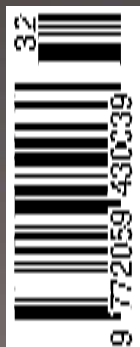


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1:35



Thomas Birzer's Operation Zitadelle Tiger

Every self-respecting manufacturer has at least one Tiger I in their range.

Most of these kits are also of good quality. Dragon's Tiger kits in particular have always had a good reputation. Nevertheless, Dragon has repeatedly improved and revised its Tiger kits. These newer kits really are of excellent quality in terms of detailing and coherence. One reason for the high standard of this manufacturer's Tigers is that Tiger experts David Byrden, Tom Cockle and Gary Edmundson were brought on board as technical advisors.

Now, if Dragon could still manage to include correct, workable single-link tracks, these tigers would be almost perfect.





TIGER ONE



Technical Foreword

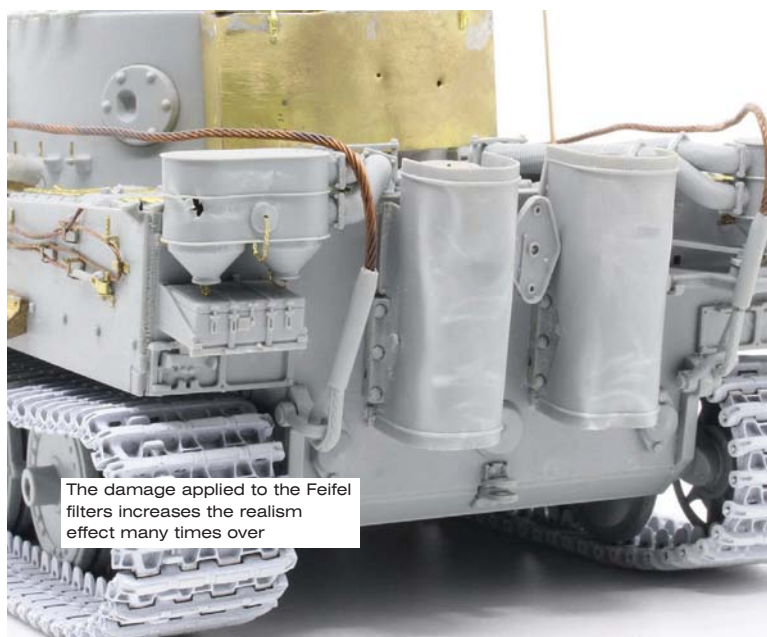
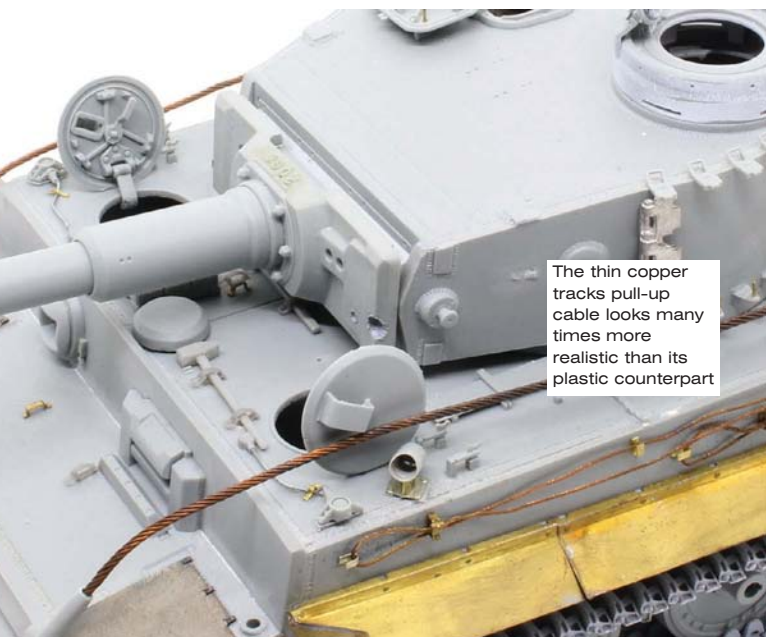
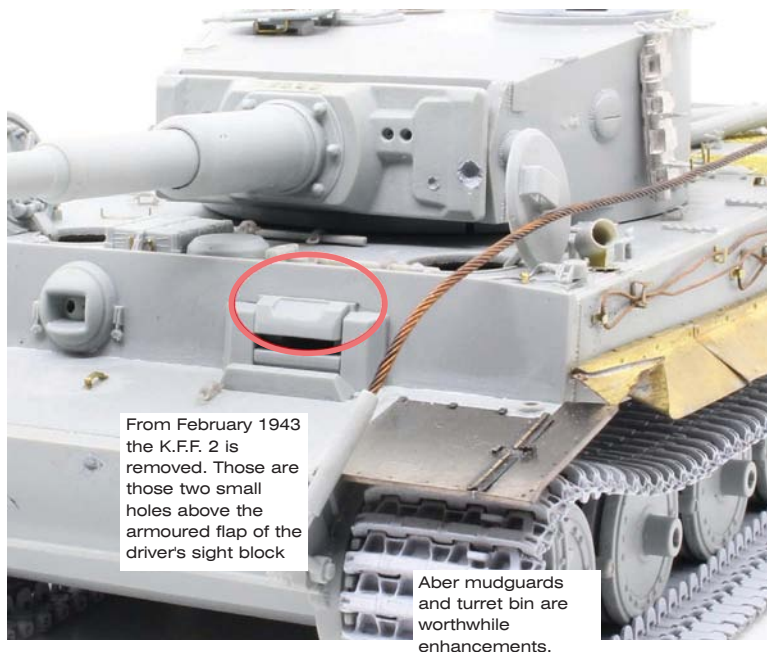
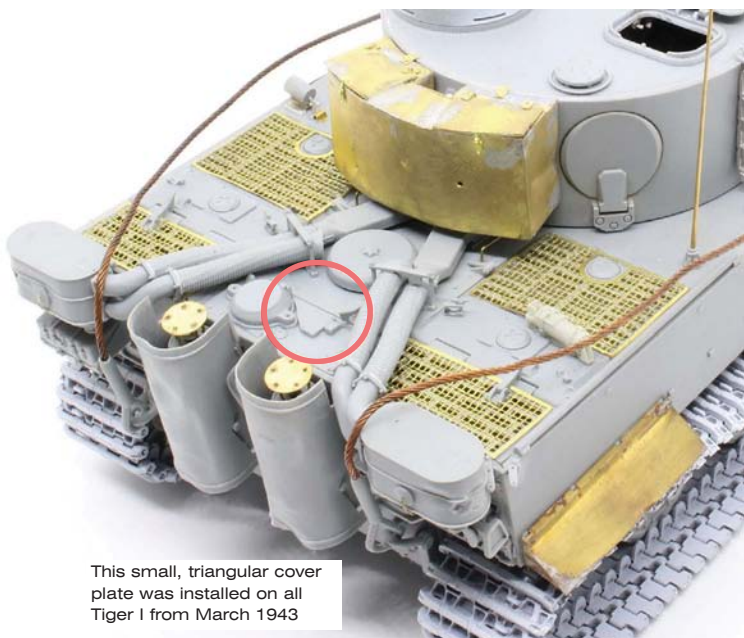
If you want to build a halfway historically correct Tiger, you should first research the production month using the photos of the prototype vehicle. In my case this is the tiger with the turret number "1314" of the LAH in Kursk. The only known photo was probably taken in July 1943 and shows the right side of the turret. You can only see that the two side spare track holders must be available based on the attached helmets. These holders were not installed until April 1943. It must therefore be at least an April production. The missing smoke candle launchers on the turret would indicate a June production. However, June seems very unlikely to me due to the short time between production in Kassel, Germany and use in the Kursk area in July.

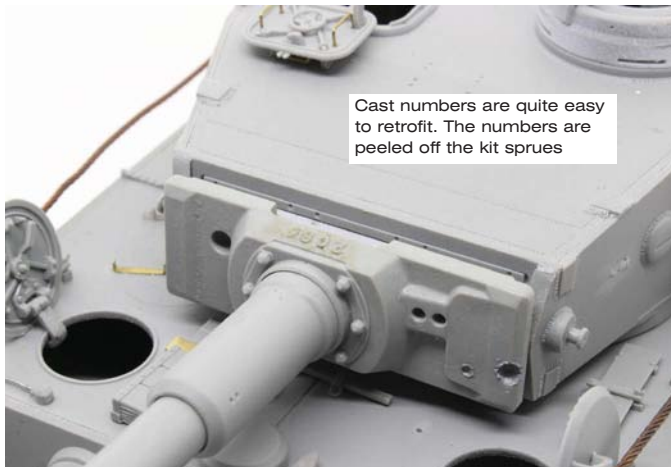
However, in June there was also an instruction to remove the smoke grenade launchers on the Tigers in the field. This would also explain the absence of this facility on "1314". The retaining brackets were usually cut off with a cutting torch. So I settled on an April 1943 production. There are a few points to consider during construction, which I will go into later in the text. The book "Germany's Tiger Tanks" by Thomas L. Jentz and Hilary L. Doyle was a great help to me when I was researching. This book describes very precisely when and what was changed.

Go for the plastic!

The fit accuracy of the Dragon Tiger is quite good, only at the marriage of upper hull and lower hull, some clamps were required. Component H17 is to be used here for an April construction lot. Because it contains the small triangular plate that was installed from March 1943. When choosing the front panel with the driver's sight block and the radio operator's machine gun, a Tiger built after February 1943 requires component E7. Because in February the K.F.F.2 periscope was dropped.

When choosing the gun mantlet you are spoiled for choice. The picture does not show exactly which one it is. I know of at least seven different variants of the Tiger I. But it should definitely be one with the reinforcement on the optics. Because these reinforced mantlets were installed from November 1942. From March 1943, a periscope was also attached to the turret roof for the loader. This must therefore also be supplemented. (Note: initially i installed the wrong V-cover by mistake, but on the final pictures, the correct cover is mounted). If you decide to mount the S-mine launchers on the hull roof, they should be drilled out. These were very thin-walled cups.





