effect. I played with these effects back and forth until I was happy with the interest and depth the surfaces had. Of course the contrast of the dust on the original factory green is easily seen while almost pure white was used on the sand coloured areas and the running gear and lower hull came in for heavier treatment and stronger contrasts.



The contact area of the track and road wheels was kept a little more free of dust compared to the rest of the suspension and lower hull. Takom's bogies are tricky to assemble but do look good. Note the dust on the lower areas of the stowage, Wilder 'Road Dust' pigment powder was used here.



The simple commander figure is a torso and arms from MiniArt's 'British Armoured Car Crew' set with legs from one of their Africa Korp sets (very similar boots and socks). The 'bare' head is from the Hornet range with a little extra hair added with Magic Sculpt putty. Lifecolor Acrylics were used to finish him, I find these dry to a dead flat finish; great for most elements of figure painting but I felt his flesh

needed a slight sheen and 'glow' from the African sun. An unlikely candidate for this came from Lifecolor's Diorama series, UA 263 'Grease Effect' is a translucent orange which dries to a pleasing soft sheen after a thin application over the already shaded and highlighted flesh tones. False 'tan for your figures? Whatever next...



Some scuffs and scratches were the final part of the weathering process achieved with some dark grey / brown acrylic applied lightly with a small piece of sponge around crew access areas and maintenance points topped with some scratching with a sharp, soft pencil. A few scuffs through the over-sprayed sand colour to the factory green were also shown. Some grease staining was picked out on the suspension and around the rear doors to access the big old radial engine along with brown and pink tones on the exhaust mufflers. The sponging of various tones here helps with the random appearance. The stowage on the rear deck has been left rather clean to add some variety of colour and a little sparkle was added to the front of the Grant with some miniature light lenses. The kit provides clear parts for the headlight glass and the bowls are suitably thin and hollow, I just happened to have some lenses in a size suitable.

Well, Takom have certainly captured the look of the Grant I think you'll agree. Any short-comings of the kit are easily overcome by anyone with modest modelling skills and basic tools, I certainly found this an enjoyable 'out-of-the-box' project with nice detail and good design throughout which offers decent value for money. M3 aficionados may be waiting for the imminent release of MiniArt's range of Lees and Grants with full interiors but they are sure to be suited to the more demanding, experienced modeller.

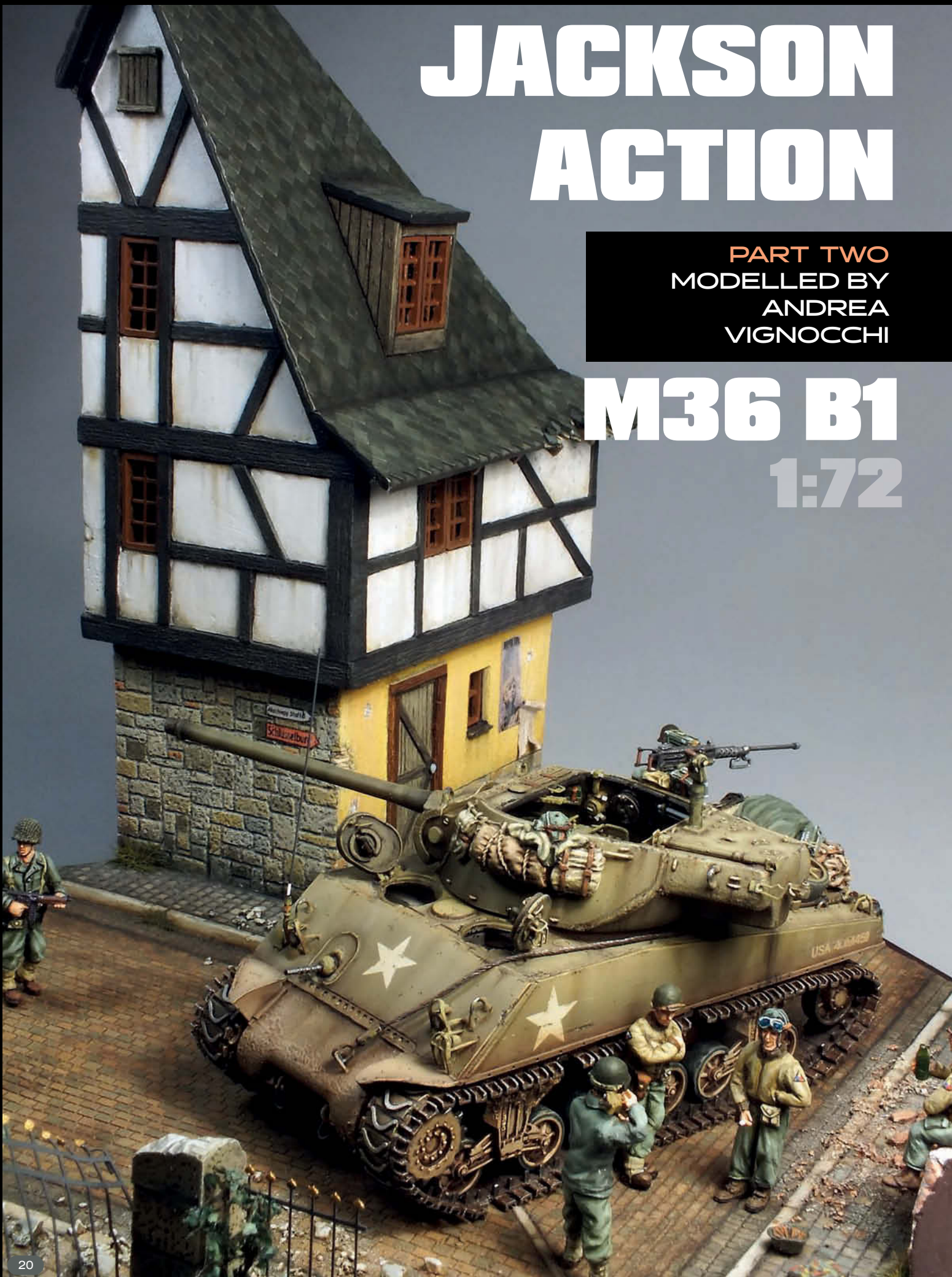


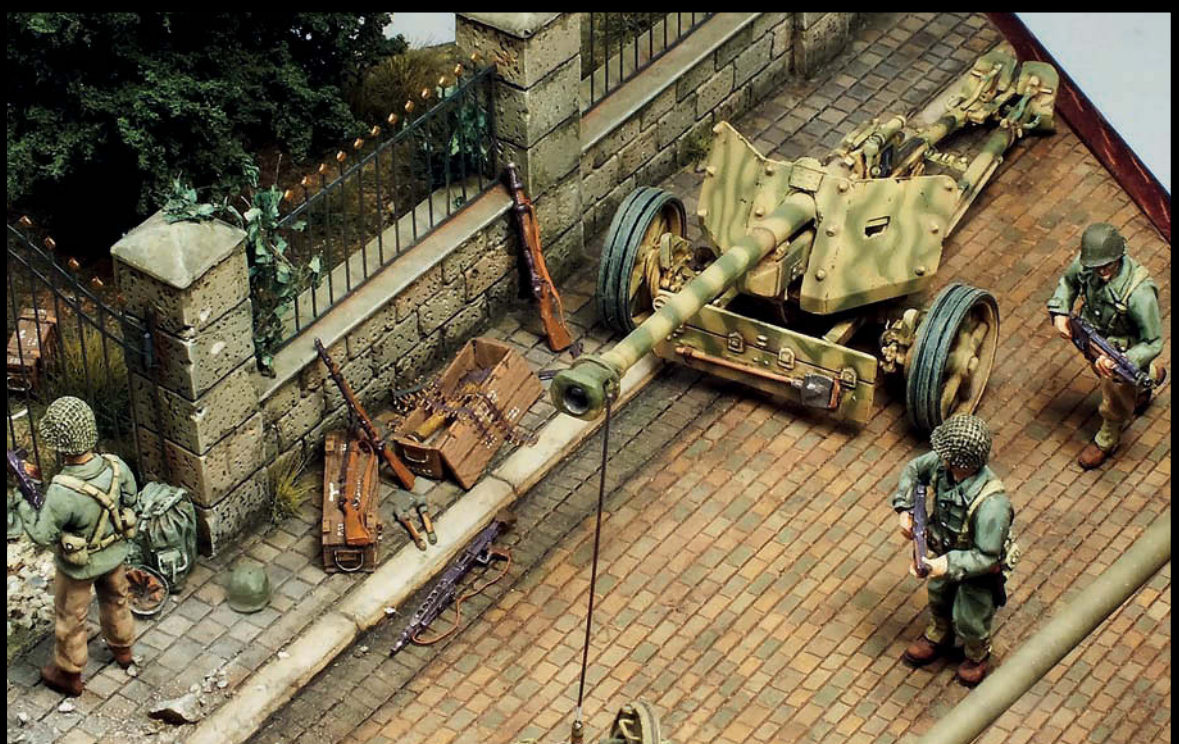
JACKSON ACTION

PART TWO
MODELLED BY
ANDREA
VIGNOCCHI

M36 B1

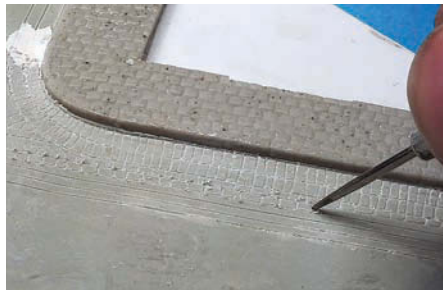
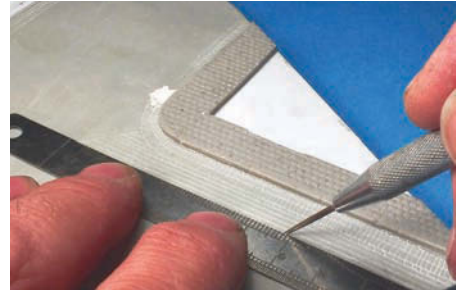
1:72





Sometimes only one component of a diorama affects the whole scene: the beautiful DIO72 German house is cut so as to have a fixed position, so once I decided where to put it, the whole scene had to adapt. I wanted to depict a small German town, easily occupied by the Americans without great destruction, just the signs of some shot fired during the battle. WWII pictures show cobblestone-paved streets almost everywhere, from France to Germany, so I had to roll up my sleeves! After scoring on a 1.5

mm plasticard base sections of soil and the pavement on the opposite side of the house, I deposited a smooth layer of Magic Sculp and I waited until it completely dried; with a ruler and a sharp tip I drew many lines parallel to the road, spaced of about 1 mm, then, with a lot of patience, I engraved each one of the cobblestones, trying to get an uneven effect, with small and large stones. It took me approximately two weeks to carve the cobblestones!

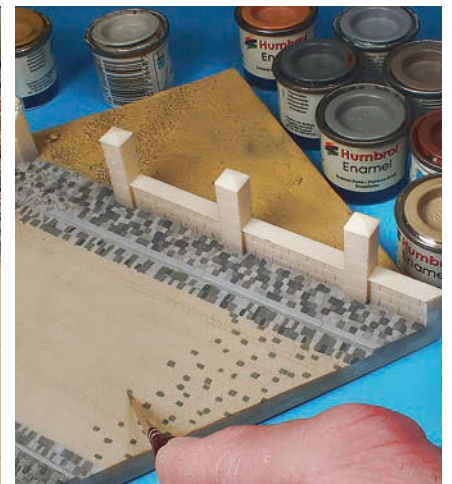
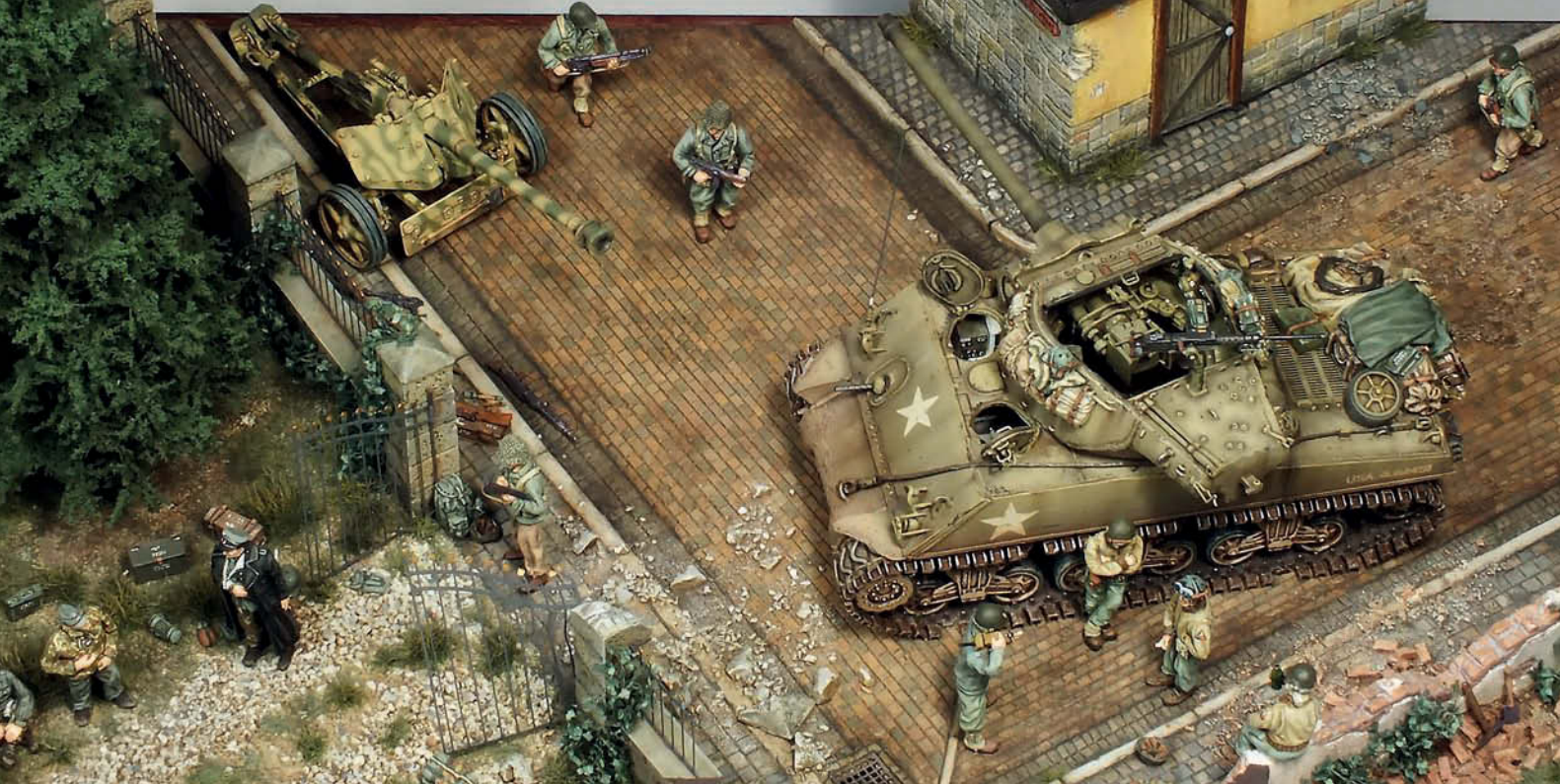


Since I wanted to depict an urban area without covering the tank and the figures with other buildings, I planned on building a stone fence with a gate, like the park of a villa or something similar. I used an old resin set bought a few years ago and I built a small section of a plaster wall that completed the frontal part of the scene. One of the columns that bear the gate and the central part of the wall are damaged, as is the projecting part of the roof of the house.



Another aspect I had to consider is the position of the tank: after months spent detailing the interior of the M36B1, I could not close the hatches, making all the work I did invisible... I imagined a break after the capture of the town, with the crew waiting for the officer speaking on the radio to receive instructions on how to continue the advance. The rotation of the turret helped me to balance the scene and allowed me to open the hull hatches. At the beginning I thought I would place the PAK 40 in the park, in a combat position, but I realized there was not enough space, so I had to

put it on the road in the towed position, as if the Germans had tried to unsuccessfully hook it to a truck and retire. All this to explain how a simple house can determine the setup of the scene; I spent days studying how to arrange the diorama in a pleasing and convincing way. Another problem was the height of the house, which unbalanced the scene; I eventually solved this problem by placing a pine on the opposite side of the road that gave a very evocative feeling from northern Europe to the whole diorama. In the end, every detail is important!



After seeing on the internet many photos of paved roads in Northern Europe, I finally found the picture of an ancient village of East Germany, with still the same houses and streets it had in the Forties. I then decided to give a yellowish tone to the cobblestones of the road, while the pavements and water drains on the roadsides were painted with a grey tone. The basic colours are Tamiya XF57 for the road and XF49 for the sidewalks. Before painting the street I finished and weathered the plaster wall, adding a writing copied from a vintage photo; even the sidewalk received the first layers of colour, using a palette of greys and greens Humbrol enamel. If I thought that carving the whole street had been unnerving, I had not yet tried

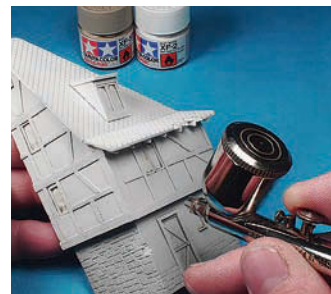
to paint all the bricks one by one! I used a wide range of Humbrol colors, chosen for its resistance to the weathering steps; the main difficulty (apart from boredom...) is to maintain the balance between the various colors because, in the end, everything must be uniform, without a predominant tone. The wall and the columns are painted in another colour, adding stones with pink and greenish hues. The final result shows that there are many colours, achieving a homogeneous effect without hues predominant over others. When everything dried, I airbrushed a generous coat of matt acrylic transparent, in order to protect the colours from the oil washes that will follow.



