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TRAINING JAPANESE

LESTER PLASKITT PUTS TAMIYA'S VINTAGE
TYPE 90 THROUGH IT'S PAGES



**1/35
SCALE**



GERMAN MEDIUM TANK Sd.Kfz.171

PANTHER

Ausf.G EARLY/Ausf.G with AIR DEFENSE ARMOR



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The Panther Ausf.G medium tank, an improved version of the Panther Ausf.D and Ausf.A tanks, was a German main equipment in the late World War II. The 45.5-ton Panther Ausf.G was introduced in March 1944. It had enhanced protection in key areas. Both the weight of the whole vehicle and the production time needed was reduced. In the final stage of the war, some Panther Ausf.G tanks were equipped with armor plates on the top of the turret and the engine air intake to enhance passive air defense capabilities to resist growing air threats.

This MENG TS-052 1/35 German Medium Tank Sd.Kfz.171 Panther Ausf.G EARLY/Ausf.G with Air Defense Armor model kit has the following features: The frame and plates assembly design simulates the installation of armor plates of the real vehicle. Hot rolling, cast, welding and cutting textures on the hull surfaces are realistically replicated. All crew hatches can be built open or closed. All optical devices are replicated with clear parts. This kit can be upgraded with SPS-049 movable suspension and workable tracks. This kit includes precision PE parts, metal cables and metal side skirts. Four paint schemes are provided. Length: 263mm Width: 93.6mm



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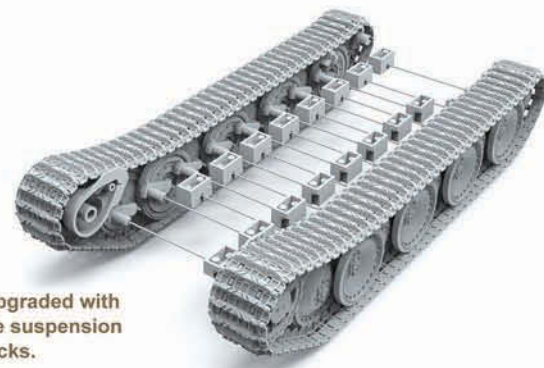
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MENG is willing to offer modellers excellent model kits and top-quality service.

◀◀ The frame and plates assembly design simulates the installation of armor plates of the real vehicle.



▶▶ This kit can be upgraded with SPS-049 movable suspension and workable tracks.



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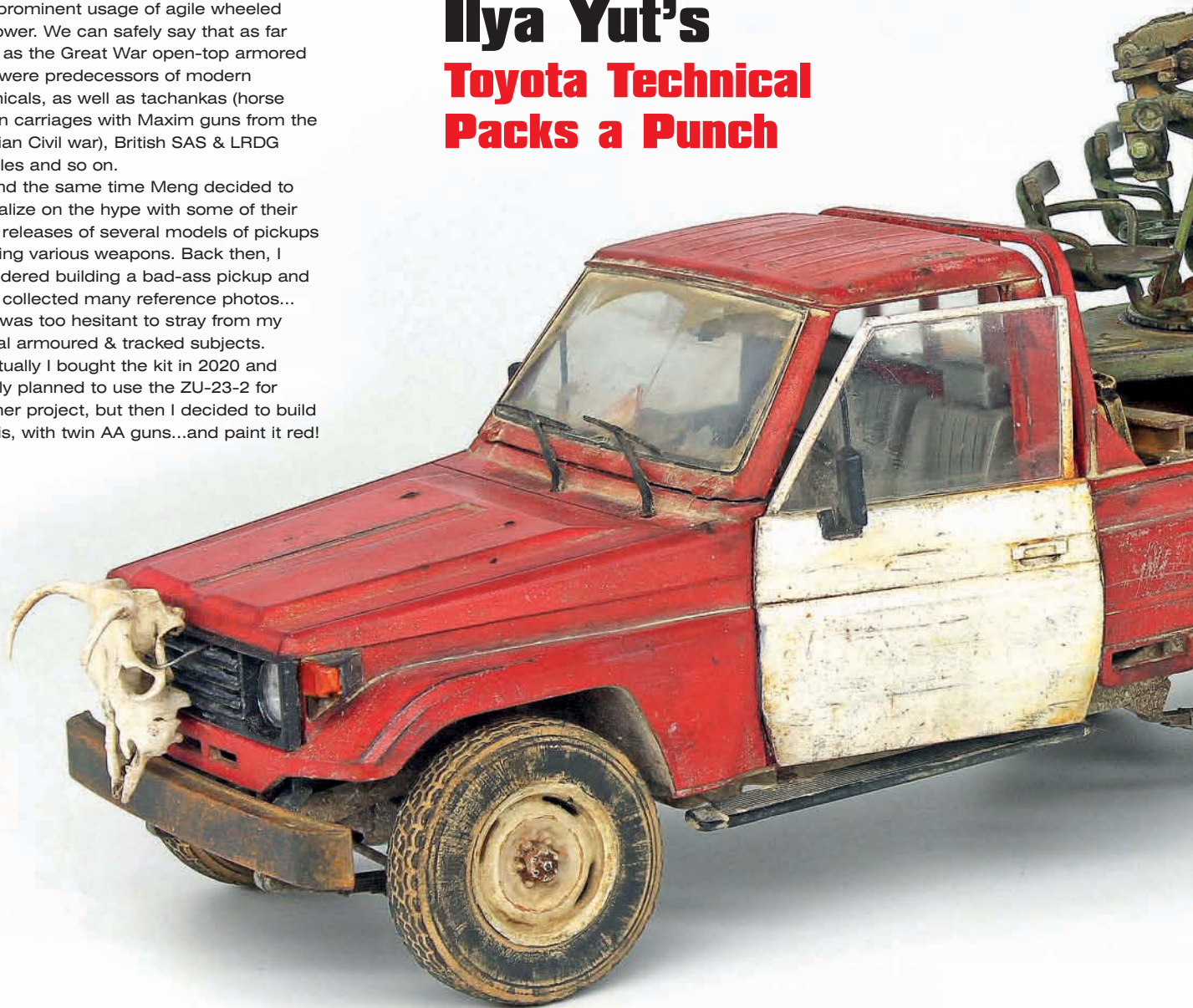
UNDER DOG

When the Libyan Civil War started back in 2011, armed technicals (pickup trucks) became the media heroes. Assorted factions utilized a wide variety of vehicles and weapons ranging from smaller calibre machine-guns to almost tank-calibre weapons and missiles borrowed from aircraft; quite a lot of inspiring reference for modellers that's for sure.

It was not the first, nor is it the last conflict with prominent usage of agile wheeled firepower. We can safely say that as far back as the Great War open-top armored cars were predecessors of modern technicals, as well as tachankas (horse drawn carriages with Maxim guns from the Russian Civil war), British SAS & LRDG vehicles and so on.

Around the same time Meng decided to capitalize on the hype with some of their early releases of several models of pickups carrying various weapons. Back then, I considered building a bad-ass pickup and even collected many reference photos... but I was too hesitant to stray from my typical armoured & tracked subjects. Eventually I bought the kit in 2020 and initially planned to use the ZU-23-2 for another project, but then I decided to build it as is, with twin AA guns...and paint it red!

Ilya Yut's Toyota Technical Packs a Punch



1:35



The kit is fun to build, has a reasonable part count and excellent fit. The 23mm gun mount is trickier than the truck itself, but again, no fit issues. The kit is somewhat simplified and has no detailed engine under the bonnet, which itself is not a separate part, but in my case this was not a problem. I replaced several minor details made of wire and thin plastic sheet but it's pretty much straight from the box.

The biggest issue were the rubber tyres. I tried to fill them with 2-component putty and apply weight to add some 'sag', but failed. The resin wheels I ordered hadn't arrived in time to use and I didn't want to stall the project.

The kit is moulded in coloured plastic: gun parts – green, chassis and suspension – black, truck body – sand. I liked this approach, so did also my 3 year old daughter so I ended up buying another kit for her which still arrived before the resin wheels!

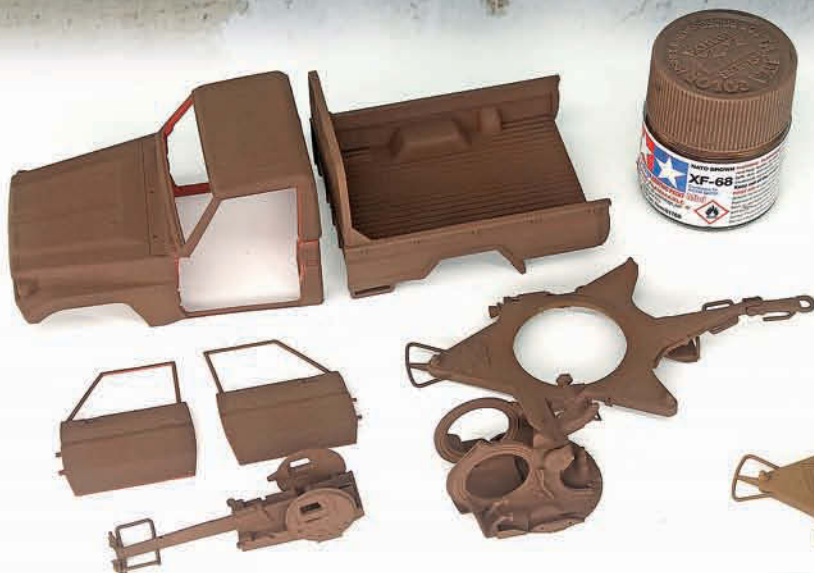
I also planned to use aftermarket metal 23mm barrels, but the kit's parts turned out to be good enough for an OOTB build and replacement was not worth the effort. Fortunately the turned metal barrels didn't cost me a fortune.



I prefer painting small parts separately and before airbrushing the kit was again disassembled into multiple sub-assemblies.



Different sub-assemblies were treated similarly, but not exactly identically. So I'll describe the process for each of them separately.



Additional more orange rust tones were randomly sprayed with AMMO AMIG0040 Medium Rust acrylic.

The truck body and ZU gun mount were airbrushed with Tamiya XF-86 Nato Brown. It was the base rust colour. I like Tamiya acrylics because they spray easily and have good adhesion.



The body was then covered with AMMO Scratches Effect (essentially branded and bottled hairspray). I speed up the drying time by blowing air from the airbrush.



The layer of Tamiya XF-2 white was dual-purpose. It serves as interim layer, to separate the dark brown base from the red making the latter more vivid, and white is also typical of car primers. This gave the proper texture for two-layered chips and scratches.



Red was applied straight over the white layer without any hairspray in-between. I used AK RC Signal Red and remains of Tamiya XF-7 Red. Once the paint started to dry, I applied water and made scratches and chips using a stiff brush and a toothpick.



Chips and scratches were refined with a sponge and a fine brush using AK chipping colour, AK 3Gen Blood Red and Tamiya XF-2 white. The model was then covered with Tamiya X-22 Clear heavily diluted with alcohol. I obtained a satin finish that helped me apply washes, oils, pigments & enamels in a more controllable manner.

The wash was made using Dark Brown & Dark grey oilbrushers, diluted with enamel thinner.

At some point I decided to leave the doors in white. Let's say they were scavenged from another vehicle, a moderately rusty one. I added some rust using Abt502 Light Rust & Faded Dark Yellow oil paints. I applied them as small precise streaks using a fine brush and blended areas using almost-dry flat & medium round paintbrushes.

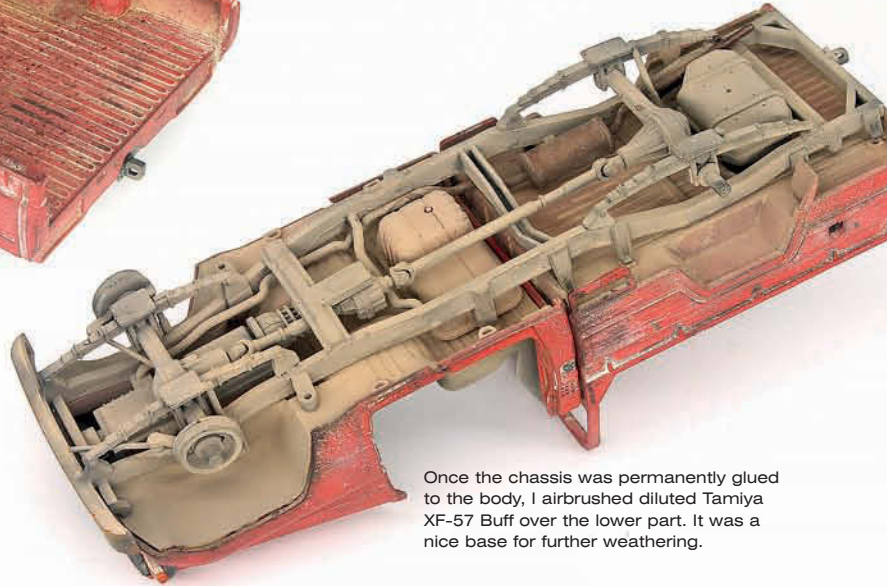




Unlike many of my models, I opted for a dusty rather than a muddy finish. The dusting was done using a variety of pigments, oils and enamels. For different areas I used different approaches.

Outer body parts were treated with dusty washes. I prepared them by blending Buff oilbrusher, 'Rainmarks' enamels or various pigments, it was then applied as a regular wash.

Pigments at the rear were applied dry and fixed with enamel thinner. The excesses were wiped off when dried. Again, I blew air from the airbrush to speed up drying. More oils were used here and there to add more tonal variety. Finally I speckled diluted Dark Brown oilbrusher with an old brush and toothpick to get random dark flecks that add more contrast.



Once the chassis was permanently glued to the body, I airbrushed diluted Tamiya XF-57 Buff over the lower part. It was a nice base for further weathering.



Further running gear weathering started with applying AK Sand Yellow deposit and then blending it with enamel thinner. Ammo Dry Light Soil & Turned Dirt enamel products were speckled with a paintbrush and a toothbrush to get enhanced dry mud & dust texture.



As with the truck body, the gun mount was covered with hairspray product before the layer of the base colour.

The base green was mixed from Tamiya acrylics: XF-5 Green + XF-2 White + XF-60 Dark yellow.

I always prefer starting with a lighter tone because it will get darker after all the weathering steps.



Once again I refined chips and scratches with a sponge and fine Winsor & Newton brush. I utilized a light green mix and AK chipping colour here. Once I finished chipping, the gun mount was also covered with diluted X-22 Clear.



Dust and rust was made using variety of products: oils, enamels and pigments. The application techniques included blending, dry and wet application and so on.





Painting the 23-mm guns started with XF-85 Rubber Black.

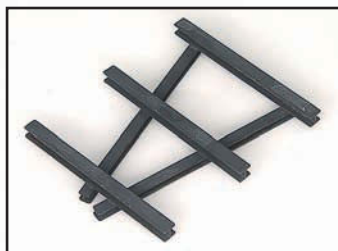
Then I applied faded grey colour with a sponge



Ammo Streaking Rust enamel was applied as something in-between a wash and filter.



Dry MIG Gulf War Sand pigment (my favorite pigment colour!) was applied over the guns then MIG Gun Metal was rubbed with a finger to add some metal shine.



OOTB the base of the gun mount is made of H-beams and adds some custom-made feel to the model. I decided to make it look rusty and started with airbrushing grey acrylics.



The next layer of light grey was applied over the layer of hairspray.



Random rust and more light dust areas were added with a sponge using Tamiya and Ammo acrylics



Rust textures was enhanced using MIG Ochre Rust, Ammo Light Rust wash & Dark brown oil.



The interior was painted and weathered in relatively simple manner, hardly seen through the dusty windows. Stowage items were taken from kits by several manufacturers: Miniart, Dan Models, DEF... and 3D printed skulls by SDM.

I'm not experienced in dealing with bigger clear parts and thus opted for a dusty finish! I made masks from Tamiya masking tape and sprayed the windows with buff acrylic paint. The 'Anarchy' logo in the dust was scribed with a toothpick. The kit sub-assemblies were at last glued together and the stowage was rearranged.

The project took me about a month to finish and it was a lot of fun with artistic freedom and a splash of colour compared to the usual military subjects we deal with.







UNDER DOG



PANZER III



Can you have such a thing as too many Panzer IIIs?
We take Academy's new 1:35 kit for a spin...

PANZER VOR!





MODELLLED BY MARK NEVILLE

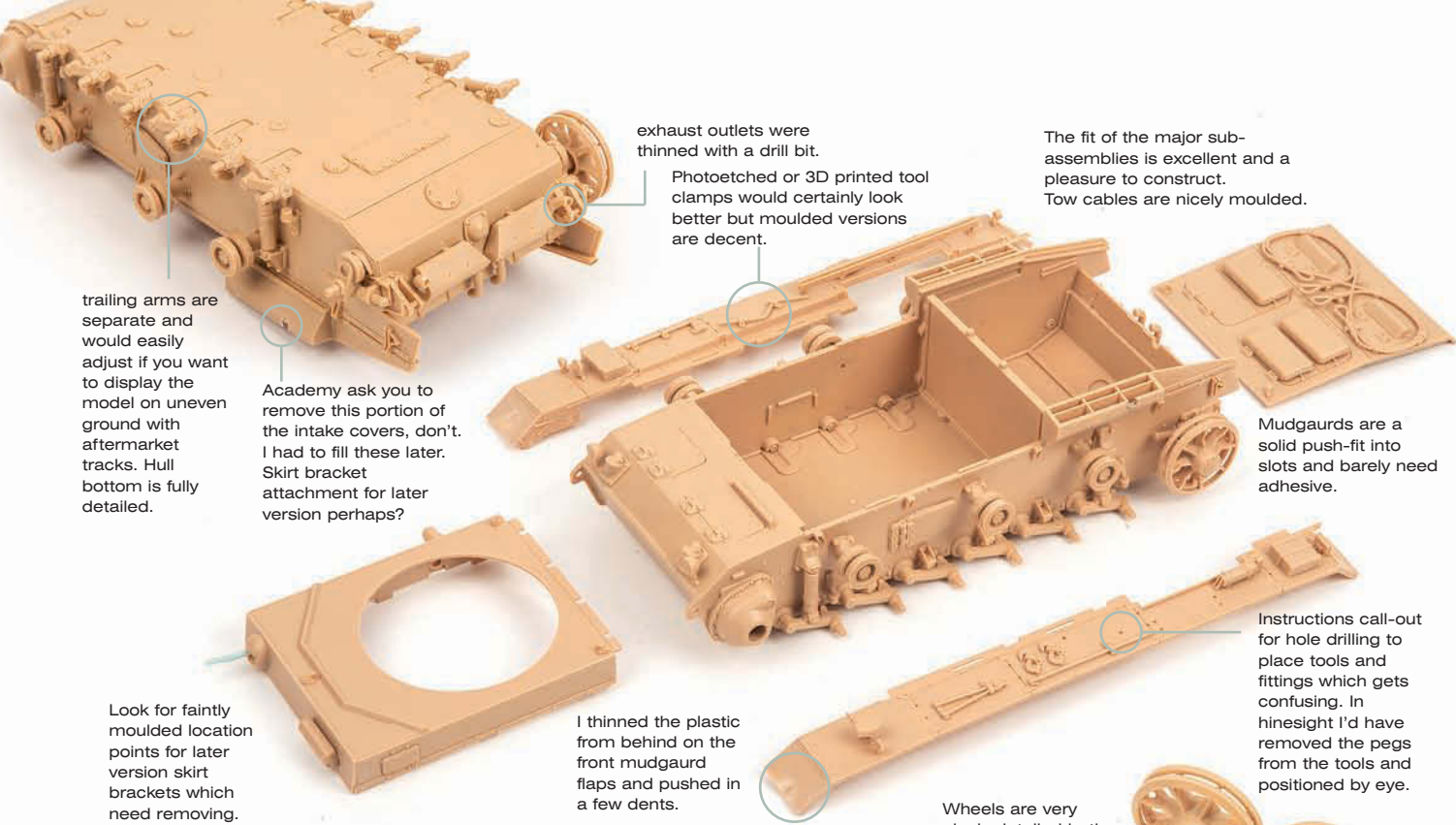
Before getting into the contents of Academy's new Panzer III Ausf. J kit I've a small confession to make. I've not held Academy in the highest esteem when it comes to their armour kits, re-pops of vintage Tamiya kits aside, I purchased both their M3 'Honey' and M551 Sheridan in the past, two kits I'd eagerly awaited but were very disappointing from an accuracy point of view. I wouldn't say I'm anywhere near as anal as some modellers regarding detail and accuracy but, especially in the case of the Sheridan, I couldn't waste precious modelling time on a kit needing so many corrections. I don't imagine I'm the only seasoned AFV builder who's never really paid much attention to the Academy release of yet another Panzer III; you want a simple fun build, Tamiya hit the mark with an Ausf. L and N (sorry 'other' scales, we're talking 1:35 here) and Dragon produce every imaginable version (over thirty!) for the more detail hungry experienced modellers, their superb Panzer III kits are still state of the art and now we have offerings from Rye Field, Takom, MiniArt and Border Models... Academy would really have to up their game to compete in a crowded market.

Well, as it happens they have! I swapped this kit with a friend as he was keen for me to take a look at how the brand had changed for the better, so much so I felt compelled to build my first Academy kit and share my thoughts on it as I really think this one could perhaps be ignored by the more seasoned German armour modellers.

With modern tooling a precision fit and sharp detail should be a given, so for a kit to have stand-out features it's often down to the designers and how assembly and break-down of parts is handled. Also in this case, Academy obviously have planned future releases of other versions which comes into play with areas such as the engine deck and front glacis. Everything on the hull has a pleasing modular approach with separate sides and floor which allow excellent detail around the armour plate joints and weld beads which are superb.

Options are provided for an early or late 'J', for the longer barreled L/60 and also the up-armoured 'Vorpanzer', you're left with plenty of parts unused from other versions to come so don't be daunted by the volume of parts on the sprues. A small amount of photoetch is included and decals to mark nine vehicles from the North African campaign, the kit has the specific rear engine deck of the typical early J's in Africa but the sprues cover other later variations with the larger armoured radiator covers. It's become a cliché, but check reference if you're doing a specific vehicle, you should find everything in the box to do any Ausf. J.

My idea was to stick pretty close to 'out-of-the-box' to show what the kit offers and can look like. Let's cut (and glue) to the action...



exhaust outlets were thinned with a drill bit.

Photoetched or 3D printed tool clamps would certainly look better but moulded versions are decent.

The fit of the major sub-assemblies is excellent and a pleasure to construct. Tow cables are nicely moulded.

trailing arms are separate and would easily adjust if you want to display the model on uneven ground with aftermarket tracks. Hull bottom is fully detailed.

Academy ask you to remove this portion of the intake covers, don't. I had to fill these later. Skirt bracket attachment for later version perhaps?

Mudguards are a solid push-fit into slots and barely need adhesive.

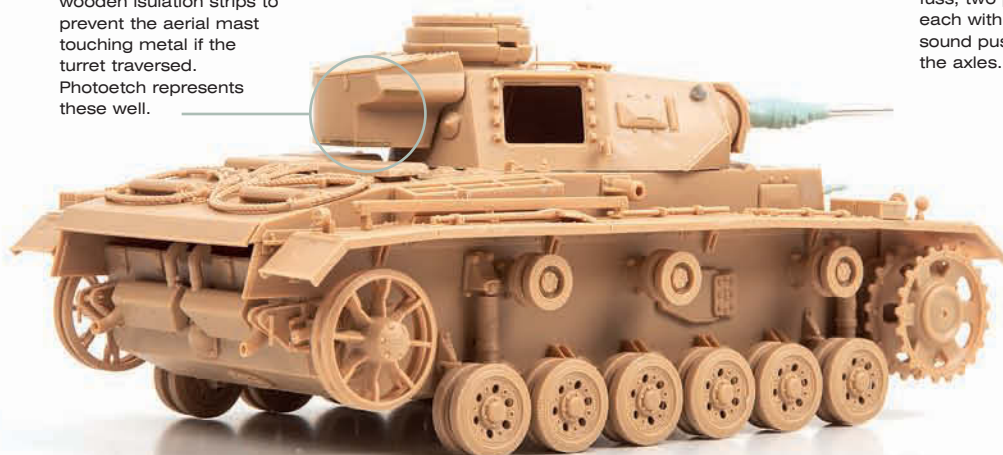
Look for faintly moulded location points for later version skirt brackets which need removing.