Cast numbers are quite easy to retrofit. The numbers are peeled off the kit sprues



Combat impacts are replicated with a drill bit and putty



Such small modifications as here on the exhaust mufflers go quite quickly and look great afterwards



The wall thicknesses can be thinned out to paper thickness with a milling cutter. Then you can dent well

From March the older, round Feifel filters were replaced by the oval ones. You can often see quite dented and damaged Feifel filters on photos. This can be reproduced by milling the material extremely thin with a milling cutter. Because then the plastic behaves almost like an etched part made of metal when it is pressed in. However, it tears and breaks faster. In the case of the filters, this is not a problem, since there were often holes in the original.

I did the same with the heat covers on the exhaust. Since the Voyager PE parts provided for this purpose did not have the correct dimensions, you can also get realistically dented sheet metal with the kit parts. I advise against simply heating the parts and then deforming them. This usually looks quite artificial and unrealistic. You can also upgrade the mufflers themselves. The cover plates, which are much too thick, should be ground down thinner or replaced with an etched part or sheet. Also replace the five retaining bolts with thin wire. Such an upgrade immediately

catches the eye, especially when the heat covers are left out. The side-mounted track pull rope from the kit is of very good quality. However, it is quite accurate and factory wound. To make the model livelier I replaced it with a 0.5mm Karaya rope. The brackets were built from leftover etched parts from the spare box. The cast number on top of the gun mantlet was created by slicing off the numbers on the sprues. A sharp scalpel works quite well. These numbers are then glued to the desired position with plastic glue.

I placed a few hits of different calibers on this mantlet and also on the front of the hull. To do this, drill a slight indentation with a suitable drill and then apply a thin coat of putty, e.g. from Tamiya. After about five minutes, press the rounded end of a brush into the hollow. Then remove the edge of the pressed-out mass with the scalpel until the result looks realistic. The edges can be smoothed and blended with thin plastic glue. There are plenty of model photos for such hits in the literature and on the Internet. For a more realistic appearance, side skirts and the plastic turret





A primer is essential to ensure good adhesion of the paint to the metal parts



Green camouflage seemed more likely than brown to me. The decals are from Cyber Hobby kit #9142



The paintwork and weathering

Because of the metal parts, a primer is essential. "Rust Base Primer" from Titans Hobby was used for this. The colour tone is also intended to simulate the anti-rust paint red oxide. This is then an ideal basis for chipping using the hairspray method. After a layer of hairspray directly from the spray can, the base colour dark yellow from a 50:50 mix of Tamiya XF-88 and XF-2 followed after it had dried. Very fine scratches and chips can then be achieved with an old airbrush needle. Toothpicks and brushes can also be used if you like. Various sources cite brown as the colour of these Tigers' camo, while others say green. Since the operational area was in the grassy landscape near Kursk in the summer, I think green is more likely. Therefore, the camouflage dress followed with a 50:50 mix of XF-65 and XF-67. Now it's about homogenizing the bright colours and strong contrasts. For this I use a filter made of oil paints. And almost in one go I do the pinwashing. The lighter tones more on the surfaces, the darker ones more on the raised and sunken areas. Basically three different colours are enough. After about two days of drying time, streaking were created on the model. Don't overdo it, subtle streaks usually work better than strong ones.

Since the tiger is supposed to stand on a diorama later on, dirt must not be missing. "Thick Mud" by Vallejo is the drug of choice. The addition of some static grass results in beautiful dirt effects. The colour of the whole thing is secondary at first, because in the end everything is airbrushed to match the colour of the diorama. If

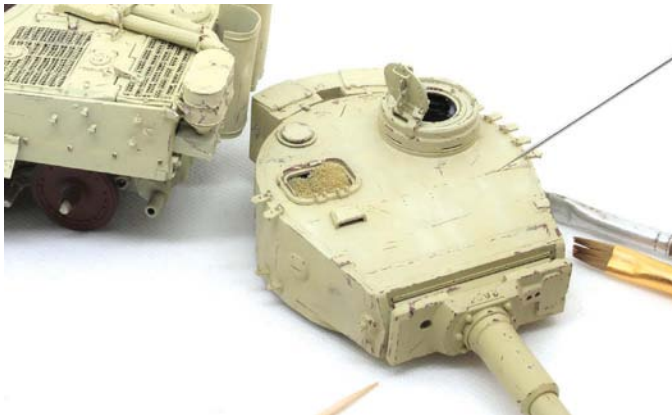
you are satisfied with the dirt, you can start with the important step of the so-called "speckling". This creates contrasting small splashes of mud. This works very well with a bristle brush that you slide over an old airbrush needle or a toothpick. For better control, it is better to practice on a piece of paper beforehand until you get the hang of it.

I primed the metal tracks in light grey to ensure good adhesion of the paint. Then they were soiled with the same agents and colours as the tanks before.

Finally, you can go over bare metal edges with a soft pencil, or, for example, highlight the damage caused by bullets. This accentuates the impression of steel even better.

Addendum

Unfortunately, I only noticed very late that I had forgotten the D26 components for the spare track link holders on the turret roof. The holders seemed so strange to me, but sometimes one is just operationally blind I had also mounted the wrong armour for the loader's periscope. This wide, V-shaped armour wasn't installed until July in conjunction with the new cupola. So it didn't help, I had to tinker around again on the finished painted and already weathered turret roof. I painted and weathered the new parts right before assembly. But with a little thrill it worked quite well to integrate the new parts into the existing finish. The correct periscope cover can therefore be seen in the final images.



Very fine scratches and chips can be achieved with an old airbrush needle. A toothpick works too



There are many good off-the-shelf products for the pinwash and filter. However, I prefer to use oil paints for this



Such streaks on various attachments can also be shown very well with oil paints.



With the so-called "Speckling" mud splashes are produced on the model as controlled as possible



The metal tracks will later be colour matched to the background of the



To give bare metal parts the look of steel, I polished them with a pencil



From March to July 1943 this narrower armour cover was fitted for the loader's periscope

Conclusion

I've probably already built twenty of these big cats from different manufacturers. Dragon kits are always my first choice. The kits contain a lot of alternative parts, so that you can build almost every prototype tiger down to the last detail. Of course, there are also many parts left over, but many of them can certainly be used again in future Tiger projects.





Dragon Kit: 6730

Aftermarket: ABER, 35A102, Turret Stowage Bin for German Tank Pz.Kpfw.VI Tiger I,
Leftover parts from various etched parts sets from ABER and Eduard
RB Model, 35A02, 2m Antenna
Friul Model, ATL-25 metal tracks
Karaya, TCM08 and TCM04, Towing cable



TIGER ONE



1:35

Chris Meddings creates an ill-fated GAZ Tiger



The GAZ Tiger is a light armoured 4x4 vehicle introduced to meet a requirement for an on-and-off-road vehicle able to transport a small squad of troops, or fulfil special roles as required. Accepted by the Russian Defence Ministry in 2006, it has also been sold to a number of countries including: China (who were co-developers on the project), Mongolia, Slovakia, Armenia, Uruguay, Nicaragua, Belarus, Algeria, and at least ten other countries. In addition to military users, many are employed by police forces for special enforcement groups.

Ukraine also operates the Tiger, although all of them are captured vehicles taken from the Russian invaders. Ukraine is believed to have around 45 Tiger and Tiger M vehicles.

The Tiger has 5mm of armour, offering limited protection from small arms and splinters. The Tiger M has an improved armour of 7mm, and a larger engine. The original Tiger was powered by a US Made Cummins 5.9l diesel paired with an Allison or Chrysler transmission. The Tiger M is powered by a YaMZ-534 engine and the M variant can easily be spotted by the large, armoured box in the centre of the hood, which accommodates the larger engine. In Ukraine

Despite Kremlin denials that Russian forces were present in the annexation of Crimea, Tigers were ubiquitous in the 2014 invasion of the peninsula. Given the only actors that could possibly deploy the type were Russian, it was painfully obvious who the 'polite little green men' were. Later, despite further Kremlin denials (that lasted up to the 2022 invasion of Ukraine), GAZ Tigers were also spotted supporting DPR units in the war in the East between the legitimate government of Ukraine and Russian-backed Separatists.

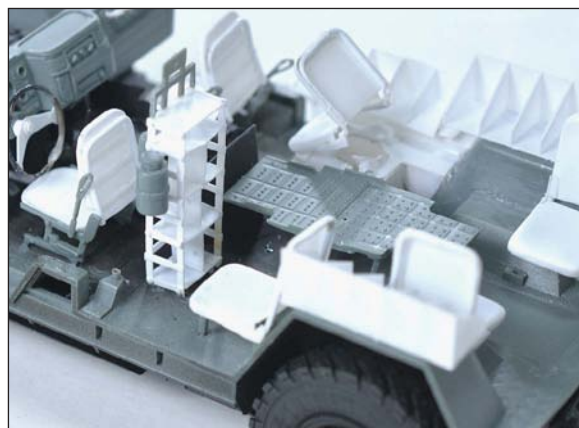
When Russia started its all-out invasion of Ukraine on 24th February 2022, Tigers were in the vanguard of the light recon forces sent to capture key points. This meant they were the first to meet the stiff resistance Ukraine put up, far beyond Russian expectation. Pictures of destroyed and burned Tigers can very easily be found in Kharkiv and the suburbs of Kyiv, proving their vulnerability to modern weapon systems. The vast majority are Tiger M, with a few Tigers mixed in. For this build, I chose to use the Xact Models 1/35 GAZ Tiger, but other kits are available from Meng, Trumpeter, and of course the cheerleaders for the Russian Military in the model world: Zvezda.



TIGER TOO



The Xact build starts with the chassis. This is a highly detailed and complex sub-assembly, and you will need to pay close attention to the instructions and clean some mould parting lines carefully, to get the best fit. About the only thing I added to the chassis was a new cable for the winch, which I made from several strands of twisted 0.1mm copper wire.



Turning the Tiger to tinder

At this point you are supposed to add the wheels, so I did, but I replaced the kit wheels (which are very good) with the superb resin 'flat' wheels from DEF Model (DW35139). They are not really designed for the Xact kit, but with very little work indeed, they fit very well.

Next you have to build the interior pan of the body, so I sprayed the chassis gloss black and set to work. The body would need a lot of modification. The interior of the real Tiger has a lot of plastic and other flammable components, and as I was modelling a destroyed vehicle I needed to remove or adapt the moulded-on detail. I started by scraping off the rubberised antislip coating on the floor panels with a fresh scalpel blades and various micro chisels. When that was finished and polished a little to remove scratches, I copied the shapes of the gearbox in styrene sheet to replicate the damage seen in photos and tore them up before placing them.