The road and the wall, with all their multi-coloured bricks and cobblestones, are absolutely unrealistic, so I started to weather them with a dark reddish brown oil wash; the aim is to unify the road and the pavements. Another layer of matt varnish fixed and protected the wash; it is important to put the model on the road every once in a while, in order check that the colours are consistent. I did a drybrush with sandy tones to even out the road and pavements, then using brownish oil paints and using the same technique, I recreated dirt and moisture stains. Weathering of the wall began with a very dark green wash, eliminated after a short time, then, using very diluted acrylic colours, I highlighted the separations between the various stones and the damp stains; also in this case, study of a real stone wall is essential for a good result.

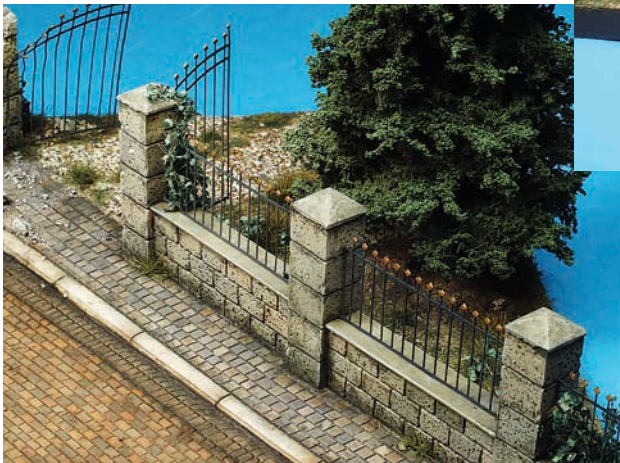
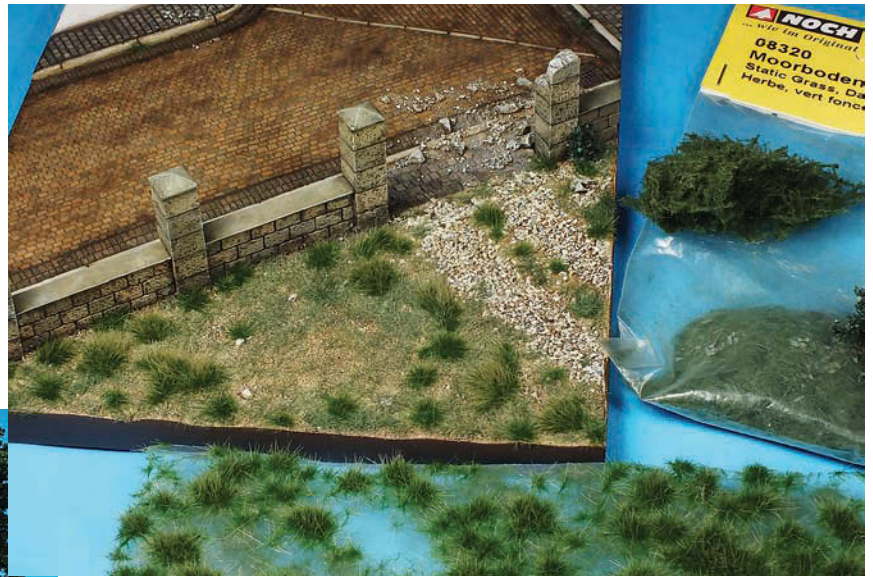


It was the first time that I painted a building and it was quite interesting. I started by airbrushing a dirty white basecoat layer, then I painted the roof with a medium grey and the wall beneath the shed in yellow. Then I started working with brushes and creating the stone façade which was quite difficult: in fact, in a stone wall, every stone has a different colour and at the same time the stones have a similar hue. That's why I needed many similar shades that, treated with washes, drybrush, and a series of filters with very diluted acrylic, helped me achieve a good result. Since I wanted to achieve a wet effect and the pictures show these slate roofs to be very dark, I used a series of pretty dark grey-green colours; the painting of the wooden beams of the house front complete the process.



Weathering was made with oil and acrylics filters and streaks, using different methods according to the need. Fixtures were painted with Vallejo, while the windows were painted gloss black. The wooden beams were weathered with an Humbrol light khaki drybrush, in order to emphasize the wood texture. On the white walls I made a filter with a light grey oil colour, pulling the wash from the top to the bottom of the wall; the job was completed with streaks and drips made with acrylic. A ripped Nazi propaganda poster and signs of gunfire completed the lower part of the house. The roof has been weathered with very dark green oil filters, pulled from the top to the bottom of the roof; the aim is to unify the colours of the tiles and to create the effect of abundant rain, typical of those towns.

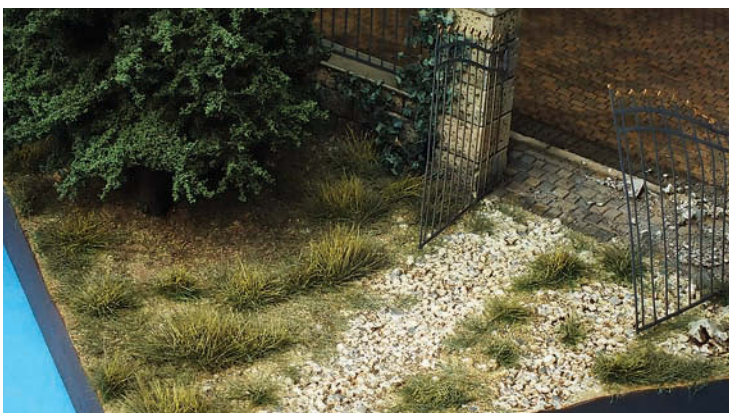




After I finished the house, I began to take care of the rest of the scene; the gate was copied from an archive picture and a photoetched fret was custom-made by a specialized firm. The vegetation came from Noch and Mininature ranges and, when I laid it down, I tried to copy the irregular appearance of real grass. The gate was glued and painted with a very dark grey, finishing the spikes with gold. I used very thick colours, trying to eliminate a little the flat appearance of photo-etched items; the final effect is very beautiful.

During the last months of the war, I do not think that gardening was a priority for the Third Reich, so I tried to give an idea of disuse, placing some ivy along the corners of the walls and the gates; I used a great Mininature product, gluing suitably shaped clips with cyano in various parts of the scene. Finding a nice

realistic pine was not easy, but eventually I found one; it cost a lot, but it saved me from scratch building one. To improve the appearance of the pine, I opened a little the branches with tweezers, then I sprayed a light green from the top down, in order to achieve some lights and shades. With an hour long job I have got a beautiful conifer, which will give all the scene the right "Nordic" look. The attention to every detail, from the manhole on the street corner to the damp patches on the walls, the gates, the well marked rubble, the vegetation gave to the whole diorama a well refined look, essential to give the desired realism to the scene.



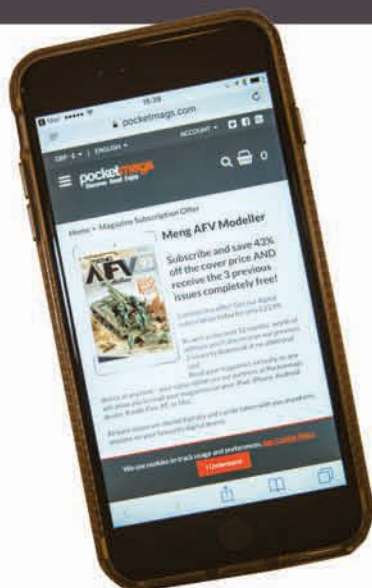
In period pictures one can see all kinds of military objects laying on the ground, like weapons, helmets, backpacks, crates etc. Searching in the various boxes of my stash, I found what I needed for the scene; after a careful painting, I began to locate all the items, trying to give an idea of the chaos seen in vintage photographs. These are details that give realism to the scene; remember never to place things at random, just to fill an empty space, there must always be a logic in every detail that you put on the diorama.

Now that the scene is over, I just have to add some figures; this time I wanted to exaggerate, putting 11 figures in the diorama! They play a key role in the diorama, describing the scene. I used resin figures from many brands, mainly Milicast; to be precise, they are in 1:76th scale, but I find no difference with those in 1/72nd. The sculpting is excellent; the American infantrymen are fabulous and I think they are the only figures on the market to have the right American helmet, worn obliquely as seen in many old photos, really perfect! The German prisoners are Milicast too, apart from the officer with the leather coat, which comes from the D-DAY range. As I improve my painting technique, I tend to make more softer shades, abandoning the strong contrasts of the early days.

The figures properly located on the diorama guide the viewer's eye at the various points of the scene, highlighting all the details; in the end I think I've made my best work in braille scale, achieving a balance between the colours and details of all components of the very realistic scene. At least for me, of course!



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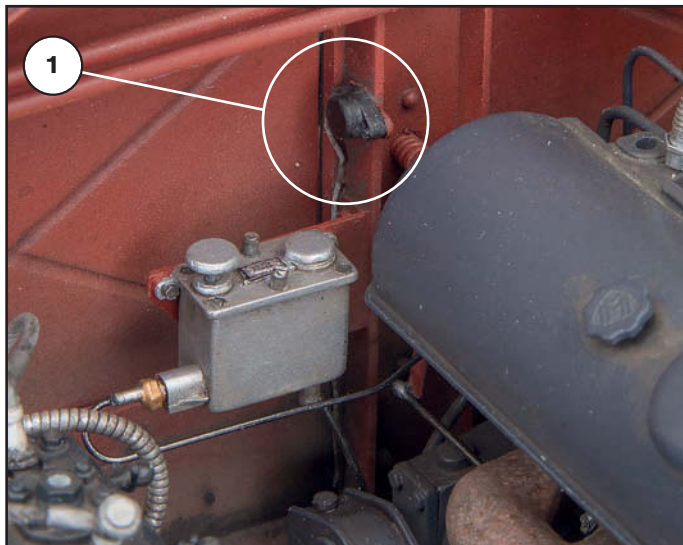
David Parker builds Trumpeter's 1:16 kit



Part Eighteen

Work continues on fitting out the engine bay with all the usual unforeseen problems and continual planning needed to avoid causing even more! This installment has clearly demonstrated to me that no matter how carefully you plan your construction work, with everything dry fitted there is always the potential for fit problems when everything is eventually glued into place. It has

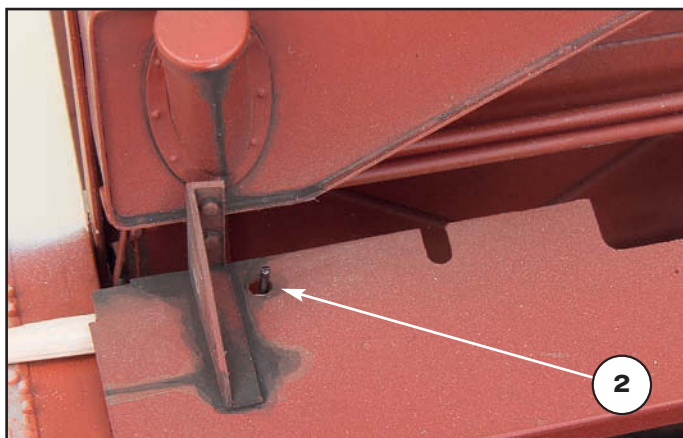
also confirmed that my decision to leave the rear panel as a separate part was the correct one and I doubt it would have been possible to fit some of the elements inside the engine bay had it been fixed. There is a lot of fault correction and reworking in this installment but it is a part of the process and I hope it is helpful to see that on a project like this things don't always go to plan.



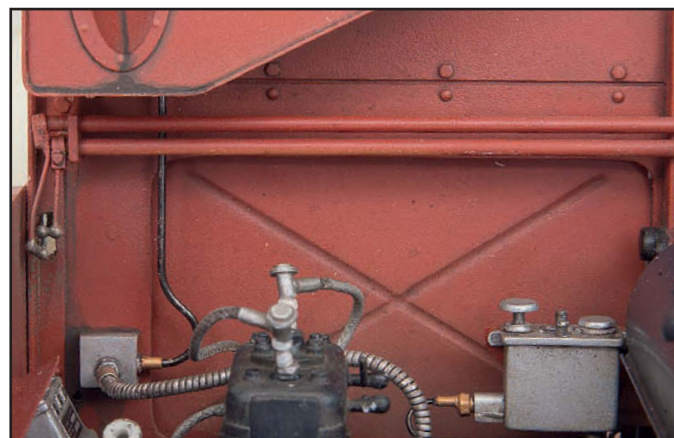
The first of a series of mishaps was the realisation that I had forgotten to add the small power socket **1** mounted on the firewall. I knew it was there but had somehow turned a blind eye to it. It would have been an easy detail to add when the firewall was a separate part but now with the engine installed it was



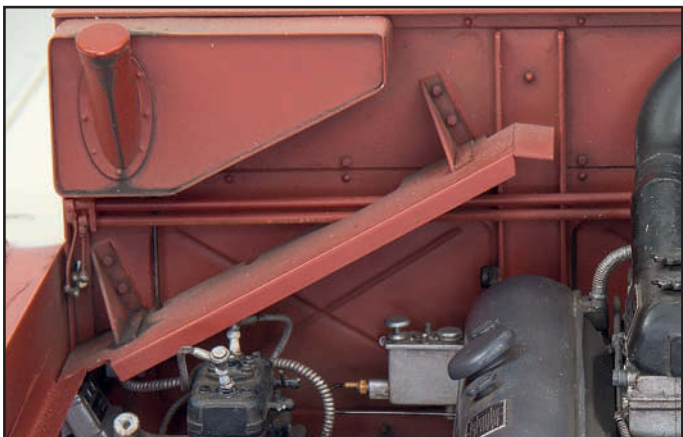
incredibly difficult, especially adding the power supply to the socket. The socket has a small mounting bracket to fix it to the firewall strut. I used lead wire to make the cable, managing to somehow feed it down behind the primer pump and hide it behind the engine mount.



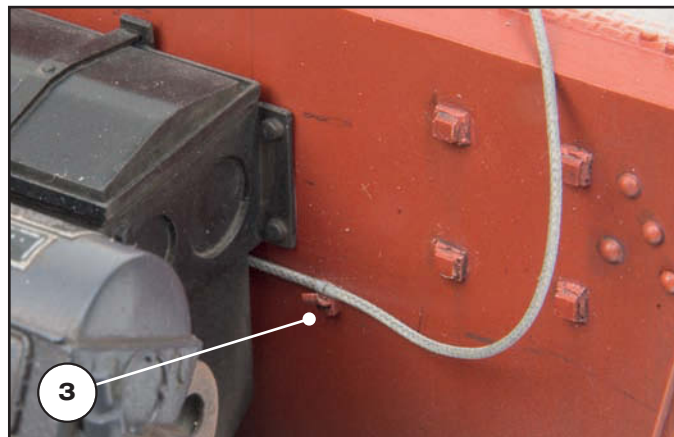
I needed to fit the fuel supply from the tank to the auxilliary generator which passes through the blanking plate for the radiator **2**. With so many parts in the engine bay it was now impossible to pass the pipe through the plate and get everything in position.



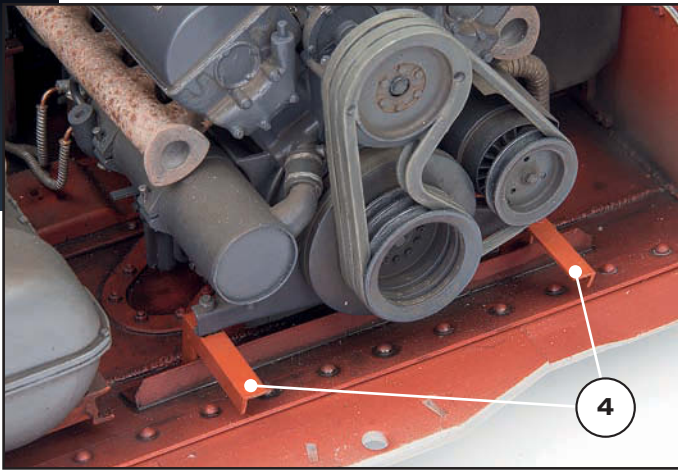
Reluctantly I had to fit the pipe **3** without the blanking plate...



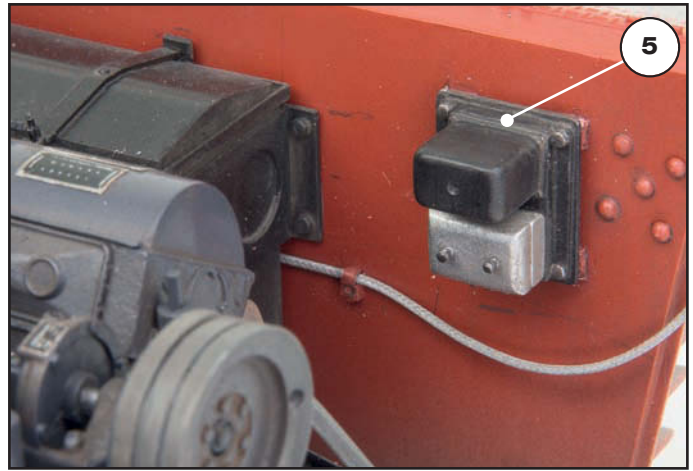
...and cut a small slot through the blanking plate to allow it to slide into place on the firewall with the fuel pipe passing through the slot and into the drilled hole in the plate.