I thinned the plastic from behind on the front mudguard flaps and pushed in a few dents.

Instructions call-out for hole drilling to place tools and fittings which gets confusing. In hindsight I'd have removed the pegs from the tools and positioned by eye.

Wheels are very nicely detailed both front and rear and assemble without fuss; two parts to each with a very sound push-fit to the axles.

The stowage bins had wooden isolation strips to prevent the aerial mast touching metal if the turret traversed. Photoetch represents these well.

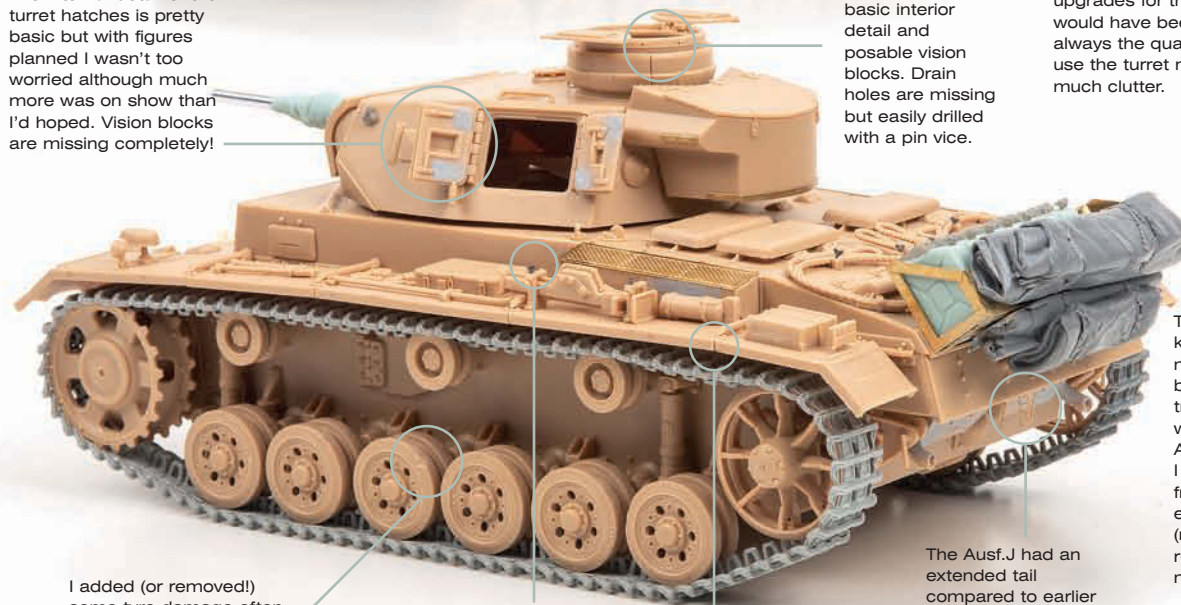


The internal detail of the turret hatches is pretty basic but with figures planned I wasn't too worried although much more was on show than I'd hoped. Vision blocks are missing completely!

the cupola has basic interior detail and posable vision blocks. Drain holes are missing but easily drilled with a pin vice.

Having already received a couple of upgrades for this kit from DEF.Model it would have been rude not to use them. As always the quality is superb, I chose not to use the turret mounted rack to avoid too much clutter.

I found these pieces of stowage from Value Gear fitted the bill for some typical desert tarps, bedding and baggage.



TRACKS! These are NOT the kit tracks...OK, I know this is meant to be out-of-the-box but the kit's link and length track, although reasonably well produced, is for later Ausf.s with solid guide horns. I pinched these 40cm tracks from a Dragon kit; the excellent 'Magic Tracks' (replaced by their dubious DS rubber bands to most modellers' disappointment).

Academy's track is the biggest let-down of the kit, a compromise for ease of build I'm sure; adding separate guide horns wouldn't be much fun.

I added (or removed!) some tyre damage often seen on Africa Panzer IIIs.

Some wingnuts were added to clamps and brackets to help with the finesse.

A quick swipe with a razor saw gave some definition between the mudguard sections.

The Ausf.J had an extended tail compared to earlier versions with the smoke candles moved behind the rear armour plate. Photoetch chains and screens are provided.

I've waited to use these figures from Russian manufacturer Tank for years! I replaced the gunner's right arm as the original is holding onto an extended pistol port. His head is from Hornet with the cap added. The other heads are spares I had from Alpine.

DEF. Model's dust covers are a really nice touch, beautifully sculpted. Turret lifting hooks are also supplied in the DEF. set and a big improvement.



Spare track was often carried in the desert conditions, many period images show it slung between the towing eyes as this. The kit contains a couple of spare wheels and the resin jerry can is from the spares box.

Dragon Magic Track is a perfect fit to the kit's sprockets.

This kit builds in no time and is a real pleasure. A few sessions at the bench for a few hours should see even the more novice builder with the bulk of a Panzer III on the cutting mat. To draw comparisons I'd say Academy have this kit sitting between a Tamiya offering (for ease of build and engineering) and the Dragon kits (for finesse of detail).

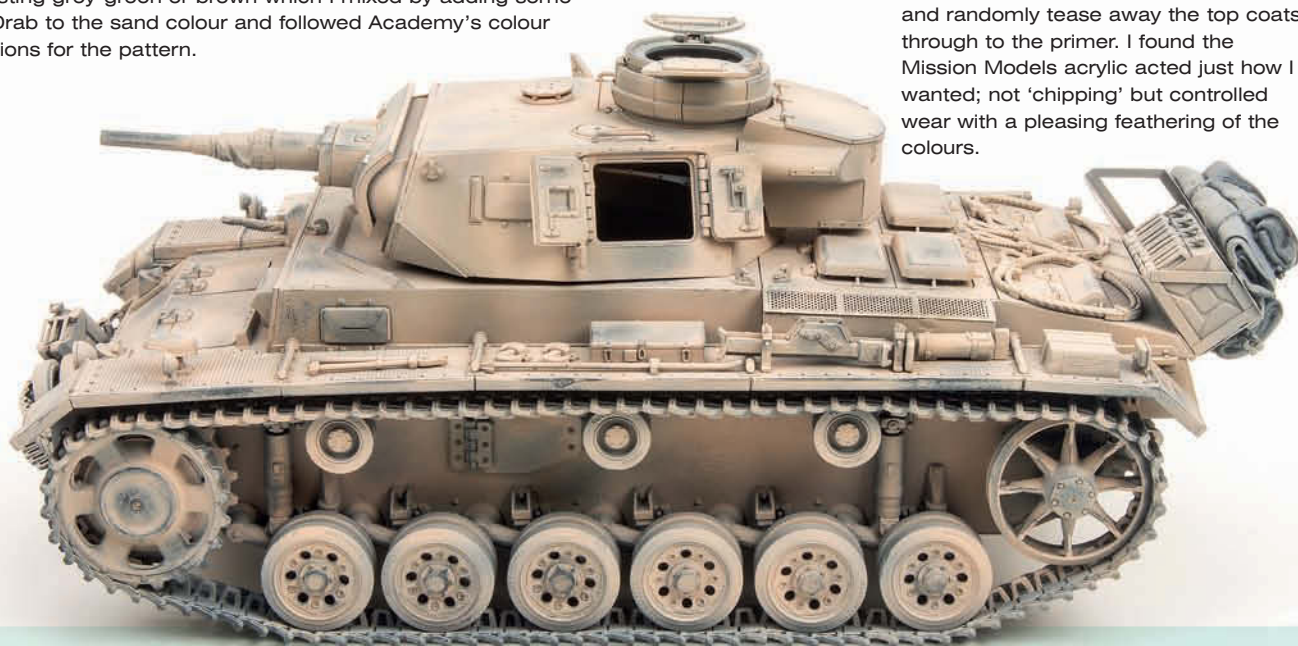
The detail really starts to show under a coat of primer, very impressive indeed! I mixed Mission Models black and grey primer to get close to dunkelgrau as I was planning to rub-through the sand colours in places revealing the tank's original finish.

Now the fun starts. Studying wartime images it's evident the desert camouflage colours were applied over a factory finish of dunkelgrau. The desert environment and harsh conditions appeared to create a natural 'sand-blasting' effect wearing through the top coats of colour; an ideal candidate for the hairspray technique. Not as silly a question as it may first sound but one I've heard asked many times is 'does the brand of hairspray matter?' I've found it does make a difference in fact. I misted a couple of coats of Pantene firm hold hairspray over the primer coat. When dry I hit the surface with Mission RAL 8020 gradually built in random light coats with stronger / lighter tones on the upper surfaces. Often these vehicles were quoted to have a secondary overspray in a low contrasting grey-green or brown which I mixed by adding some Olive Drab to the sand colour and followed Academy's colour instructions for the pattern.

Moulded lamp lenses are disappointing in a modern kit. covered lamps with the slits may have been preferable.



After a couple of hours drying time I attacked the surface with warm water and a few worn old brushes to gently and randomly tease away the top coats through to the primer. I found the Mission Models acrylic acted just how I wanted; not 'chipping' but controlled wear with a pleasing feathering of the colours.





The contact area of the track was picked out in a dark grey-brown and later rubbed with a soft pencil.

Tyres were tricky to paint by brush, I used a straight black for the contact area and dark grey for the side walls.

Brush painting details was the next step, I always find Lifecolor acrylics brush nicely and cover well. Always one to dodge the decals I found some spare Archer dry rub-downs to match the minimal markings of one of the kit schemes; Panzer Rgt.8, 15th Panzer Div. in North Africa 1941. Everything at this stage is looking a little 'contrasty' and stark.

Spare track links are done in a couple of rust brown tones, contrast is kept strong to compensate for the heavy dust planned. The jerry can is from the spares box and the spare wheel is a kit part (late J oprions are included with spare wheels mounted on the mudguards) Some photoetched chain was used to tie the track to the tow-eyes.

Subtle filters of heavily thinned yellow ochre and burnt umber oil colour began to harmonize the tones and define certain areas and panels. While the surface is still damp pin washes of burnt umber and lamp black pick out the details.



An unsuccessful attempt to replicate the headlamp lenses with paint saw me reaching for my little collection of lenses. They're a little bulging (remember the comedy actor Marty Feldman?) but look better than paint.

Dust has to feature on a desert terrain vehicle and it can be tricky to hit a balance between realism and an attractive looking model. Just to make this more of a challenge desert vehicles are usually painted in a similar tone to the surroundings not giving us much contrast. For my washes of dust here I've used the water-based Wilder 'Aqualine' Light Earth, these weathering products act very much like gouache, thinned with water I use a long bristled sign-writers' brush to apply them. Dry pigment powder was mixed in where a heavier deposit was needed on the rear and lower hull.

I worked back and forth with the dust washes, filters and pin washes. This layering builds up an interesting and realistic finish and the kit's sharp detail really starts to pop!

Note below my mistake with the trough for the aerial; it's the wrong way round but I noticed too late...

The kit tow cables paint-up well; a tricky job to replicate with metal cables and photoetch brackets. The cooking pot and sack are from a Reality In Scale set and add a nice touch of colour.





Now it's time for making my excuses for rushing my figure painting! As it happens, the rougher sculpting style of the Tank resin figures probably suits my sketch-like painting style. I start with a coat of airbrushed black primer and then white primer in the direction the light is hitting the crew member. This gives a good 'cheat' as to where your shadows and highlights should be when building the thin layers of acrylic colour.

I've used Lifecolor for these guys as it always dries dead matt and has dense pigment. German uniforms in Africa seemed to show a wide range of tones as shown in period original colour images; to give a nicer contrast to the vehicle I've kept the uniforms on the olive side.



To sum-up this kit, forget the Academy of old. This is a major leap forward from an engineering, accuracy and finesse of detail point of view, the kit really hits a nice balance of all. Assembly is fuss-free and very enjoyable with a lack of any silly tiny parts if you don't relish that. Clear, colour instructions hold your hand all the way.

What don't we like? Well as mentioned the tracks as they're for later vehicles and the inclusion of moulded position guides and holes to drill for other Ausf's. Turret hatch interior is basic.

The kit represents excellent value considering the options and photoetch included, even purchasing some tracks and accessories shouldn't break the bank. There's definitely a range of Panzer IIIs to look forward to from Academy and they certainly deserve attention, a very pleasant surprise!

1:35



LESTER PLASKITT'S TRAINING JAPANESE WITH TAMIYA'S CLASSIC KIT





TYPE 90

TAKIMA TRAINING GROUND



The Tamiya kit of the Type 90 MBT has been around for quite a few years now and as such is one of the older generation of Tamiya kits with clear sheet plastic for the periscopes and vinyl tracks, this said it is the only available 1:35 version of this tank and can be built into a very nice representation of the type 90 with very little in the way of additions. As has been a theme in my modelling of recent years my interest in this vehicle came from some very interesting reference pictures sent to me showing Type 90 tanks operating in a joint exercise with US armoured units in the Yakima training ground in Japan. The thing that caught my eye was as the

Yakima terrain is very arid and almost desert like, the crews of the Type 90s had applied mud to the hull and turret sides in an almost sprayed on pattern to help their dark camouflaged vehicle blend in with the Yakima terrain. As the field applied mud camo had been applied wet once it had dried the mud had started to flake off and be worn off in areas by the crew moving over the vehicle. The challenge for me was to try to recreate this field applied camouflage in addition to other weathering which would be present during any extended period of exercises in this terrain.

The type 90 model is typical Tamiya in its construction, with a very nice fit of parts but with some of the finer details missing or over simplified. This is not a major problem as a lot of this missing detail can be added using simple modelling techniques, here we can see where the missing periscopes have been added from plastic card and some spare etch chain added to the smoke dischargers.

As is my method of working the vehicle is nearly fully assembled including the tracks with only the side skirts being left off to allow the area covered by the skirts to be painted before the skirts are attached. As much of the turret stowage is also added including the camouflage netting from AK interactive. All tie down straps are made from strips of Tamiya masking tape, including the straps on the side of the turret used to hold foliage in place for additional camouflage.



Also one of my preferences is to add areas of mud build up before the painting stage using modelling filler, as I find this method allows for a lot more control in positioning the mud deposits than using a build-up of pigments and filler after the painting process. As the vehicle would be operating in the dry arid conditions of the Yakima training range this mud application as restricted to areas on the lower hull and road wheels where any mud build up would naturally occur.



To make the stance of the tank more appealing at the construction stage I decided to articulate the suspension to give the look of the vehicle moving over uneven ground. A small vignette base was constructed from modelling foam shaped to fit the modified suspension. Once I had the correct shape of the groundwork the foam block was edged off with plastic card.

Following a final test fit to the base check the angle of the main gun the side skirts were attached and the model was ready for painting.

After a coat of black primer from AK the base brown colour is applied via airbrush, in the kit instruction Tamiya recommend a mix of 3 colours to obtain this shade of brown, checking the AK range of lacquer based real colours I found a good match in RC065 which was lightened slightly with a small amount of RC014 Buff. Some very subtle highlights were added to the turret roof and hull top to add a little tonal interest whilst keeping the rest of the brown deliberately dark for a better contrast against the coming field applied mud camouflage.

The Green camouflage overspray colour again came from the AK real colours range, RC0098 Russian modern green was lightened slightly again with RC014 buff and applied via airbrush following the pattern shown on my reference pictures.

At this stage looking at the model before the weathering stages I felt the model lacked interest on the front hull area, to rectify this a second section of AK modern camouflage netting was added to the glacis plate following the pattern again in my reference pictures. The netting was carefully tacked into place section by section using superglue.



As with the base brown some highlights were added by adding a little more buff to the base mix, though this was kept deliberately subtly to keep the same tonal variations as the base brown tone.

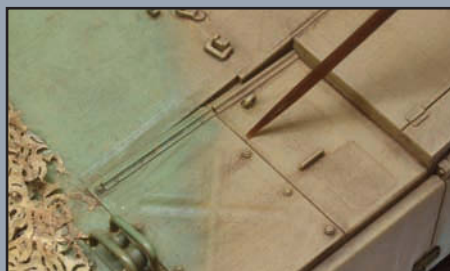
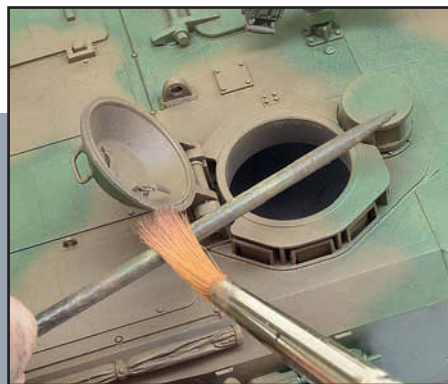
Once both colours had fully dried they were sealed with a coat of satin acrylic varnish in preparation for the coming weathering stages.



The first stage in the weathering process was to add a mid-brown filter to enhance the base colour tones. Humbrol enamel 110 natural wood was the perfect choice for this filter, being applied to both turret and hull.



Further visual interest can be given to the turret and hull by using heavily diluted Burnt Umber acrylic paint applied to various areas using the speckling technique, this is a good way to break up large areas of colour as it can give the impression of small dirt and grime deposits. The key to this technique is less is more and keep the paint heavily diluted with water as it can be easily overdone (some modellers prefer to use enamel or oils for this technique as an excess can easily be removed with thinner, I prefer acrylic due to its faster drying time).



At this point though I was happy with the overall paint tones the model appeared a little flat, to bring some more life to the vehicle an oil paint wash was used to enhance the surface detail and start to bring the model to life.



Although reference pictures show the vehicles of the JSDF in very good general condition they are not immune from paint damage in the form of chips and scratches in the paintwork. This wear and tear can be found in areas of high traffic such as mounting points and around hatches, these effects were reproduced using a lightened tone of the base colour mixed from 3rd gen AK acrylics and applied with using a dense sponge to areas which would logically receive the most wear and tear. The sponge applied chips and scuffs were further enhanced with random scratches applied with a fine brush, again the key to this effect is to keep it subtle and in scale.



Now all of the details can be painted in such as the stowage, periscope glass and rolled stowage, care must be taken in painting these items to keep them in harmony with the rest of the paintwork on the model.



Exercise tactical numbers are added from rub down decal to the blue number boards. Once sealed these marking boards were weathered to match the rest of the stowage.



AK weathering pencils were used to add chips and wear to the metal stowage items.



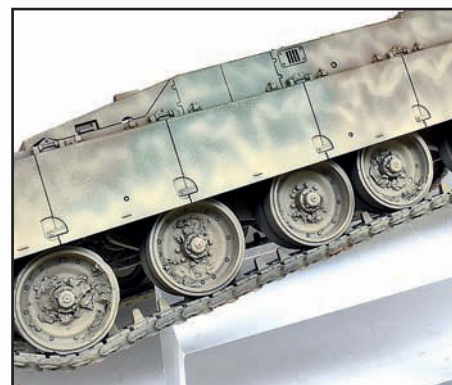
Checking my reference pictures I noticed that the tanks original unit markings had been covered over by material and tape for the exercise/ wargame. To recreate this feature Tamiya masking tape was used for the material covers and cut strips were used for the tape holding the covers in place. The covers and tape strips were pre painted before being attached to the model with the adhesive on the tape being enough to hold it in place. A burnt umber oil paint wash was used to further enhance the tape strips.



With the main painting completed on the vehicle the next stage was to added the locally applied mud camouflage pattern, one of the main attractions in modelling this vehicle. Studying various reference of the application of this "mud camouflage" I decided the best method to reproduce this would be to use the chipping fluid dust technique, as this would be the most authentic way to represent the flaking dried mud pattern on the reference pictures.



The chosen materials for this effect were AK chipping fluid and Real Colours RC014 buff.



After 2 even coats of chipping fluid applied with an airbrush the field applied mud camouflage pattern was sprayed on using AK real colours buff following the patterns shown in my reference pictures. The paint was heavily thinned which helped with keeping a tight pattern and ensured the paint would not be difficult to remove which can happen with the chipping fluid method if the paint is too thick.



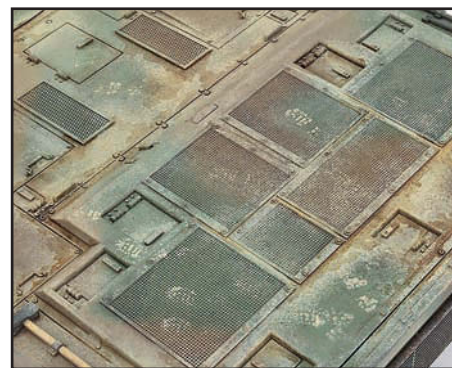
Once the buff paint was dry a short stiff brush dampened with water was used to gently scrub away at the buff paint causing the chipping fluid to activate and allowing the buff paint to chip off in random pattern as had the field applied mud camouflage show in the reference pictures. This method was continued on all areas of the vehicle



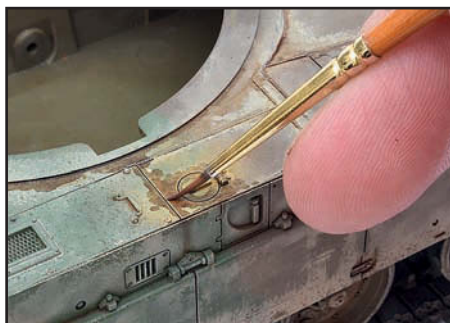
The accumulated dust on the upper hull and turret roof can now be reproduced using layers of acrylic paint washes and localised stippling with unthinned paint to build up heavier dust deposits in areas where dust would logically gather and collect. AK 723 acrylic dust is an ideal tone for this drying flat matt with subtle dust like texture as a result of the stippling technique.



To add further visual interest dusty boot prints were added to the upper hull and turret roof using Yen models modern boot prints rubber stamps.



Even though the Yakima training range is very arid with almost desert like conditions there is still evidence of damp areas on the vehicle caused by overnight condensation which discolours the dust in the areas the moisture is present. These areas are reproduced using AK enamel products Track wash and fuel stains, when these are mixed together and a small amount of gloss varnish added, the heavily thinned mix is perfect representing the discoloured dust areas. Heavier stains can be added by building the effect up in layers. Again this effect is best used sparingly as not to overwhelm the product and only in logical places where moisture would gather.



Fuel stains can be added using the same basic technique but this time using the track wash and gloss varnish only and not thinning the mix as much to give a darker concentration to the fuel stained areas. These effects combined with the damp staining really start to bring the model to life adding a lot more interesting aspects to the overall look of the model.



The optics of the main sight are reproduced using a coloured sequin from a dressmakers shop, the gloss reflective surface is perfect to represent the cover for the sight lenses. The sequin was simply cut to the required shape and fixed into the sight housing using PVA glue.



One of the final details to be added is the chains used to hold the crew hatches open, these were added from etch brass and once attached painted and weathered.



Alongside work on the vehicle I continued with the base, to form the basic texture and structure of the groundwork a layer of air dry clay was added over the foam. To ensure the clay stuck to the foam PVA wood glue was first generously applied to the foam, with the clay been added while the glues is still wet. As I had no spare track links the model was used to imprint track marks into the clay. Also at this stage various other wheel and tank track imprints were added, as would be found on well used exercise ranges.



The final texturing of the groundwork was carried out using AK textured diorama products, muddy ground and dry earth were mixed together to make a mid-tone arid soil colour and the allied to the base. To ensure the vehicle had the correct sit on the terrain it was fixed to the base and more

groundwork added around it, further organic texture was added over the textured paints using the forest litter product from Red Zebra models. Also at this stage a damaged loading pallet was built from plastic card and added to the base.



To improve the tones and add variation to the groundwork colours, dust tone acrylics were applied using the wet on wet blending technique. As with the vehicle oil paint is used to create damp areas on the base, around tracks and in the tank tracks to further enhance the tones and match the reference pictures of the Yakima training range. The damaged pallet has also been painted and weathered using acrylic and oil paints, with the worn red tone giving an interesting addition of colour to the base.



Small pieces of sea grass and some pieces of dried plant roots were added to represent the scrub grass shown in my reference pictures, the sea grass being fixed in place with AK sand and gravel fixer, finally a light dusting of pigments was used to tie all the elements together.