The seats were next. Again, these needed to be modified to show them burned out to show seat pans and backs with no upholstery. The pans are in two types, so I made some formers from putty and made multiples with a vac-forming machine to ensure they were thin and identical. The seat backs were all the same, so I only needed one buck to do those. When I had enough usable ones, I carefully added the seat frames from the kit, and they were ready to place.

There is a box on the right side of the interior, and I wanted to show it burst, as if from an exterior impact, so I replaced that too with scratch. The next detail that needed modification was the dashboard and steering wheel. Probably I should have melted the dash, but I could not find photos confirming what it looked like, so I opted to concentrate on the steering wheel, and grab bar on the passenger side. Later I would find the reference, and change this.

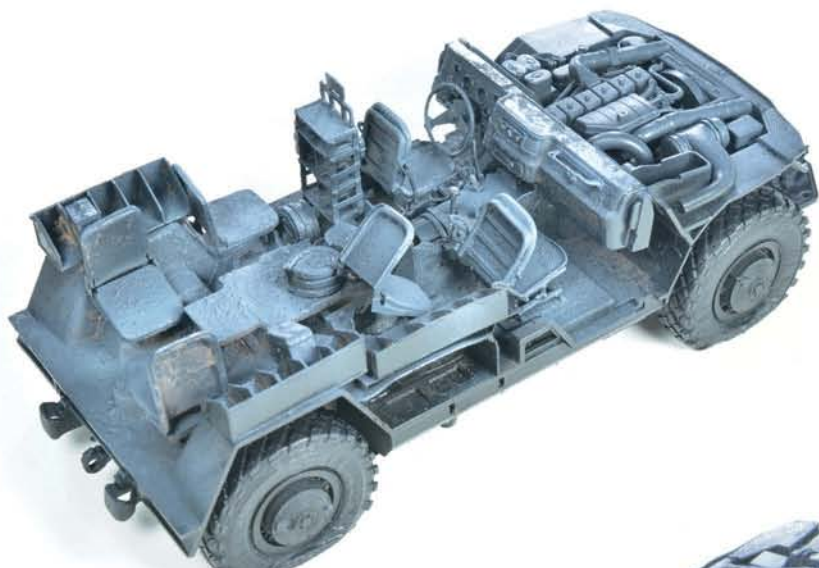
Finishing the interior, I needed to make a few more items. A couple of pedals and some levers or sticks on the gearbox were pretty straightforward. Similarly, the rack behind the driver for equipment and ammunition, and the various ammunition racks around the interior were very easy to put together using sheet styrene and photos. The thing I had a little more difficulty with, was the detritus inside the interior, that made it look more like it had actually been used rather than a burned-out shell. The first thing I needed was 7.62 ammunition cans. I had a couple from a Miniart T-55 which were very nice, but other than that all I had were some very old and poorly moulded Dragon ones. To improve them, I cut some stars and strips from styrene sheet to make them look sharper and more detailed. The cans for the AGS -30 needed to be completely scratched. I took basic measurements from the one in the kit and drew up parts in the Silhouette studio, then cut them out on the Portrait and assembled them.

Finally for the interior, I added some wiring and hoses in the engine from scratch, to supplement the kit detail and placed the

various items around inside the interior. Once that was done, the interior was treated with a liberal dabbing of brown filler to represent the ash and burnt flammable material, then gave the whole thing a coat of black.

As most of the rusted metal would be covered by the ash and other debris, I started the painting of the interior with rust tones. I used light greys, browns and applied them in a variety of ways, in washes, with a brush, with sponge and so on, randomly as much as possible. When that was done, I added various colours from the Lifecolor Liquid Pigments rust set.

The interior of the top shell was treated similarly, but I also added some torn strips of aluminium foil, painted in dark greys, to represent remnants of the cloth covering on the ceiling of the interior. Some blending, shading and smoke stains were added with Tamiya Smoke (mixed with Flat Base, to reduce the glossiness of the Smoke), and heavily thinned Flat Brown.



On the exterior, I needed to add some welds. These are provided in the kit as PE, but honestly, I didn't think they looked great, so I masked off the weld lines and added them with epoxy putty. I also photographed the diagram of the clear sprue in the instructions, and scaled it on Silhouette Studio, then traced it to draw masks for the windows.

The doors were prepared next. These were one of the most work-intensive parts of the build. The kit doors are sensible enough:

two-part doors with an exterior half and an interior half that includes the moulded door interiors, handles etc. Looking at photos of burned-out Tigers, it looks like these mouldings are made of plastic or pressed fibre, because they don't survive a fire, so I had to scratch the metal parts revealed when the mouldings melted away. Reference is a bit difficult to find, I had to make do with somewhat grainy low-res pictures of destroyed Tigers. Luckily there are plenty to choose from. To represent remnants, I added a few torn strips with 2-part putty.



Burning desire

Exterior painting started with some darker sooty staining and I followed that with a rusty pink (Tamiya Hull Red plus a touch of light grey). Working from the reference photos, there are patches of the metal that have not yet rusted, but have been discoloured blue, grey, and purple from the heat. These patterns seem to follow where items are welded to the inside of the exterior armoured skin.

Now it was time for the rust. I love the Lifecolor Rust effects Liquid Pigments. They come as a set and the colours are natural and realistic, and they are really easy to work with, building them up in subtle translucent layers. I started with LPW08: Eroding light rust, applying it relatively heavily with a brush, and sponge. Next, I toned that down with LPW06, Deep Rust, then added some tonal variety with LPW09 Orange Marks.



The rust had worked as intended, but I felt like I was losing the distinctive grey-blue marks, so I brought them back with some heavily thinned Tamiya XF-91, IJN Grey (Yokosuka Arsenal) [23]. I added more variety to the greys using a mix of XF-91, black and flat blue. [24]



Ap-peeling idea

One of the distinctive things about the reference photos, and a challenge I was excited to take on, was the peeling paint. It seems that when Gaz Tigers burn, the paint lifts off the metal in peeling sheets. The idea I had was based on bad experience with plasticky acrylics, especially AMMO of Mig. The experience I have had with them is that they cure as a latex layer that peels off models easily when masking and have poor adhesion to the model surface. I decided to make this failure a feature. I sprayed one of their greens onto a piece of a thin cellophane bag, ensuring a good solid coat. When it was touch dry, I lifted the edge with a scalpel and peeled it off the bag in a sheet. This is made easier by the flexibility of the bag. I added a strip of this to the model, pressing it down on the edge where it would be attached. Because it was not fully cured, it smushed into the model pretty well, but I aided it by brushing some extra thin on, which melted the strip into the paint already on the model, blending out the joint.

I showed this to a few friends for their thoughts, and Lester Plaskitt gave me a great suggestion, to use masking fluid applied with a sponge to make blisters. I then masked off the burned part of the door I was working on, and sprayed the bottom half green for unpeeled paint. This was duplicated all over the model, and then I touched up the edge with a slightly lighter colour to make it pop.

I masked and sprayed the 'Z' markings on the side and rear doors, then weathered the unpeeled paint with dark washes and spatters and added some extra spatter effects to the rust. I had unmasked the windows earlier and sprayed them with a glossy dirty brown. This is seen in the reference photos and is most likely oily residue from the melting plastics in the interior. I did not paint their exteriors, but I did use a needle scribe from MRP to add cracks to one of the windscreen panels. I also cut a shattered hole in one side window and then scribed cracks into that.



The side window surrounds look more light grey in photos and do not appear to rust, possibly this is aluminium. I added some light grey acrylics to represent this.

Although this description of the painting sounds like a straightforward plan, that I executed in order, I actually went back and forth on this a lot. At times I struggled to find the balance and tones I wanted, and at times I made it worse! This is one of those times when you have to work on tiny sections at a time and then stand back and check the overall effect. At times I used oils to

blend effects (like the greys on the hood) and at other times I used the tendency of acrylics to leave a tide mark, to make crusty effects in the rust. You just have to keep playing with the surface till it works for you, and don't think in a linear, process driven, way.

To finish the model off, I made a very simple base of asphalt, using some sandpaper, and added filler powder to make dusty smut on the road where stuff had melted, then I sprayed it all with various greys and added thinned acrylic washes to get the ashy



Doing a burned-out vehicle is a lot of fun, but reference is essential. Rather than painting what I thought it should look like, at every stage I painted only what I saw in the photos. I learned a lot in the painting too, and I feel like I did more work than I had to, because I struggled to find that balance. On reflection, started from a dark base made my life harder, and I will probably start from a neutral mid tone next. Until then, thanks for reading





**TIGER
200**



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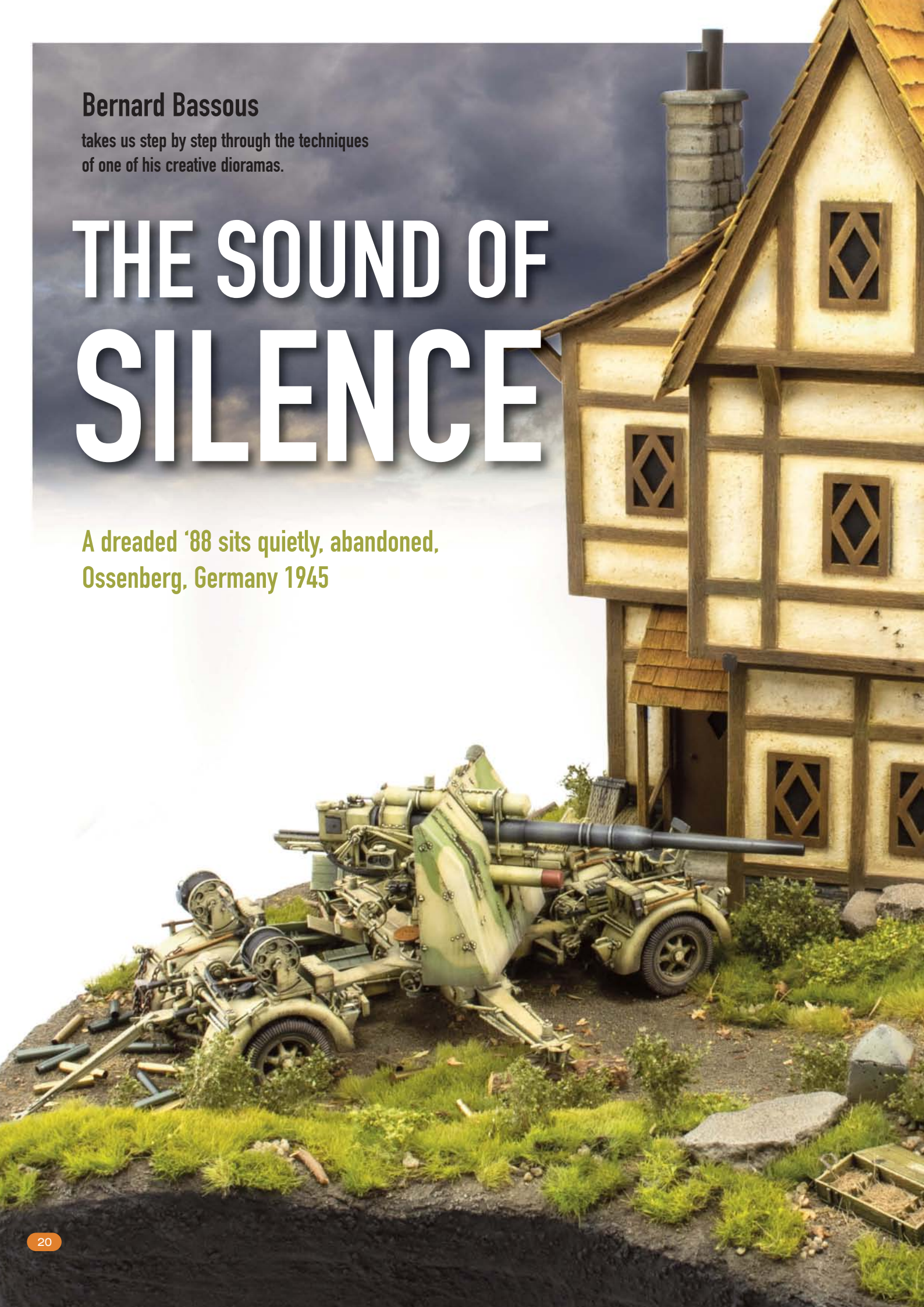