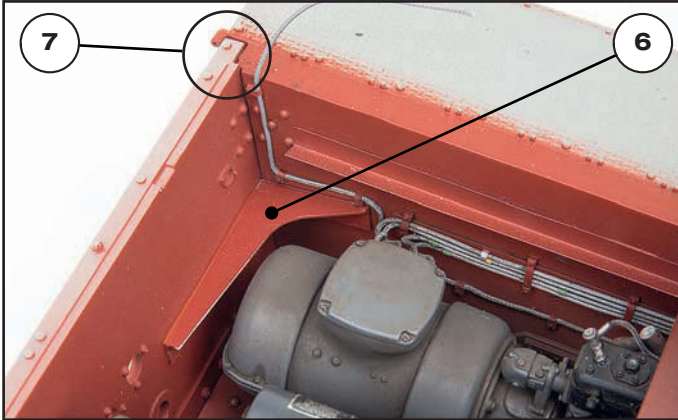
Moving to the otherside of the engine bay by the air filter it became apparent that I had trimmed the electrical cable too short for its final connection. To correct this I peeled back the cable clip **3**, cut the rearmost section of cable and spliced in a new longer cable before repairing the clip for an invisible correction.



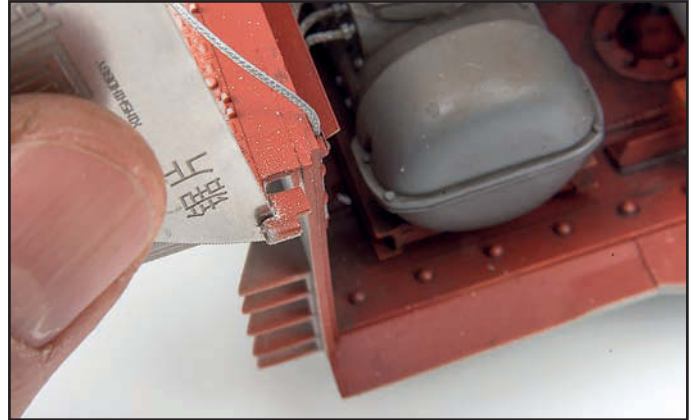
The rear engine mount brackets **4** were now glued into position on the hull floor, checking that they also butt against the rear panel when it is fitted.



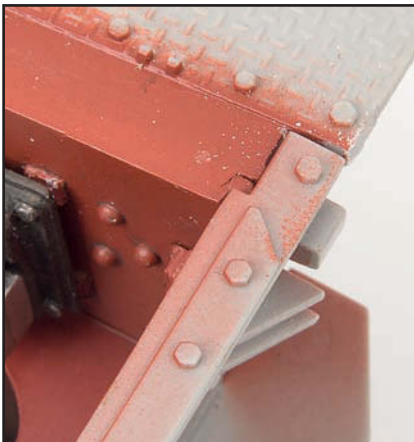
The pre-painted voltage regulator panel **5** was now glued into place on the sidewall beside the airfilter next to the cable that had just been extended.



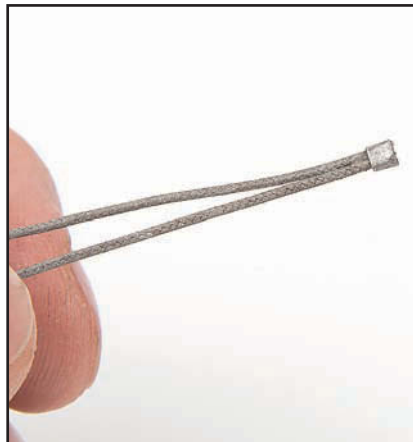
I decided to fit the corner reinforcing brackets **6** to the still detachable rear panel. However with these glued in position it became more difficult to fit the rear panel and to connect the interlocked corners **7**.



To improve the fitting procedure I decided to cut off the small interlocking tabs with one of the mudflap hinges from the corner of the track guards



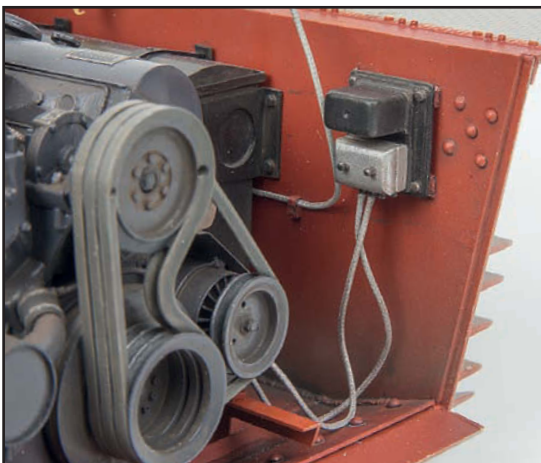
With these removed the back panel would now slide in far more easily and with the final fittings going into the engine bay I anticipated the rear panel going on and off numerous times.



Back to the voltage regulator and I glued together two pieces of woven electrical cable and added a self-adhesive aluminium foil collar.



The collar was glued in position onto the output socket of the dynamo.



The other ends of the cables were connected to the sockets on the base of the voltage regulator

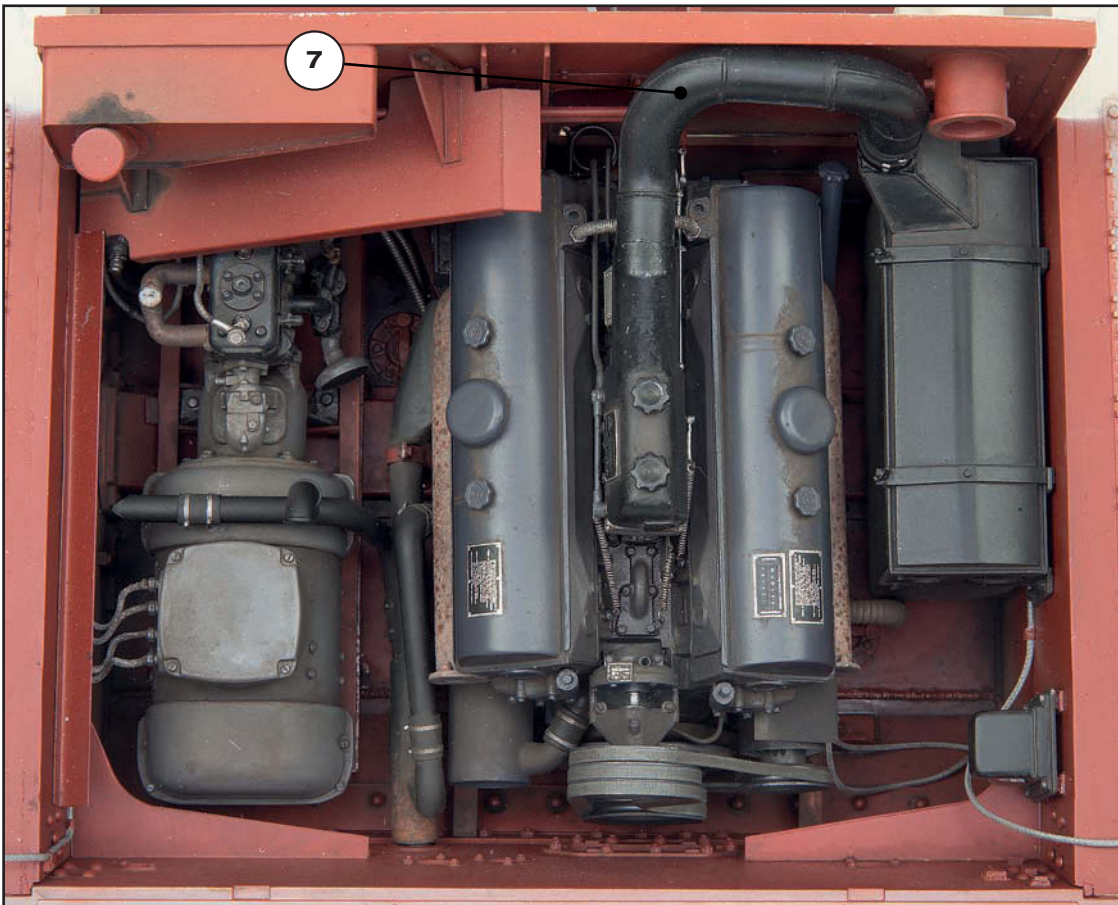


The engine cold starter 'fishtail' assembly was painted using Vallejo Air black for its subtle sheen finish.



Above The 'Fishtail' assembly was then weathered to match the rest of the compartment and sitting near the floor I added accumulated grime to the upper areas. Where the heater joins the hull wall I applied some heat damage to the paint with resulting rust.

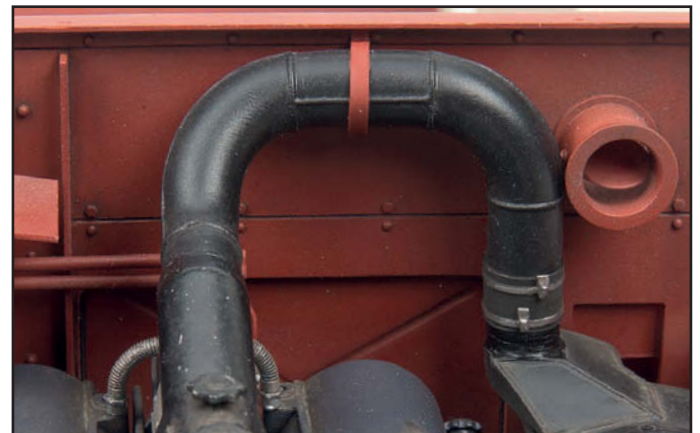
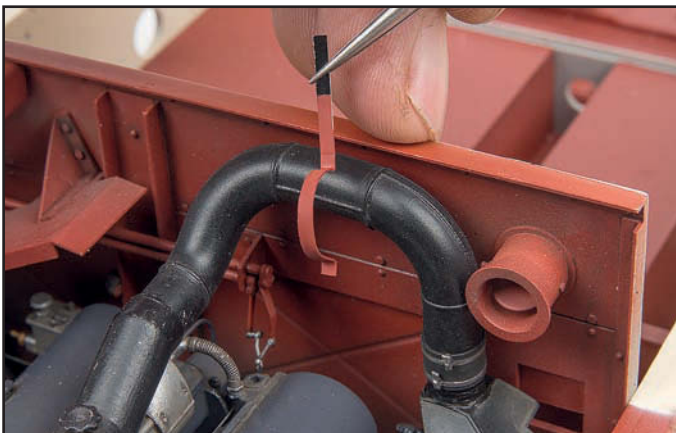
Right 5 minute epoxy was used to glue the 'fishtail' in position. It was positioned and correctly aligned by dry fitting the rear panel until the glue set. This procedure had to be repeated when my first epoxy mix failed to harden correctly.



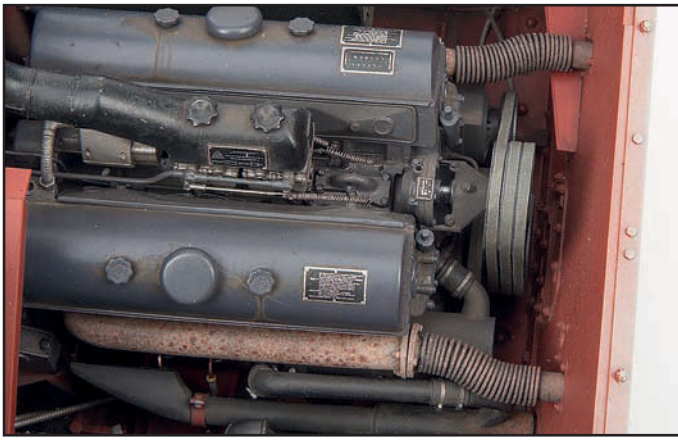
The overview of the engine bay with the 'fishtail' fitted and the dry fitted rear panel.

Throughout this process the fitting of each part is always carefully considered to avoid blocking any access for a subsequent part.

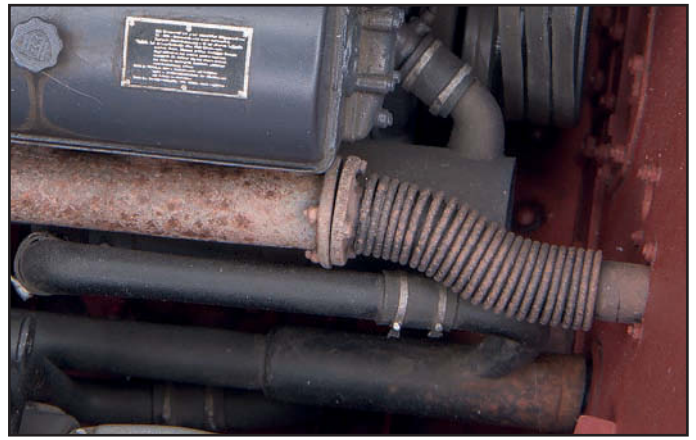
This picture also shows that the air filter pipework 7 has now been glued into position.



To make the strap that secures the pipe to the firewall I cut a strip of metal foil which was pre-bent and painted before being glued into position.



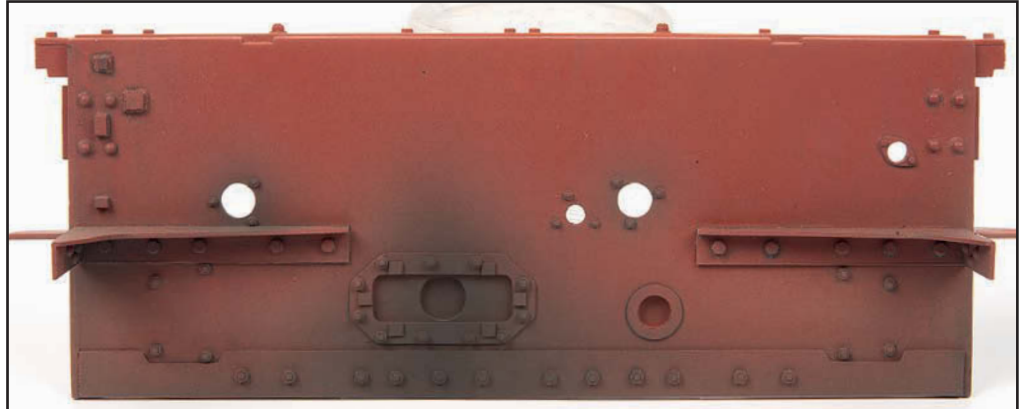
The flexible connectors for the exhausts needed to be painted to visually link with finish of the exhaust manifolds although not identical as they are a different material. I began by spraying a dark metallic brown base before



brush painting and sponge stippling other lighter tones over this. At this stage the connectors are only dry fitted.

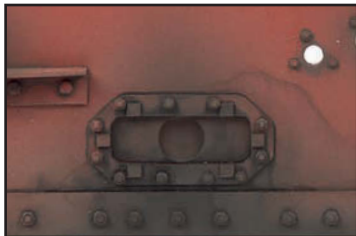
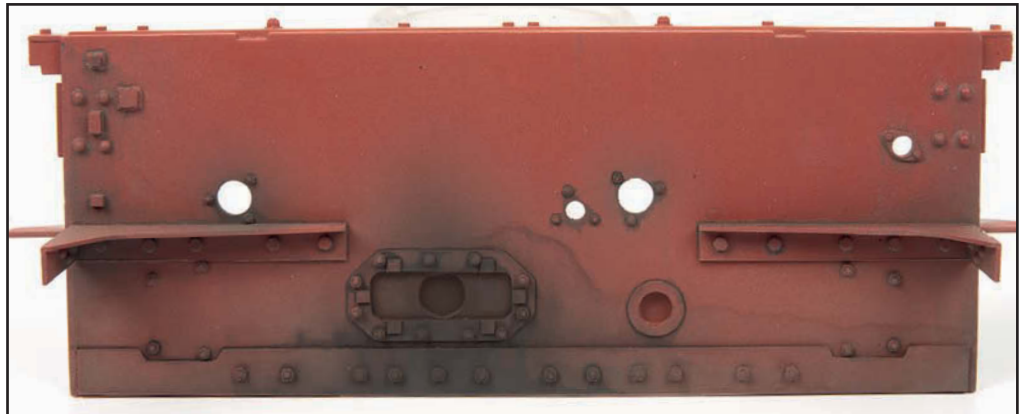
I probably should have attended to the weathering of the rear wall when I began to work on the rest of the engine bay but it had remained in its satin red primer finish.