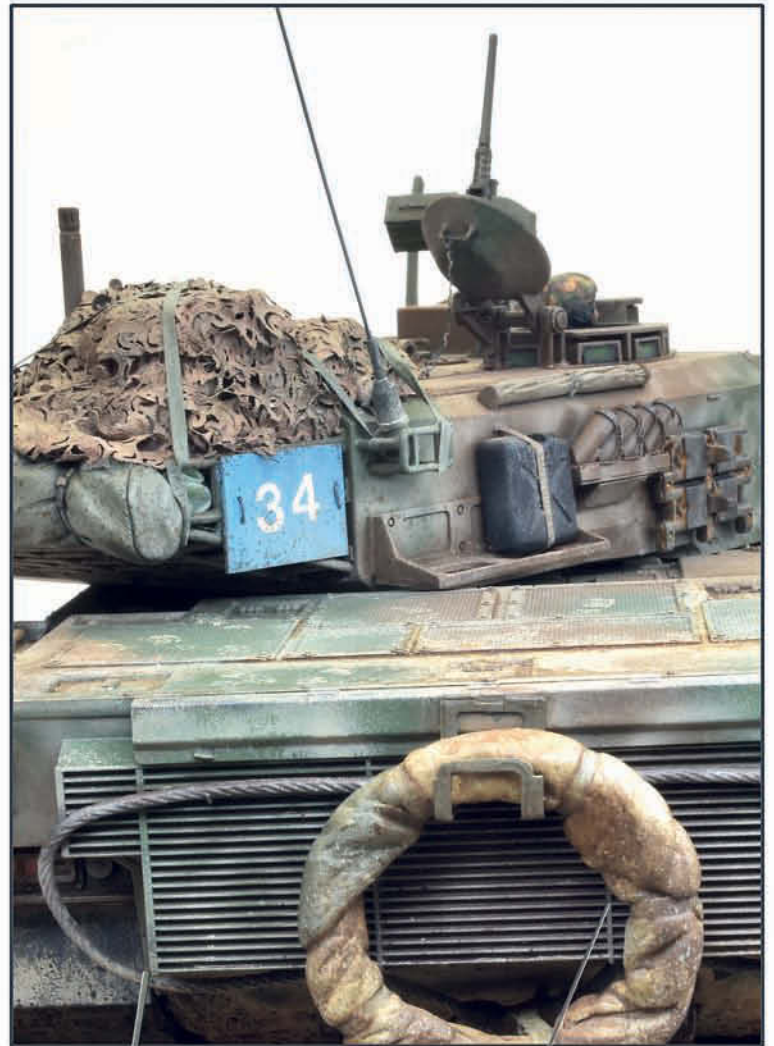
The final addition to the model was the crew figure, this was one of the figures supplied in kit modified to fit in commanders hatch. The figure was painted entirely in acrylics using the kit instructions as a guide for the uniform camouflage pattern.

TYPE 90

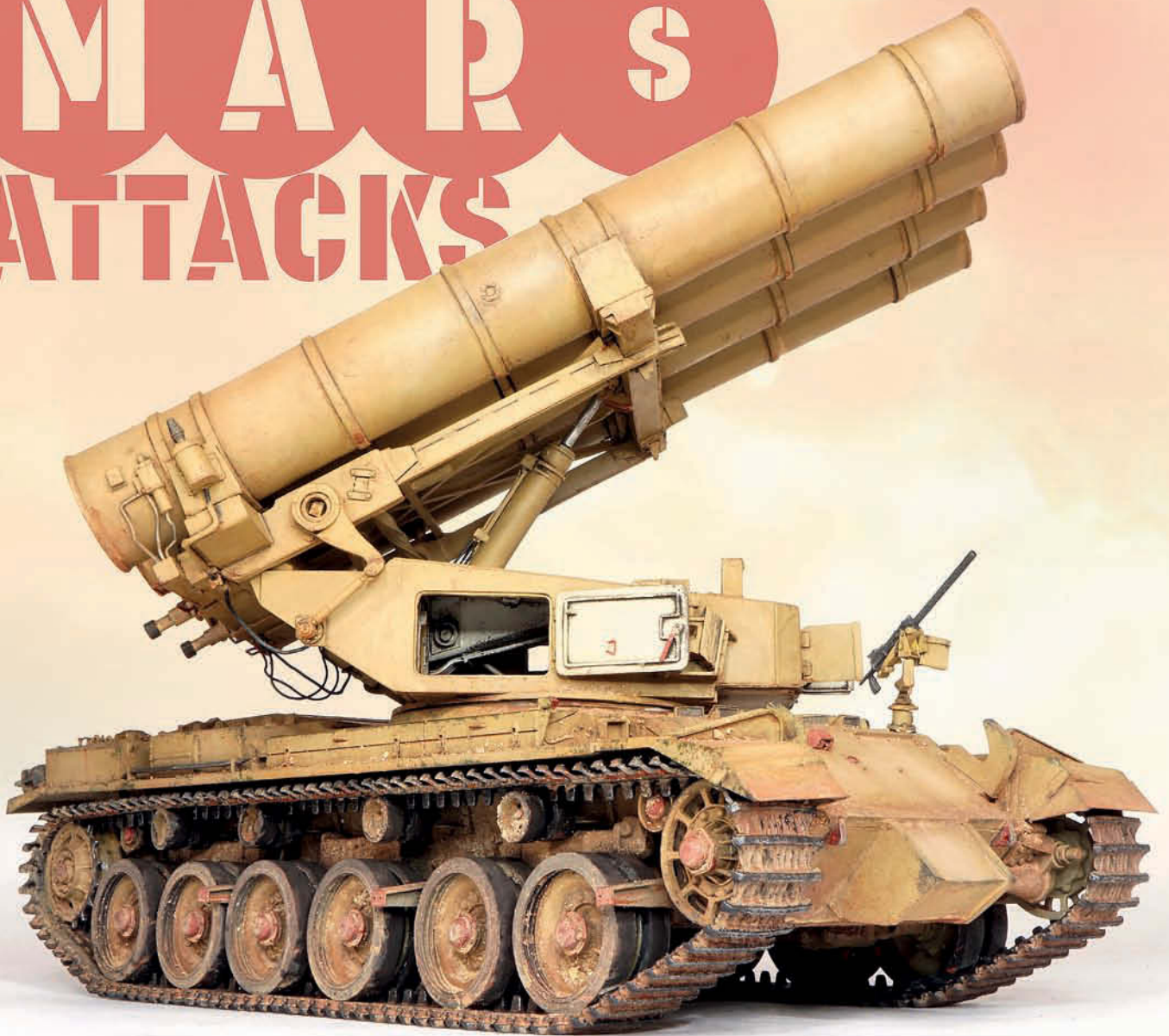


TRAINING JAPANESE





MARS ATTACKS



Scottcast are a recent newcomer to the resin kit and conversion market; setting themselves up with the tagline: 'Scottcast resin models for the rare and exotic'. Their range is currently quite small, but it is indeed unique and exciting. The Abrams ADGS Turret and Challenger 2 Rheinmetall LEP conversions are already released, with the Conqueror Mk1 ARV 1 and Israeli Backtrail trailer in the pipeline. This kit is their released

MAR290 conversion, which can be built on the AFV Club Shot Kal 1973 kit or the Amusing Hobby IDF Shot Kal kit, although the instructions only reference the AFV Club kit. Currently Scottcast only have a Facebook page, so if you want to buy a kit you have to either message them there, or use the AMS modelling mail order website (www.ams-paints-and-accessories.co.uk/scottcast) where the kits are listed.

Israeli MAR290 'Episkopi'



modelled by Ian Barraclough

The Israeli MAR290 'Episkopi' was a Multi Launch Rocket System (MLRS) developed through the 1960's by the Israeli Military, mounting four 290mm rocket tubes onto Sherman M50 and M51 hulls in place of the turrets and with an approximate range of 40km. This 'first' version was used in action in the early 80's in the Lebanon war. The second version of the MAR90 was named the 'Eshel Hayarden' and was mounted onto a Shot Kal (former British Centurion tank) hull. It is believed that this version only had one prototype built, which was trialled in 1984 but never saw action and now sits in an Israeli museum. This second version is what is represented by the Scottcast kit.

I had seen a few images of the Scottcast releases on the web and heard some positive chat about their conversions, especially on the IPMS Modern British Facebook page regarding their Challenger 2 conversion kit, so when the Editor offered me the opportunity to review the MAR290 I jumped at the chance – it was also the night that England beat Germany in the European Championship football competition, so I may have been slightly worse for wear when accepting to do this review!

The Scottcast conversion provides parts for the new turret, a turret interior, launcher frame and four launcher tubes. Front and rear portions of the four rockets are also provided as is a new hull front and 30 calibre machine gun and mount. I'm afraid that reference material for this vehicle is limited to a few images taken at the Beyt ha-Totchan Museum in Israel, but later in the build I did find a

good walkaround on the 'Prime Portal' web pages, which also includes very good images of the turret interior.

The kit arrived in quick order and to use a modelling cliché 'in a sturdy top opening box'. There's no box art, although I'm told this may change on future releases. The kit pieces, all a cream-coloured resin, are provided in zip-tie bags. I was a bit disappointed with the few bits of polystyrene chips that were provided as packaging as this will have allowed the parts to rattle round inside the box. An all-round 'old-school' resin conversion.

I did find that the hull front piece had sustained damage. Taking the parts out of their bags it quickly became obvious that great care had been taken in the design and casting of the parts. The detail is stunning; and although there were a few warped parts and air bubbles, it was nothing that a bit of hot water and filler couldn't quickly sort out. Frustratingly there is no parts list included in the kit, so I was unable to tell if I had everything I needed until I started to piece the kit together'.

As I went through the build there were a few parts missing, or the wrong parts in the box. Scottcast were very quick to replace the parts, however it would have been better to be able to check a parts list before starting the build. I understand that this is probably 'teething' troubles and will iron-out as the company moves forwards and acts on feedback from modellers.



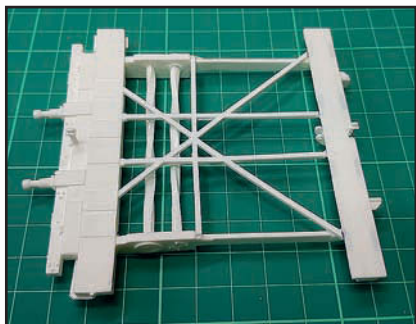
Parts come in sealed bags. I think the packaging could have been slightly better.



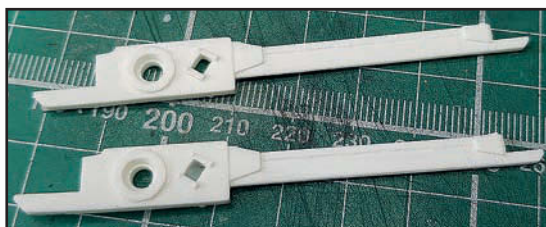
Component parts laid out for inspection. A parts list would have been useful here.



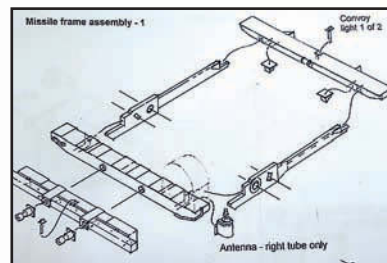
Ensure the frame is aligned correctly before committing to glue.



The frame is fixed and strengthened by the addition of the central web piece. This also helped to align the warped side arms.



Launcher frame side arms. 2 left side arms were provided in my sample kit. This was quickly rectified by Scottcast



Launcher frame instructions. I left the linkages off until after I had fitted the frame to the turret to ensure the correct position was obtained.



Each launcher tube is made up of 3 parts. Some clean up and sanding is required, although this area will be on the bottom side.



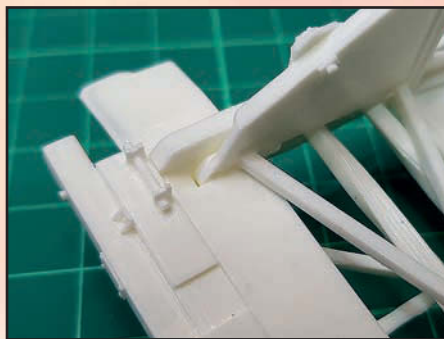
Rails are fitted inside the tubes. The false bottom can be seen here and should be painted black.



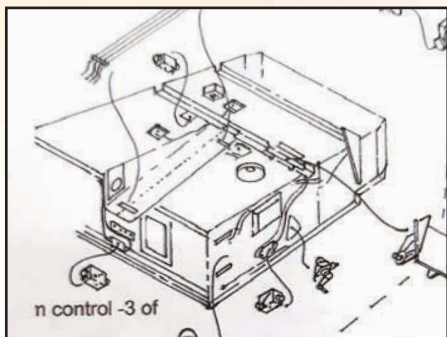
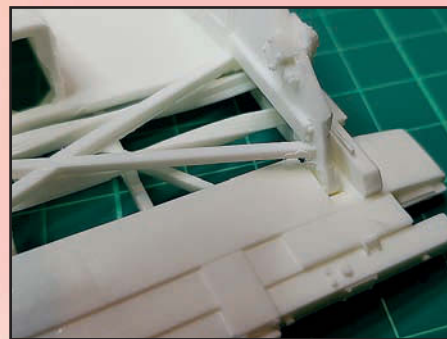
The rocket bases seem to sit too deep inside the tubes, although this maybe because the reference images are of a museum vehicle. Yes, I did hit my thumb with a hammer.



Tube rails and locks. Some warpage although nothing some hot water can't sort out.



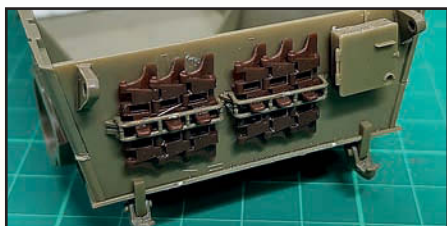
Test fit of the launch frame to the turret. The turret arms sit in a deep cutout on the bottom of the frames, ensuring a good sturdy fit.



Turret interior instructions. Some decyphering is required. It soon became apparent that I was missing some instruction images. This part wasn't shown in my instructions



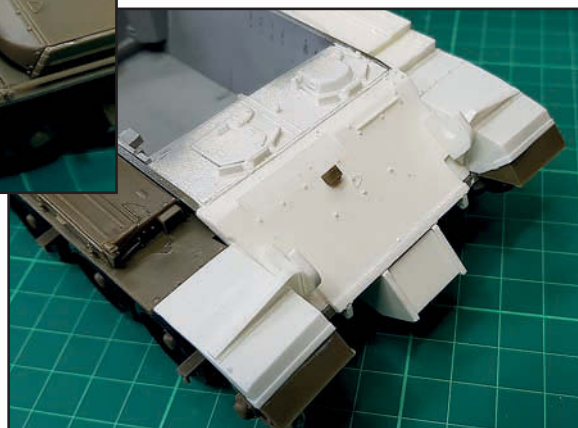
Turret basket and turret exterior, with launcher frame temporarily fitted.



The 6 track links and brackets need to be moved from the hull glaci plate to the hull rear.



A new stowage box is provided for the rear left fender. The water jerrycan also needs to be moved to this position as shown



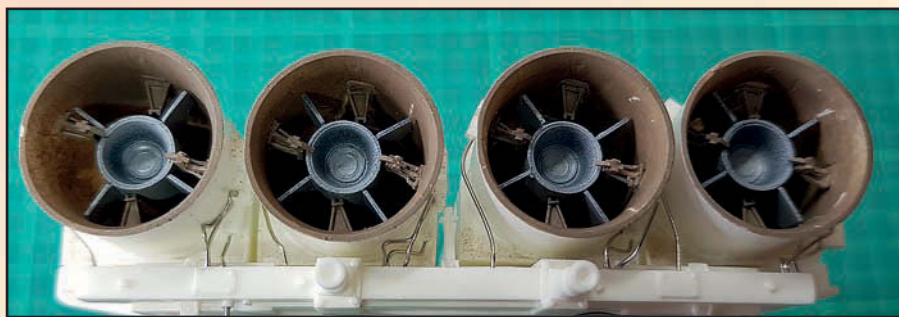
The single piece hull front drops onto the AFV Club hull tub

A new right hand fender need to be grafted onto the AFV Club part. Measurements are provided.

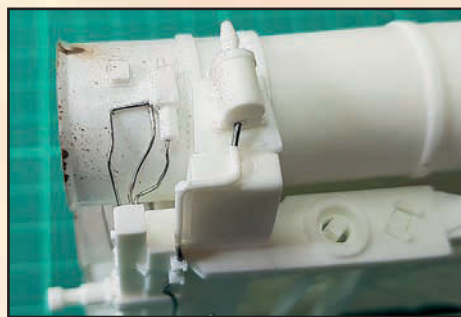
The instructions are provided on A4 sheets as copied line drawings. Mine were annoyingly missing some parts where the copy had moved so I ended up messaging Scottcast who sent me PDF copies of all 14 sheets; this made things far easier, and I would suggest this is how they may want to provide the instructions for future kits. None of the parts have numbers but most parts are unique looking so it's quite easy to identify them, although the front and rear 'convoy' lights did cause me some difficulty as they are very similar in design. The instructions themselves do require some decyphering as some parts, particularly around the turret interior, where they are shown turned from their actual fixed position. I also made extensive use of the Prime Portal website walkaround of the launcher which also includes 3 pages of interior images which help with the instructions - you could really go to town on the interior if you wanted as there's a spaghetti of cables and hydraulic hoses in there.

The instructions go through logical steps, although you could

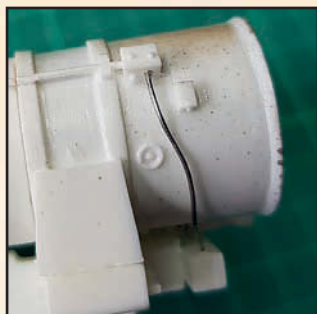
easily deviate from these steps as each area can be built separately and left apart for painting later. I followed the instructions and started by building the launcher frame. One of the arms was slightly warped but I heated this with hot water and when fixing the central web piece in place everything gets straightened out anyway. Take care with this step to ensure everything is fully located in place and that the launcher tube 'feet' align perfectly with the thick cross beams as per the real machine. Also, during this phase I built up the launcher tubes. Each tube is built from three tube lengths which must be correctly aligned to ensure they are straight and true. Parts are also included for the rocket locks and rails inside the tubes. I would suggest painting the deepest parts of the tubes black, as the false interior tube wall can be seen when looking inside. I fitted the rocket heads and bases into either end of the tubes, painting in grey and black respectively before fitting. I did note that the rocket base seems to sit much deeper than in the reference images, although this may only be because this is a museum example.



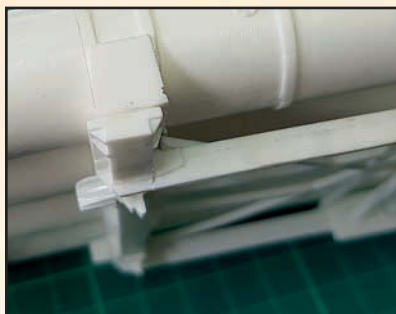
Rockets and launcher frame. Reference images had to be used to add the firing cables and hydraulic pipes.



There are three wires tot he left hand side of each tube bottom...



One cable goes to the box on the side of the left hand side of each tube.



Care must be taken to ensue the frame and tubes align. My first attempt didn't quite align.

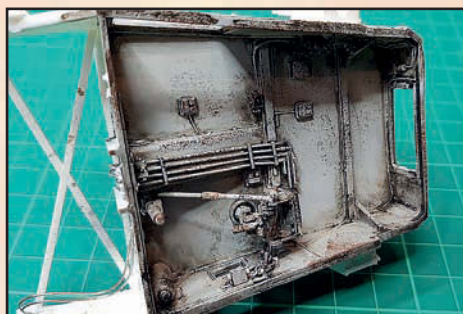


Hull interior painted and weathered

With the launcher components complete I moved onto the turret parts. The turret exterior is pretty basic with a few hatches that can be shown opened or closed. The turret interior is very well detailed, with all the components perfectly represented, including the sighting system and hydraulic pump. The sighting system should push up through the top of the turret, but despite my best efforts I couldn't get it to protrude, so I remade the sight head from plastic tube. I was unable to find any images of this sight head so am unsure if what I have created is right or not. I left the built-up turret basket disconnected from the turret top and painted all interior parts in an off-white colour over a base of medium grey. During this period it was very hot here in the UK, so I left the parts outside for half an hour, in which time they fully dried. After a coat of Future Klear, again left in the sun to dry - I gave the whole of the interior a wash of dark brown oil paint. After a few hours I wiped this off with a soft brush soaked in clean white spirits; this leaves the dark brown in all the crevices but also adds a bit of streaking - which adds to the weathered effects inside the turret.



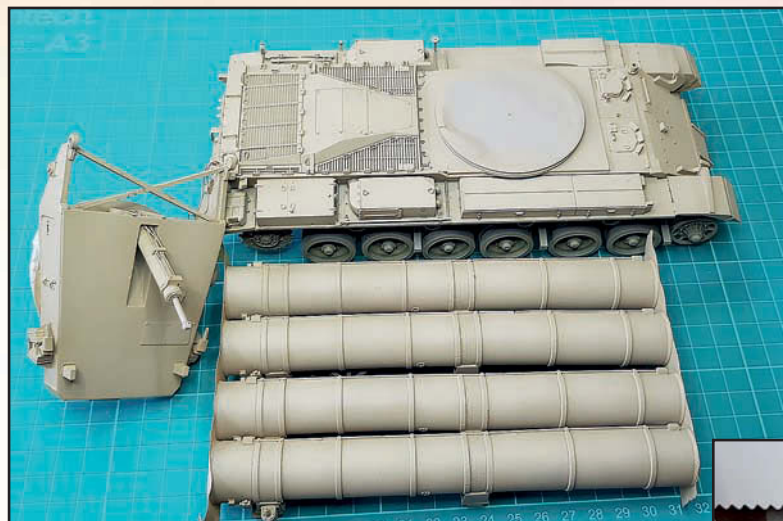
There's alot of the AFV Club kit left over after the conversion is complete.



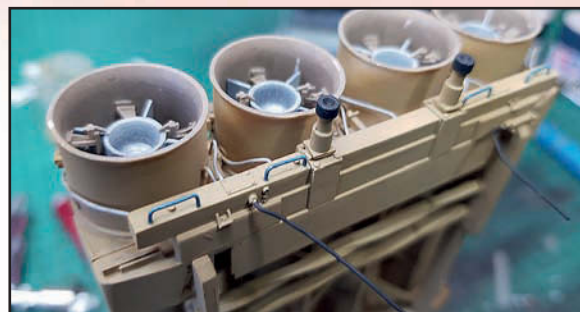
Turret interior complete. On the real thing this is full of cables, pipes and wires.



The mushy mix of white glue, water, dirt and Vietnam Earth weathering powders.



The whole model was first primed with Vallejo IDF Grey primer before giving it an overall coat of AK Real Colours 1982 Sinai Grey.



Four handles have to be added to the frame rear. These aren't provided in the kit.



Various maintenance and access points were picked out in bright red. Later weathering will tone this down.

Weathering pencils were used to add light streaks.