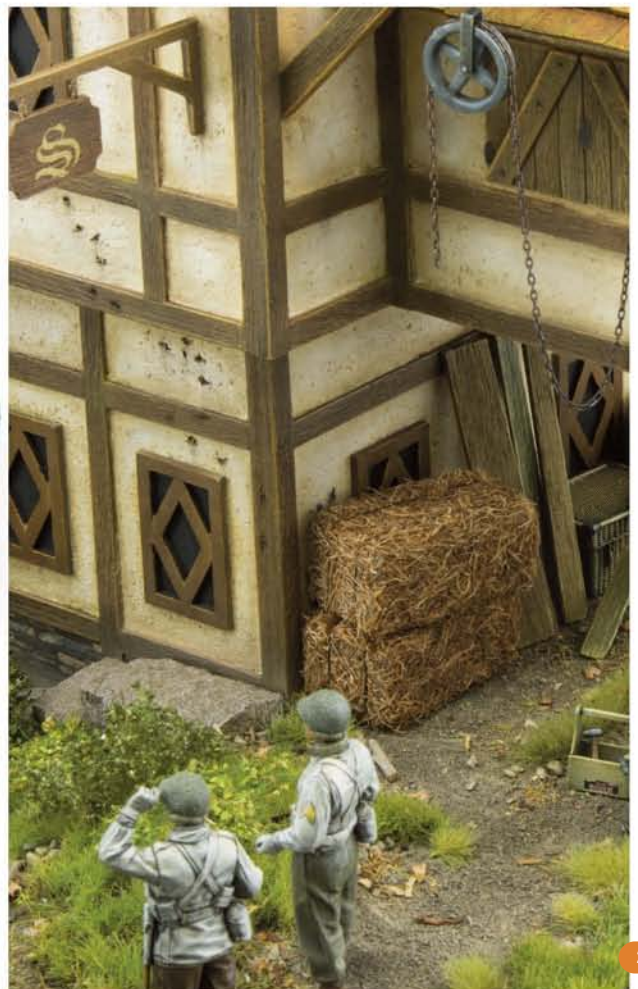
Bernard Bassous

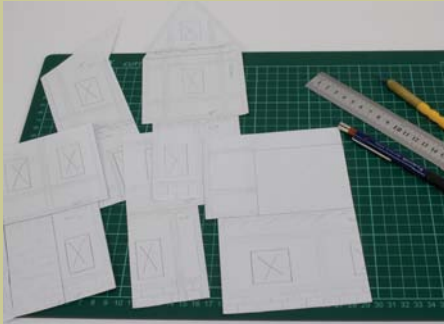
takes us step by step through the techniques
of one of his creative dioramas.

THE SOUND OF SILENCE

A dreaded '88 sits quietly, abandoned,
Ossenberg, Germany 1945



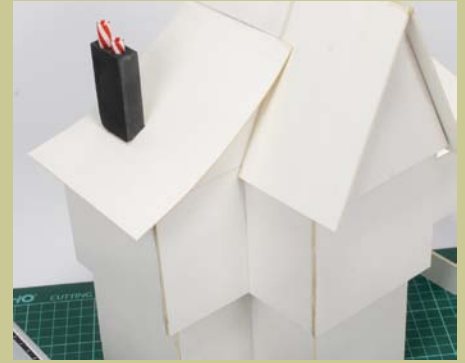




I started with the design of the town house, I drew it on 1/1 scale on a paper so I know the dimensions. Using this template can now transfer it onto cardboard.



The template was cut and all glued together to form the town house. The cardboard was cut using a blade, and glued together using super glue.



The chimney was made from black foam, and the chimney pots from thick plastic straws.



All the surface of the walls was made from cork sheets cut to scale and glued using Pattex contact wood glue. The thickness of the cork sheet is 2mm.



The bricks of the chimney was made from 7mm cork sheet, also glue together using Pattex contact wood glue. The edges of the bricks was smoothened using rough sand paper to simulate brick texturing.



The whole structure was covered by a thin layer of wall plaster using a scalpel, then smoothed with a sponge soaked in water. This will give the walls texture and a good base to work on.



As you can see the wall plaster was forced between the bricks and in all the nooks and crannies.



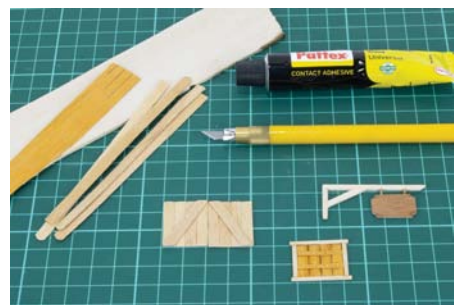
Using thin strips of wood, usually found in art shops, I did all the edges of the walls, and glued them using Pattex also.



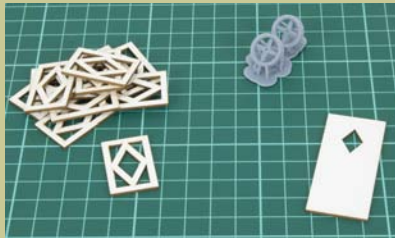
These wooden edges were measured and cut to size using a blade.



For the roof tiles I use 2mm Balsa wood, also glue them using Pattex. Using a metal wire brush I gave the roof tiles some wooden texturing, this should be done in a downwards manner to simulate wooden natural lines.



I also use Balsa wood and wooden strips to do the windows and sign. I also use some PE bolts for extra detailing.



I laser cut the windows and door, and using a 3D machine I printed the pulley wheel.



The base of the chimney was isolated using DAS putty to simulate the water-proofing material that was used on the base of the chimney.



The whole town house done, all accessories glued on and ready for primer.

The beam for holding the pulling wheel is made from 7mm Balsa wood, the resin wall is from Vallejo scenic.

I used wood plaster to give the roof tiles a light coat, gives it more structure and texture. The thin copper chains are from Voyager. I use cork sheets with different thicknesses to do the stairs.



After a coat of white primer, I cover the walls using paper tape so I can start with painting the wooden beams. All wooden accessories are painted, from the door, to windows, to roof tiles, etc...



Using AK Wash for wood, I give the roof tiles 2 thin coats.



Using Ammo Mig Kursk soil effects thinned heavily in thinner, I gave the walls a coat. I concentrated on the edges of the walls to create more depth.



For the chimney I use AK neutral grey Wash to darken the bricks more to a stone colour.

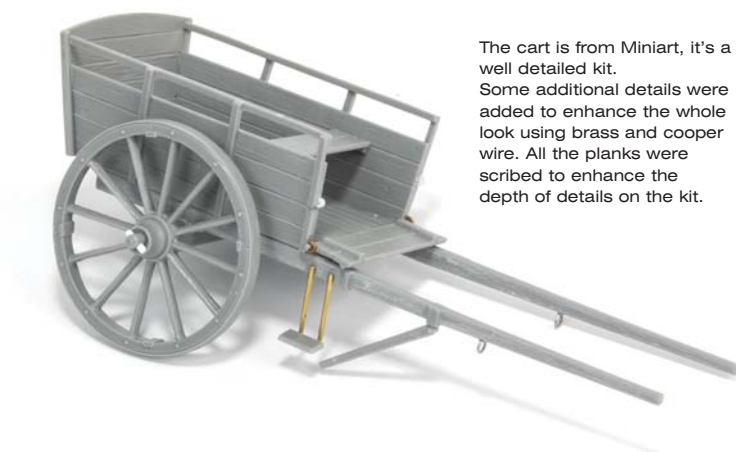


To simulate the small stone section on the lower part of the house, I printed the image on a satin paper, cut and glued it in place. I gave them a small Wash of neutral grey to make them more natural, and using AK dark streaking grime I paint on the frames of the wooden edges to simulate dirt deposits.



The resin wall is painted using acrylics, then weathered using enamels and oils. The metal bases on the top of the wall are to hold the wooden beams ascending from the house. These square-like shaped bases are made from aluminum sheet.





The cart is from Miniart, it's a well detailed kit. Some additional details were added to enhance the whole look using brass and cooper wire. All the planks were scribed to enhance the depth of details on the kit.



All the accessories were prepared. The 88mm cases from Dragon and Tamiya; the resin wooden barrel and box from Vallejo scenic; and finally the wooden planks. The empty cartridges are from AFV Club presented in 2 colours, the tools and accessories are from Miniart.



All the accessories were primed black. Basic colours were added using acrylics, they were also modulated using the same colour brightened with white. A filter was added using brown oil colour thinned with 70% thinner.