I began by applying an overall light oil paint wash to add some definition and knock back the new appearance. This was followed by airbrushing some grime tones, starting with a mid brown for the drier areas and working to a darker black/brown. I focussed the darker tones around the position of the engine which would throw off oil causing dirt to stick and build up in this

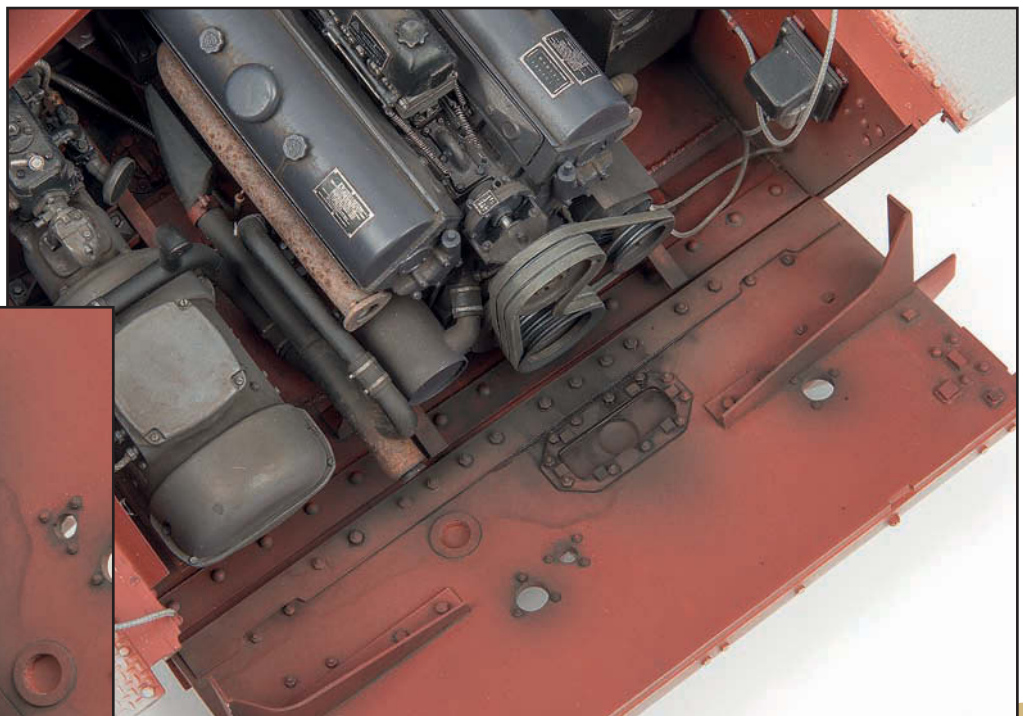
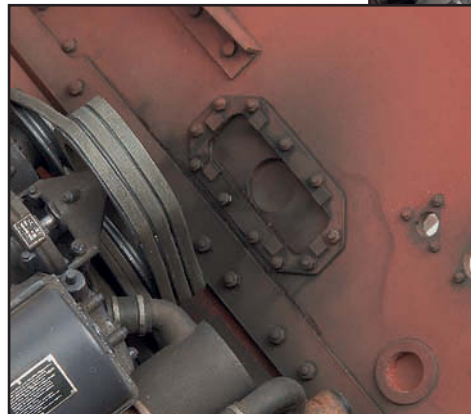


I began to then brush paint another darker tone around the various fittings where dampness would accumulate and cling to bolt heads and other raised details.

Acrylic paint washes were also applied using the same tones used to airbrush with. The tide mark across the right side of the wall was created by brushing water onto the panel allowing it to form the natural waterline shape. Diluted acrylic paint was then applied into this puddle and allowed to flow and blend naturally.

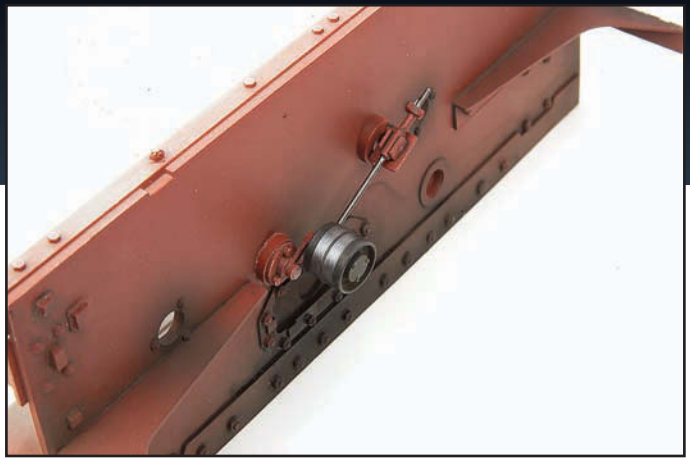


Finally I applied some Wilder old grease in and around the access cover. This dries with a semi-gloss finish to give the impression of wet oily residue (although our studio lighting struggled to pick up this effect in this picture).

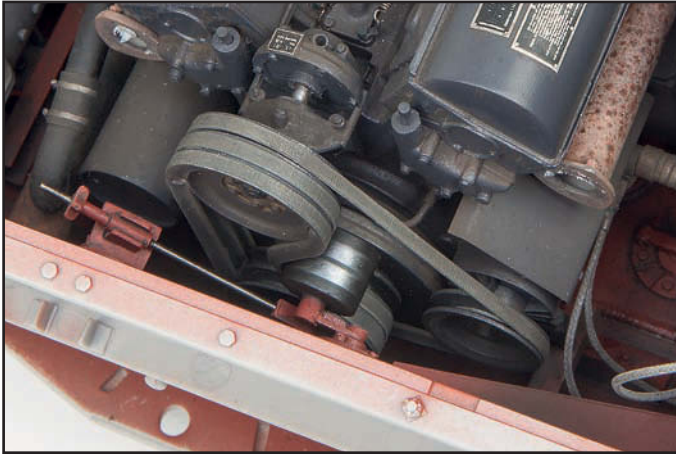




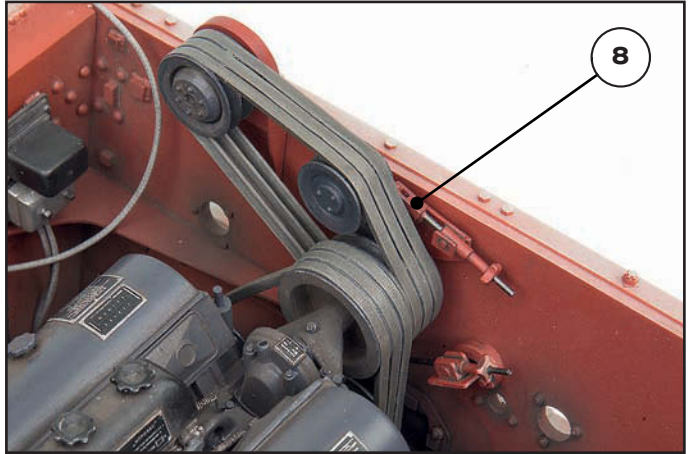
The weathered rear wall was then test fitted in position to check that its appearance matched the rest of the bay and that there were no unexpected mismatched finishes.



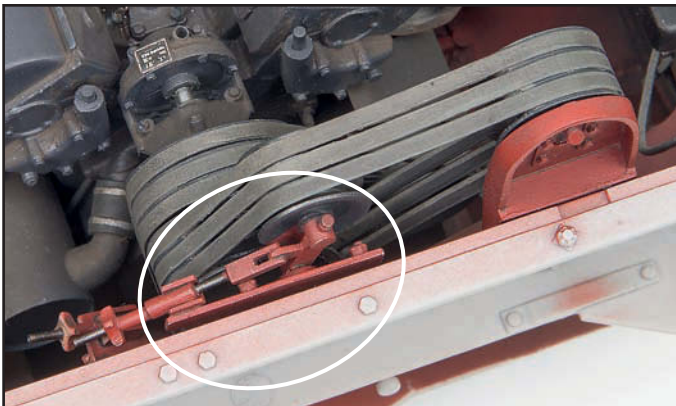
The rear wall was removed again (a much repeated process) and the tensioning pulley wheel assembly was fitted. The wheel was masked and the polished contact area was created with Ushi van der Rosten polishing powder.



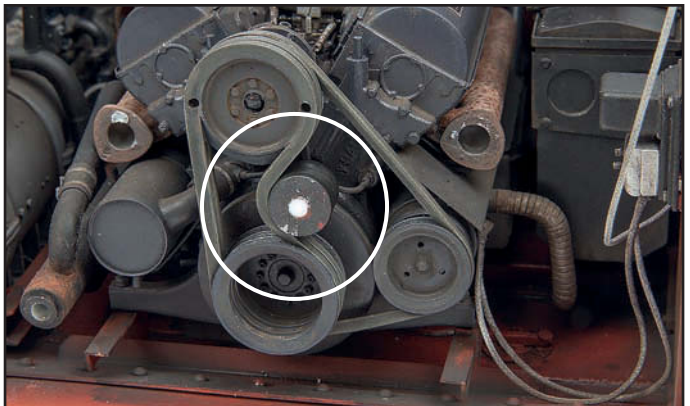
Sliding the rear wall back into place the alignment is good but not quite perfect so I started to consider some adjustments.



The upper run of belts was then dry fitted to ascertain the exact position of the adjuster assembly **8** on the rear wall.



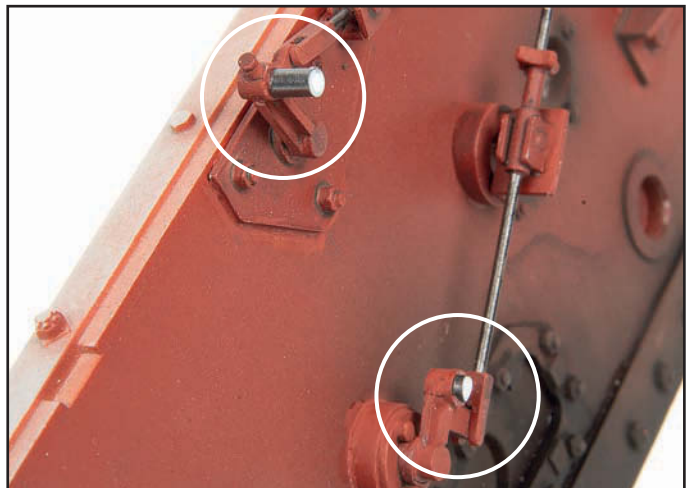
This exposed another problem with the adjuster plate standing off the wall with an obvious gap that would need to be resolved.



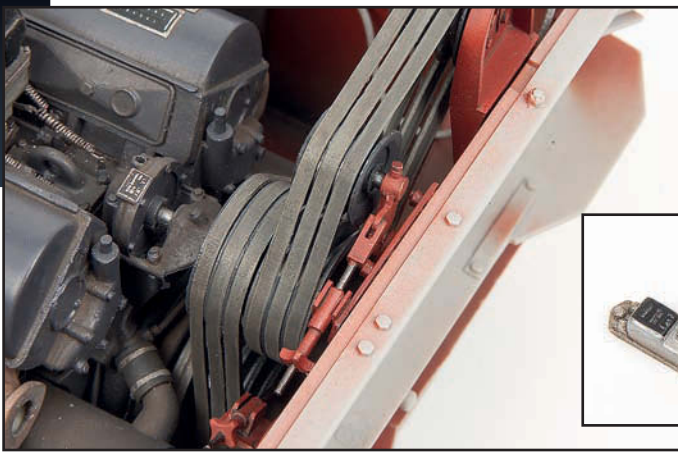
My solution was to firstly to cut the tensioning wheel from its mount and glue it in place on the belts.



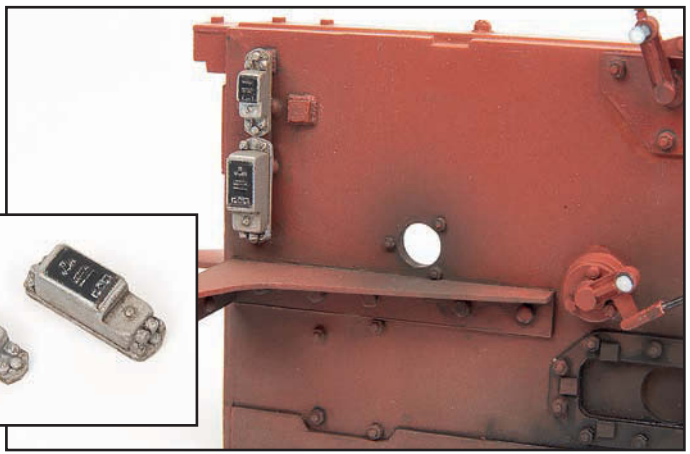
The upper adjuster plate was glued in place on the rear wall after much testing and having removed the upper tensioning wheel so that I could add new shafts to bridge the gap between each adjuster and its wheel. Note the damage caused to the paintwork through these adjustments.



I prepped some plastic rod by painting it with Vallejo steel and polishing it with Ushi van der Rosten polishing powders. For the longer upper shaft I drilled a hole into the pulley wheel so that the new shaft would slide into the wheel whereas the lower shaft was a simple touch fit.



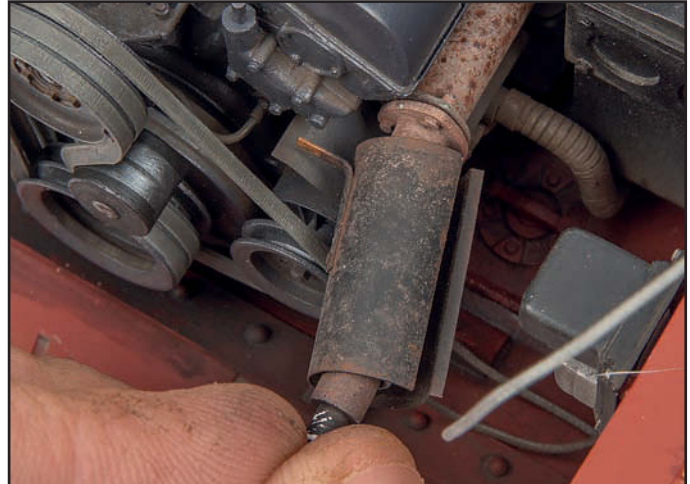
Now the upper section of belts can be dry fitted and the back plate slides in with a totally convincing fit for the tensioning system - a lot of extra work to get here!



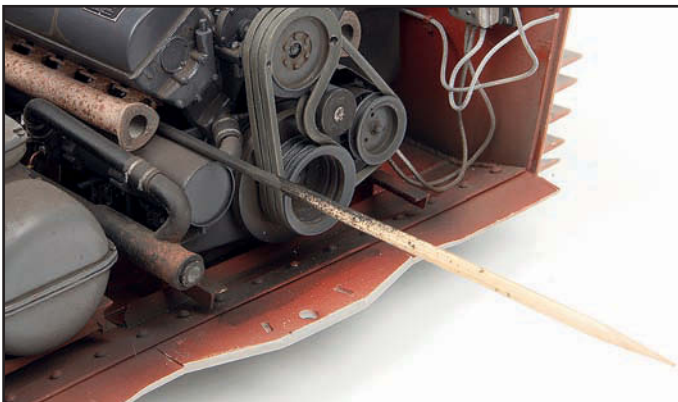
The pair of small voltage regulator boxes were painted and their placards added. They were glued onto the rear wall but with their cable connections running across the corner to the side wall, they will be wired in once the back panel is finally fitted.



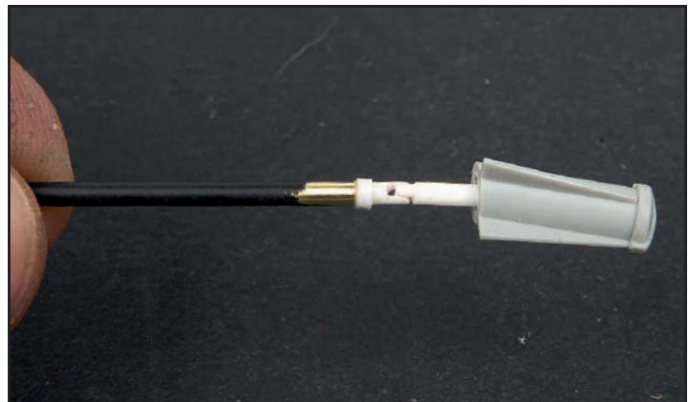
Time to consider the heat shield for the exhaust and I was struggling about how to finish the shield so that it had a heat distressed appearance. The plain black finish was wetted and I applied a succession of dirty brown random washes which I lifted off with a sponge.



During this wash process I picked up an old flat ended brush which I had used to apply the pigment wash to the Merkava 4 tracks featured in this issue. Small particles of pigment were deposited on the shield and mixed with the wash to create a very pleasing effect - seen test fitted here.



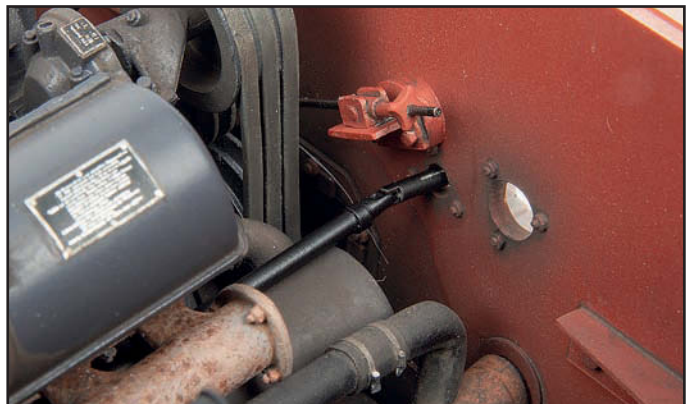
The crank starter shaft was pre-weathered in preparation for fitting to the starter motor hidden at the back of the engine. I pushed a cocktail stick into the tube to assist in positioning the shaft. Test fitting the rear plate threw up another alignment problem requiring adjustment so it had to be removed.



I used plastic rod to make a universal joint coupling for the end of the shaft and fitting it into the external collar.



The shaft had been shortened to accommodate the universal joint and was refitted onto the starter motor.



The rear plate was dry fitted again and the other half of the joint test fitted through the starter port, successfully!