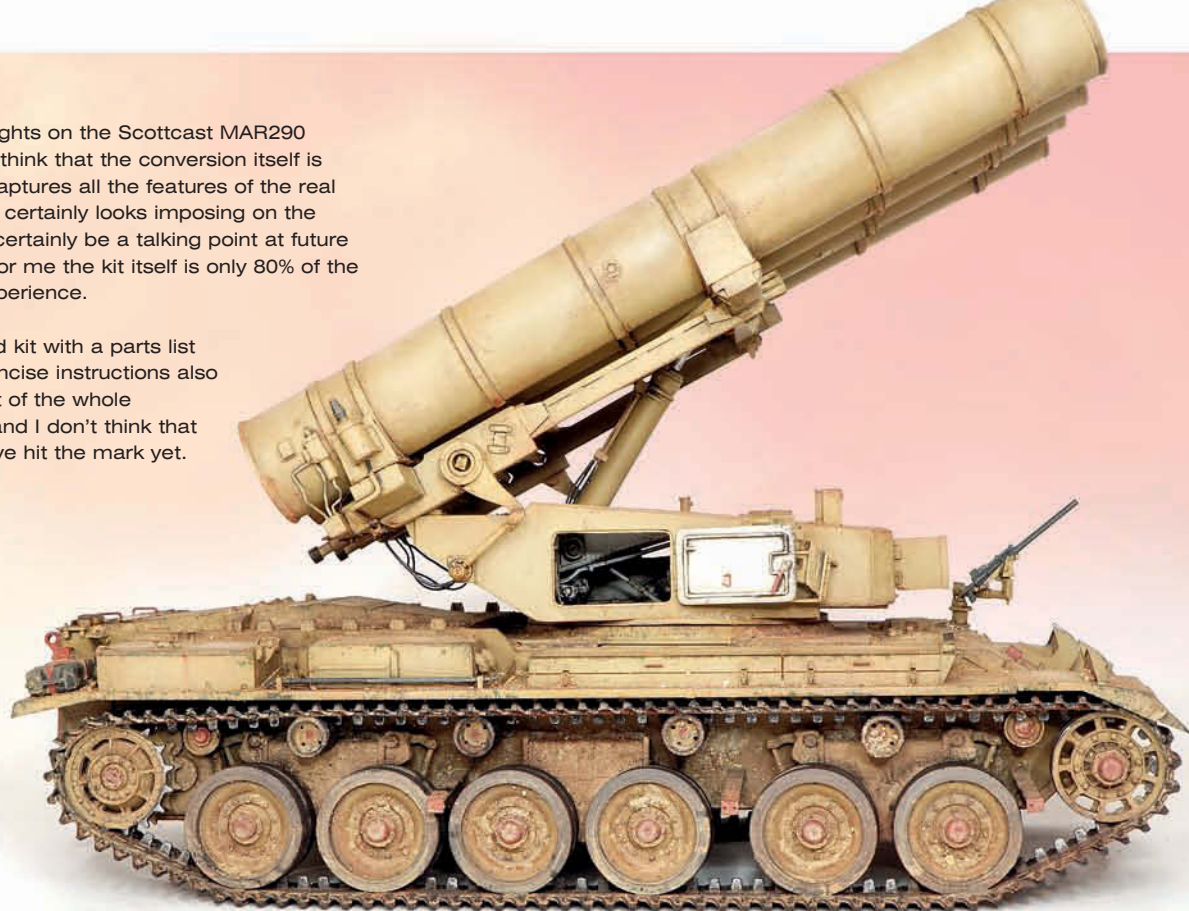
I finished off the turret interior by mixing up some fine dirt and dust with white glue, water, and 'Vietnam Earth' weathering powders. This mushy mix was thickly applied to the corners and around the turret basket base before wiping off excess with a thick brush soaked in water. I glued the turret basket to the turret, completing the interior and also added the hydraulic lifting piston for the launcher frame to the hull top. You could, with a bit of drilling, make the piston workable, but the launcher frame and tubes are very heavy, so I used CA superglue to fix the piston in place. At this stage I still left the turret and launcher frame apart. Moving onto the hull, the new hull front drops straight on to the AFV hull tub. New fender parts are also fitted, so the AFV Club parts must be measured and trimmed. Reference images show that the six track links and fixing frames normally attached to the hull front have been moved to the hull rear, where the folding stretcher parts would normally fit. The water jerrycan and frame also need to be moved from the front of the fender to the rear right position: these changes are not pointed out in the Scottcast instructions. The rest of the build is as per the AFV Club kit instructions. I left off the side bazooka plates as the reference images of the vehicle being trialled show that they were not fitted. I initially painted the hull, turret, and frame/tubes with Vallejo IDF

Grey primer. This is quite thick, so I upped the pressure on my compressor to 40 PSI and blasted the whole model with a thin primer coat. I used AK Interactive Real colours to achieve the early eighties Sinai Grey, using the 1982 mix from their IDF set. This paint is latex based and doesn't react well with water; so again, I used high pressure to push it through my Badger airbrush and give the model an overall coat before mixing in some lighter 1973 Sinai Grey and clouding over the top of the model and centre of larger panels. As with the turret interior, that paints dried very quickly so after a coat of Future Klear I used the same oil paint pin wash to pick out the detail parts. To further add 'age' to the model, I used Tamiya olive green applied with a sponge to add chipping effects to the hull only as this would be the original colour the hulls were painted by the British – I don't think the turret would have ever been green, so this was chipped lightly with a dark brown. I added some streaking using brown and red artists pencils streaked with water, this wasn't to represent rust, but the dark brown-ish red dust of the terrain. To further the dusty, worn effects on the model, I added the same red brown 'mushy' dust effects to the fenders, tracks, and hull rear. I finished off the MAR290 by rubbing graphite powder around the hull and turret edges and on the track faces.



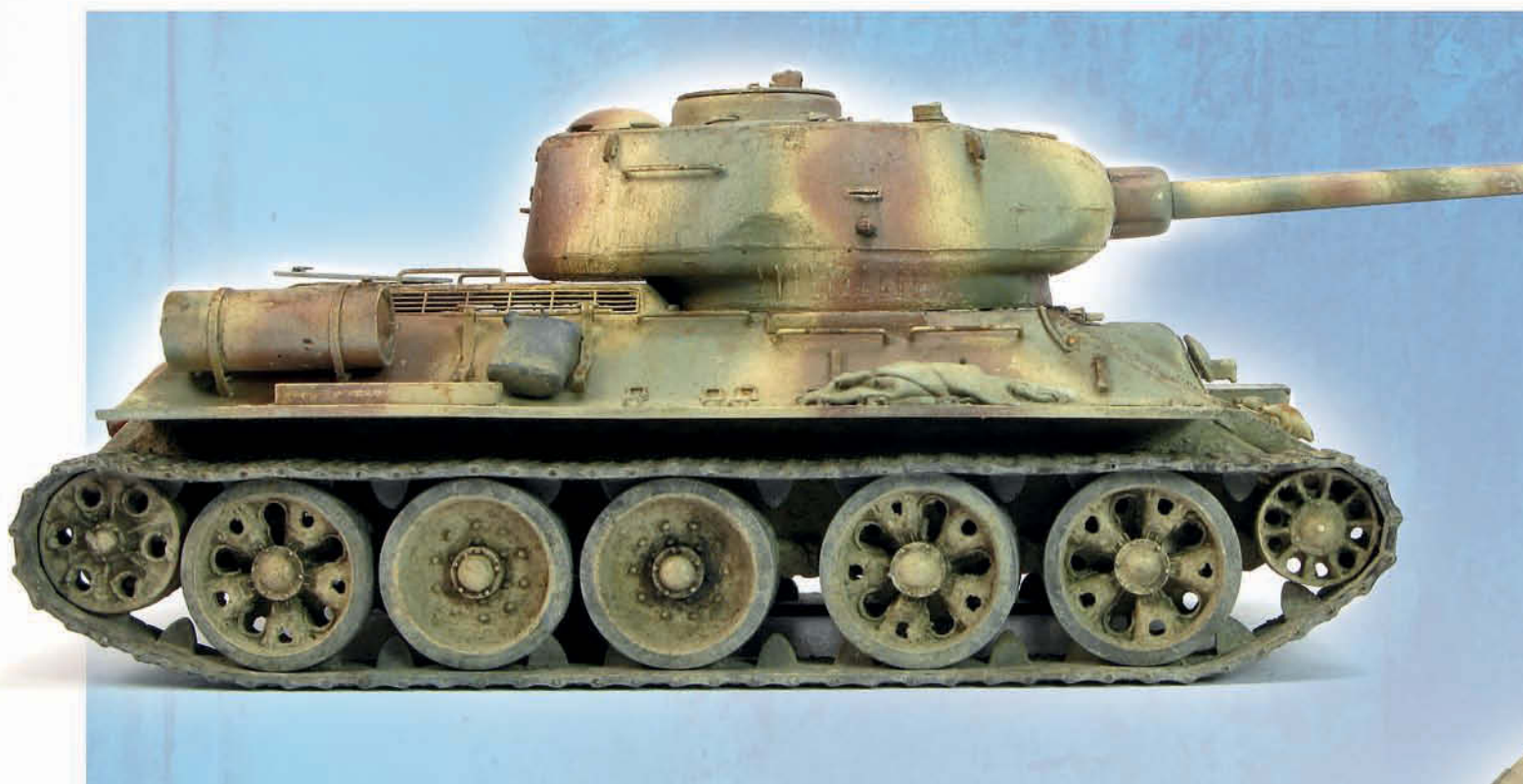
So, final thoughts on the Scottcast MAR290 conversion. I think that the conversion itself is fantastic: It captures all the features of the real launcher and certainly looks imposing on the desk – it will certainly be a talking point at future shows. But, for me the kit itself is only 80% of the modelling experience.

A well packed kit with a parts list and clear, concise instructions also make up part of the whole experience; and I don't think that Scottcast have hit the mark yet.



In places the instructions must be supplemented with reference images and the parts to move on the base kit are not even mentioned. As I have previously mentioned, Scottcast are a new company and I have spoken to them about the points mentioned above, and I believe they are open to suggestions to improve their offerings in the future.





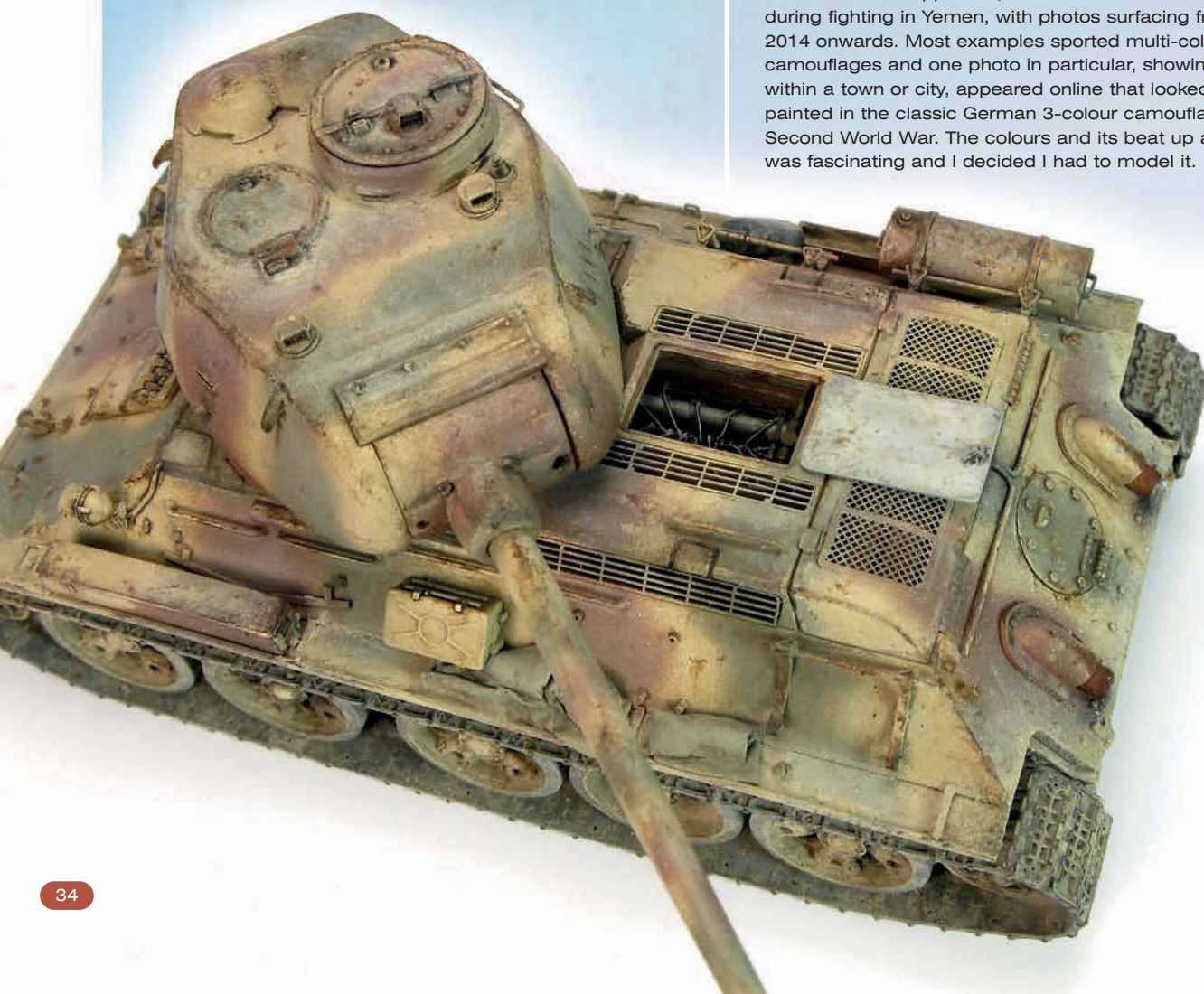
Still fighting-on well into the 21st Century

ALEX CLARK

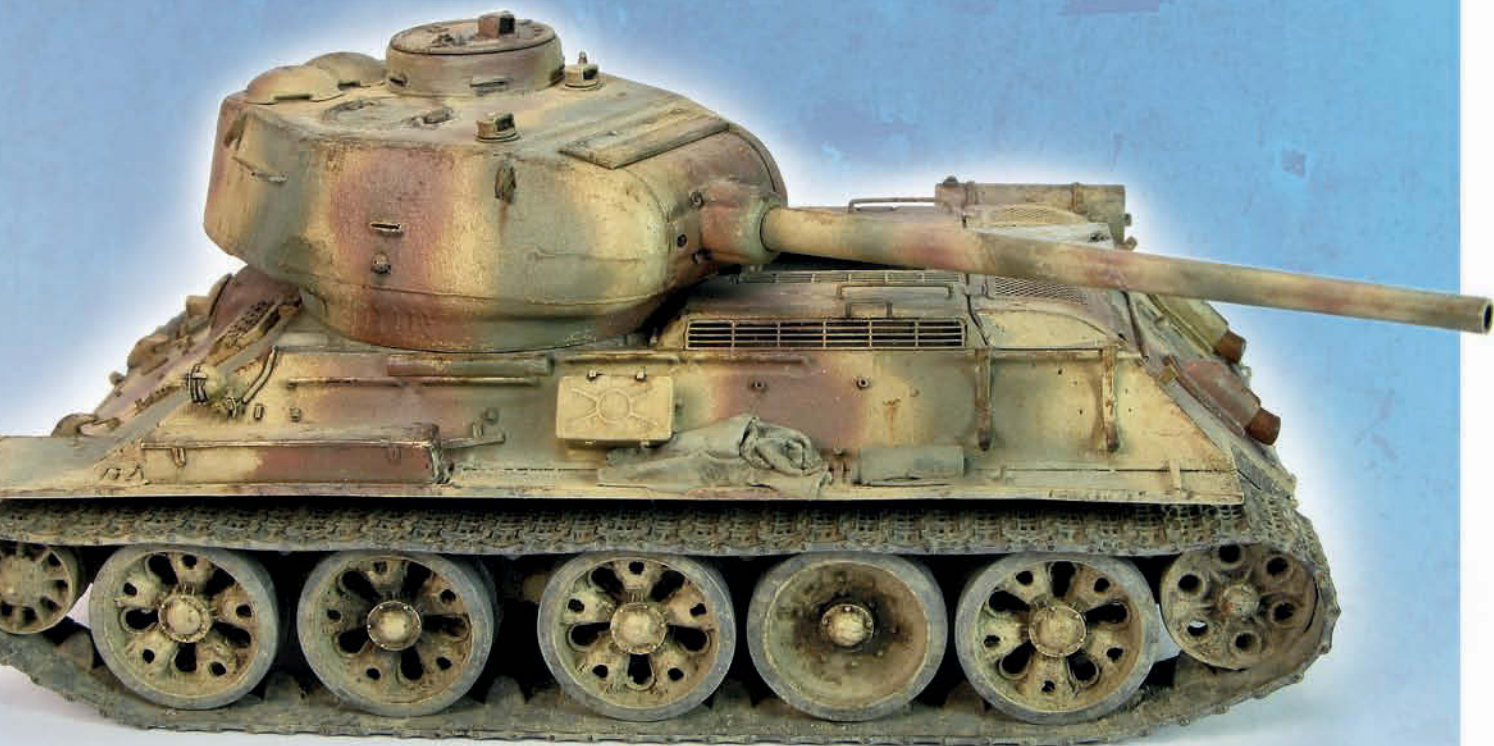
presents his Yemeni T-34-85

The T-34 is one of those iconic armoured vehicles that doesn't really need much of an introduction. Although a Second World War design, it continued in use in both the Soviet Union and other countries for some time after. It took part in many conflicts around the world, and during the 1960s underwent a series of post-war modifications to modestly improve on the initial design.

Although it gradually became more and more outdated and hence its use dropped off, there was a notable appearance during fighting in Yemen, with photos surfacing from around 2014 onwards. Most examples sported multi-colour camouflages and one photo in particular, showing a vehicle within a town or city, appeared online that looked like it was painted in the classic German 3-colour camouflage from the Second World War. The colours and its beat up appearance was fascinating and I decided I had to model it.



OLD SOLDIER



1:72

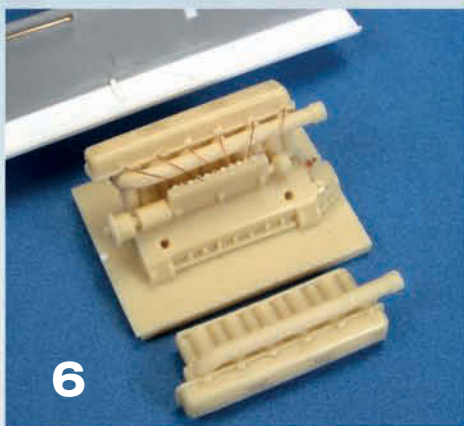
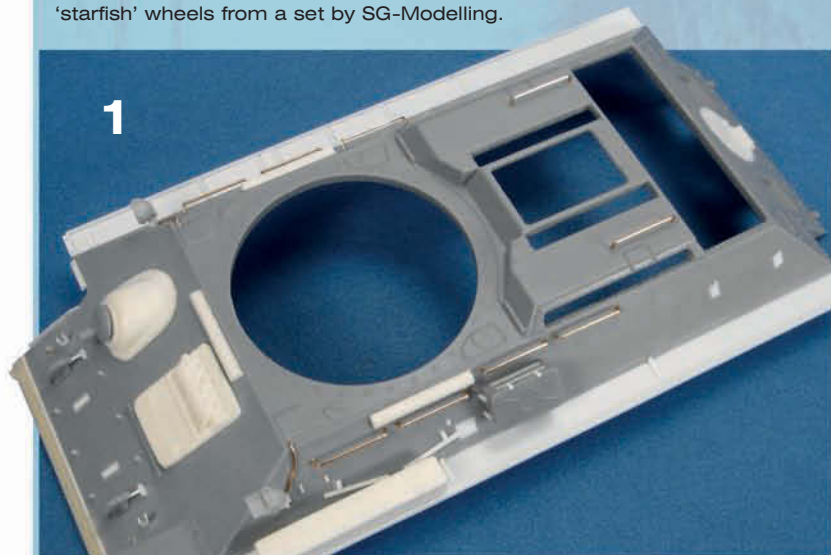
FROM RUSSIA WITH LOVE

Zvezda has been quite prolific within the small-scale space over the last few years. This particular model is quite recent and is in fact a no-glue-required snap together kit. Dimensions and moulding are well done given the simplicity of the kit. The detail that is present is good but is reduced or not present in parts. Along with using some aftermarket sets I added some additional detail of my own. I replaced the turret with an excellent resin one from Golikov Project – a Russian company that market a range of accurate T-34 turrets. I used the Factory 183 set as this matches the photos I found online. Additionally the kit represents a Second World War build and the Yemeni example I was building had post-war features. I scratch-built most of these and took some post-war 'starfish' wheels from a set by SG-Modelling.

I built up the lower hull but used a mix of wheels styles from SG-Modelling (a Russian resin and photo-etch manufacturer). The real vehicle had an interesting mix of earlier dished wheels and the later post-war style. I also replaced the kit idlers with some resin ones from OKB Grigorov which are much finer in detail than the kit versions. The kit tracks are single run plastic sections and are reasonably done, but just as I was starting the project a new company called 'Gas Hans' released a resin track. The set is composed of 2 completely assembled runs generated from a 3D printed master. The detail is fantastic, and the tracks are a perfect fit to the kit with very natural looking sag.

To give more individuality to the finished model I decided from the start to include some engine detail and leave the access hatch open. This seemed a common feature on the Yemeni examples, probably done to improve ventilation. I'd scratch-built a T-54 engine a year or two earlier and the shape and details are very similar to that used in the post-war T-34. Given the limited view though the hatch, I used a resin copy of the engine and just added a small amount of extra detail. Along with opening up the hatch I cut out all the solid grills fitted around and over the engine deck, with a view to using some etched grills later in the build.

1. The kit is dimensionally sound and provides a good basis for additional detailing. I used some resin detail parts from Golikov Project and replaced the kit fenders with much thinner plastic cut from styrene sheet. I also opened out all the solid engine deck grills.



2. The scratch-built engine is based around plastic tubing, cut length ways horizontally around the mid-point.

3. The detail is gradually built up on top of the tube.

4. Another one of the sub-assemblies for the engine. I left several larger parts separate with a view to casting them in resin. I don't have any specialised casting equipment to rely on a greater number of smaller, simpler moulds.

5. Test fitting all the engine parts together before creating some RTV moulds.

6. After casting some copies, I decided to make a simpler engine insert with just the upper half visible. This would then be a drop fit into the lower hull. I took a set of resin copies and modified them for this (allowing me to keep the original plastic master parts intact).

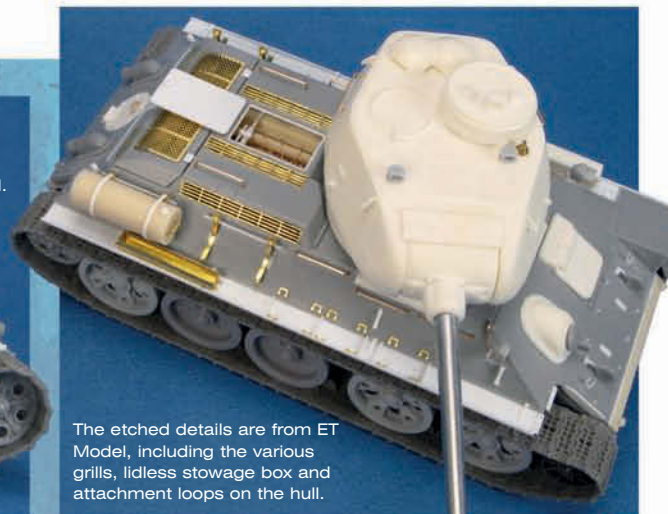
7. Several more parts and details can be seen here, including the view of the engine through the open hatch.

8. The resin Gas Hans single piece tracks are excellent and just require careful removal from the casting block. A fine razor saw was ideal for this, followed by some gentle sanding with fine grade wet and dry paper super-glued to a square of thick plastic.