The motorcycle is from Tamiya, I added some extra details on it, and drilled out the front wheel. The motorcycle was coloured using acrylic colours and given a satin varnish coat ready for weathering. I used pigments and oils for weathering the motorcycle. The leather boxes were dry brushed using a light sand oil colour. The engine was weathered using oils and fuel stains enamel products.





The hay stack was done first by making the basic shape from blue



It was dipped in PVA white glue and thin strips of corn hair were pressed to it. After it was dry a thin rope was tied around the hay stack.



The first figure is from Bravo 6, I added the MP44 gun strap from aluminum sheet.



These 2 figures are from Alpine, cleaned and ready for paint.



The figures were primed in black then pre-shaded with white primer.

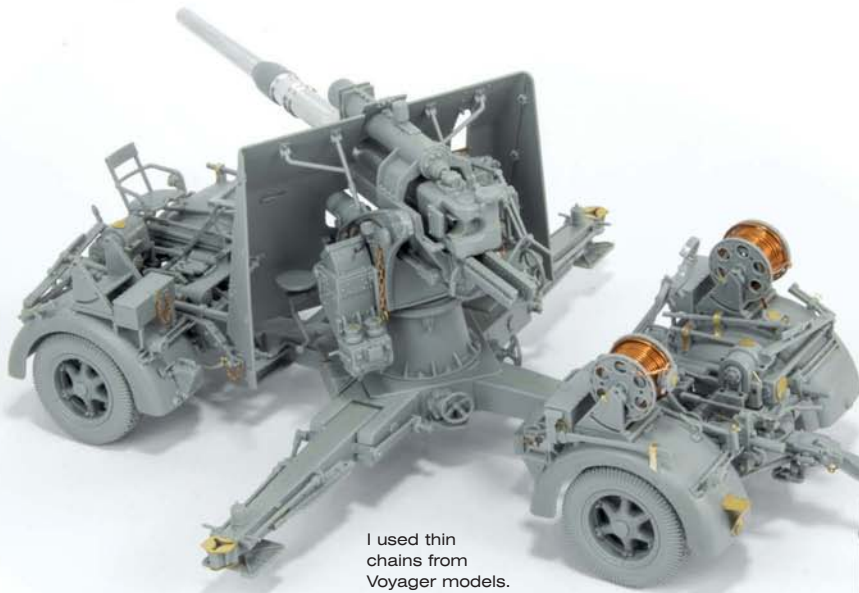


Basic colours were added to the figures using acrylics.



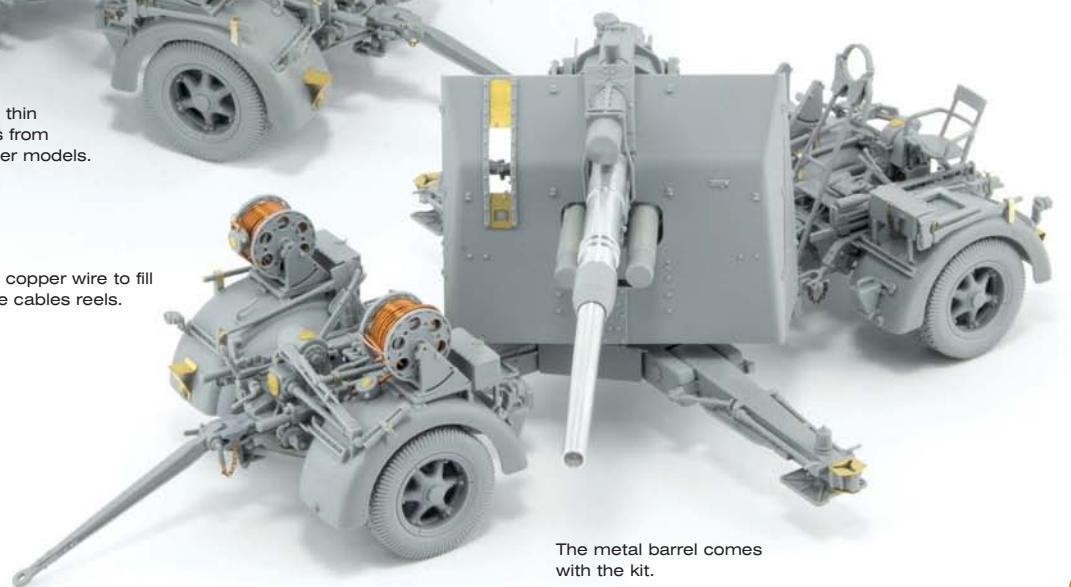
A dark filter was given to the figures. Black and brown oil colours thinned with 70% thinner. A dark pin wash was added all around the details to give more depth to the figure. I thinned black oil colour with 80% thinner.

The built flak from Dragon, detail is very nice straight from the box.

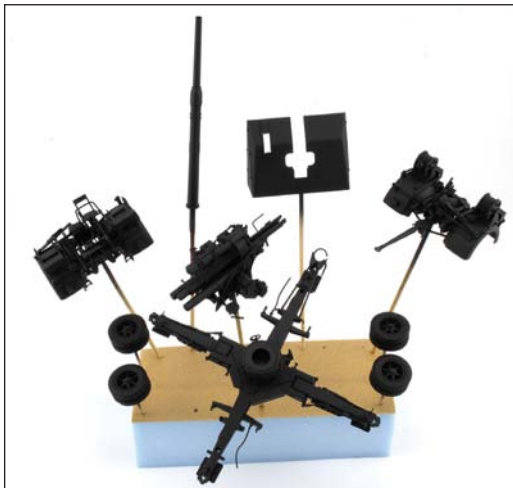


I used thin chains from Voyager models.

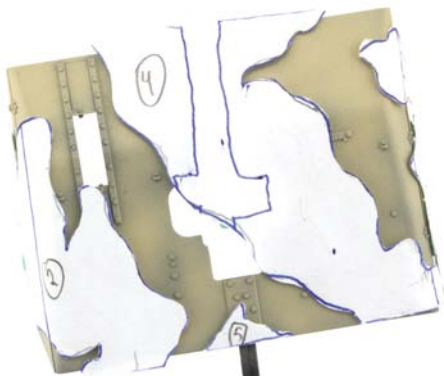
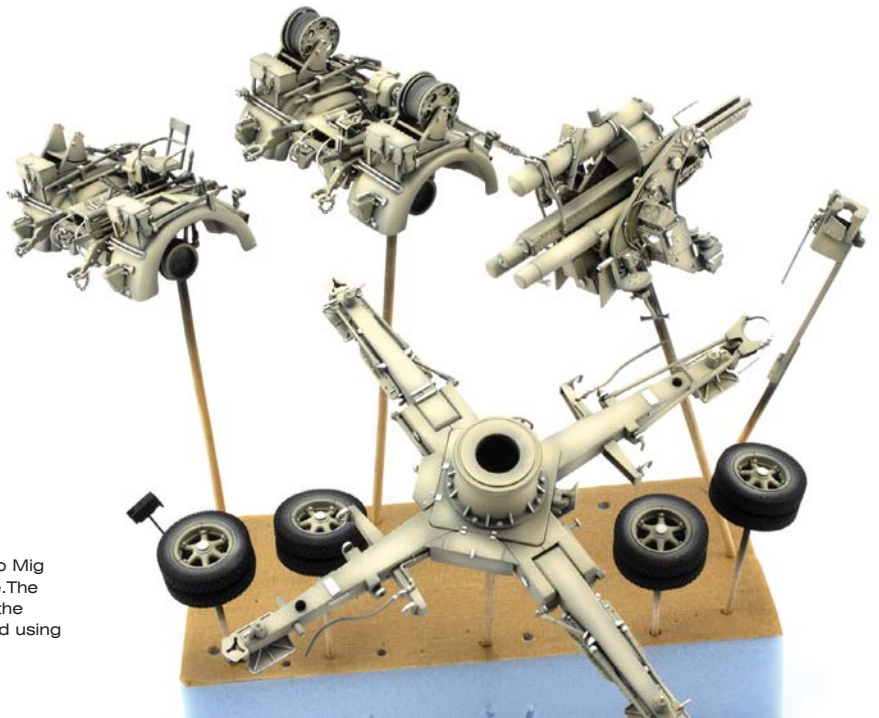
I used copper wire to fill out the cables reels.



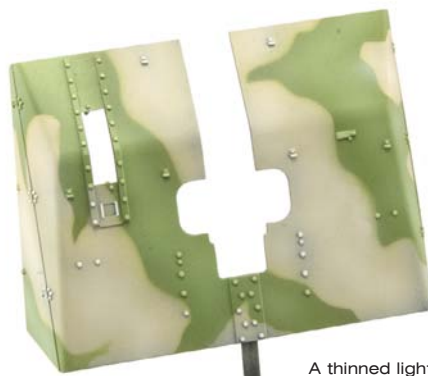
The metal barrel comes with the kit.



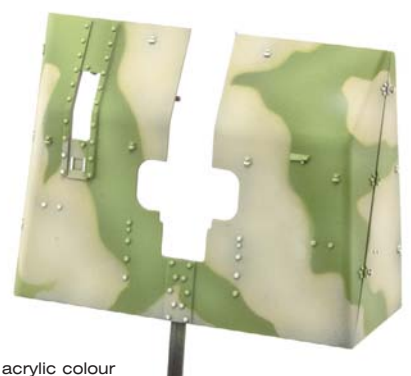
The flak was given a layer of black primer. I always use Ammo Mig one shot primer as it gives the surface a uniform satin texture. The base colour, German yellow, was applied to the model using the modulation technique. All the raised details were hand painted using a brighter colour of the base colour.



I made a template from paper for the green patches. It was secured to the shield using Blue Tac.



A thinned light green acrylic colour was applied also using the modulated technique. This kind of modulated technique gives the model more depth in colour.



The back of the shield was painted in primer red, and modulated.