The project continues in the next Issue

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Throwback

3



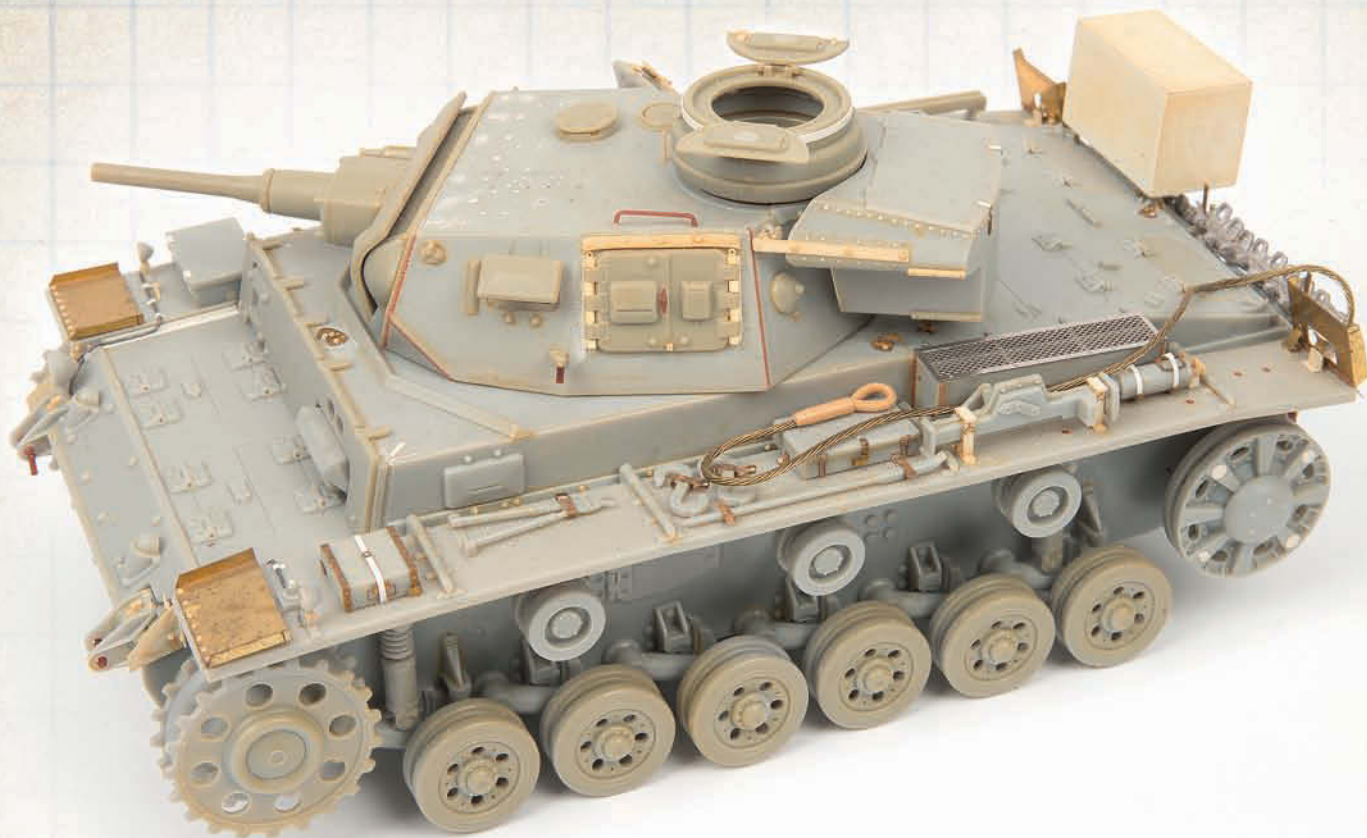
**DRAGON PANZER III AUSF.G
(CIRCA 1998)
11TH PANZER DIVISION**

DAVID PARKER

What better way to celebrate the 100th Issue of AFV Modeller than to look back at how the hobby has progressed since we started? Today we are deluged with new kit releases of an incredibly high standard and the smallest oversight or abbreviated detail can cause uproar. Suppose we could go back and compare modern kits with those of twenty years ago?

Tucked away in a storage box was the Panzer III Ausf.G assembled from the first generation Imperial Series Dragon kit released around 1997. When I built it with at least 2 other identical kits as part of a planned diorama project it was a new release. The repetition involved in modelling 3 similar vehicles eventually got the better of the project and the 3 tanks were consigned to storage. I still have all three, but this particular one was the most complete, ready to be painted and with some state of the art Friulmodel individual link tracks which had to be crimped together.





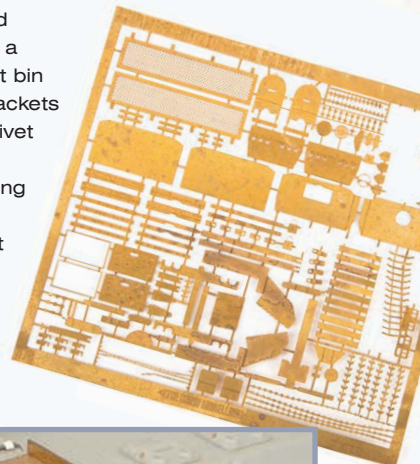
Twenty years in storage have taken their toll on the vintage kit with considerable yellowing of the plastic but apart from the tracks which were 'borrowed' for another project many years ago, it remains intact. Looking at the model today I am struck by just how much work I had to do back then to bring the model up to my required standards!

Back then, photoetched details were only just starting to be an established part of the hobby and I used parts from the Japanese producer 'The Show Modelling'. Obtaining these sets was not easy and usually I had to purchase them at major model shows which I think was the case with these. The range was quite limited and I used the parts from a set designed for the Stug III, the mudflaps, hooks and tool clasps being common to both Stug III and Panzer III. The mesh grilles over the air intakes were I think part of the original Dragon kit.

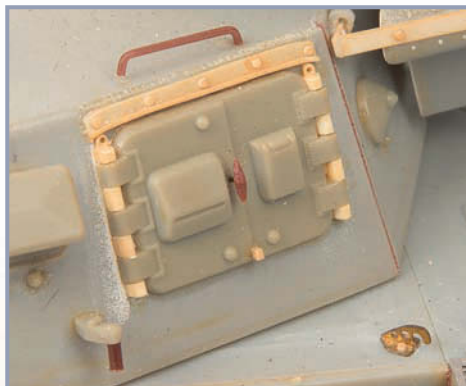
Looking back now at the Dragon kit I am surprised to see that the visors on the cupola are all moulded closed! I had made the effort to carefully cut open the single front visor in order to have a more realistic look. You can also see that I completely reworked the

turret hatch hinges, I think they did not fit well. The insides of the hatches were detailed with new locking handles and missing details from the vision block.

The screw head detail on the turret roof was filled and reapplied using a die to emboss the recesses in the roof. The missing weld bead detail was added using Slaters red plastic rod which I melted with liquid cement to get a weld bead texture, a technique I still use today. The turret bin was detailed with new mounting brackets and photoetched latches. The tiny rivet detail was applied by embossing a piece of plastic card and then shaving each rivet off the card and gluing them into position. Dragon's current range of Panzer IIIs of course have these kind of details all beautifully moulded in place.



The open hatches were reworked by removing and replacing the moulded on locking handles and adding the rubber cushions to the vision block.



The most demanding part was the Rugby ball-shaped handle which took many attempts to shape using a mini drill to sand the plastic rod. It was then mounted onto a brass rod shaft. Ironically this handle was knocked off the model just before it was painted and had to be replaced which I did with some hand rolled putty.



The front mudflap arrangement and the towing hooks required quite a lot of additional detail work with the missing side panels added and the latch clips for the mudflap.



When the model was abandoned the stowage was only partly complete. I added tarpaulins, a spare roadwheel and bucket to match the archive photos of the subject tank.



As I had glued the original roadwheels I had to swap the axels and modify the back of each new wheel to get them to align correctly.



Thin lead wire was used to add the missing electrical connections for the lamps

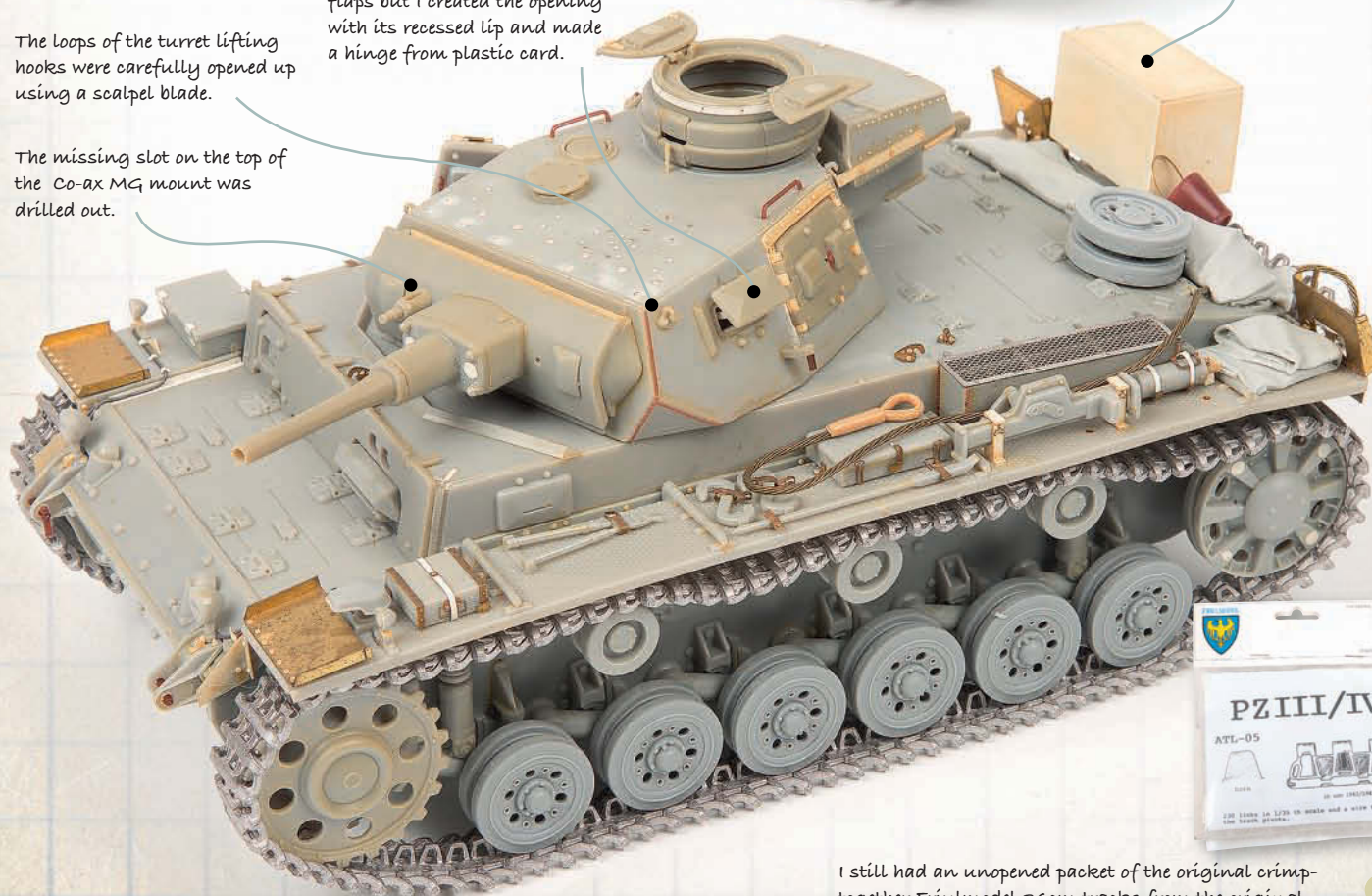
Looking afresh at the original roadwheels I decided it was worth replacing them with the modern Dragon equivalents.

The Dragon kit was not designed with openable vision flaps but I created the opening with its recessed lip and made a hinge from plastic card.

The big stowage box was modelled on the version seen on the subject vehicle from plastic card.

The loops of the turret lifting hooks were carefully opened up using a scalpel blade.

The missing slot on the top of the Co-ax MG mount was drilled out.



I still had an unopened packet of the original crimp-together Friulmodel 36cm tracks from the original project so these were assembled to continue the period feel.



Colours

I primed the model using Mission Models Black primer followed by a coat of Mission Models Panzer Grey which gave me exactly the finish I was looking for. I dislike the faded greys favoured by some modellers as the real colour was very dark as genuine period colour photos show. The details were then brush painted including the turret numbers and lozenge. The 11th Panzer Division Ghost symbol was partly applied using an Archer dry rub decal. I say partly because I couldn't get them to transfer entirely due to the fragility of the logo design. The missing parts were therefore touched in with a brush. On the rear stowage box the logo image had been reversed forcing me to paint in the whole logo by hand. The tank was then sealed with a satin varnish.



The dark panzer grey was a daunting blank canvas to begin weathering over and I therefore chose to begin with an oil pin wash mixing dark brown and sand tones in different areas to take the edge off the stark appearance. I wanted a dry slightly dusty finish to the model and I selected a suitable Lifecolor dirt colour for the next stage of acrylic washes. Back when I first worked on the kit I would have been working with Humbrol enamel colours but now I use acrylics to apply washes as my preferred technique.



The oil pin washes serve to take the edge off the clean model and to bring some of the details to life.



The first acrylic wash applied over the running gear using water to soften and blend the paint gives a better colour density than the oils as well as a pleasing natural look.



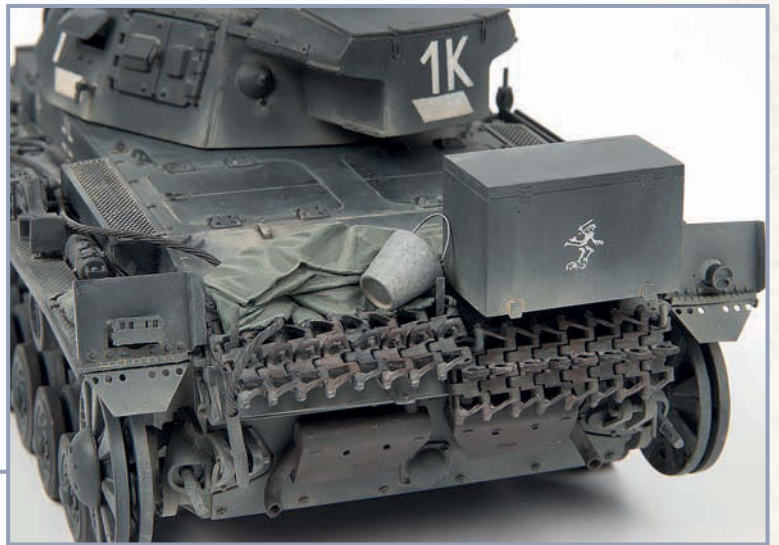
42 The acrylic washes are applied in limited areas panel by panel and built up sometimes with successive layers.



To enhance the dusty deposits I airbrushed the same acrylic colour in selected areas like the corners, the top of the gun and the front edge of the turret roof.

My aim was to show dust thrown up by the running gear and collecting around the details and recesses on the horizontal surfaces but with the tallest parts of the vehicle remaining cleaner. I used an airbrush to enhance the build up of dust in certain areas. I therefore kept the areas around the open hatches extremely clean, using the dark oil washes to define the detail with only the smallest hint of dust.

The tarpaulins were shaded using darker and lighter tones of the base colour to bring some definition and the bucket was painted using Vallejo dull aluminium mixed with white and grey to give it a galvanised appearance. The spare tracks were individually painted in different brown / grey tones rather than a single uniform colour and further acrylic washes were used to blend them into a consistent dusty finish to match the rest of the vehicle.



The tracks were given a blacken it treatment to dull the finish and then a very light wash of the same dust colour was applied over this. I used an abrasive pad to clean up the contact areas of the tracks and this gave an excellent polished metal finish without needing any paint.

Before fitting the tracks I added a small amount of Wilder textured paint to the tops of the final drives, suspension mounts and the mudflaps. Any slight colour difference was blended with the same dust colour again. The contact rim of the idler and sprocket teeth were painted with Vallejo Steel and the contact surfaces of the roadwheels were finished in a clean dark black/brown. The tracks were fitted and I was reminded of how tricky it was to make the join using the old crimping system when access is so restricted.



I wanted the tank to be situated in the grass of the Russian Steppe and added some residual grass or straw to the roadwheel suspension mounts, hanging from some of the return rollers around the rear corners of the hull and scattered on some of the upper surfaces .

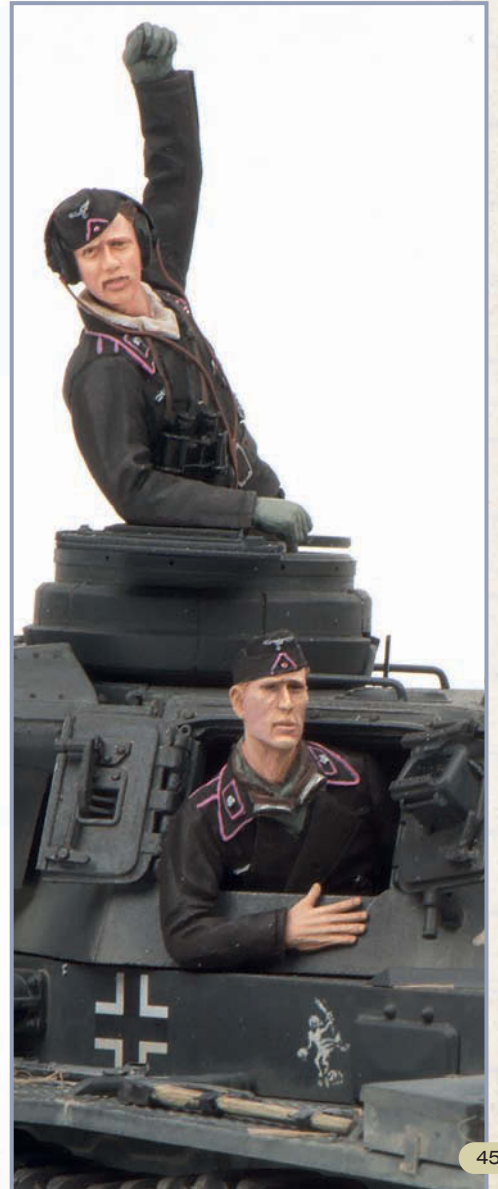


The strands of grass were made using individual pieces of hemp that were given a slight colour adjustment and they were glued in place one piece at a time using PVA glue. At this point I also used a pencil to add a metallic sheen to the lips of the hatches and edges of the cupola to replicate wear. The tips of the exhaust pipes were also treated with black pigments applied with a brush to give a sooty appearance. With this done my attention turned to completing the crew figures.