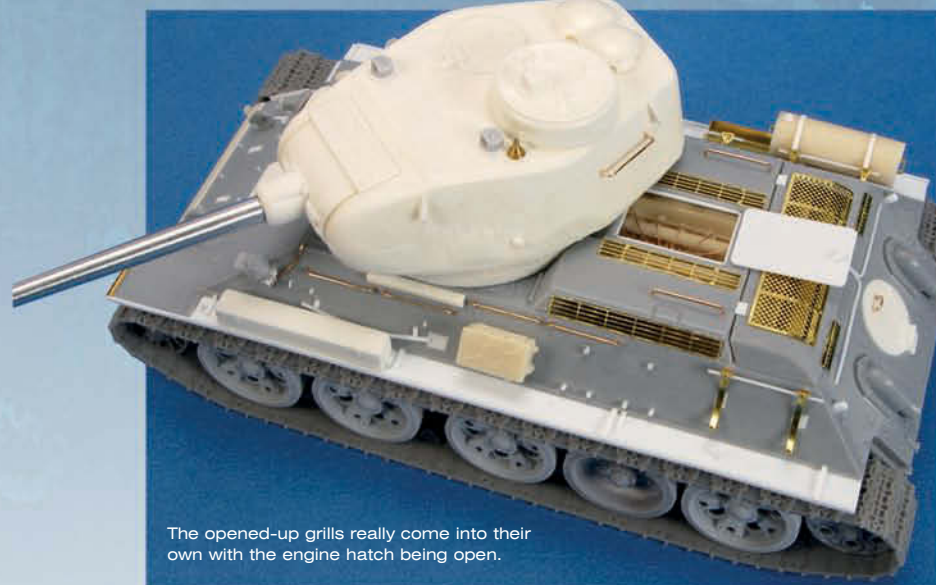




The completed model, with the outer wheels and tracks just dry fitted.



The etched details are from ET Model, including the various grills, lidless stowage box and attachment loops on the hull.



The opened-up grills really come into their own with the engine hatch being open.



One quite poorly represented part of the kit is the nose edge where the bow plate and glacis meet. This section should be a single piece with a distinct appearance that isn't captured well in the kit. I cut the kit hull and created a new part that I used as a master for a resin copy. I also decided to replace the fenders with more in-scale ones from 0.13 plastic strips. Some other details were replaced with improved resin ones from a general detail set by Golikov Project. These included the glacis mounted driver's hatch and machine gun fixture. Along with better detail they have a subtle cast texture and weld seam representations. The set also includes replacement fender mounted stowage boxes, and a new circular access hatch for the rear hull. Strangely the kit one is oval shaped!

One of the features of post-war upgrades is the presence of an extra light mounted on the right hull side. These are of different styles to the wartime versions and I sourced some from SG-Modelling. (One broke off during painting and I decided to leave just the mount present – some genuine battle damage!). A small

box is mounted to the left hull side. This carries a fuel pump and is also a post-war feature. I had a spare one from a T-54B kit so added a little more detail and used that. The smoke canisters appear to be fitted to the left side on some post-war builds. The examples I used as reference mostly had just the mounting pins for the mounts, so I added these too. I replaced the kit fuel drums with a single scratch-built item, again used as a resin master.

The rather delicate etched grills were all from an ET Model etch set. They were fiddly to mount as they need to be essentially flush with the hull surface and so have minimal surface contact to work with, but I think are worth the effort.

The resin turret from Golikov Project is an excellent drop fit onto the kit hull and required minimal work. I added a turned Aluminium barrel from Dymok-72 over the plastic kit one and added grab handles formed from brass wire. The antenna base is of a later style than that provided in the kit – more in keeping with a post-war modification.

CLASSIC THREE-TONE

I primed the model with AK Fine Surface Primer (Grey) and painted the main colour using mixes of Tamiya acrylics. Weathering was mostly done with enamel-based paints and weathering products – the accompanying step-by-step photos illustrate this in more detail. I usually tend to revisit certain steps again throughout the process to enhance and tweak the finish as it evolves. This is especially so when creating shadows through dark pin washes, and strengthening dust / dried mud effects.



I primed the model with a couple of thinly sprayed coats of AK Fine Grey Surface Primer.



The sand colour is Tamiya Buff lightened with White.



I applied a coat of gloss acrylic varnish and over this a couple of thin applications of chipping fluid. The camouflage colours were Field Grey and Nato Brown, both lightened with Buff.



I dampened small areas of the model at a time with plain tap water, and after a few seconds began wearing away the green and brown. I tried to get some "orderly randomness" to the effect, concentrating it in certain areas over others but avoiding a regular appearance to the chips and scratches.



Long, fine scratches can be achieved with a slightly blunt needle (if too sharp or too much force is used it could damage the base colour).



Left. The model after chipping – I concentrated on edges, and areas the crew would come into contact with. The real vehicles exhibited varying degrees of wear, many extremely worn and so there's plenty of scope for some heavily worn effects.

Above. I hand painted the wheels and tracks with AMMO acrylic, 'Rubber and Tyres' and 'Chipping' respectively.



I mixed up a fairly concentrated wash of Humbrol Dark Earth enamel and after letting it become touch dry I worked it around the surfaces with a clean brush dipped in thinner. This tends to leave more in the recesses and around details. It also results in a slightly patchy and grimy look to the smoother areas, helping to break up the colour.



I applied Dry Light Soil effects around the lower hull. This is thick and has a nicely in-scale grittiness.



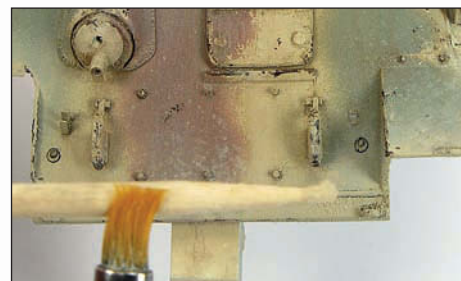
I created a dilute enamel dust mix and airbrushed this over the model, concentrating more on the lower hull, running gear and horizontal surfaces of the hull and turret. As with the earlier brown wash I worked this around the surface a little to break up the very soft feathered edges. In some places I resprayed again to strengthen the effects.



To restore some contrast and add some much-needed shadows, I carefully applied a dark wash around all the details. I kept a clean brush and thinner to hand to clear up any excess.



Dark chips and scratches were hand painted with AMMO 'Chipping' acrylic. This is a realistic very dark brownish purple colour.



I flicked some of the enamel dust I'd mixed up earlier over the model. This contrasts nicely with the more uniform effects from the previous airbrushed application.



I created small rusted areas with rust enamel products, going for a mix of patches on horizontal areas and subtle streaks on vertical faces such as the turret sides.



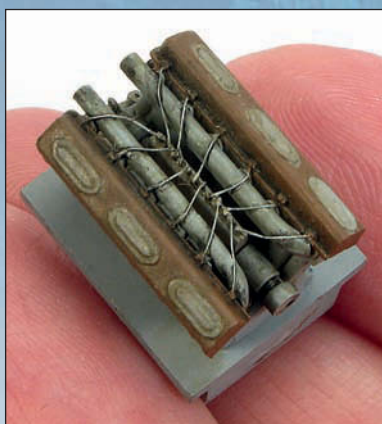
I built up the dust effect I'd applied earlier around the running gear with a liberal application of pigments.



I flicked pigment fixer over the pigments, and once dry ran through the addition of pigments and fixer a couple more times to add a little volume and opacity to the effect.



I applied a pure black pin wash to selected details to enhance the shadow effect.



I painted the basic colours of the engine insert using Humbrol enamels, and also used these for weathering and shading. I spent more effort around the central areas as the outer parts are barely visible.



I sparingly added some fuel / oil stains around selected areas. I added a small amount of black, and also diluted the mix slightly to give the effect of older stains that were starting to get covered with dust and dirt. It still gives some nice contrast with the dust coloured pigments.



The exhausts had received some enamel rust washes, and I followed this with a direct application of black pigment around the openings.



I'd been thinking of building a post-war T-34 for quite a few years, and with the vast range of options couldn't quite settle on exactly which period or country to go for. When photos of Yemeni vehicles started appearing online, they really ticked all the boxes for me - along with the attractive colour schemes I think the extent of the weathering and wear and tear shown on them was a real plus. It's easy to overdo many weathering effects, especially worn paint, chipping and rust. But this was one of those projects that allowed me to indulge a little more than usual and was really fun to do. In fact I enjoyed it so much I've started a couple of other Middle Eastern T-34 builds!

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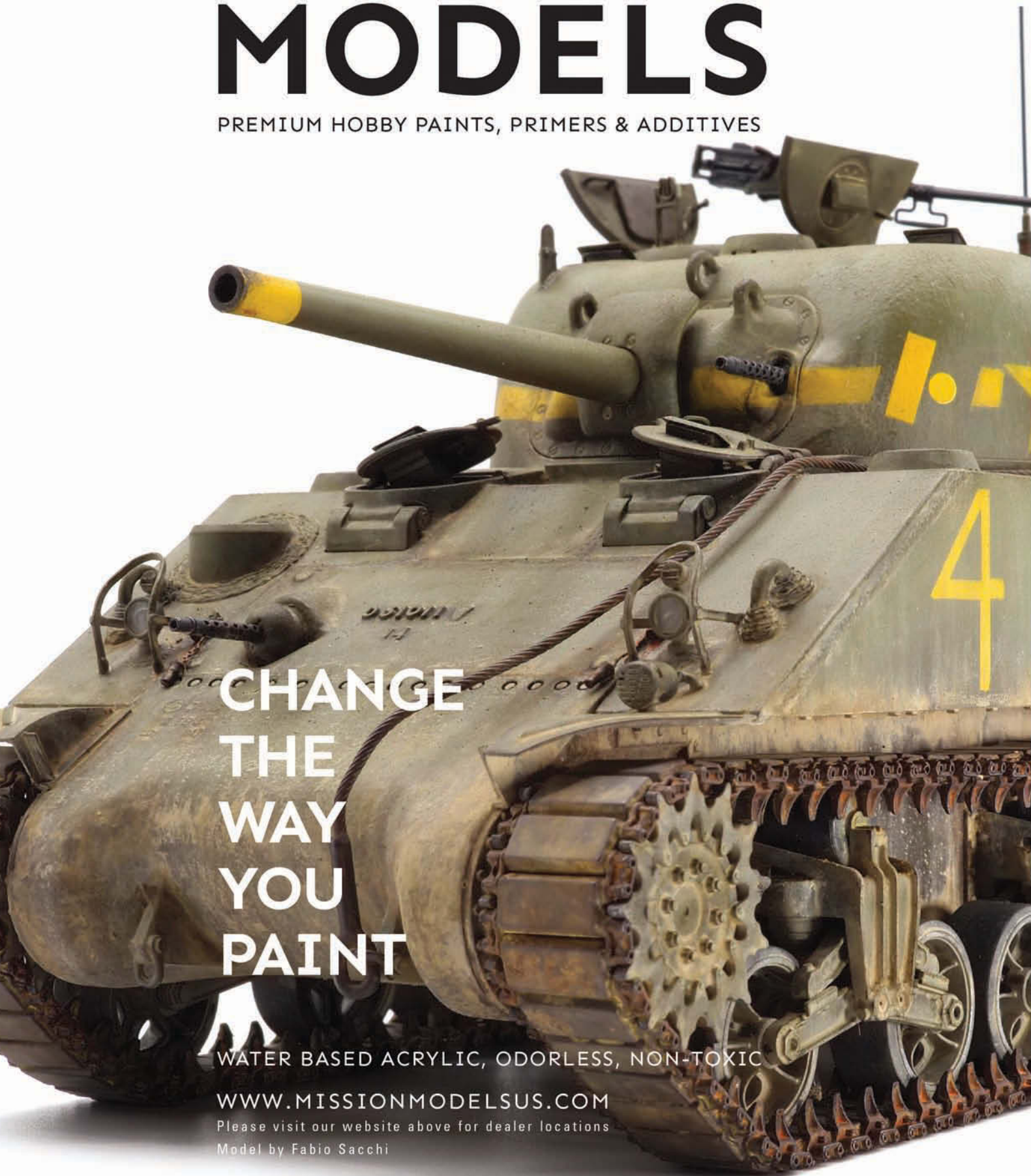
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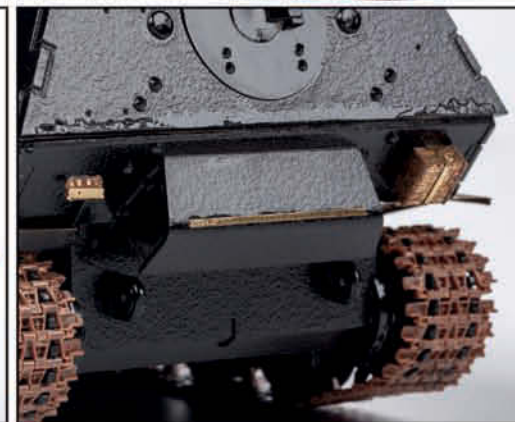
Model by Fabio Sacchi



Ferdinand

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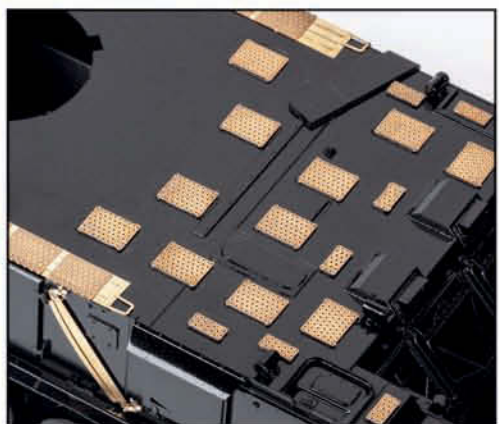
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Panzerkampfwagen

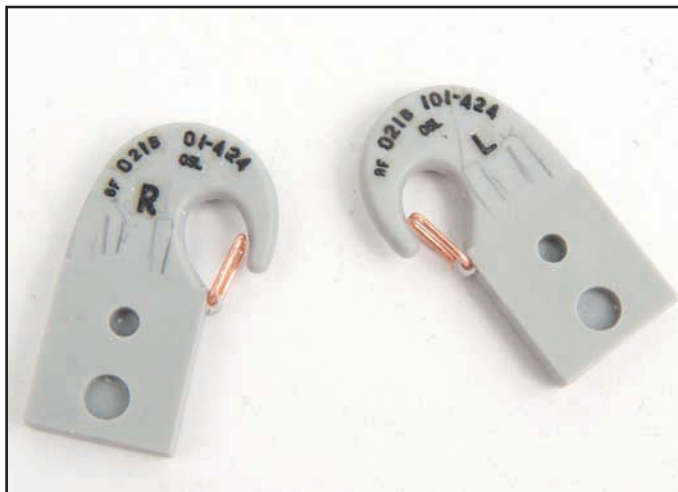
David Parker builds Trumpeter's 1:16 kit

M

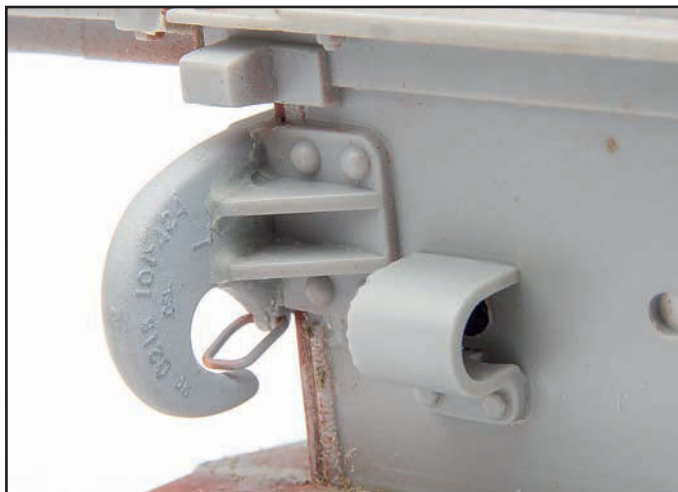
Part Thirty Nine

Work continues on the exterior focussed mostly on the lower hull details where there is a seemingly never -ending list of adjustments and corrections. This time the running gear took up a lot of time even though I had part assembled the suspension back at the start of the project. Adding individual casting numbers and the locking tabs to the bolts on the bogie units absorbed a lot of time. I debated about adding the casting numbers to return roller mounts because the numbers face up or down so are not

especially visible but in the end I felt they had to be there. The back of the hull was also completed from the trackguards down with the addition of some last 3D printed details. At this stage I have left both exhaust mufflers as separate parts to make painting them easier. I also tackled the front mudflaps with their very visible hinge details. Making working hinges was the only real option to have these looking correct.



The two towing hooks come with casting numbers but it is very poorly defined so I replaced it with lettering from the Archer Fine Decals surface detail range. I also added the hoops using copper wire.



Once fitted to the hull the joint lines with the rest of the bracket were blended using Magic Sculp.



Other revisions on the back plate were the replacement of the kit towing bracket with a 3D printed version, new cover plate for the hand crank with printed chain and new cover for the pre-heater with the correct conical bolts.



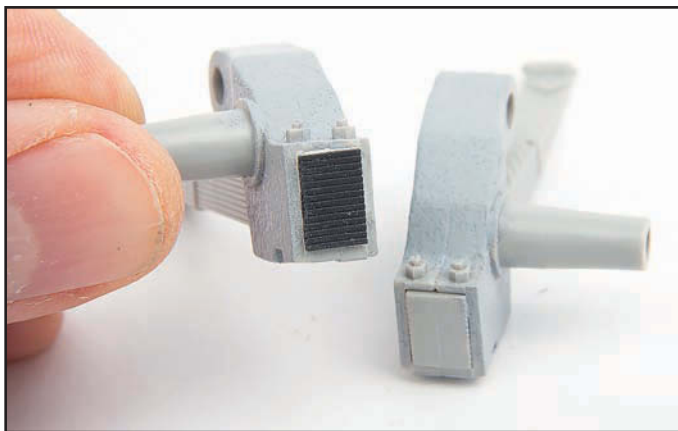
I used brass strip to make the mounting brackets for the exhaust covers and the hand crank bracket, replacing the moulded plastic kit parts.



I also had to go back and rework the engine starter port 1 with a raised bar handle which is set off from the surface of the cover and made from plastic strip and rod.



I added casting numbers using 3D printed numbers and letters and printed new front idler wheels with better detail and casting numbers.



The front face of the kit suspension leaf springs is just a flat face so I printed a simple plate with the lines of the springs defined to correct this.



Although the kit bogie housings have moulded casting numbers they are very poorly defined and they do not have the correct numbers for left and right. (106 for left, 107) for right. I used printed numbers to replace the casting numbers for a mix of manufacturers.



Many preserved bogies show locking tabs used for the fixing bolts so I removed the kit bolts and made locking tabs from 5 thou plastic strip. the bolts were then refitted with printed bolt heads.



The whole process was very time-consuming but the finished effect was worth the effort. I also used Mr Surfacer to enhance the cast texture of the bogie arms.



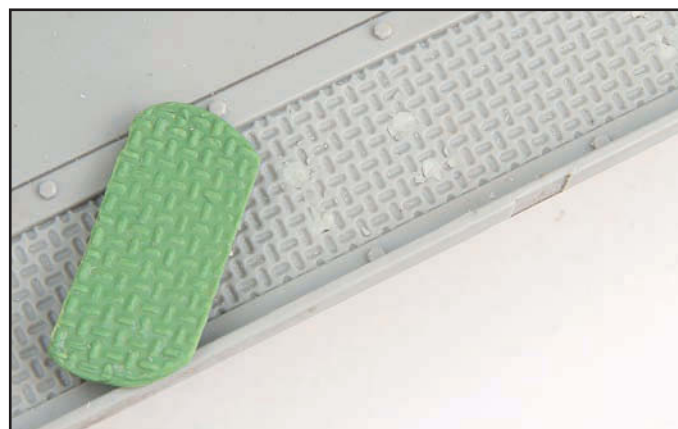
The cast idlers required little work apart from cleaning up the mould seams on each arm.



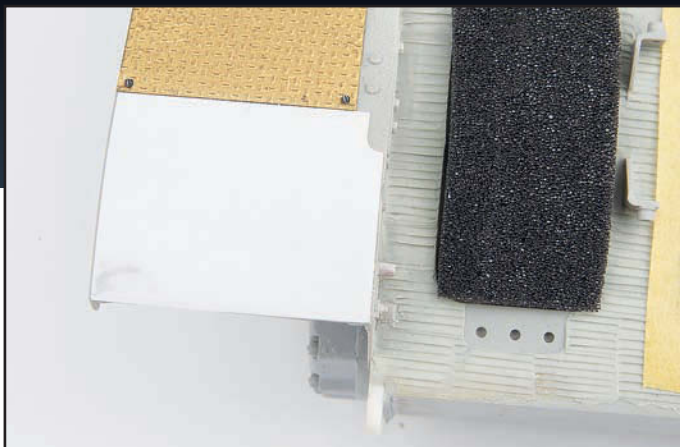
I added a cast texture to the centre hubs with Mr Surfacer and applied casting numbers to the inner rim.



The undersides of the track guards is nicely detailed but it has a couple of location points on each one for the modeller to drill out. These would need to be filled.



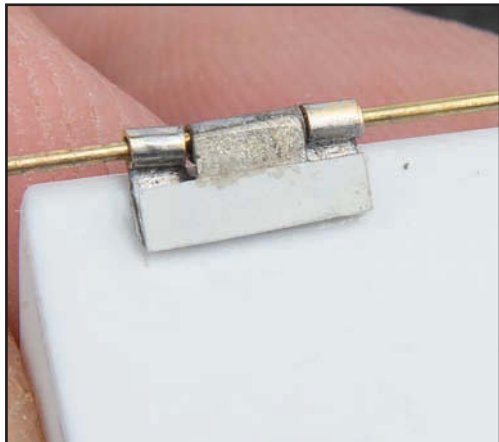
To replicate the pattern I used some Green Stuff putty to make a mould of the tread pattern. This putty has a degree of flex to it when cured which makes it easier to remove. I then filled the holes with Magic Sculpt and used my putty pattern to emboss the pattern.



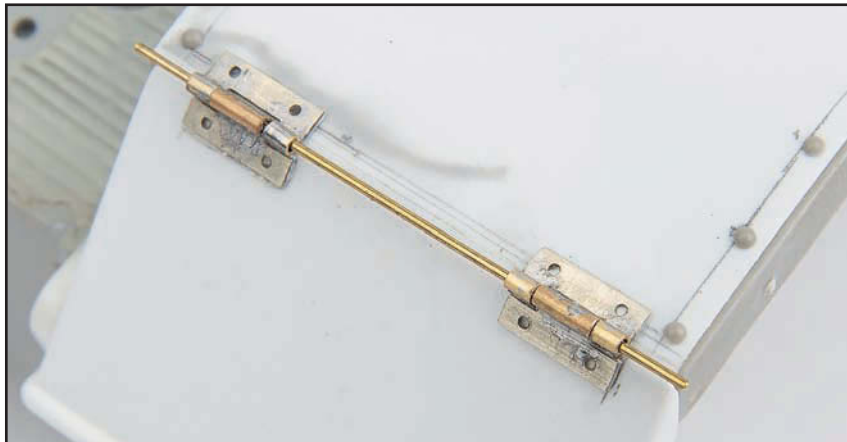
When I sanded down the kit trackguards I removed the front section which is not covered by treadplate. I cut a new section from 10 thou plastic taking care with the glue so that I did not create any sinkage. Despite my best intentions there was a slight depression that had to be filled and sanded.



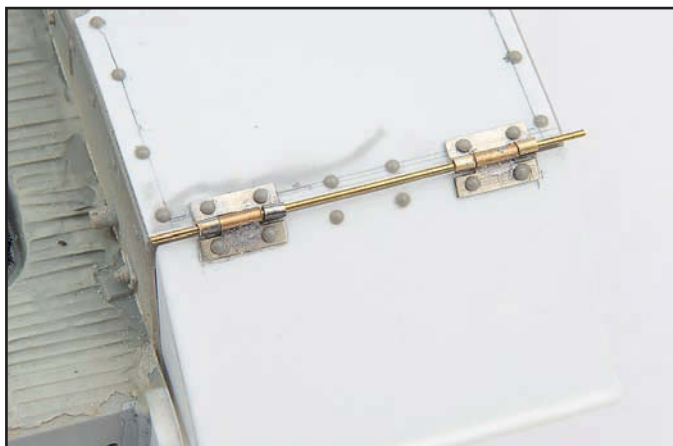
I made a new front mudguard from scratch. The kit ones are moulded on and not salvagable. I made new hinges using some ABER parts with brass tube soldered to it.