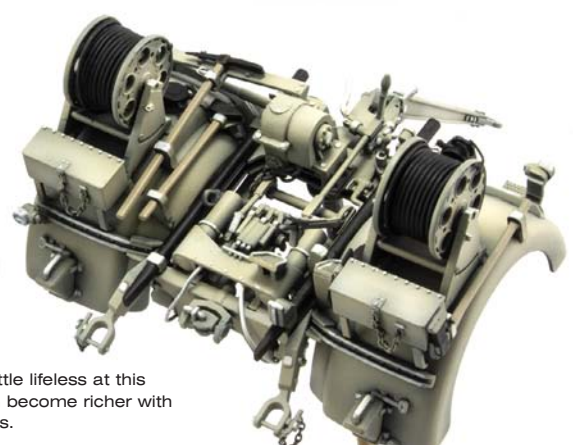


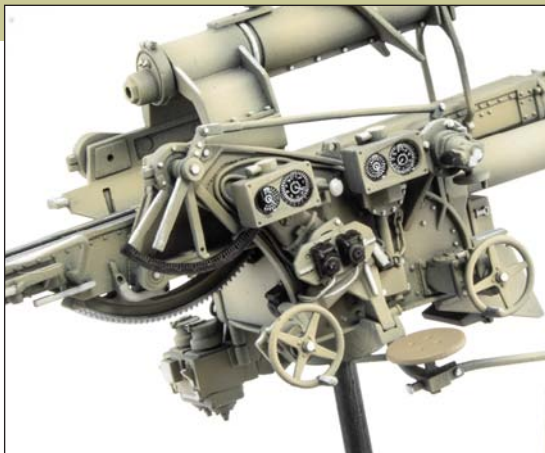
The barrel was painted heat resistant grey colour.

There's lots of detail painting on the gun carriages. Note also the highlighted base colour details; this colour will tone down with the further steps of weathering.



The colour is a little lifeless at this stage which will become richer with subsequent filters.

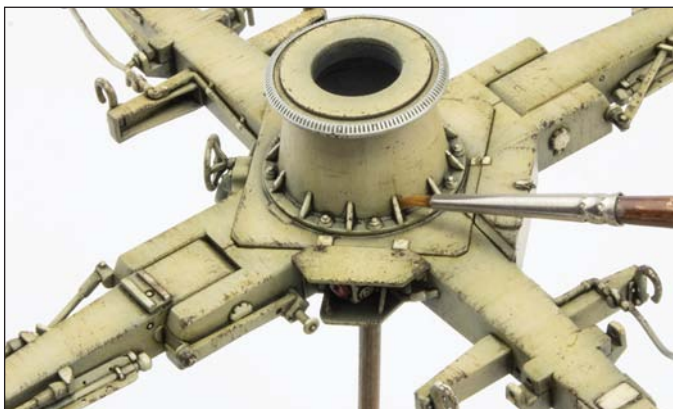




After applying a coat of satin varnish, I applied the decals using Ammo Mig 2 part decal set product.



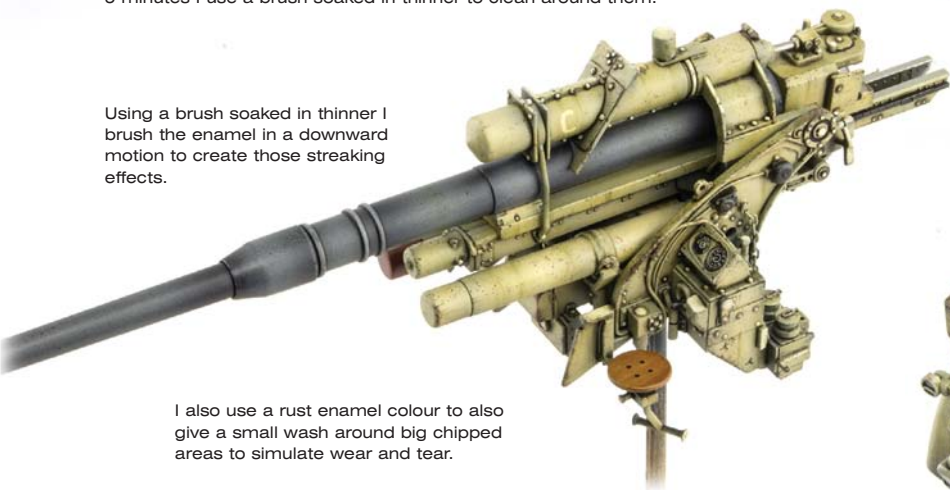
After a light coat of filter, light khaki oil colour diluted in 80% thinner, I used the sponge technique to do the scratch mark effects. I found out that Ammo Mig Drybrush paint series works great when also used to simulate scratches.



I did the pin wash from a dark oil colour around all the details, after 5 minutes I use a brush soaked in thinner to clean around them.

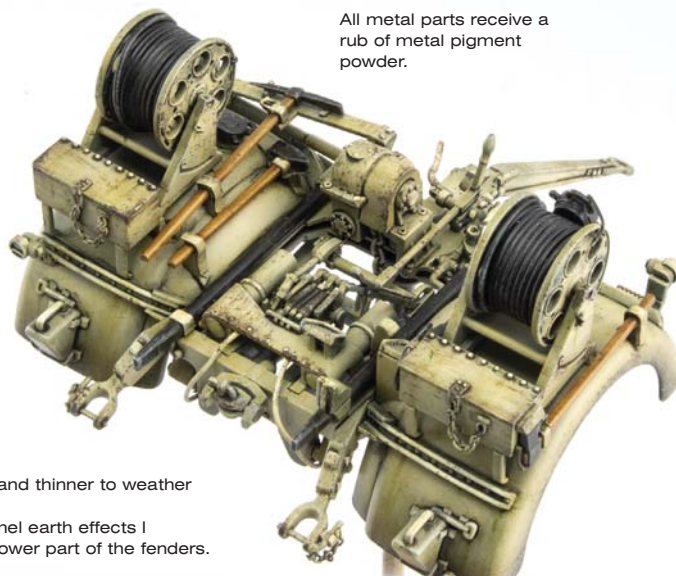


Streaking effect gives the model more life, so I make small wedges under some details and let them rest for a couple of minutes.

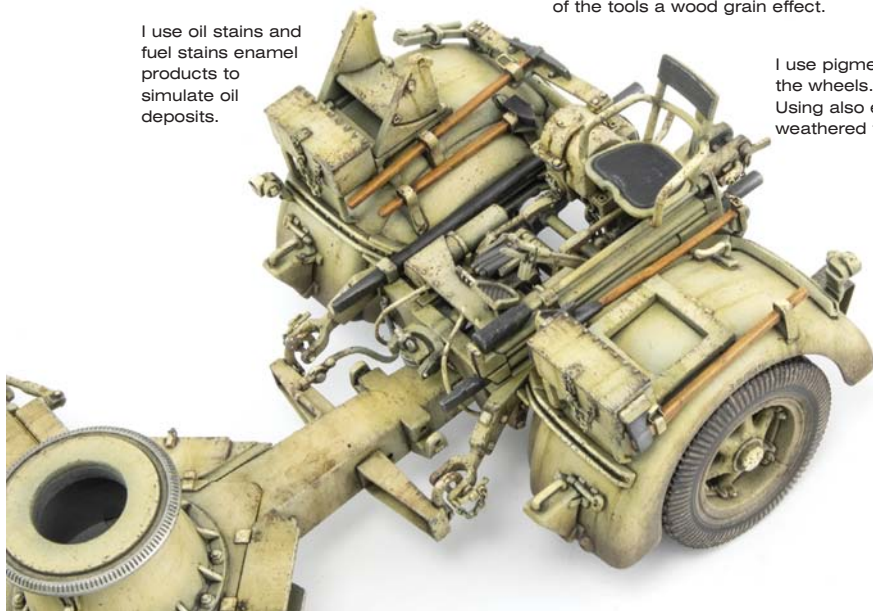


Using a brush soaked in thinner I brush the enamel in a downward motion to create those streaking effects.

I also use a rust enamel colour to also give a small wash around big chipped areas to simulate wear and tear.



All metal parts receive a rub of metal pigment powder.



I use oil stains and fuel stains enamel products to simulate oil deposits.

I use brown oil colour diluted in 60% thinner to give the wooden handles of the tools a wood grain effect.

I use pigments and thinner to weather the wheels. Using also enamel earth effects I weathered the lower part of the fenders.









I prepare the foam base for the diorama. I use different kinds of foam for the structure, shaped to place use a blade and wood file.



Using DAS putty I make some raised areas on the ground. Then I soaked the foam with a water-PVA solution, 50% water 50% PVA glue, and press thick tissue paper on it. After dry this technique will give the whole base a tougher texture to work on.



I do a mixture of thinned plaster solution, water and powder plaster, and give the whole base a thick coat.



I use this stage to check for the design and plot of the diorama, the scene will uncover if all the players played their roles right.



The contour of the diorama is painted black. The town house is fixed to place and the whole ground work is given a coat of acrylic Ammo Mig mud. Before dry, I add all the details, and sprinkle some fine sand and gravel to simulate the landscape.



I painted the whole ground work using acrylic colours, I used different shadows of the base colours to create more depth and life to scenery. Now I add the naturals, a variety of shrubs, grass mats, and tall vegetation. All are glued to place using contact glue.



I use a combination of filter oil colours to enhance the scene and bind everything together. I use a filter of khaki and brown oil colours mixed with 70% thinner and give it 2 light coats, this will explode the scene of life and make it more interesting.

I scatter all over the ground some leaves and naturals. To make the vegetation more natural I colour them with light green and a sandy colour in order to bind them with the groundwork.





SdKfz. 251

UPDATE PARTS

FOR THE DAS WERK KIT

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1:16



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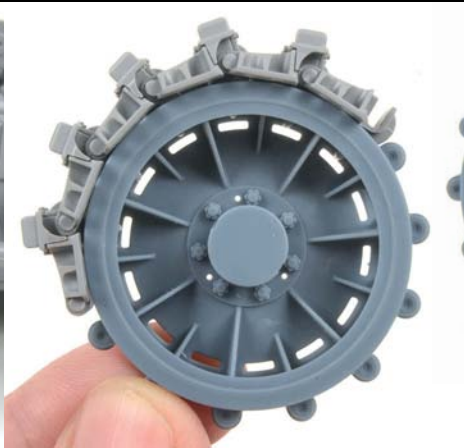
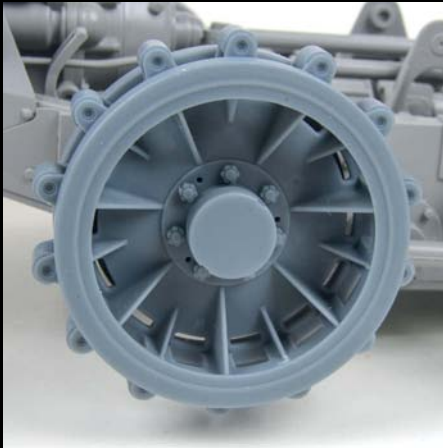
SdKfz. 251 Weighted Front Wheels

Set of two weighted front wheels for the Das Werk kit to replace the oversize vinyl kit tires



1:16

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SdKfz. 251 Corrected Sprocket

These corrected sprockets give you the correct undercut rim, correctly thinned reinforcement ribs, corrected hub cap and adds the missing cutouts where the track teeth engage.