Whatever original plans I had to crew the Panzer III had been forgotten and with a set of open turret side hatches offering a view into the entirely empty interior I needed some way to fill the hatch. I turned to a two figure Alpine set 35028. Swapping arms around and changing one head allowed me to radically change their

poses and quickly get something I was happy with. I sculpted the new sections of arms that I needed and blended in the other limb joints with Magic Sculpt. One final adjustment not seen in these in progress images was to reposition the Commander's binoculars to reflect the more dramatic pose.



It felt like a long time since I had painted the classic black Panzer crew uniform and I was looking forward to the challenge. The figures were painted with Lifecolor acrylics and I used their excellent 'Panzer Uniform' black which is a very dark brown/black but not a pure black. Using this as a base allows you to then use pure black to apply your shadows to the uniforms. I used a touch of buff to lighten the base colour very slightly to apply the highlights. For the pink piping I

mixed a pink which was a little sharper, more acidic in tone to match the colour I was seeing on pictures of preserved uniforms. I chose a brown tone for the Commander's belt to contrast with the black uniform and a field grey mix for his gloves. The final task was to add the cables to the Commander's headphones using a suitably thin wire which was painted in the dull brown of the fabric-bound cables.

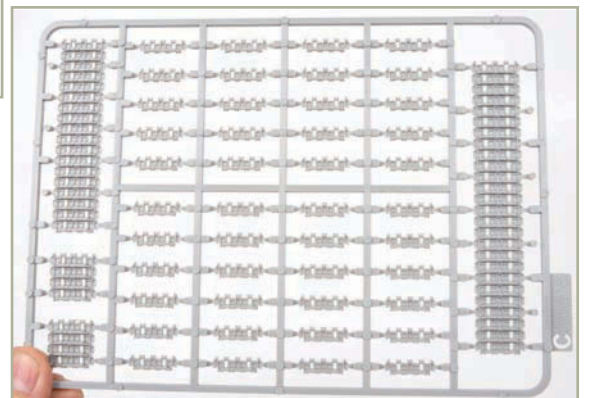
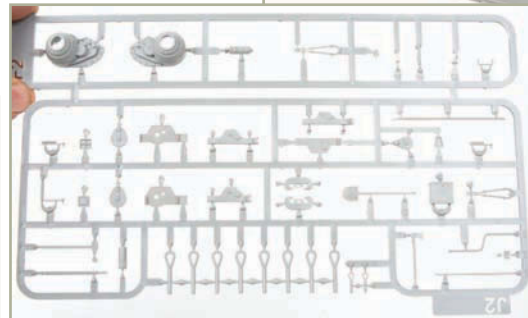
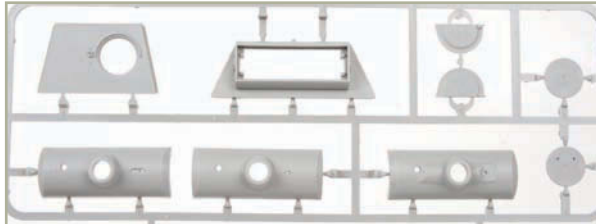
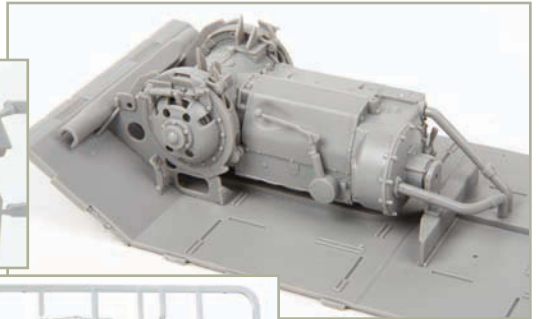
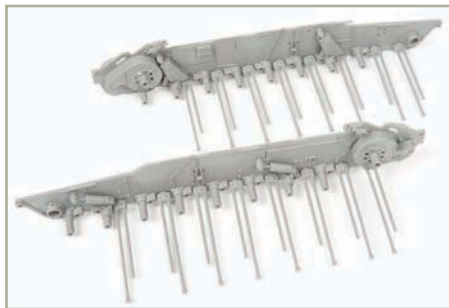
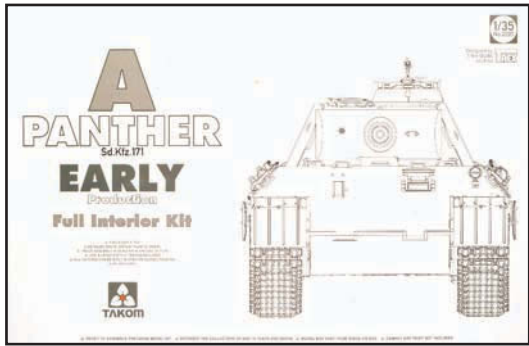
Throwback 3

The final job was to make a small base to mount the vehicle on. I used my default product for long grass, hanging basket liner, which was glued to a plaster base layer using PVA glue. Once it had dried the grass was trimmed to create a more uniform length and to tidy up some of the more 'straggly' areas. The grass was then sprayed with the tank removed in a mix of dull green and sand tones and then I went over it picking out individual strands in sand tones.

Twenty years almost to finally finish this particular model and it feels good to have finally realised something of the ambition which originally inspired it. It has also been an interesting experience to see how much modern kits have advanced to today's standards, things that we now expect to be standard were things that you had to be prepared to make yourself in many cases. This is far from a perfect model and I can immediately see the flaws like the raised moulded location points on the track guards which are impossible to remove without destroying the tread plate pattern. Even so I think it does very much stand the test of time!







Takom 1:35 Panther Ausf.A (Early/Mid Early/Late)

Takom have released 3 versions of their Panther A all of which feature a spectacular fully detailed interior with the late version also including the optional parts required to build a command version. Early and Mid Early versions are differentiated by the letterbox style MG flap on the Early. Whichever version you choose you are treated to a deep box of parts with high quality moulding looking rather more crisp and refined than some Takom releases. Aside for the mountain of plastic parts the kit provides two sizes of braided copper wire, a section of flexible plastic conduit, two decal sheets for interior and exterior and a photoetched fret for the engine screens. The lower hull is comprised of separate floor and sidewalls to assist in both fitting out the detail and potentially painting too. Ammunition is supplied as individual shells apart from for the vertical floor-mounted rack where just the exposed grenades are moulded. Tracks are a link and length system with separately moulded track teeth and a jig to shape the tracks around with the same jig being used to help align the roadwheel swing arms. The hull sponsons are also provided as separate

parts meaning they can be detailed and painted before being installed on the rest of the hull. The instructions helpfully come with a colour painting guide for the interior parts. Externally tool stowage is moulded separately with clasps moulded onto the various tools or you can use the clasp-less versions and add your own. The cupola has separate vision block covers cleverly moulded in a ring so that they can all be fitted as one and then the carrier sprue removed. Separate skirt hanger brackets are provided but the skirts themselves are moulded as a single piece which will be problematic if you don't require a full set because of their overlap. A cupola ring MG mount is included with the correct pattern barrel sleeve. None of these three kits provide the zimmerit finish so you either make your own or rely on an aftermarket solution although Takom have recently announced a further zimmerit version. Top quality without a doubt and fans of the Panther will no doubt welcome yet more choice with interiors apparently proving extremely popular even though little will be visible on a conventionally assembled model.



Aber

Polish pioneers of detail sets, Aber, are still expanding their catalogue at a pace with their legendary quality and state of the art production methods. In 1:72 is a 130mm C-70 gun for the Russian JS-7 (72L-66), 170mm gun for the E-100 (72L-67) and a 128mm KwK44 L/55 also for the E-100 (72L-68) all are designed to fit the Trumperer kits.

In 1:48 is 48L-31, a 3.7cm barrel for Tamiya's 38(t), 48L-32 is a pair of ZB 37 MG barrels and 48L-33 a 20mm Oerlikon barrel for Crusader AA vehicles (and various ship applications).

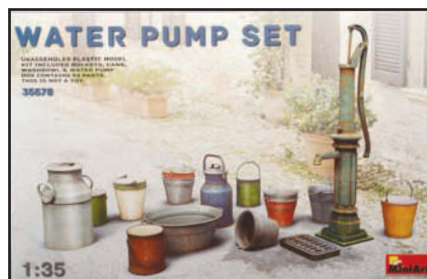
In 1:35 35L-118 is the ultimate in detail for a post WWII 12.7mm DShK, 35L-19n is an early 75mm PaK 40 and another German 75mm with set 35L-241 for Meng's Panther Ausf.A with the KwK 40 L/48 75mm for late G -H Panzer IVs served with set 35L-46. 35L-235 covers all the barrels bristling from a WWI British Mk.I Male and another British subject is covered with 35L-230 providing Tamiya's new Archer with a beautiful 17pdr. Finally up to 1:16 with 16114, a generic set of 25 hex-head bolts with a diameter of 1.75mm.

Keep up to date with Aber's releases and worldwide sellers at www.aber.net.pl



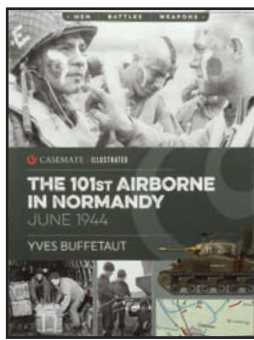
VMS Smart Chipping Paint

Chipped and scuffed paint is all the rage with fans of heavy weathering and commercially available products are available now to take the place of hairspray. This new process from Vantage Modelling Solutions is presented very nicely and very controllable indeed as the 'chipping' colour (six are available) is applied by brush on top of your varnished base colour in the areas you want to show the effect. The paint can be randomly removed in around fifteen minutes by water or further control and finesse with VMS's own Smart Chipping Aid. Check out the product in action on the VMS Youtube channel or visit www.vms-supplies.com. Very impressive range of top-quality materials. Thanks to M.A.N. Models who are the UK distributor.



MiniArt 1:35 Water Pump Set

MiniArt are the undisputed saviours of the diorama builder and continue to release superbly detailed and useful subjects. If making buckets in photoetch drives you crazy, here you go; slide moulding allows super-thin wall thickness in a single piece part. A total of 12 buckets in 4 styles, two churns, a tin basin and the street water pump are provided. Photoetch handles are included. Ideal to stow your Panther, get this set on your bucket list. Excellent.



101st Airborne in Normandy

Yves Buffetaut

Published by Casemate

Softback format, 128 pages

ISBN 9781612005232

www.casematepublishers.co.uk

This new series, Casemate's Illustrated, kicks off with one of the most famous actions of WWII immortalised by the HBO production 'Band of Brothers' focussing on the 101st fighting through Normandy after their drops pre D-Day. With focus on the major points and people involved, the book provides a good oversight with plenty of period images (many are very familiar) maps and colour profiles of vehicles and armour all nicely presented with profiles of some of the legends of Easy Company.



The 2nd SS Panzer Division 'Das Reich'

Yves Buffetaut

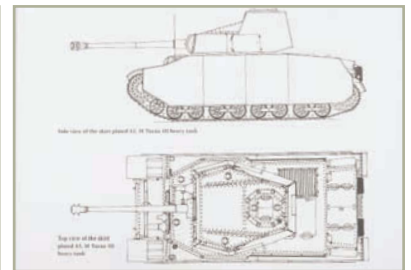
Published by Casemate

Softback format, 128 pages

ISBN 9781612005232

www.casematepublishers.co.uk

Surely the most infamous of the SS Divisions was 'Das Reich' and this second book in this new series looks to give an illustrated overview of the division's formation and combat during WWII on both Western and Eastern fronts. Familiar wartime images, vehicle colour profiles and key personnel feature and the main action throughout the war of this unique fighting force and its fragmented demise around Hungary in 1945. Nicely presented but undoubtedly too brief an account for the serious German armour modeller and the images have been seen many times before.



Hungarian Armoured Forces in WWII

Peter Mujzer

Published by Kagero

Softback format, 112 pages

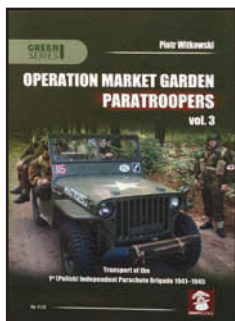
ISBN 9788365437655

www.casematepublishers.co.uk



With some really interesting vehicles in both 1:35 and 1:72 available in recent years this 'Photosniper 26' book is a great introduction to Hungarian armour of WWII with every aspect of the formation and combat presented in manageable 'chunks' to give an excellent introduction to a topic not often published in English. The same approach is taken with the vehicles themselves with all of the home-grown armoured vehicles getting a technical and historical / combat coverage but what's most welcome for modellers is the abundance of period images included with some

top-quality shots of vehicles in the field and being maintained. More modelling reference is included with all-round plans of all of the vehicles including the M Turán, M Zrinyi, M Nimrod, Toldi variants and the M Casaba armoured cars (although no scale is quoted for the drawings they look around 1:48?). A good selection of quality colour profiles and several pages of coloured black and white images show what attractive modelling subjects Hungarian subjects are. Great introduction to the subject and excellent value.



Operation Market Garden Paratroopers Vol.3 Transport of the Polish 1st Independent parachute Brigade

Piotr Witkowski

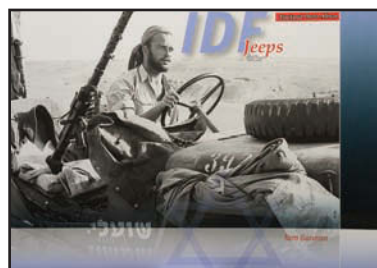
Published by Mushroom Models

Softback format, 96 pages

ISBN 9788365281753

www.mmpbooks.biz

This is the third volume from MMP in their very detailed look at the Polish Paratroopers focussing on the transport involved in the undertaking of Market Garden. Everything from the cool little Welbikes to the mighty Horsa gliders gets a feature with detailed text, period images and modern images of preserved and faithfully restored vehicles and equipment providing excellent modelling reference and the sometimes subtle differences between the Polish and British gear. More good modelling reference is provided with colour illustrations of the markings used on vehicles and descriptions of the red canvass signalling sheets (nice idea for a little vignette?) and listings of all vehicles, glider loads and formations involved in the operation. A must if you have the other two volumes.



IDF Jeeps

Tom Gannon

Published by Trackpad

Softback format, 58 pages

www.facebook.com/trackpadpublishing

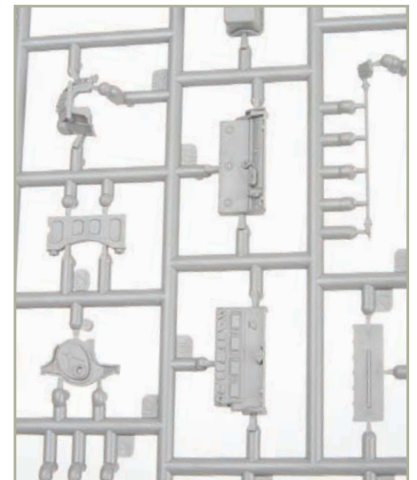
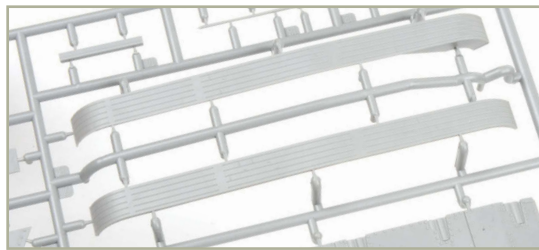
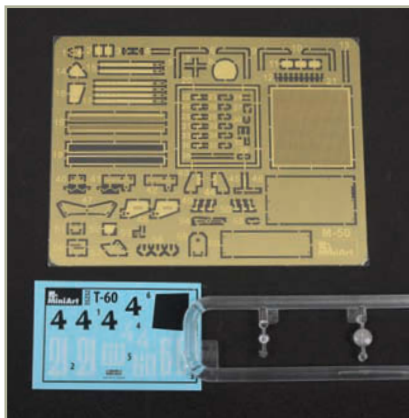
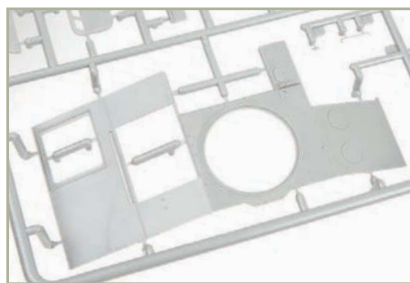
This new Photo Album from Trackpad offers a great collection of photos and very detailed captions tracing the history of the all-important Jeep in the hands of the IDF. We start at the very beginning with creation of the state of Israel and the Willys vehicles left there by the British and UN and the conversion and further purchase to suit the needs of the IDF (including the fitting of German and Czech MG34s!), like the SAS converted Jeeps these vehicles make great and unique modelling conversions and this is superb reference. Not only the vintage Willys / Ford Jeeps are featured but we've brought more up-to-date with M606A2s and CJ versions of the Willys and the various arms and purposes with some colour images of preserved vehicles. A must for Jeep or IDF enthusiasts.