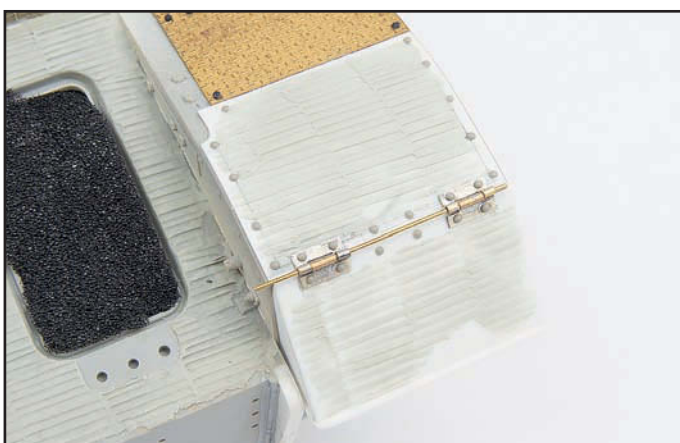
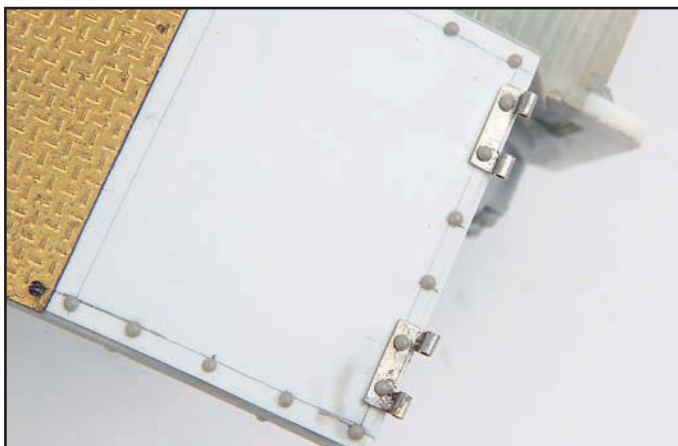
To help align the hinge parts I glued some 5 thou plastic to the back of each part of the hinge which allowed me to position them with plastic cement giving me time to make any small adjustments.



I inserted a brass rod when fixing the hinges to ensure that they were correctly aligned.



Once this was done I could add the rivet detail using MasterClub 1mm resin rivets. On my subject vehicle one of the mudguards is missing which saved me some work.



Finally I added a coat of zimmerit to these areas using Magic Sculp as before.



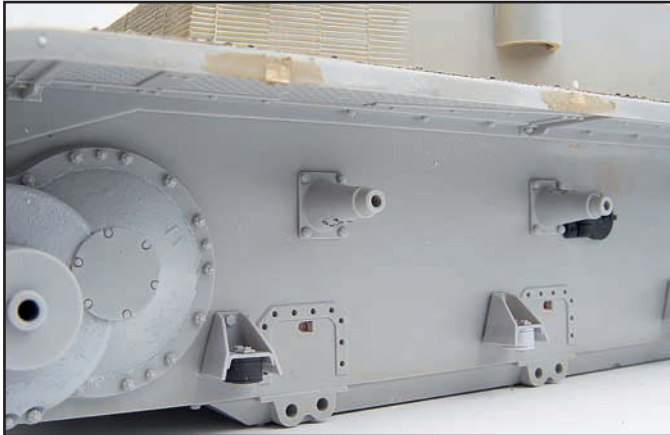
Returning to the hull sides, I was not happy with the fuel filler covers. The kit version was missing the bevelled edge on the hinge, the hinge itself was very poorly defined and it was missing the holes where the shaft of the hinge is fitted.



The new printed covers were glued into position on the hull.



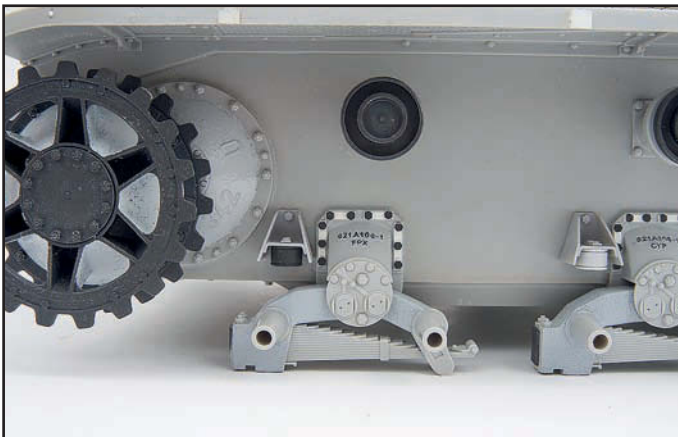
At this stage I also thought it was safe to glue the final drive covers into position.



The idler mounts were also fitted with their new casting numbers facing either up or down. I mixed the orientation of these along the hull sides. I also



upgraded the suspension bump stops using the excellent Bits Krieg set of replacement parts



The suspension bogie units were then glued into position.



I made new track guard brackets from plastic card and MasterClub resin bolts.



The project continues in the next Issue

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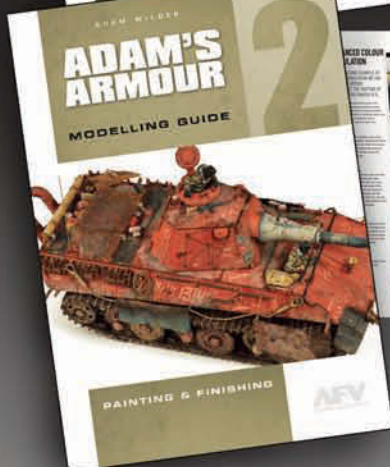
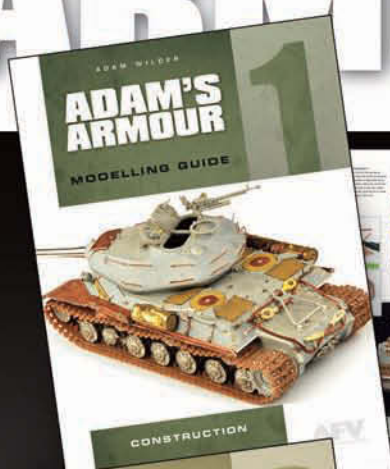
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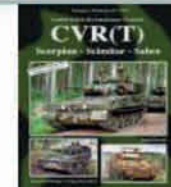
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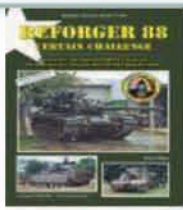
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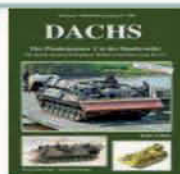
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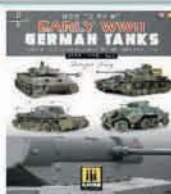
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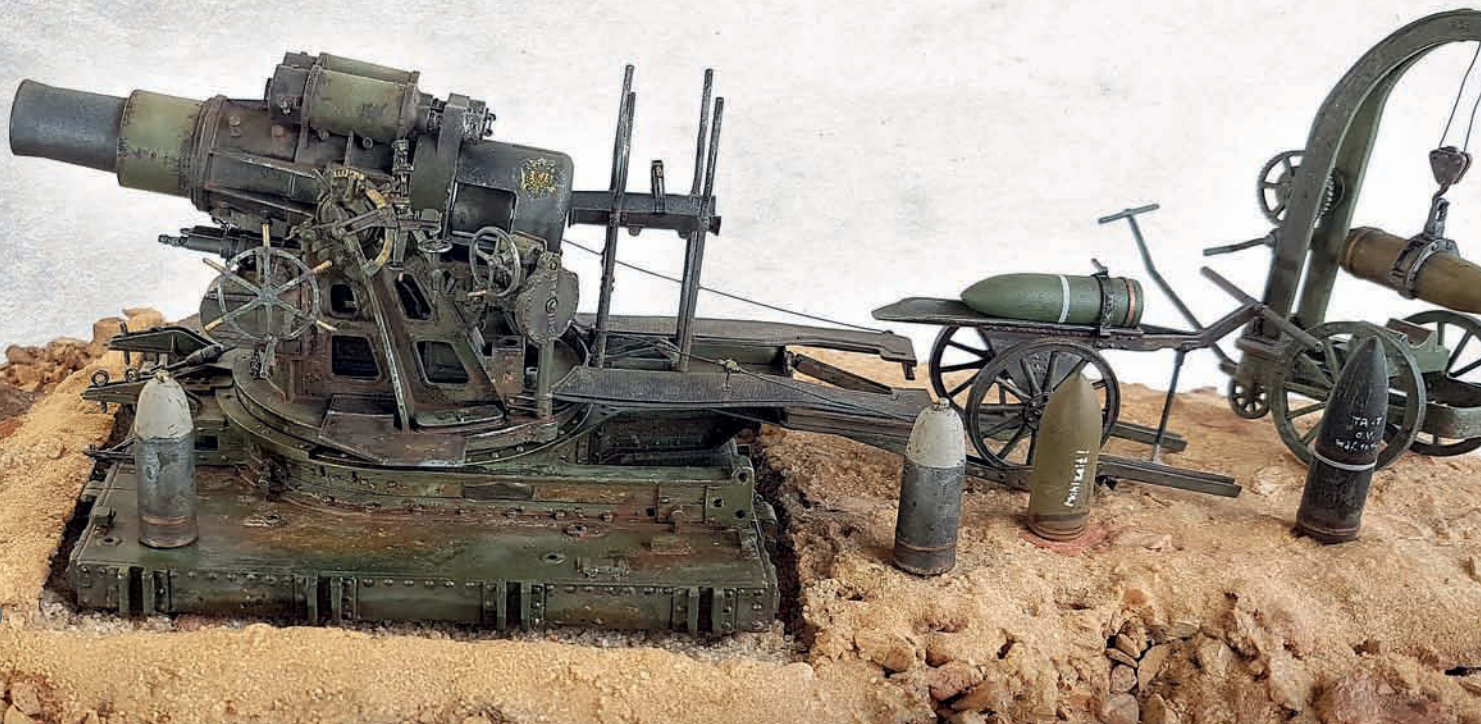
Karel Sutt returns with another piece of monster artillery: CMK's 1:35 resin kit of the Skoda M.11



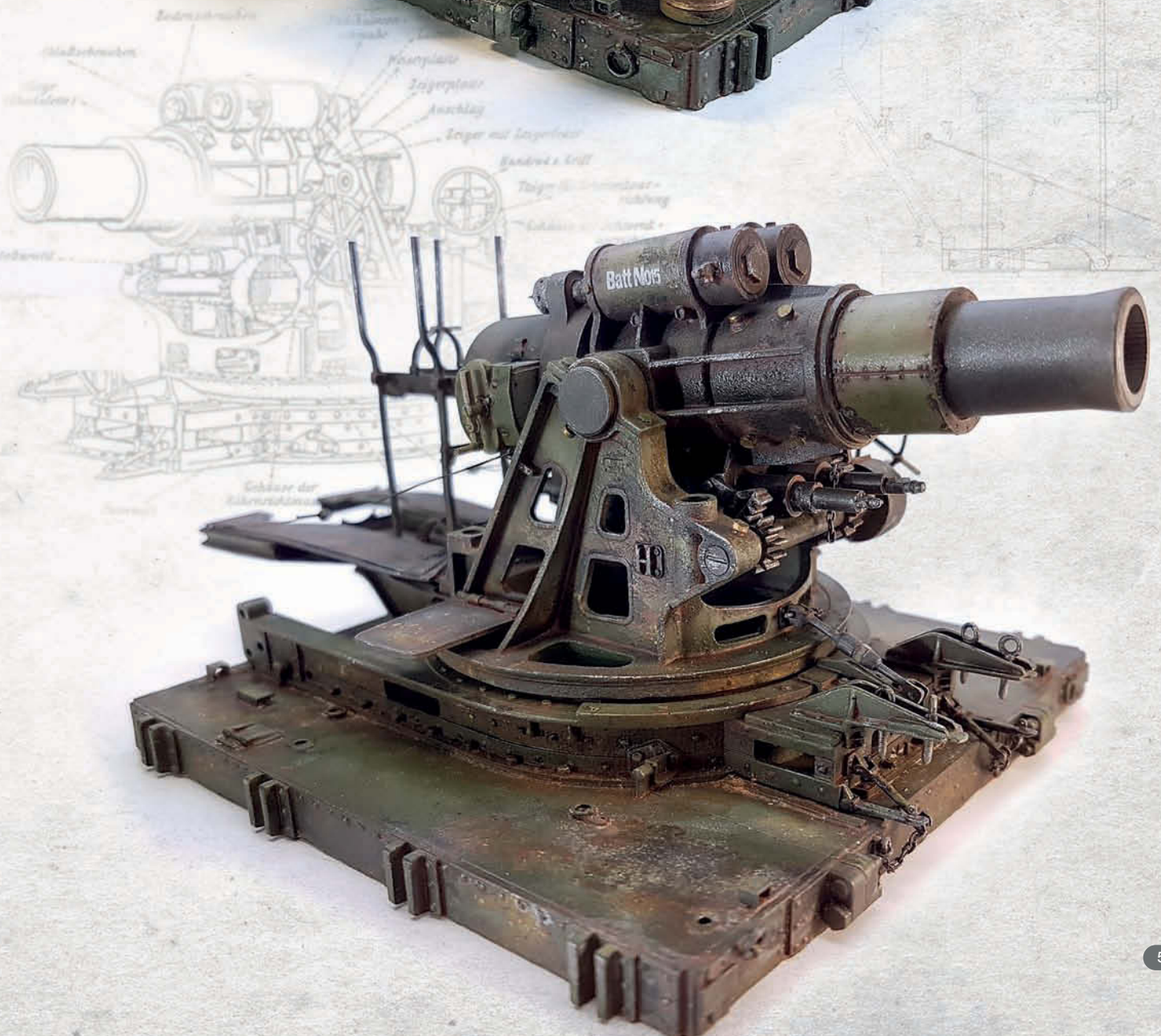
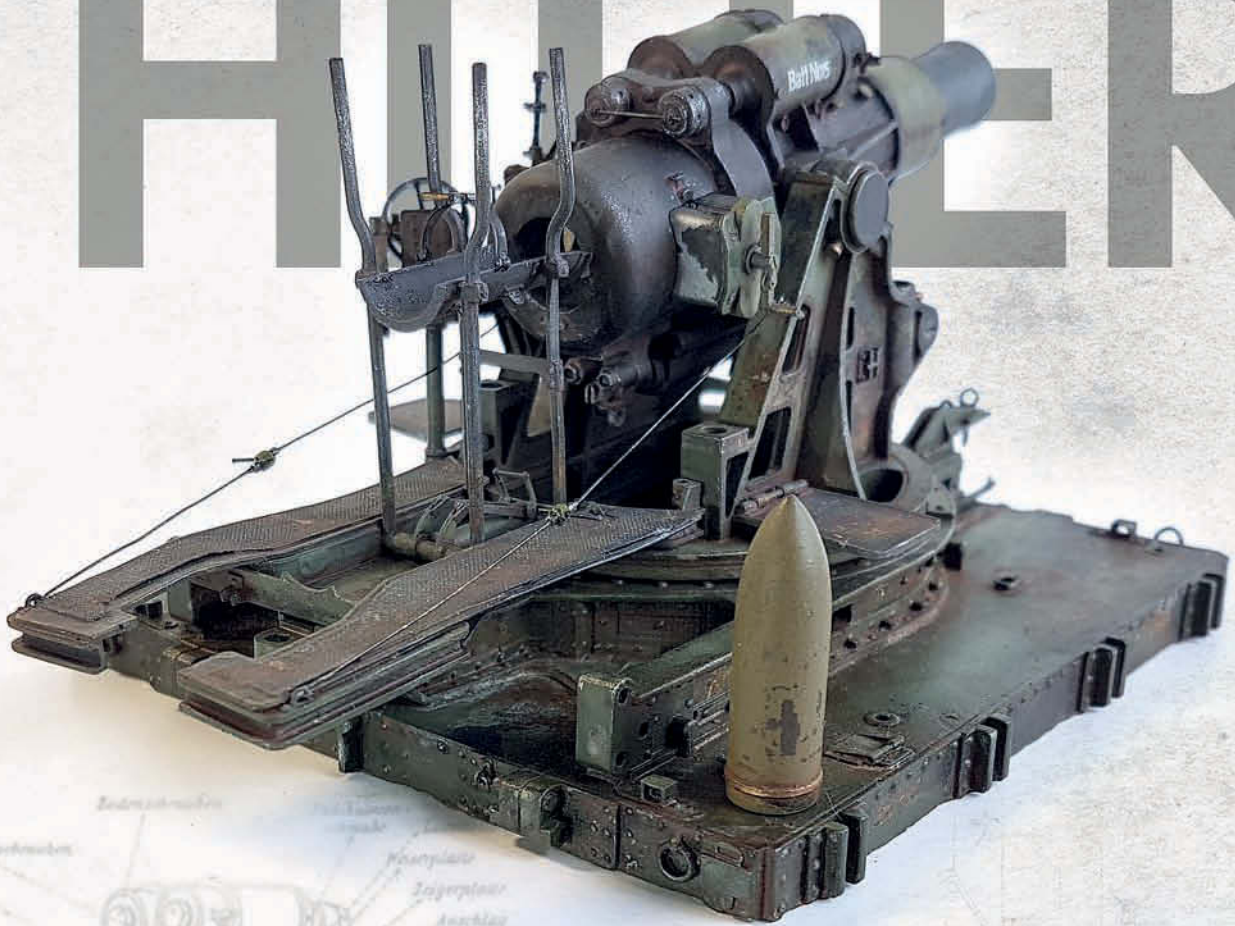
One of the most famous heavy guns that participated in both World Wars was the Skoda 305mm howitzer. Skoda Werke in Pilsen designed and built the 305mm howitzer M.11, 79 were produced in total. This became the largest arms factory in the Austro-Hungarian Monarchy predominantly supplying heavy guns to naval and land forces. With such a reputation for quality the plant exported parts for the Niagara Falls power plant and for the Suez Canal sluices. Before World War One when both France and

Belgium built monumentally strong forts guarding strategic towns, the Germans and Austrians had been developing giant guns which were able to destroy most of the Allies concrete barriers such as bunkers, strongholds, forts and the other fulcrums of power.

Mostly used on the Eastern, Serbian and Italian fronts with a short 'intermezzo' at the bloody Verdun, the 305mm Mortar M.11 nicknamed "Skinny Emma" demonstrated its fierce power.



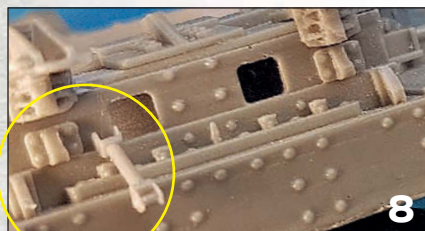
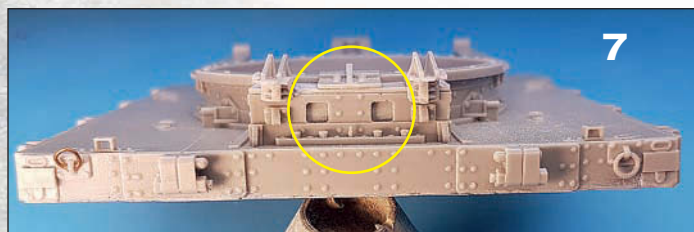
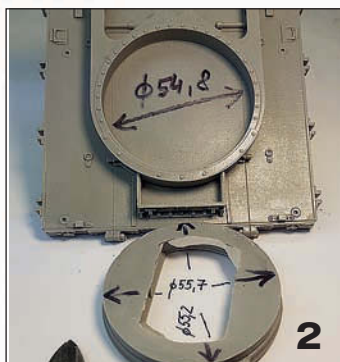
A close-up photograph of a vintage mechanical device, likely a pump or engine component, featuring a cylindrical body and various metal fittings. The word "HITLER" is overlaid in large, bold, grey capital letters across the top of the image.



23 pieces served in the Wehrmacht's Heavy Artillery Battalions against Poland, France and the Red Army in WWII. Almost nothing could withstand a direct hit from the M.11 Gerät. A grenade could slice through a 3m thick brick wall, 1.22m concrete wall and penetrate 8.8m of clay wall. A bursting grenade produced a crater of some 5-8 metres diameter and splinters from the burst could kill unprotected troops within 400 metres. I have always been interested in artillery, and the bigger the better! I have to admit anything smaller than 200mm or 8 inch calibre don't hold my interest as modelling subjects. The first time when the Skoda

M.11 caught my attention was Illustrator Matt King's image, a somber atmospheric scene; two coastal battery guns ready to fire looked really impressive. Thanks to Matt for allowing us to share the image. If I remember that was one of the E-day Model Shows where as always a lot of the vendors tables. I noted CMK's Skoda 305mm Belagerungsmörser /M.11 resin kit at one of the traders display area. Additionally for more than favourable price as usually on Model Shows and 1/35 scale preferred by me. Immediately I visualized Matt's picture.

Buckle up; big gun, big project.

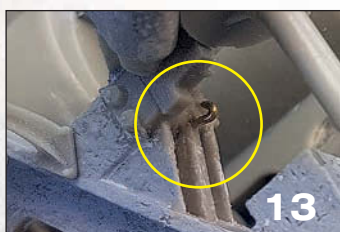


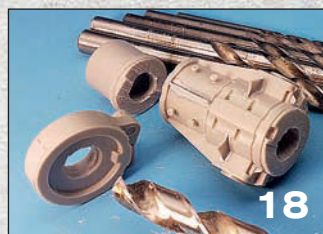
One of the main recommendations for any project is to study the instructions and reference photos closely **photo 1**. Becoming familiar with the parts and construction sequence can save time and reduce frustration if the build doesn't go as planned. I always think twice how to build with regard to later painting and weathering. As indicated by the instruction sheet I started construction on the lower model parts. The first intervention with the kit was adjustment between lower roller path and the base ring firmly secured to the deck. The lower roller path has too large a diameter ($\phi 55,2-55,7\text{mm}$) so there wasn't a chance it would fit into the base ring ($\phi 54,8\text{mm}$) **photo 2**. For rough correction I used a rotary tool followed by files and abrasive paper. **photos 3,4**. Platform deck sides are fitted with four lifting eyes and four other eyes are on the upper side. All have webs of resin residues. A small detail but it bothered me. I used a razor blade and scribe to remove the residues and separate half of the eye off the frame. One of the sidewall eyes I cut off completely and rebuilt with brass in a raised position **photos 5,6**.

Four platform jack points were clogged by residue and required clean-up **photo 7**. Next, four tie clevis rods (parts 90 and 93) don't fit to the eye brackets. Two ways around this are either trim the clevis or the bracket.

The brackets are more robust so were slimmed down with a file. **photo 8**. At first glance an inconspicuous detail is six horizontal holes leading through the connection arms (connection with the gun cradle trailer). They are jammed with resin residue so must be drilled out. **photo 9**.