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This set of two seats replicates the appearance of the real seats with their padded seat cushions and straps to secure them to the seat frames.



SdKfz. 251 Driver

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SdKfz. 251 Detail Set

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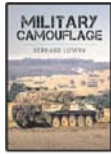


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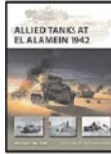
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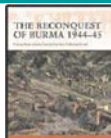
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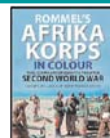
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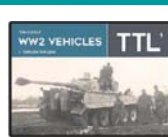
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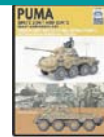
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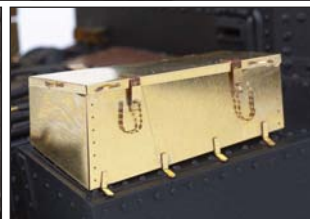
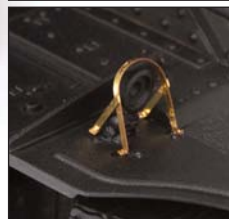
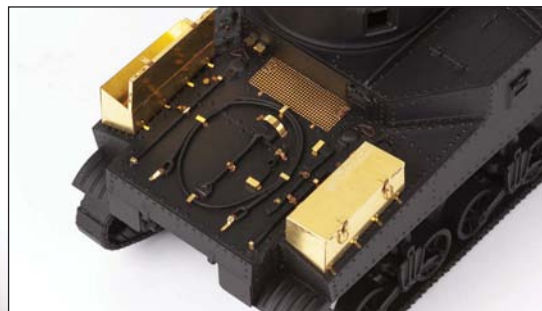
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SHAFRAH

T-72M1

1:72



1:72 T-72

The T-72 is probably well known to most modellers with an interest in post WW2 armour. It's still in service with many countries around the world and its numerous variants have made an appearance in many conflicts. One the more recent appearances has been in Syria. Quite a few versions have been spotted there – the initial mid-1970s vintage T-72 'Ural' , the T-72M1 and T-72AV (featuring reactive armour). A few other types have been spotted in smaller numbers, including a couple of different versions of the T-72B. Some quite bizarre home-grown additions have been made to some of these, mostly involving inventive additional armour packages. One of these is known as the 'Shafrah' (meaning 'razor', due to its appearance). It seems that although similar, each vehicle does have its own unique differences. The first time I saw these I knew I'd have to build one, and with no OOTB options it was time to dig out the Evergreen styrene strip and plastic sheet. There are no plans I know of, but there are plenty of online photos and after looking around on YouTube I

found some useful video footage of which I grabbed some stills. The books 'Syrian Armor at War' Vols 1 and 2 from Abrams Squad Publishing also have some superb photos, some of which are of the exact vehicle I decided to model.

The Kit

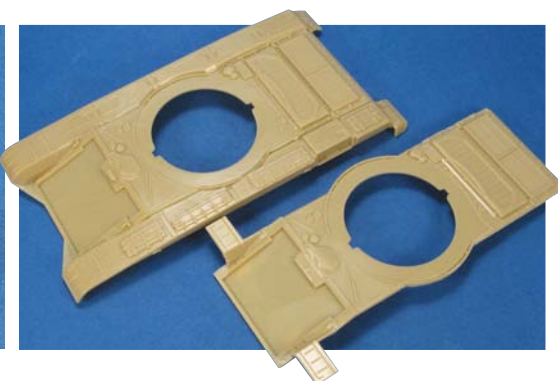
The Revell kit is quite old but holds up well in both detail and accuracy. The kit is based on the Tamiya 1:35th scale version and as such shares the same issues, these mostly being around the shape of the turret. The hull is good, with some nicely rendered detail and it's dimensionally sound. The wheels and tracks aren't great but there are several resin after-market options available that weren't around at the time of the original release. The biggest problem is that the turret is very poorly shaped – being somewhere between a T-72M and the more heavily armoured T-72M1, but also with aspects that aren't correct for either. There are some resin turrets of varying quality, but for this model I decided to



The kit is dimensionally sound and provides a good basis for additional detailing. I started with the lower hull, building up the tub and CA gluing some strengthening / alignment sections of Evergreen strip.



The kit wheels are quite poor with the tyre portion being far too thick and the concave dish shape being too flat. The inner wheels are also devoid of detail. Resin replacements for OKB Grigorov are far superior.

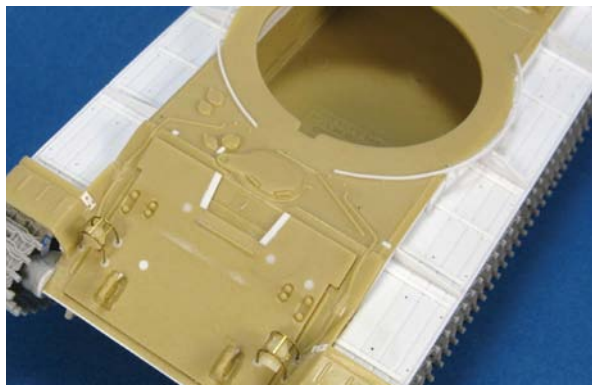


The kit's upper hull is quite good and features some nice detail. I cut away all the fenders ready to receive some scratch-built replacements that would have most of the fittings missing.

I built up the lower hull tub and replaced the kit wheels with resin ones from the Bulgarian company 'OKB Grigorov'. These are a great improvement, correcting the overly shallow shape of the kit ones and with a more accurate, thinner rubber portion. The smaller details such as bolts are better too. The Revell track is poor, having shallow outer detail and guide horns that are much too short. OKB also offer resin tracks that correct both these issues. They come as several lengths that can be heated with a hair dryer and then bent and wrapped around the idler and sprockets.

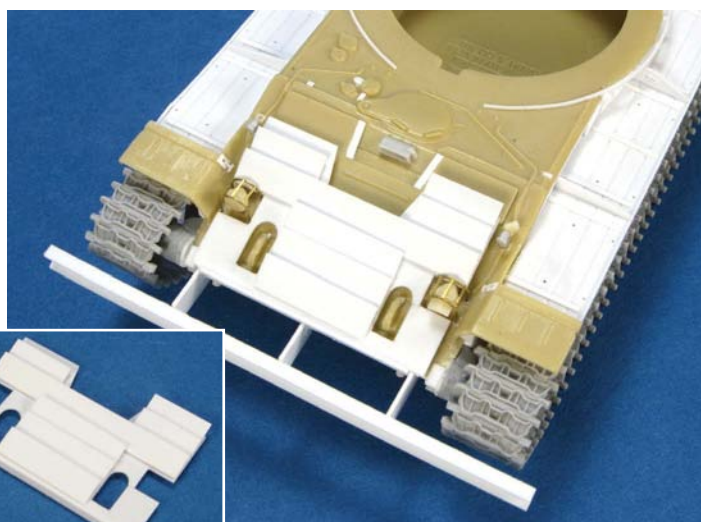
One of the main changes I made to the hull was to remove the fender mounted stowage boxes and fuel tanks, after which I scratch-built the plain fenders from styrene sheet strips. This is something that can be seen on some of the older battle veterans,

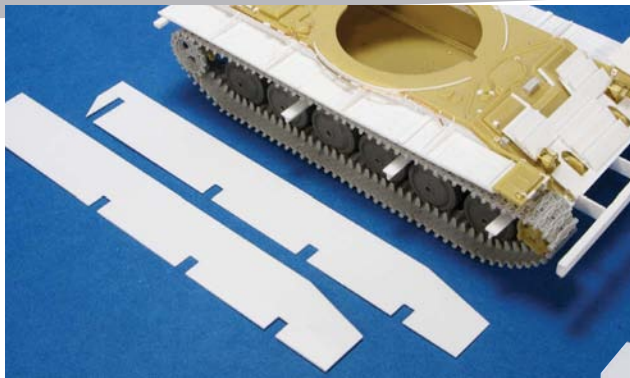
often with the exposed upper sides of the fenders covered in rubble, dirt and dust. I scribed the parallel indented strengthening ribs with an Olfa P-cutter and steel rule. The rest of the smaller fender details were then added with styrene strip. Once the basic changes and additions were done to the hull, I started the fun bit – adding the 'razor' armour! For the many parallel slats (which give a Venetian blind appearance) I used 0.25mm thick Evergreen strip and started with the glacis plate. Those on the glacis are welded to a spaced plate, so after cutting this out I attached the strips, using poly cement. The slow drying nature of this allows quite a bit of time to reposition and get the right location and angle of each strip. I was careful not to use too much though as due to the way it bonds – in effect dissolving a small amount of styrene – it can lead to long term warping if used in excess.



The fenders are strips cut from thin styrene sheet. Before cutting them to shape, I scribed parallel grooves in each with an Olfa P-cutter to represent the stamped strengthening grooves of the real thing. The resin aftermarket tracks can also be seen fitted here, a big improvement over the kit ones that have poorly defined detail and guide horns that are much too short.

The start of the additional armour package: the slats of the 'Shafrah' armour are welded to a stand-off plate fitted to the glacis. The glacis armour is now fitted, along with a horizontal section of Evergreen U-channel styrene with 3 attachment points to the bow plate.





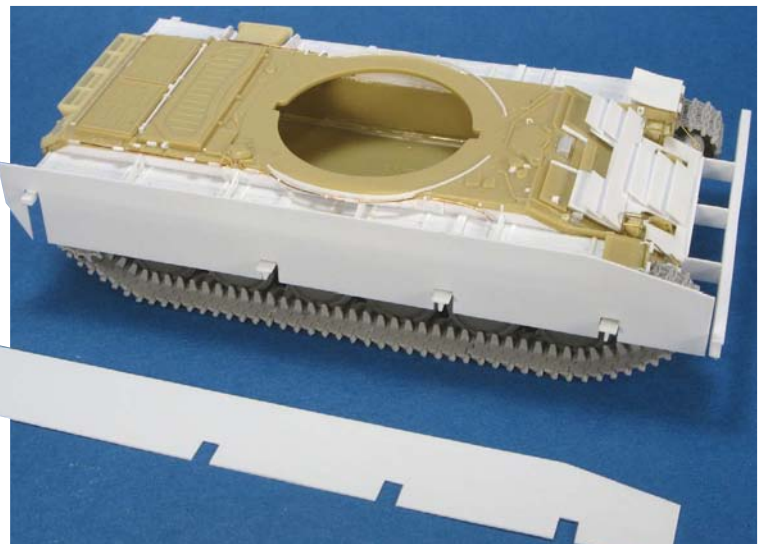
This example I was building was fitted with large, thick side skirts comprised of slabs of concrete sandwiched between metal plates. The 'shafrah' slats were welded to the outer face. To start, I cut the inner and outer plates from styrene sheet.