Takom 1:35 CM-11 (M-48H) with ERA 'Brave Tiger'

Following Takom's 'standard' M-48 H Republic of Korea Main Battle Tank is this very cool looking ERA blocked version giving an appearance more akin to the IDF 'Blazer' M-60s. The 'H' designation is for hybrid, basically an M-60 hull with the last generation domed M-48 turret (although you would never know under all that add-on armour!) Other unique features that Takom have produced are the IDF cupola and the ballistic calculator developed for the M1 Abrams. So we have a good amount of sprues and parts carried over and plenty of new parts all very nicely moulded. The lower hull and turret have an impressive cast texture with delicate casting numbers and welds present. The suspension and running gear has a lot of parts but results in

some great detail with some new flexible T-142 vinyl tracks which are joined with a metal pin, pretty impressive detail for single-bands with a nice weight to them. The upper hull design is simple, produced as one large section including all of the complex engine deck slats and panels which are well rendered, mudguards are separate with large securing tabs and slots to support them. Takom look to have hit a good balance between ease of assembly and finesse with the turret, there's photoetch mesh to construct the rear basket and the ERA panels have been moulded in groups for ease; this should all look very impressive in place. This looks a very nice kit from Takom of a great looking MBT, certainly something a little different.



MiniArt T-60 Late Series (screened, Gorky Plant)

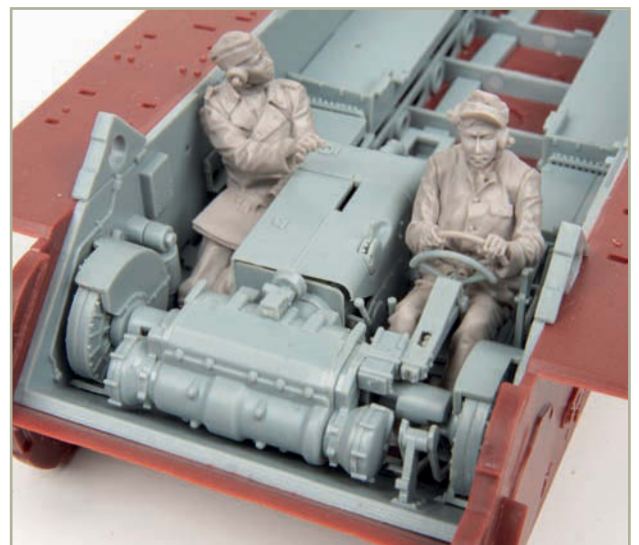
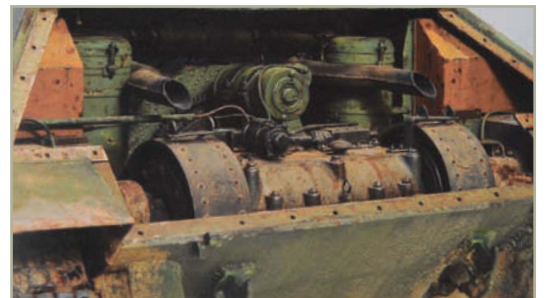
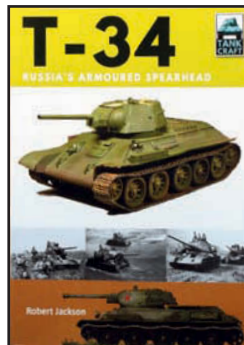
Another in MiniArt's T-60 series with another late version built in the Gorky car plant with several specific features. This tells us that MiniArt go very deep with their research and with close to 500 parts for such a tiny vehicle the levels of detail are stunning so you can expect some tiny parts and demanding work (on the eyes at least!). Full interior means exactly that and the assembly starts with the full GAZ-202 engine, transmission and driver's position fitted into the floor plate with the hull sides added later complete

with ancillaries and ammo storage with plenty of photoetched parts further adding to the beautiful finesse. More fine finesse with the tracks although many will find three sprue points per link a little tedious to prepare as the links are tiny! Thankfully the turret and hull have a number of large hatches (including over the engine) to display open. Stunning out-of-the-box detail again from MiniArt.

T-34, Russia's Armoured Spearhead

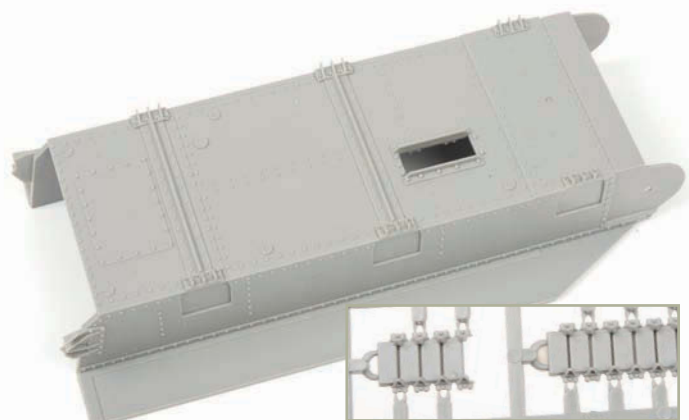
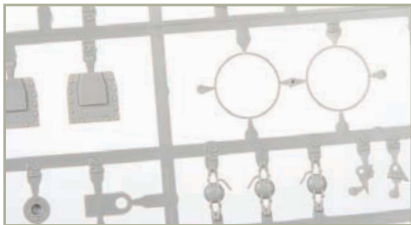
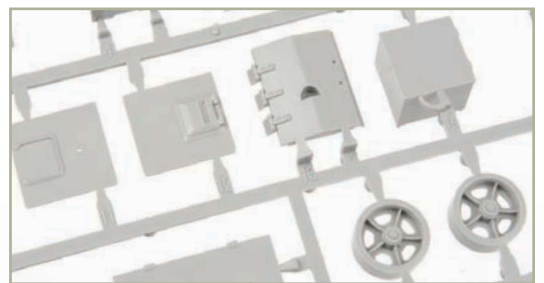
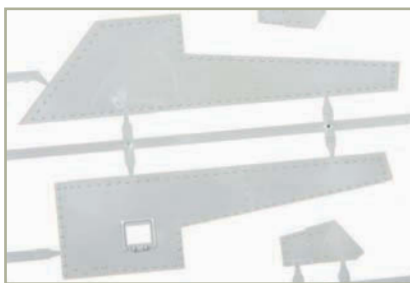
Robert Jackson
Published by Pen and Sword
Softback format, 64 pages
ISBN9781526711328
www.pen-and-sword.co.uk

Another release in this 'Tank Craft' series sees the legendary T-34 come under the spotlight. A hybrid of historical content and modelling is on offer in common with the other titles but for such a huge subject both topics are covered briefly within 64 pages. Nine pages of colour profiles are nicely rendered with some really interesting schemes with well detailed captions. WWII action and a couple of pages of post-war period images feature but the photos are commonly seen ones and in small format. The modelling section lacks continuity in the presentation of the products, some of the images are poor and wrongly placed but it does give an overview of many of the mainstream kits on offer in several scales, the 1:16 Trumpeter T-34 showcased is a real highlight. Undoubtedly good value if the subject is new to you.



Stalingrad 1:35 King Tiger crew in Action

If you have Meng's Kingtiger with the interior option this new set from Stalingrad is sure to create the ultimate display with a full 'in action' crew designed to fit into and around the Meng interior parts with Stalingrad's usual superb sculpting with great poses and expressions which look very natural. Casting of the resin is first rate with superb detail, a shame to put them inside the vehicle! Go to Stalingrad's website for details and distributors www.stalingrad.diorama.ru



Takom 1:35 M31 Recovery Vehicle

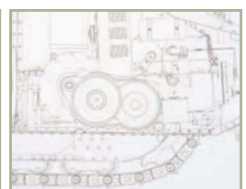
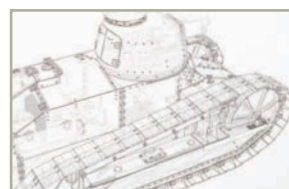
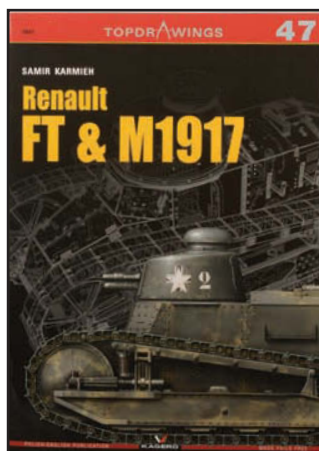
This is a very welcome addition to Takom's 'Lee' family as there's no denying recovery vehicles make great modelling subjects, festooned with filth and clutter (sounds like the Editor's workbench) and excellent diorama ideas, many Allied modellers will be very happy with a plastic kit of the M31 instead of struggling to convert vintage kits. Of course we've a mix of Lee sprues in the box but also over 180 new bespoke parts including the full hull 'tub' as the huge internal winch has an option to exit through rollers in the floor plate. Of course the obvious difference is the giant boom arm which has options of multiple positions and makes this a more

complex kit than the gun tanks Lee and Grant. Take a look at our feature on the Grant as much of the build is similar, pretty straightforward although the multi-part boom does look quite involved and very well detailed. Takom have even supplied a generous amount of soft woven copper winch cable instead of the usual shoe lace we throw away! With five marking options throughout WWII this kit is a great candidate for dioramas where it can be dragging or lifting pretty much anything you desire, great subject Takom!

Renault FT & M1917

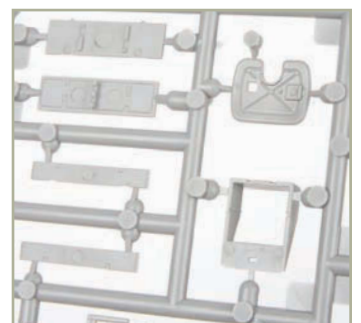
Samir Karmieh
Published by Kagero
Softback format with pull-out plans, 20 pages
ISBN 9788365437648
www.casematepublishers.co.uk

Often regarded as the World's first 'modern' tank we have an excellent choice of modern kits of this iconic AFV with a new release from Flyhawk in 1:72, Meng's excellent 1:35 versions and Takom's impressive 1:16 scale offering with full interior (on the Editor's long list of in-progress projects!). Especially helpful if you're detailing Takom's kit, this number 47 of the 'Top Drawings' reference plans includes superbly detail internal and external plans in 1:16 and a great selection of beautiful colour profiles with a bonus of vinyl masks in 1:16 to model the subjects. Great technical reference.



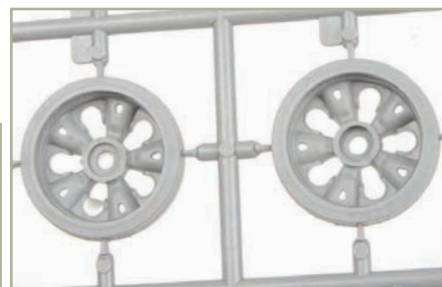
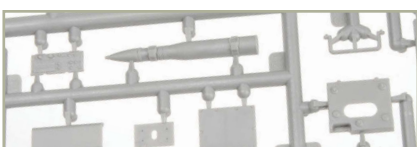
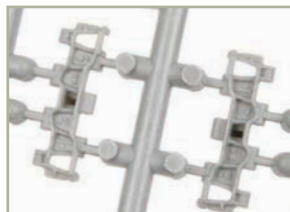
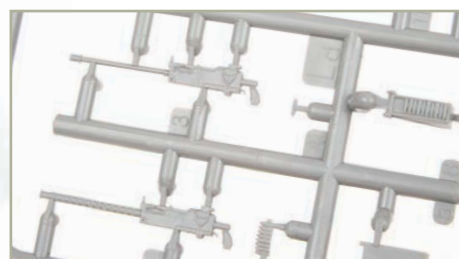
MiniArt 1:35 U.S. Horsemen, Normandy 1944

MiniArt's approach to marketing their brand is as good as the products and I'm sure this release has been promised for a while now with some excellent images of the finished and painted models. The bare plastic also looks very nicely sculpted and moulded on the sprues and these riders would make a nice vignette or part of a diorama. One horse is stood still with the rider in airborne uniform and the other in motion with the superb box art depicting a rider from the 29th Infantry Division.



MiniArt 1:35 Panzerschreck RPzB.54 and Ofenrohr RPzB.43 set

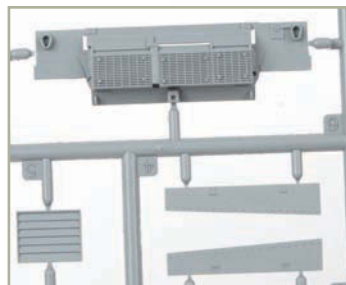
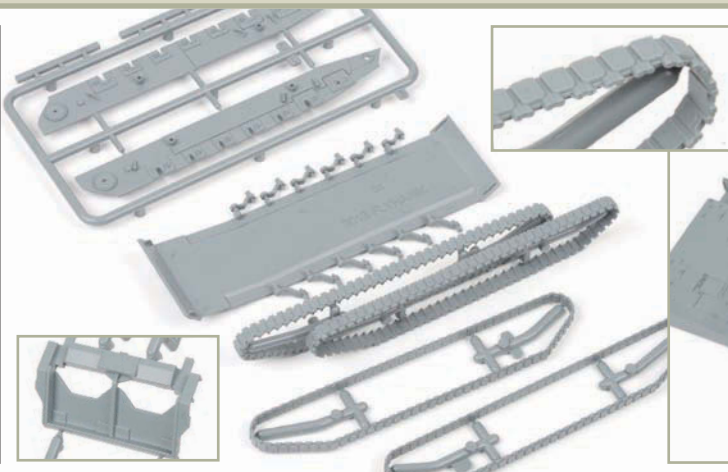
MiniArt continue to look at super-detailed weapon sets and follow their panzerfaust set with the bigger brothers, panzerschreck and ofenrohr. Six of each are provided with grenade cases and carriers and the detail and finesse are just superb with photoetched parts and detailed decals.



MiniArt 1:35 Tiran 4 Late

Working their way through the T55 family, MiniArt present this stunning new kit of the 'Late' version of the IDF's modified tanks captured during the Six Day War. This release is one of the 'Full Interior' offerings and we can't think of a more packed and weighty AFV kit in 1:35 but it's a case of quality and quantity with MiniArt, the moulding is as good as it gets and the detail quite staggering. The full interior means just that, the engine bay, V-54 engine and whole of the fighting compartment and turret are included meaning this is another very involved build and probably best suited to a modeller with some experience under their belt (or should that be at the bench?!) and there's a fair amount of

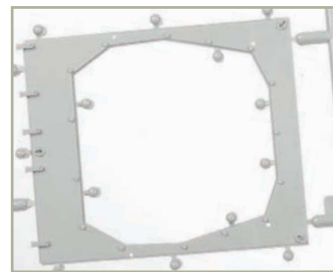
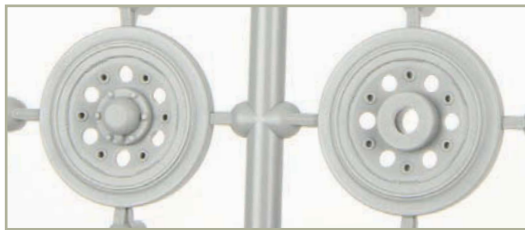
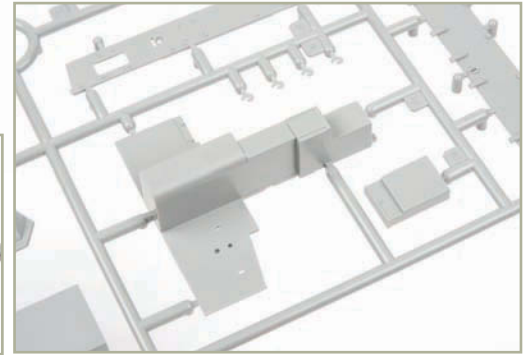
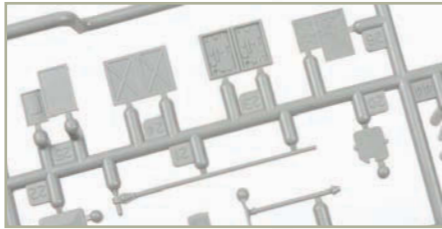
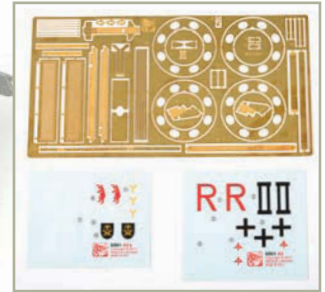
photoetch included to deal with along with individual track links, which again, are superb. All of the IDF specific features look faithfully reproduced including the .30 Cal and .50 Cal MGs, stowage bins, jerry cans and the 105mm M-68 main gun (the other guns are still included in the kit and it looks in fact if you can produce the earlier versions with this kit). Two SLA finishing options are included if the blue / grey appeals (and two IDF versions). This series of kits are made to please the more discerning modeller and they certainly deliver. Superb. Keep track of the full range of T54s and T55s at www.miniart-models.com



Flyhawk 1:72 M1A2 SEP with mine clearing blade system

In issue 98 we looked at the first incarnation of this kit and were pretty much blown away by the level of detail and beautiful moulding finesse, well things have got even a little better with a new version of the kit including the super-tough looking mine clearing blade. Two new sprues provide the plough (Ok, plow!) system which as you'd expect are equally as impressive with superb design and moulding. The original kit is exactly the same which is good news, this is still certainly one of the best seventy-

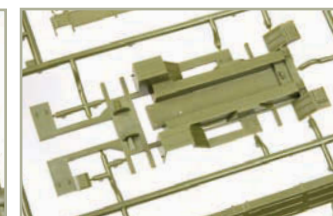
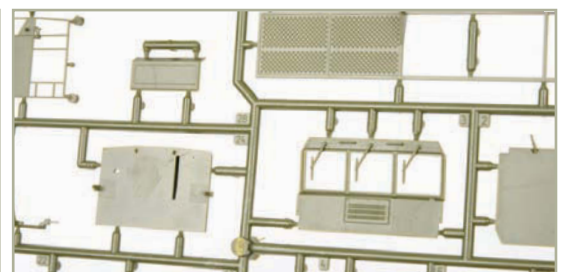
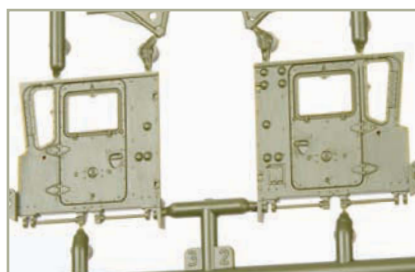
second scale kits we've ever seen with ingenious design and moulding throughout from the two piece track runs to the anti-slip texture it really is state of the art. A small sprue of clear parts, small photoetched fret (including wheel painting masks) and delicate metal chain are included with decals providing five options. Very highly recommended and our thanks to Flyhawk for our samples.