The level of detail is as one expects; fine and well up to current standards but closer inspection reveals some irritating and visible inaccuracies such as at the parts 52 and 53 (support arms for a pulley mechanism) that will require a bit of work to improve. As per the reference photos they are not identical in reality. They differ by a side protrusion which is located on each arm's offside. I altered only one of those parts, first scribing the protrusion off and then the new made as the identical piece and glued at opposite side. At the same time I removed tenon and rectangle joint on part 11. Without them fit between part 11 and the carriage much easier. **photo 10** When the build process approached the final stage I detected a detail in a reference photo new to me. There're four eye brackets fastened at the front and back platform's sidewalls. This tiny thing irritated me so a little plastic sheet, lead rivets and photoetched leftover from my 'scrapyard' were the main components to make these details and I was content again. **photo 11**



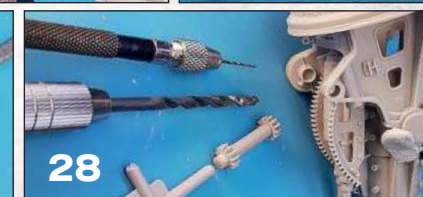
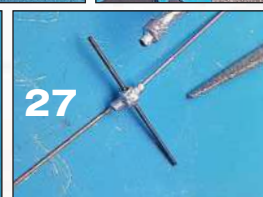
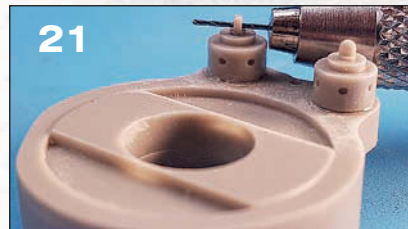
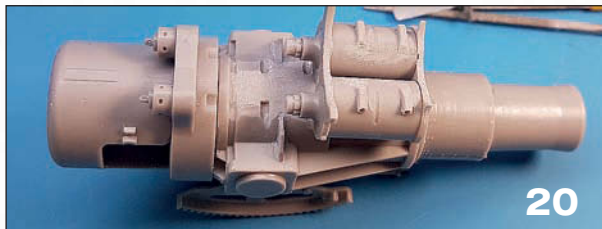


Part 20 didn't fit at the base ring at all so a quite large gap had to be filled up, due to the contraction within dry time I had to repeat this step 3 times to get it right where I liked it. **photo 12.**

The attached point for one of two tension rods on the right carriage's side is evident (hook) but on the left side there's nothing. I added a scratchbuilt hook to the appropriate location.

photo 13. Due to my carelessness I lost the elevating indicator and had to make a new one. **photo 14.** A nasty surprise with part No.19; a non-concentric hole in the tube from the moulding block

side. Irrelevant detail for those building the howitzer with the breech block closed but my plan was to show the breech block open, ready to load. External transition between parts 19 and 6 is OK so I had to rectify just the inner hole at the part 6 and position the sections to suit the eye of the viewer. **photos 15,16.** The parts 4 and 17 had been moulded as one so again, with the open breech, these needed work to split and drill gradually bigger by hand (to avoid any melting of the resin and allows greater control) **photos 17,18.**



I drilled a 1.4mm shallow hole to parts 28 and 29 before they were glued with to part 21. **photo 19** Some surface sanding and alignment was needed as some of the major parts come together.

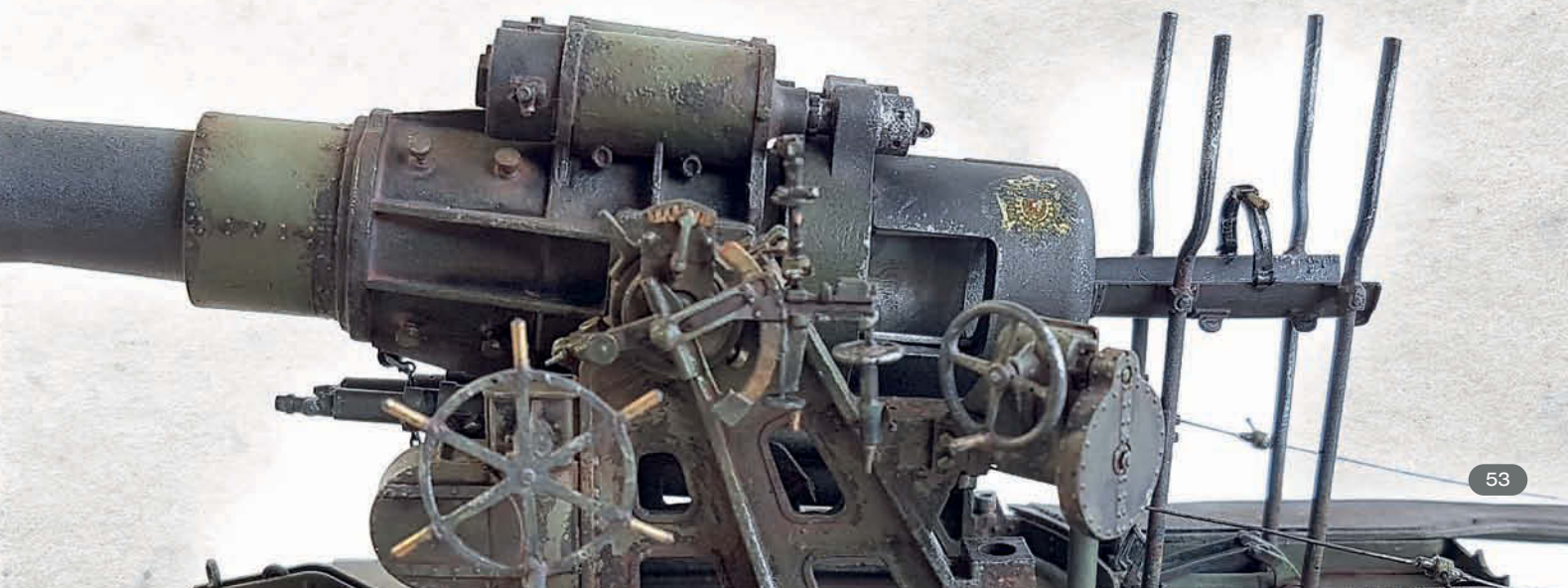
photo 20. Parts 92 are connected with a rod so I drilled the eyes and used a broken drill bit. **photo 21.**

Several more extra details were added to the breech. **photo 22** Breechblock is an interesting part which I left in the ready to load position. A significant improvement were two guide grooves in the breechblock body, rails in the housing and a correct threaded rod. **photo 24.**

A more accurate transportation brace was constructed. **photo 25.** Be carefull to remove resin webs between the elevating hand

wheel's arms. It is really delicate work. **photo 26.** Two rods with turnbuckles secure a loading platform at the carriage. In the course of the build I did not find both turnbuckles (either lost by me or not added by CMK) so had to scratchbuild new ones.

I doubted whether follow or not stages 13 and 14 as per as instruction sheet, all components fixed together at this stage would cause access problems for painting later. I decided to allow free elevation of the barrel by extending the toothed shaft with pieces of sprue from a kit and drilled the housings to suit. This was capped-off at a later stage.

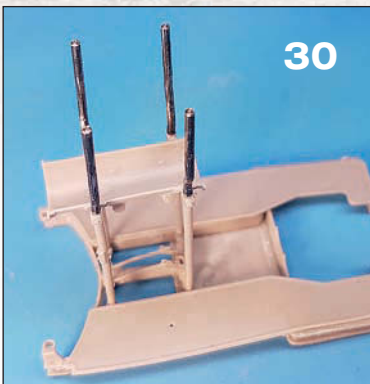




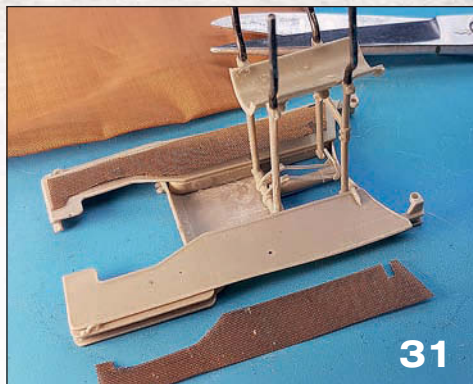
29

At this point I was able to dry fit all of the major sub assemblies to test for fit. So far so good. **photo 29.**

A reference photo showed the four handling arms attached at the loading platform are not of steel round bar but hollow rod and straight in the upper section and not at all curved like CMK's.



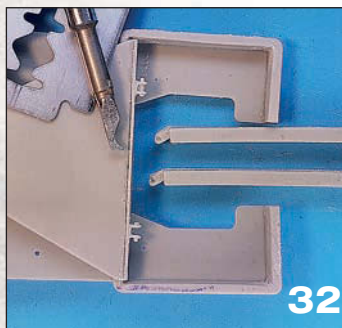
30



31

I used four pieces of 1.2mm aluminium rod and drilled a little pit into each one with 0.9mm bit to depict a hollow rod. **photo 30.**

More reference study showed a kind of anti slip mesh on the platform base. This was created with oil filter mesh and later weathered with ingrained dirt and mud. **photo 31.**



32



33



34



35

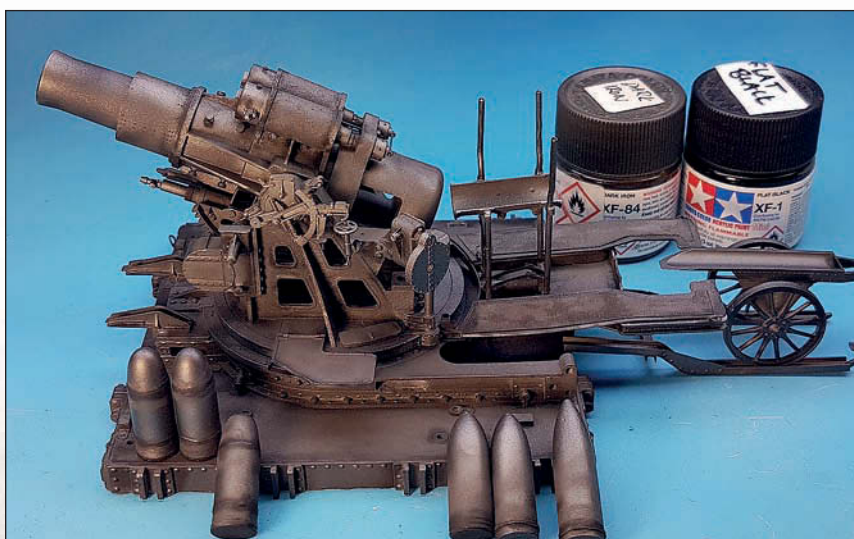
Two U-shaped guide rails for the ammo loading cart are connected at the loading platform via eye brackets. These were modified to remain workable by removing the moulded-in pin. **photo 32.** The cart for ammunition transport was quite easy and quick to build with only a joint to fill. **photo 33.**

For the ammunition itself I decided to upgrade whole look with couple of 305mm shells. Artillery fired a vast range of projectiles including those with a gas load. Many shells were equipped with fuses. Two other shells are from Criel (R092 resin) and another three are 'real' Sellier & Bellot's 7.65mm Browning. They're very similar in scale size with only a few modifications needed. It means filling the lower groove and transition between the bullet and case and adding a rotating band (strip of aluminium sheet) and finally a hexagonal lead cap fuze. **photos 34, 35.** For lifting to huge 305mm shells I built Criel's resin R092 kit of a cart with lifting crane.

Before priming some Mr Hobby dissolved putty was stippled on heavy cast parts to add subtle texture.

Prepare to Paint

As usual before beginning to paint a model I give a wash in water and detergent to remove dust and grease. Once dry I applied a coat of Mig-2023 One Shot Black Primer toned with a few drops of Vallejo 77.712 Steel That was springboard for the next steps, the first of which was premodulation with mix of Tamiya XF-84 Dark Iron and XF-1 Flat Black to highlight some exposed areas. I wanted to represent the howitzer looking like a veteran but still servicable with exposed bare surfaces and heavy dust to the carriage.





The first layer of Tamiya XF3+7+79 is to represent early rusting. **photo 36.** Next areas most exposed were intensified with a mix of Vallejo 77.703 Dark Aluminium and 77.720 Gunmetal Grey in various shades. **photo 37.**

Next, I sponged many irregular mutually blended dots giving a shabby-rustic effect all to be partly reveal later. The sponging was

quite dense on the lower areas gradually became less dense higher up. This process was realized with chemicals such as AK Crusted Rust Light, Middle and Dark Deposits; AK Rust Streaks, AK Filter for NATO vehicles, Vallejo Splash Mud and yellow, red, blue, black oils. Dots were rectified with a make-up sponge damp in Mr. Color Leveling Thinner. **photo 38.**



To complete the metal surfaces I've derived something I call 'foaming'. For this effect I used three products; AK Rust Crusted Deposit, Vallejo Rust Texture and a rough structured polyurethane foam. First I grasped a little piece of the foam with a tweezers and soaked AK Rust Crusted Deposit then touched a napkin twice to remove surplus. Immediately soaked the same foam in Vallejo Rust Texture and touched the napkin only once. Without waiting I slightly touch the model surface and wait. No panic at the moment when something like a glossy wet bubble in a dark colour (Vallejo Rust Texture) bordered with a lighter halo (AK Rust Crusted Deposit) forms as the acrylic and enamel react. After a while the bubble dries and gives a striking random and realistic effect. **photo 39.**

With the 'foaming' completed and dry I decided to add some tiny, sharp nuances with my collection of various coloured pencils. **photo 40.**

The result was covered with protective layer of Mr. Super Clear Gloss. **photo 41.**



I decided differentiate the gun's tube and liner from each other. In this case masking with tape is cumbersome so I used Vallejo 70.523 Liquid Mask and also for the horizontal sliding breech block. **photos 42, 43.**

I planned to achieve the worn paint surface with a combination of salt and hairspray techniques. I've found rock salt becomes stuck to the surface when it absorbs hairspray and it's necessary to protect it with strips of paper. Once the hairspray was applied the protective strips can be lifted. **photo 44.** This double masking works quite well.

Time for the top colour. After much pondering my choice was a mix of Tamiya XF2+11+81. XF2 and XF11 (60%-40%) gave the main colour while XF81 was used just for colour toning to darker shades. **photo 45.**

When the top coat dried the salt was removed followed by attacking the hairsprayed surface with a wet stiff brush. Most of the top colour ended up on a napkin! **photo 46.**





Unfortunately I didn't find any hint of a decal or marking reference in the box. I found just one image which shows a blurry inscription BattNo15 located on one of the recoil cylinders. I found out Battery Number 15 was set in 3rd. Festungs Artillery Regiment Franz fürst Kinsky zu Vichnitz und Tettau and was one of the active participants of Twelfth Battle of the Isonzo. The Austro-Hungarian standard emblem was the other decorative touch sent to a custom producer Handl Model Accessories (HMA). Waiting time for an order is up to one month but it's been worth the wait. Mr.

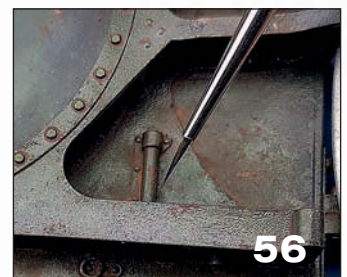
Mark Setter and Softer helped them conform to the round surface and thanks to HMA's professional work they performed flawlessly. **photos 47, 48.**

Whilst awaiting decals arrival I delved into the filters to give the paint perceived depth and to tie together the various colours. I used rusty and blue oil shades heavily diluted (1:9) in AK 050. Those were applied by a large flat brush in several layers. **photo 49.**



I prepared a wash of Burnt Sienna, Light Vermillion, Ochre Light, Titanium White and Abt.220 Dark Brick Red applied around the rivets, corners and surface transitions giving the paint a 'rustic' patina. The excess was then wiped away with a flat brush and make-up sponge dampened with AK050 Thinner. **photo 50.** A very dark pin-wash followed in a few places (Ivory Black, Burn Sienna and drop of Light Vermillion) I'm not robot just human I realized when made a mistake **photo 51.**

Next came a rather unpleasant surprise when I noticed the shell pan was not in line with the barrel axis...and everything superglued in place! What to do here was a scary proposition; I did not want to damage the complex assembly so hoped for a small miracle. Using a hairdryer I heated carefully the shell pan including the four arms and once the resin had softened I gently and slowly twisted the shell pan in line with the barrel axis. Holding the pieces in position until they cooled gave a result 'Good Enough' as the Tom Petty song goes! **photo 52.**



Next was some detailing using Ivory Black and Silver oils to accentuate the raised details such as rivets and create a 'worn edge' appearance. For this delicate operation I used my favorite Martora Kolinsky Serie 106 brush and touched the surface mostly with the bristles edge. **photo 53.**

For the dusty appearance of lower surfaces various pastel chalks were ground and mixed with Humbrol Enamel Thinners. The pigments were firmly fixed with Mig Fixer. **photo 54.** I was happy with the look of things so far and decided to be restrained with any further weathering. With the finest Winsor & Newton Series 7 brush plus a little clamped piece of sponge I created micro chips of Iron Oxide Black, Burnt Sienna and AK454 Copper mixture (1:8:1) over the edges. **photos 55,**



Many photos from WWI show slogans painted on munitions. The slogans were designed to stir emotions and of course to irritate opponents. One of the shells I decorated with slogan Mahlzeit (Good taste) and the other shell with the usual production marking where Wdf. 10.14. means Wdf = the company that makes the projectile body; 10.14.= month and year of produce then o.V. means In the event of an impact it explodes immediately without delay. Finally TA-T means TNT explosive charge mixed with ammonium nitrate. Tools for the inscriptions used by me were three fine liners. White Sakura Gelly Roll 0.5 and Shake Graph'it 0,7 for calligraphy and black Kuretake Mangaka 003 for corrections. **photo 57.**



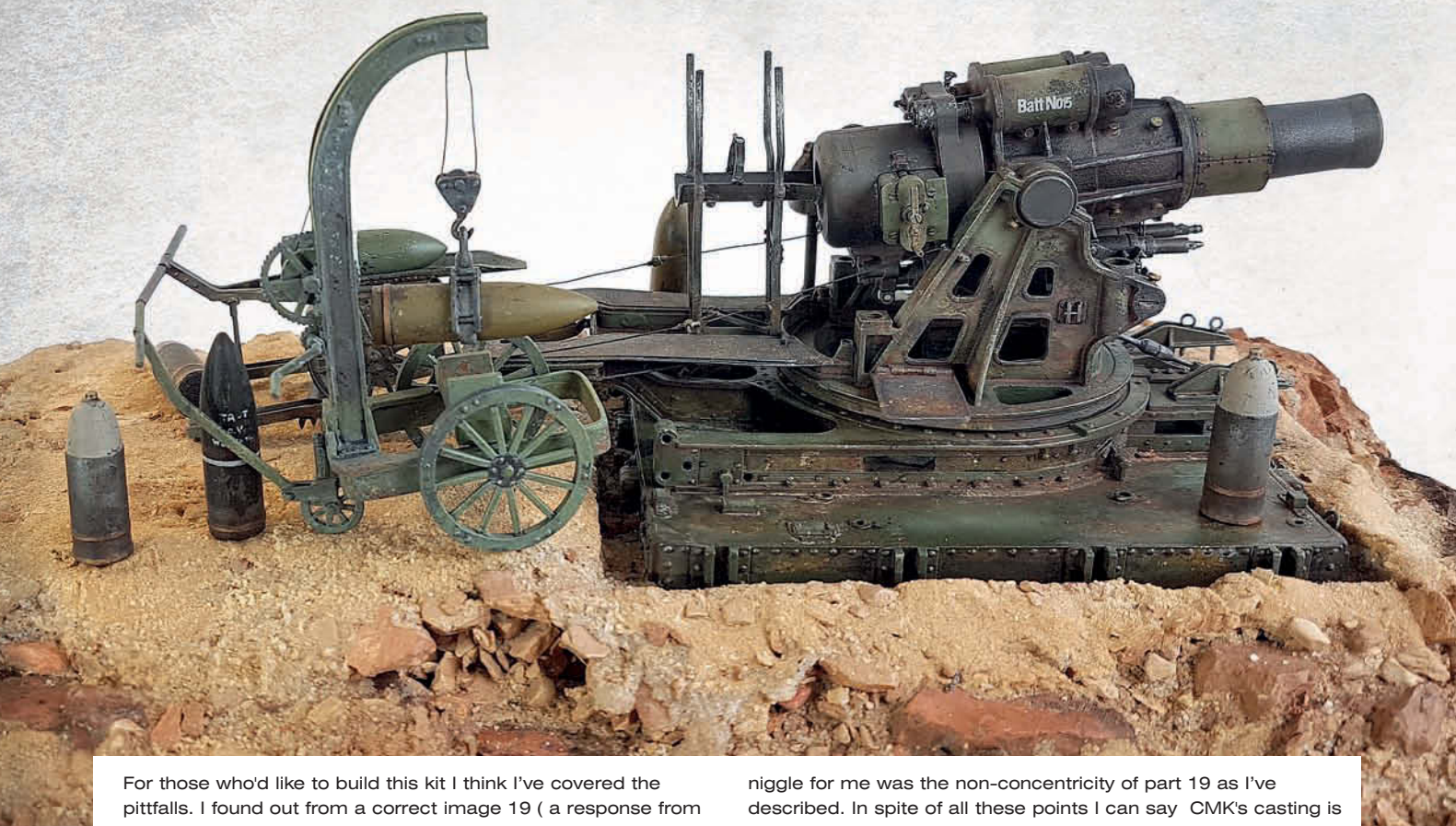
It would be almost impossible to display such a model without a base of some description. Bearing in mind the large number of models exhibited at shows on the competition displays I tried to keep the base to a reasonable size. The starting point was a suitable tray onto which I fixed a polystyrene 'emplacement'. Opting for natural terrain and a dug-in emplacement a payed a visit to an area local to my home with an abundance of natural stone and forna suitable to scale down to diorama materials.

Porcellanite stone is typical of the mountains around the Isonzo River. I crushed my collection of stones to various degrees to give me a range of fine gravel to outcrops of rock all stuck into place with suitable clear adhesives ranging from CA glue to hairspray. The variations in natural colour allowed me to get away without any painting with a pleasing natural and realistic result. The final touch was setting the groundwork into a complimentary 'industrial' styled frame with some infills around the edges with finer stones.

The Austro-Hungarian general from Black Army Models I painted simply like a bronze statue just with the intention to give scale the



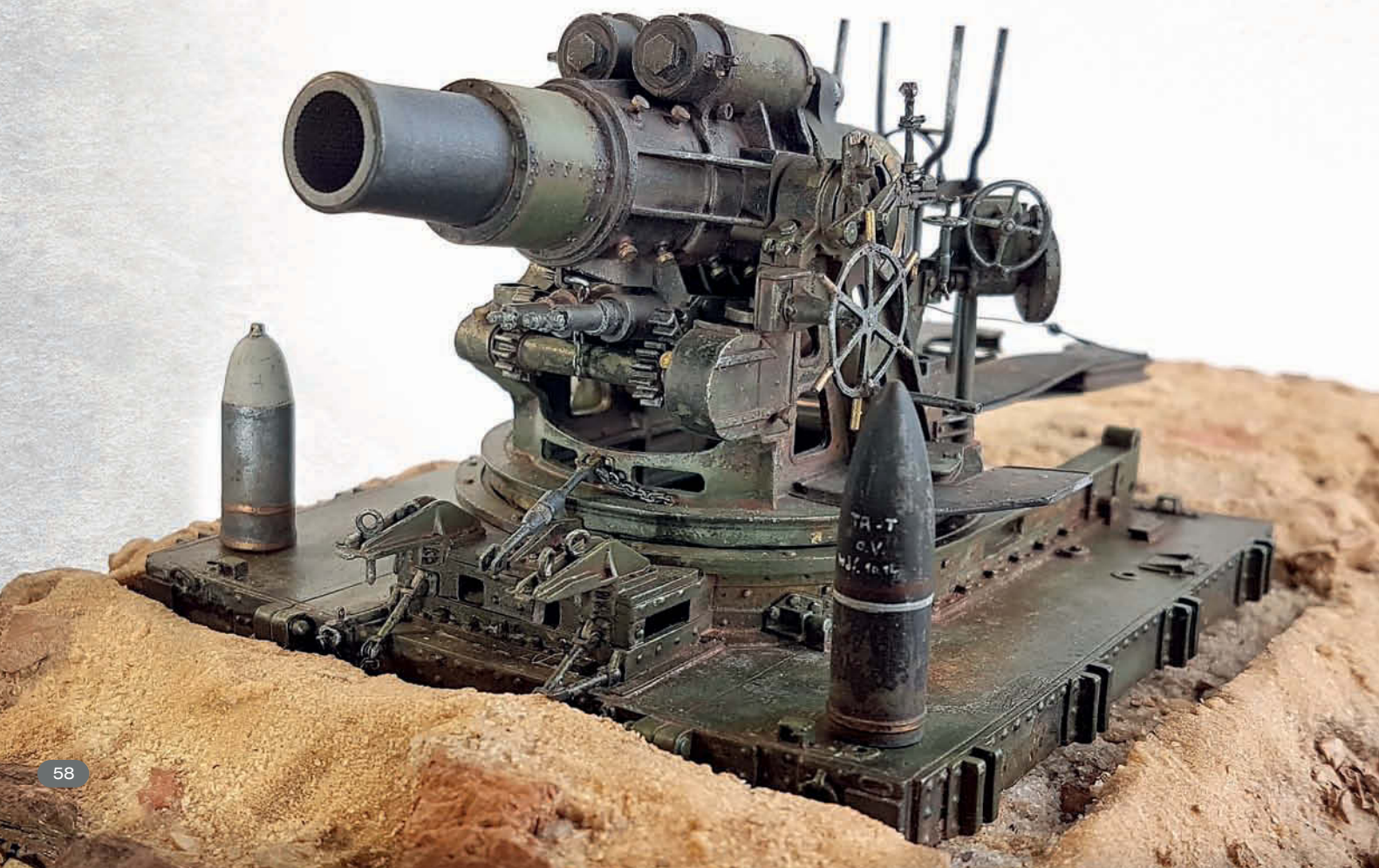
HEAVY HITTER



For those who'd like to build this kit I think I've covered the pitfalls. I found out from a correct image 19 (a response from CMK's product manager) where part 89 should be fixed. Another question about the purpose of part 62 has not been answered so it remains a mystery! A minor mistake in stage 12 where the part 104 is in fact the part 105... but the biggest

niggle for me was the non-concentricity of part 19 as I've described. In spite of all these points I can say CMK's casting is amongst the finest that I have ever seen. the kit is well detailed and construction is quite straight-forward with well presented instructions.

I hope you agree, it makes a beautiful and unusual display



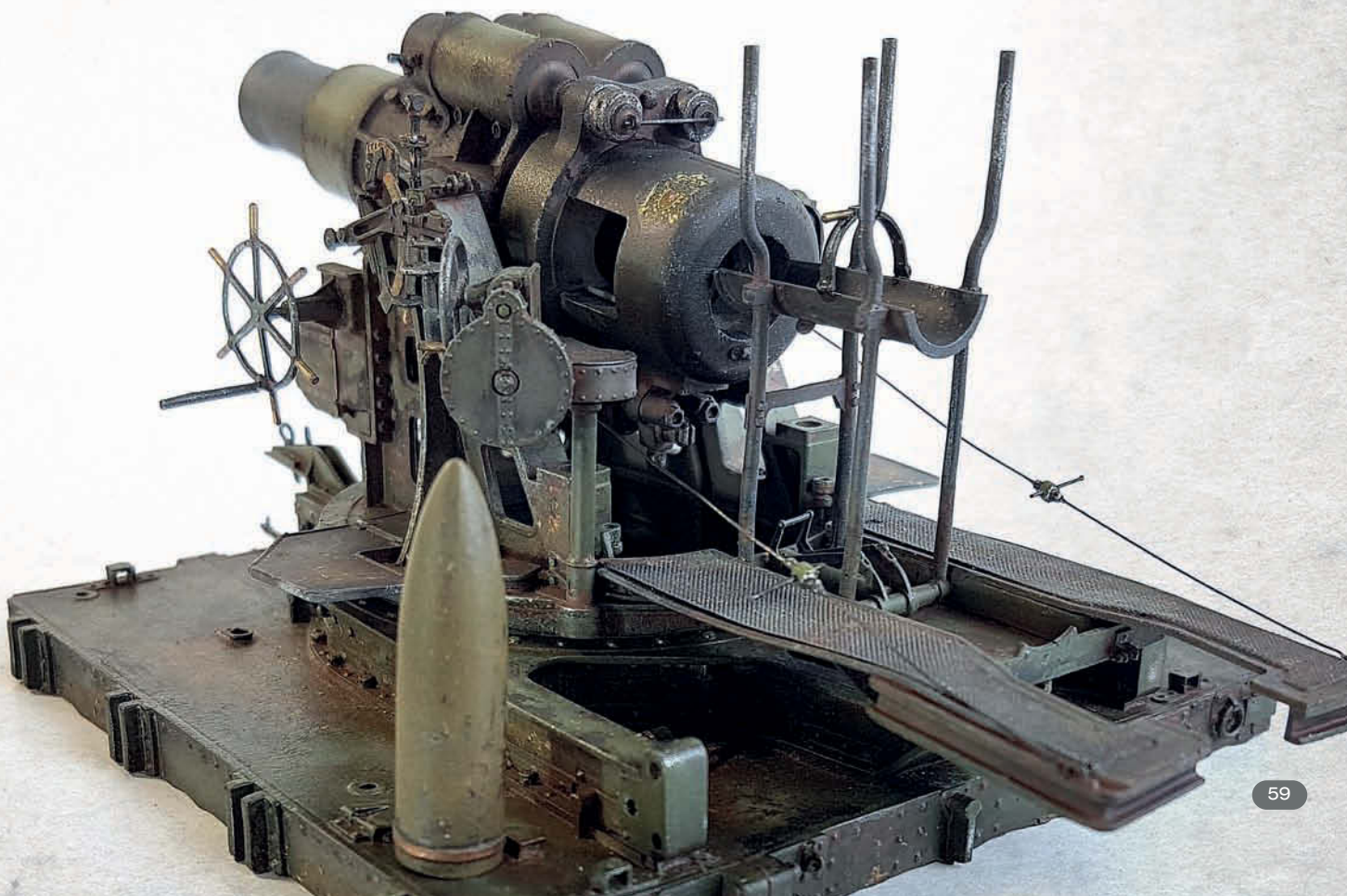


The illustration that 'fired' my interest in these monster mortars by Matt King.

Recommended references:

42cm "Big Bertha" and German siege artillery in
World War I – New Vanguard 205
Chuda Emma, Andrzej Zareba (Krakow 2006)

German Heavy Mortars – Joachim Engelmann
Nehéz tüzérségi gránátok a Hadtörténeti Intézet és
Múzeum főbejár atánál és az udvaron –
Hatala András 2015



OPERATION EPSOM

PART TWO



JERRY RUTMAN Tells the story in-scale of this important part of the Normandy Campaign in WWII

EPISODE FIVE

Late morning on the first day of Operation Epsom and the Battalion on the extreme left of the 15th Scottish Division assault, the Royal Scots Fusiliers, have run the gauntlet of fire from Carpiquet airfield on their left and now have the village of St Manvieu in sight. Damaged and on fire with its medieval church spire smashed, it looms through the bocage and orchards that were absent during the beginning of the advance. The HJ kids have begun to recover from their initial pounding by over 600 gun tubes of various calibers up to ships' artillery offshore. Mortar fire, machine gun bursts and rifle fire begin to take a toll on the stalwart Scotsmen. After commo is regained even the German artillery lets loose well aimed and registered salvoes. The 9RTR has managed to bring up a few Churchills after getting separated from the Fusiliers by minefields. The objective is in sight!



The 9RTR Churchills free themselves from the minefields and race ahead to catch up to the Infantry.



Have a care for those hedges on the left.



Our Infantry is dead ahead, have a mind for them in the tall grass!

Back on schedule. It's nice to have the Churchies' back!



I dinna like tha' ower there mate!



Keep moving! The barrage has left us behind!

Sah-jent Major! Wa's tha? Keep yer heed doon laddie!



Bloody mortars! Take cover!
The Platoon leader is down!

CRACK!

The Company Commander calls for artillery support as well. Some batteries were assigned to give support fire outside the rolling barrages as needed.

A runner is sent to use the tank telephone to ask for supporting fire.



The request goes back to artillery support control and then by telephone to the individual guns. The hard working gunners fire an enormous amount of ammunition in a short time. The 12SS does not have this luxury considering the Allied Air Forces have hindered the supply lines up to the front dramatically.

Well trained 25 pounder crews serve their pieces with rehearsed precision. The loader twirling his ramrod like a drum major in precision born through repetition.

Corrections are sent back from the forward observers. The gunner has to make sure his sight remains on the striped aiming posts between every round. The crew stands by in case a major direction change has to be made by using the steel pole at the back of the guns' trail. The well designed 25 pounder was mounted on a cruciform that helped this immensely, unique amongst the medium guns of the war.

The guns keep up the fire support from hastily dug pits around Norrey and Le Mesnil Patry. As the guns adjust and then begin firing the point sections take cover and begin the time-honored methods of fire and maneuver to eliminate the threats that keep appearing in the form of isolated German Infantrymen.

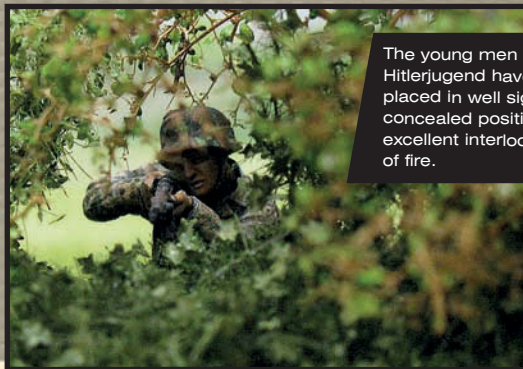
BOOOOM!

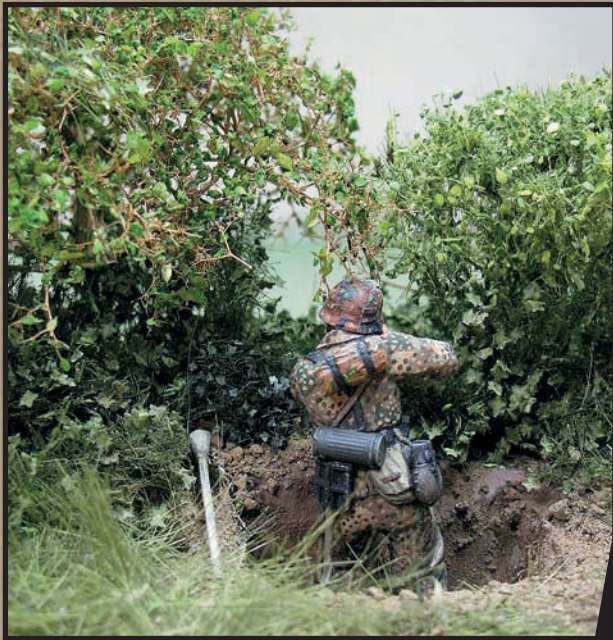


Git on line! Bren up and correct!
Put the 2 inch in action on that hedge!



The young men of the Hitlerjugend have been placed in well sighted and concealed positions with excellent interlocking fields of fire.





But after the devastating barrages their numbers have fallen. The Scots always mention "snipers" when remembering this action but that was just individual boys firing at them like any Infantry would.

The foxholes and dugouts that used to hold 2 or 3 men now sometimes held one. But those cut off and surrounded well trained soldiers kept resisting until killed, wounded, captured or hiding until nightfall. They then attempted to fall back to friendly lines.

A number of them escaped during the smoke and mist back to the Battalion HQ in St Manvieu. The village had been turned into an anchor for the defensive line.

This was the time for the Royal Scots Fusiliers to clear that stronghold. And thus enter the meat grinder

EPISODE SIX

For the soldiers of the First Battalion, 26 SS Pz GrenRegt. and the 12SS Pionier Abt. that managed to fall back, it was a deadly cat and mouse game trying to evade the now rapidly advancing Scots with their tank support. The pionieren tended to try to make it back to their command post area in a pre-war concrete bunker northwest of Cheux while the 26 Regt boys tried to make it to the village of St Manvieu which had been turned into a mini fort.

Some of the older hands took charge of groups of men on the run improvising in the manner the German Army was known for in WWII.

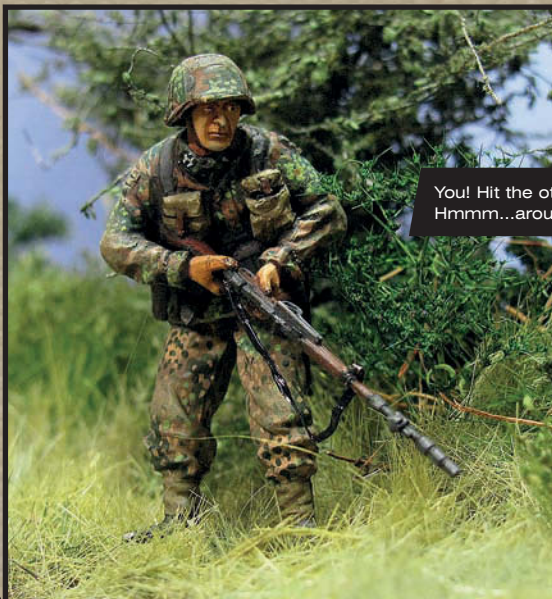
"Lauf lauf manner, aber pass auf links!!"
Run run men but watch out to the left!



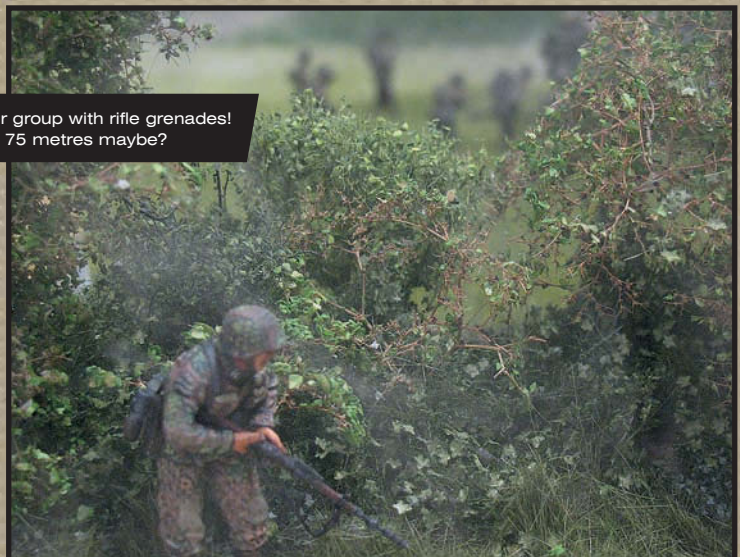
Engineer! Keep that magnetic mine ready!



I have the best shot Herr Oberschar! Perfect in a second or two!
I'll help occupy those infantry while you shoot!



You! Hit the other group with rifle grenades!
Hmmm...around 75 metres maybe?



Over there Sani, that's the way back! We have to get across this field though, quick!



CRACK!



Bollocks! missed the bugger!



Maybe I can pick them off from over here mate?



Bring that '42 up here...we've got more ammo!



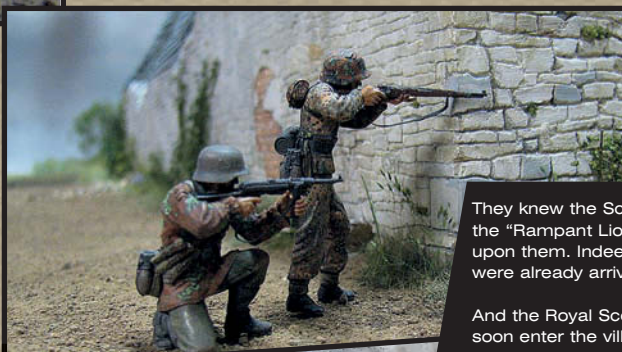
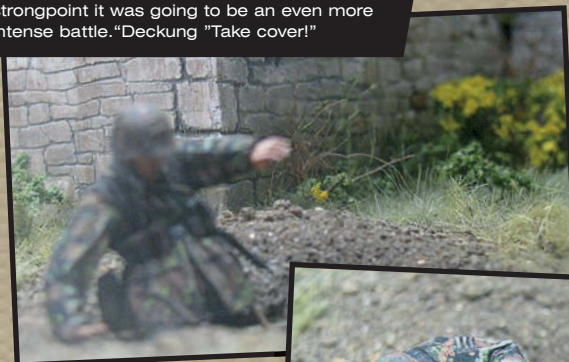
The fallback movements of the HJ may not have been coordinated but they did have the effect of slowing the Scots down by steadily causing casualties.



Looked after by the ones the combat vets appreciated above all



For the 12SS that made it back to the village strongpoint it was going to be an even more intense battle. "Deckung" "Take cover!"



They knew the Scots in the form of the "Rampant Lion" would soon be upon them. Indeed their mortars were already arriving!

And the Royal Scots Fusiliers would soon enter the village...

One by one or two by two they get to the village, fighting back all the way and seek cover in the dugouts and foxholes that Krause had insisted they dig for the past almost 2 weeks.



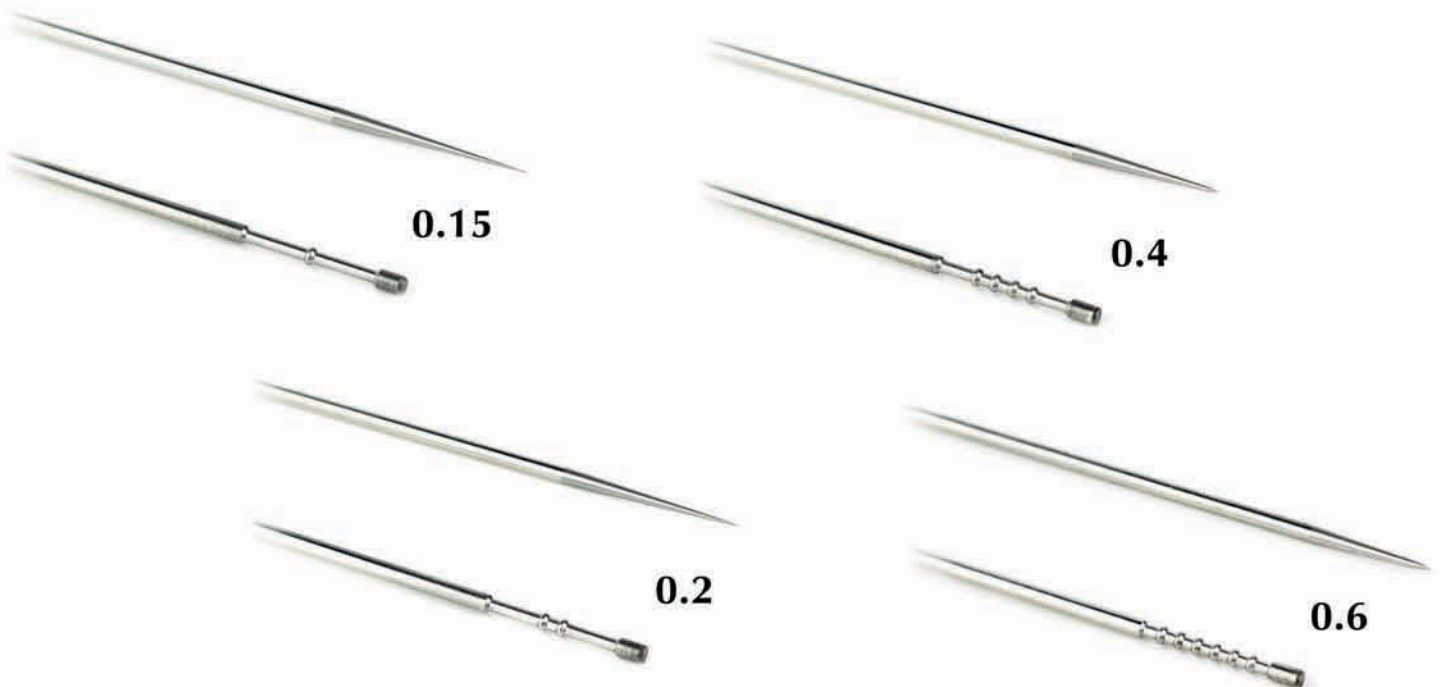
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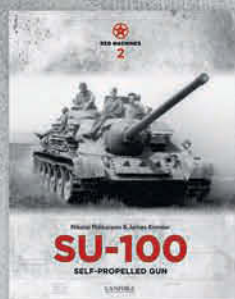
This book describes in detail the complex and nuanced development of what became the T-34, the conditions under which the tank was developed and tested, and how a few calm words by Stalin prevented the T-34, later the most famous Soviet tank of World War Two, from being terminated as a stillborn design during its development trials.

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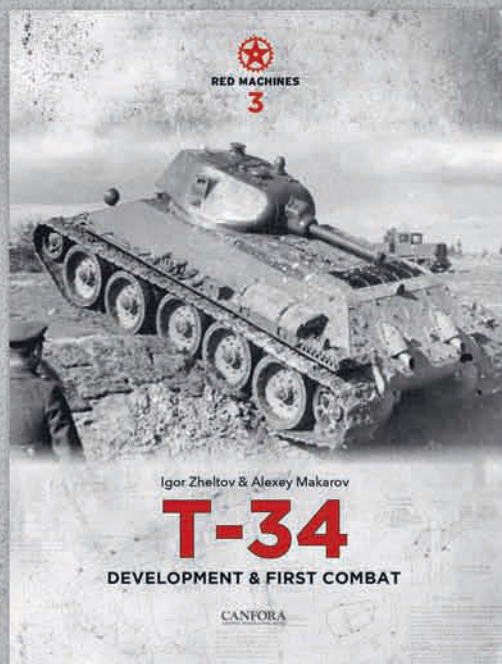
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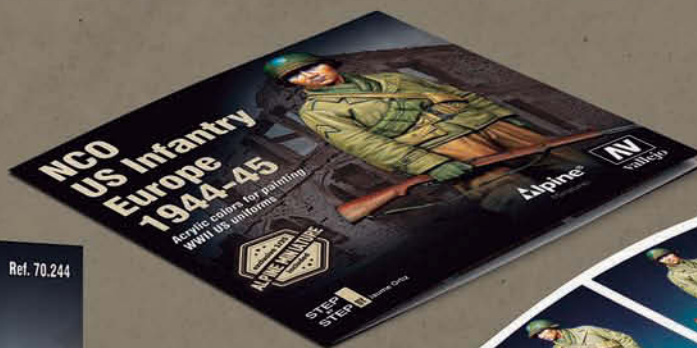
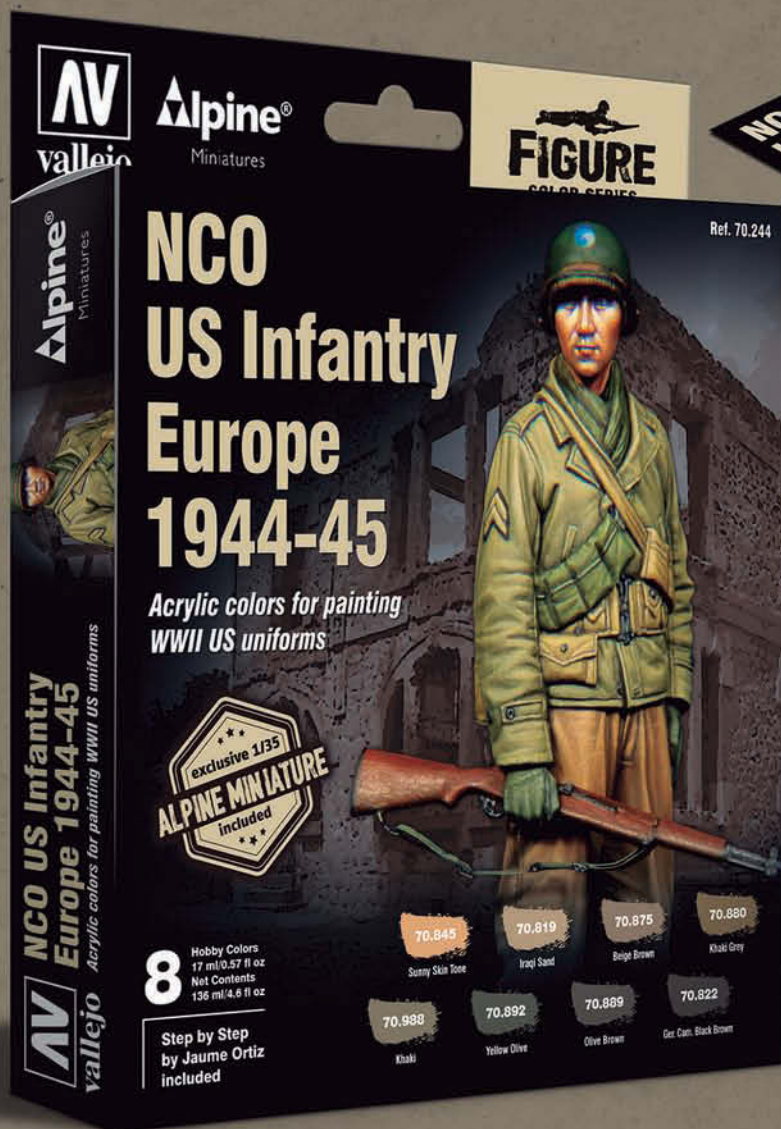
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