Dragon 1:35 DAK Pz.Bef.Wg.III

Just when you think DML have exhausted every avenue with their versions of Panzer III they just keep coming, no bad thing though as these kits demonstrate why Dragon really are amongst their best releases (and we're treated to a new Ron Volstad box art!). With their tradition of squeezing every opportunity from their tooling there must be half-a-dozen previous kits drawn on with around half the parts unused! The kit is pretty much the 6844 release from last year but with a few DAK specific features and the earlier style wheels. The Panzerbefehlswagen features a dummy main

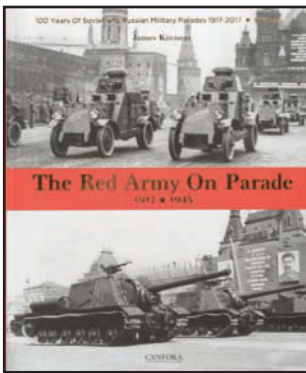
gun and fixed turret, Dragon provide a pretty comprehensive interior with radio gear and the huge 9M crank operated mast which passes through an opening in the turret and makes for an interesting display. The moulding and accuracy are excellent, some detail-freaks may shun the DS rubber band type tracks but there's really nothing to grumble about here and the bonus of feeding the spares box (like a full set of road wheels, sprockets and idlers). Certainly DML retail prices have risen a fair bit in the last few years and their notorious instructions can be frustrating but when built these Panzer IIIs look fantastic.



Zvezda 1:72 Russian Ballistic Missile System 'Iskander-M' SS-26 'Stone'

You probably won't see a more typical Russian-looking vehicle than this new Zvezda release and even in 1:72 it measures over 180mm. Zvezda's no frills approach to their kits remains with practical packaging and no gimmicks. This will always keep their kits very affordable to more casual builders yet allow the detail thirsty modeller some budget left for aftermarket enhancements. As you'd expect of a vehicle of this nature, and the small scale, there are some very small and fine parts moulded on the sprues and with close to 250 parts this is a build for a modeller with

some experience. Moulding is very nice throughout and we're offered an option of transport or deployed mode for the menacing missiles, chassis detail is very comprehensive and there's some basic cab interior too. The tyres are moulded in soft vinyl and don't look great, that said they do look well on the box images of the finished model with some weathering. Photoetch and resin wheels will take this kit to another level but this will still look very nice built straight from the box.



Red Army on Parade 1917-1945

By James Kinnear
 Published by Canfora
 Hardback format 256 pages
 ISBN 9789198232585
www.canfora.se

This ambitious new Canfora release describes the tanks and armoured vehicles paraded by the Red Army on Red Square from the first anniversary of the Russian Revolution in November 1918 until after the end of the war in both Europe and Japan in 1945. From the first captured French and British tanks displayed on Red Square through the full range of wartime T-34, KV and IS tanks (including some great images of the IS-3 in September 1945 leading to some very frantic heavy tank development in the West!). This first volume describes the first public appearances of all Red

Army tanks, vehicles and artillery pieces and the background philosophy involved in their respective developments with some superb images from the outrageous T-28s and T-35s to the brutish IS-152. Whether you're interested in Soviet military history and development of the Red Army or are interested solely in the armoured vehicles, this book is a hive of information packed with great images and as usual from Canfora, very nicely presented indeed. Available Worldwide or direct from Canfora themselves at www.canfora.se

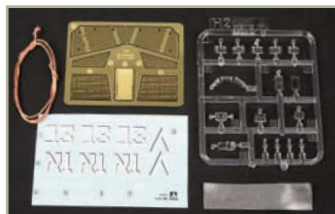
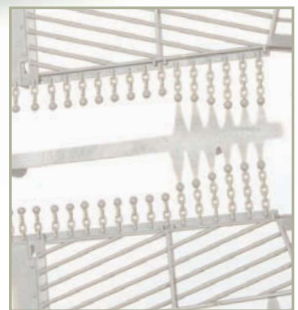


They Called Us The New Evil

Marvin Craig MacNeill CD
 Published by Trackpad / Leopard Club
 Softback format, 95 pages
 ISBN 9780992842574
www.trackpadpublish@gmail.com /
www.leopardclub.ca

If you're a fan of the Leopard MBT, and more precisely Canadian big cats, this new book from Trackpad in association with Leopard Club (Leopard modelling maestros) is an excellent read. Written by an experienced Canadian tanker he takes us through his memoirs of two tours of Afghanistan from 2006 to 2008 in both Leopard 1 and 2. The author includes the build up preparation and after action reviews not only with his own words but a fantastic selection of photographs also

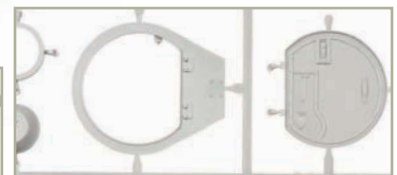
which provide some unique insights and reference of the day-to-day lives of the men and machines, although quantum leaps ahead of the tanks of WWII many principles of the tankers life appear similar, including peeing in bottles and of course the tragedy of fallen comrades. An appendix also provides detailed reference of vehicle names, numbers and the personnel of the author's 'B' Squadron. Recommended reading.



Takom 1:35 Merkava Mk.IIB

Who doesn't love a Merkava? With Meng's new up-to-date Mk.IV as seen in this issue how about something a little more vintage with new releases of the Mk.I versions and this Mk.IIB from Takom. I have to confess to the early versions of the 'Chariot' being my favourite with the distinctive, sleek design in its purest form. In common with Takoms latest kits the Merkavas are very nicely packaged and presented giving an important good first impression. It's only natural to seek out the 'big bits' from the box and they're very nicely done with some great detail and top quality moulding on show. Along with the separately bagged grey sprues we've a clear sprue of vision blocks and light lenses, some photoetch for stowage containers, decals, a nice soft copper tow cable and even some soft pewter sheet to create marking panels. Suspension is surprisingly simple to assemble the way Takom

have designed it (make sure you check the separate note with an amendment to the instructions) although each road wheel has five parts for nice sharp definition and the tracks are link-and-length which saves time, pretty decent they look too. The big troop access door in the back panel (don't forget this bespoke IDF design can carry ten troops!) is a multi-part affair and can be posed open should you wish. The rear stowage bins are quite complex assemblies but will look nice the way the soft parts are sculpted. The upper hull and turret are packed with nice detail too and personally I think it's preferable to not attempt to mould the anti-slip texture, the ball-and-chain armour has come out well and the majority of modellers will be happy not bothering with aftermarket here. Lets hope these early Merkavas from Takom build as good as they look, very nice looking kits indeed.



Takom 1:16 IJA Type 94 Tankette

With the Editor a fan of sixteenth-scale any new large-scale armour release is a welcome one although this subject choice from Takom most rate as obscure and the beautifully illustrated box weighs in smaller than many 1:35 kits! This is no wonder as the diminutive little tankette in this scale is around the size of a 1:35 Sherman. Unlike Takom's tasty FT17 in 1:35 this release doesn't have an interior so it's a much simpler affair, what we are offered though is a nice crew figure and a choice of indi-link tracks or soft plastic one piece versions (which are really good). This

really is a simple build with some very nice detail and a few photoetched parts including the exhaust mesh shield, a nicely moulded hull 'tub' should provide a solid platform and all hatches are separate with internal faces detailed should you fancy scratchbuilding some interior parts. This kit is a great introduction to large scale armour; it's inexpensive, simple and with the colourful camo options and figure it's sure to make a great display straight from the box. Now please in 1:16 an SdKfz 250, Bren Carrier or M3 Stuart...



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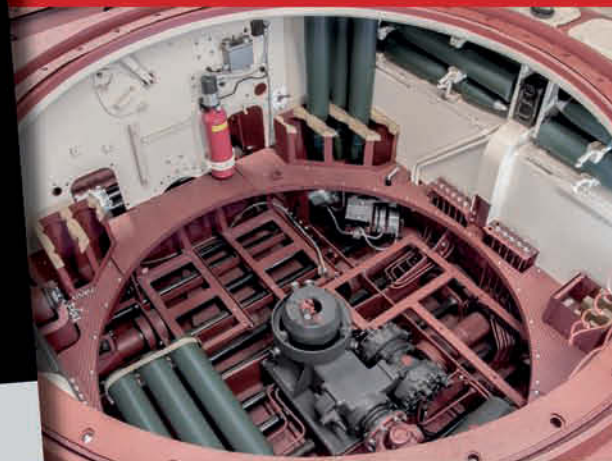
Lee Lloyd, Brian Balkwill & Alasdair Johnson

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CZECHMATE

Rob Westerman's scene of the German surrender at Schwarzbach



er at Schwarzbach

Background story

My dioramas are often derived from pictures I see in books or on the web. For this diorama I was inspired by a series of pictures in a Panzerwrecks book. It shows the surrender of, among other, the Panzer Jager Abteilung 553 to the 26th Infantry Division in a place called Schwarzbach in Czechoslovakia. When I saw this heavily camouflaged Hetzer, I knew I wanted to build it! The challenging part was recreating convincing camouflage foliage and the shed in the background. When I found a suitable solution, I was ready to go, but more of that later!

Building and painting the Hetzer

For the Hetzer I used the excellent Tamiya kit. As this is the "middle" variant and I needed to build a late version (built by the Skoda factory), some changes had to be made. The rear idler wheels were changed by ones from SKP models (which have four lightening holes), some bolts from the road wheels were removed as late variants had sixteen of them and placement of the tools were changed. Furthermore the kit was updated with some photoetch parts from Aber and 3d printed clamps. I used the barrel provided in the kit as it was one piece and had to make a cover for the muzzle, just like in the picture, from Magic sculp. Tracks from the kit were replaced for Fruils and these were treated with a burnishing fluid, which darkens the metal tracks and give them a realistic appearance.

1:35

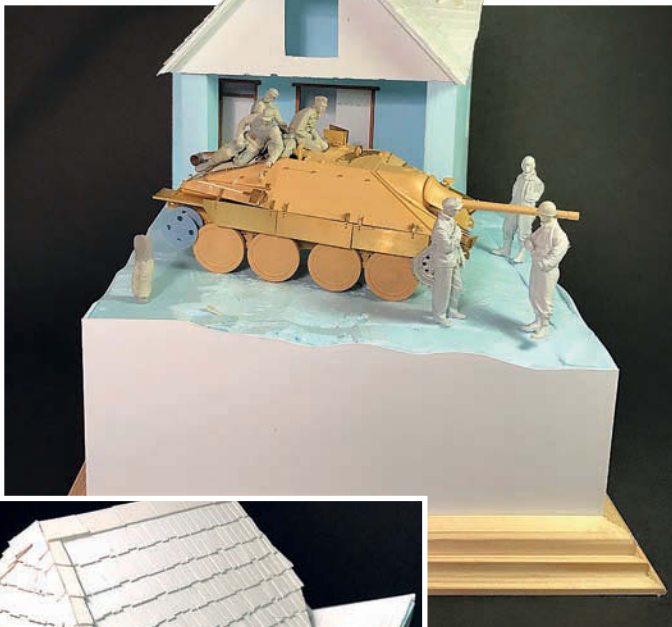




This particular Hetzer variant had a hard edge camouflage scheme. Using Tamiya masking tape, the different colours were applied. It was a bit tricky and took some time, as I like to add as much parts as possible prior to painting. For airbrushing I always use heavily thinned Tamiya acrylics. For thinning I use the lacquer thinner, sometimes up to a 50:70 paint / thinner ratio. I started with a matt black primer coat and then a coat of the green camo colour for the upper hull and dunkelgelb for the lower hull. Then with help of reference pictures I masked of the areas to make the hard edge camouflage. Although almost half of the Hetzer would be covered with branches I applied the camo on the whole vehicle.

Colours used:
 Dunkelgelb XF60 Dark Yellow : XF55 Deck Tan (50:50)
 Green camo XF28 Deep Green : XF15 Flat Flesh (50:50)
 Red brown camo XF64 Red Brown : XF 15 Flat Flesh (50:50)

Weathering was done with Vallejo acrylics and oils. I started adding fine scratches and chips with sand and brown acrylics. Some dark pin point washes were added using Burnt Umber and Van Dyke Brown oil paints. At this point I also begin adding splashes with various thinned oils from muddy to sand colours obtaining a variety of layers creating depth. Dust effects were also created with oils. In the excellent Tank Art books from Mike Rinaldi these techniques are described in detail. I usually don't do the different weathering techniques in a particular order and go back and forth between these, each time checking if I'm happy with it.



Constructing and painting the building

The shed was scratch build and made from blue foam and the roof with plastic sheet. Wood texture was made by scribing the plastic with a sharp knife. The bluefoam was treated with a plaster mixture and then painted with Tamiya XF-2 flat white with some buff colour added to tone it down a bit. More depth in the white walls was created through blending and streaking different shades of white acrylics. This is difficult to see in the

pictures but it adds a nice variety. Be careful not to use solvent-based paints for painting and weathering as it can dissolve the bluefoam!

There are many ways on how to paint plastic to look like wood. For painting the roof and other wooden parts of the shed I used Vallejo acrylics. I started off with a layer of medium sea grey. And then added many, many thin coats of various wood colours, using the opacity of acrylics to create darker and lighter shades and creating depth. Finally I added a few pin washes with oils.

Branches

Creating realistic foliage camouflage is a real challenge in this scale. After some searching one of my modelling friends came up with a great solution (thank you Erik Gideonse!). He send me some moss from Germany which just look like pine tree branches. Cutting them in different lengths and forms I was able to make enough foliage to cover half of the Hetzer. I painted the branches with various shades of greens from Vallejo and just before fixing them to the Hetzer I treated them with a mixture of water and wood glue. This made the branches more flexible and easier to apply.



Figures

Adding figures to a diorama is a great way to tell a story, and personally I think it is one of the most difficult things to do successfully. So some time went into trying to fit various figures into the scene, even before finishing the construction of the vehicle. Some figures were adapted with magic Sculp to fit on the back of the Hetzer. Also the little boy was changed a bit to fit the scene. Rest of the figures are stock from various brands. Some hands and heads were swapped with ones from Hornet. Painting of the figures was all done with Vallejo acrylics.



Base and groundwork

Groundwork was made with a filler material for walls, but any kind of plaster material can be used for this. When still wet, small stones and fine sand was added and some static grass was also added at this stage. All was fixed with water diluted wood glue. Then I airbrushed the groundwork with a dark

brown base colour. Adding gradually more sand colour to this mixture, shadows and highlights are created. The grass was then drybrushed with various green acrylics. I then added some more static grass, cut in different lengths to avoid uniformity and mixed this with pigments to tone down the bright colour a bit.



The sides of the base were made of plastic sheet. The images on the sides were made in Photoshop and were then printed in mirror image on paper. The paper was then fixed on the sides through photo transferring. In this process you use a photo transferring gel that you apply by brush on the paper. The paper was then put on the sides and left to dry for 24 hours. The upper layer of paper is carefully removed with water, leaving the image on the plastic sheet. This is a delicate process and takes some time. To finish, the images were covered with a layer of semigloss varnish.



I would like to thank Erik Gideonse for providing the special moss from Germany and all the info on photo transferring. Couldn't have done this dio without your help! Finally I would like to thank all members of the Dutch modelling website TWENOT for their feedback!



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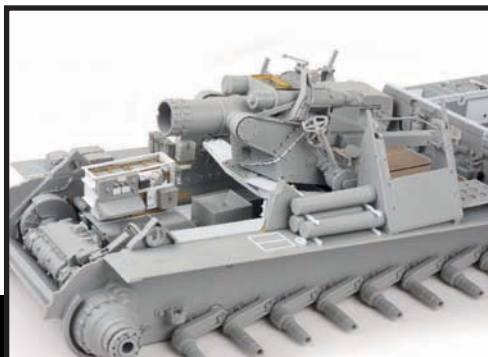
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