The hull side armour panels are large, but I tackled them in a similar way. One complexity with them is that they are basically slabs of concrete sandwiched between 2 metal plates, with the slats then welded onto the outer side. Several other smaller details were added to the hull at this point, mostly from plastic strip / rod and wire.

Although considerably smaller than the hull, the turret proved to be quite a bit of work. The first task was to correct the shape and integrated details, and once this was done to then create and add the 'Shafrah' armour panels. Although I approached this is a similar way to the hull, the compound curvature of the turret, as opposed to the flat planes of the hull, made this a trickier task.

The accompanying photos describe in more detail how I approached this, starting with some paper templates to get the approximate right shape, and the use of a jig to support the turret and help align the panels to it.

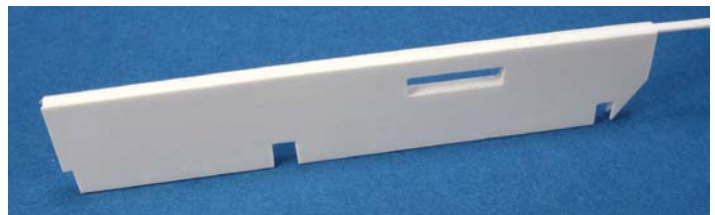
Once the model itself was done I turned my attention to adding some stowage. I created some sandbags, tarps and a bedroll from MagicSculp putty. A few other items, generic boxes and containers were from the spares box. To add a bit more colour and give a sense of scale I used a couple of 3D printed tank figures from Paracel Miniatures. These are very nicely designed and printed well.



The inner plate test fitted to the hull. I made the piece to drop fit on and I intended to leave it unglued until after the painting was done. Note also the slightly damaged fuel tank plumbing, created from copper wire.



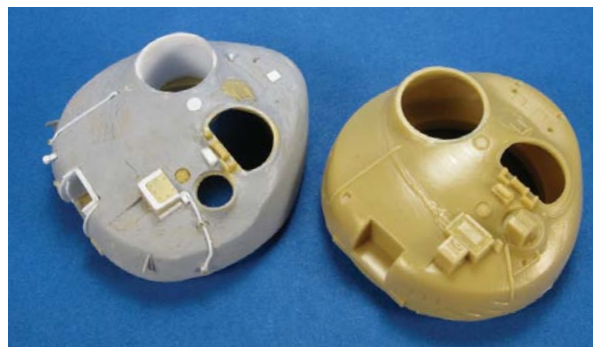
To represent the concrete inner lining, I took some plastic strip of the correct width and dinged and scored the surface with a scalpel.



I glued sections of the 'concrete' strip around the side skirts and once complete added the slat strip sections as was done with the glacis plate.



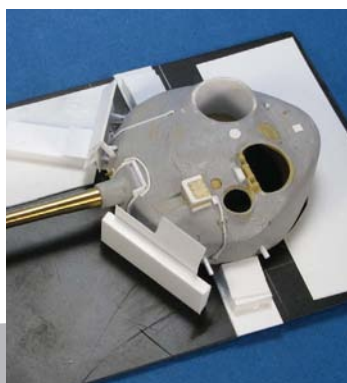
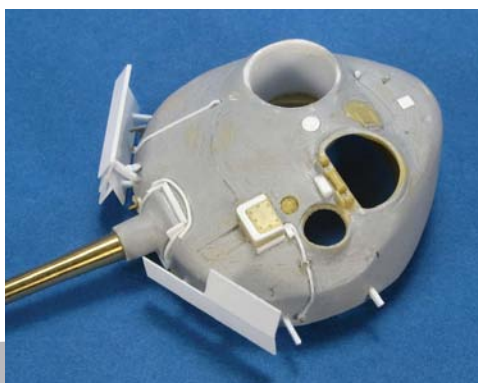
With much of the hull done, I started work on correcting the turret shell. The 3 main tasks were reshaping the front (beefing up for the additional armour), relocating the cupola out towards the edge of the turret, and creating a more pointed rear overhang.



The reworked and original turrets. After a bit more reshaping to capture the more subtle nuances in shape, I gave it a couple of thin, stippled coats of Mr Surfacer 500, followed by the addition of some smaller details. Mr Surfacer application gives a subtle cast texture and ties all the elements together. This makes it easier to get a view of the overall shape and make corrections if needed.



The vehicle I was using as reference lacked the flexible weather cover over the mantlet, this seeming to be quite common on many vehicles. I made a new one from scratch using plastic tube and sheet with some White Milliput putty to blend the join.



Probably the biggest challenge of the whole project was the 'shafrah' armour around the turret. Unlike the hull with its straight lines and planes, the compound curve of the turret made things much harder to design and fit. I started with the front panels situated either side of the main gun. The key here was constant test fitting and refining. I attached the panel mounts first, keeping them initially longer than necessary and then trimming slowly down until the panels fit right.

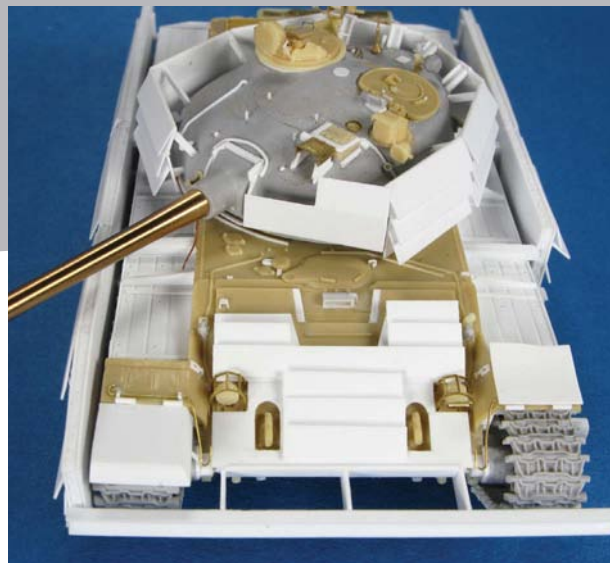
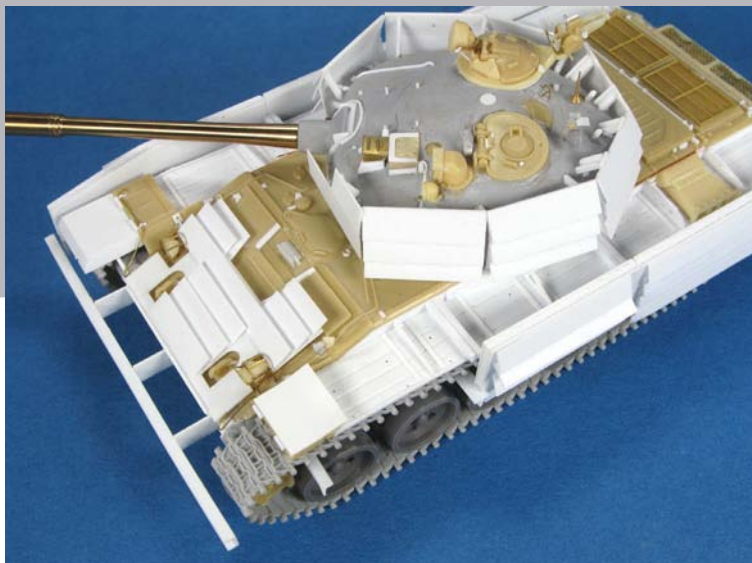
With the front panels in place, I made a small mounting jig to hold the turret. This would serve to make handling it that bit easier. It also provides additional help aligning the rest of the panels.



The remaining panels all appear to be the same size. The tricky part here was working out the length of each, such that they would snugly fit around the turret perimeter and not stick out too much or sit too closely to it. Initially I simply cut test rectangles from paper and Blu-tacked them to the turret – this helped gauge the correct size before committing to plastic versions.



The panels are now all in place, the supporting base helping align the panels in terms of consistent height and horizontal angle.

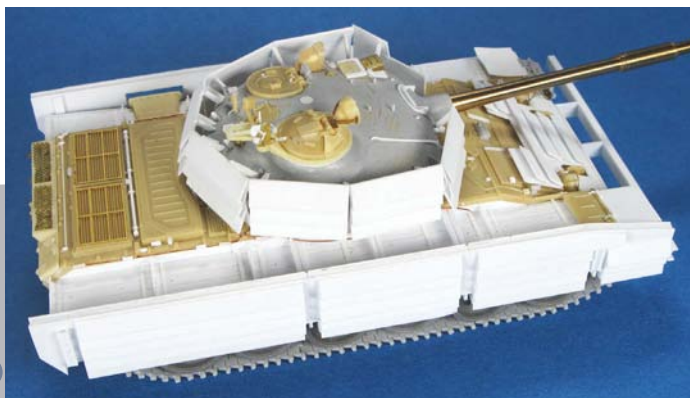


The vehicle itself is now done, just requiring some stowage and debris to be added later. The gun barrel, without thermal sleeve, is from Zedval. I picked it up many years back but it's long out of production now.

The 'shafrah' armour and bumper really give a rough, Mad Max look to the vehicle.

Many Syrian examples can be seen with a mix of the early 8-indent and later 6-indent wheels. I followed suit on the model – often many smaller details like this really can give a bit extra to the finishes model.

Having all the fender fuel tanks and stowage bins missing gives the vehicle an unusual look, not something often seen. Photos show these areas covered in dust and rubble, something I planned to represent during weathering and finishing.





PAINTING



I primed the model with AK Fine Grey Surface. The neutral colour and uniformity make it easier to spot any issues, especially on models with a fair degree of scratch-built parts in different media - gaps, overspills of glue etc.



Syrian T-72s were usually delivered in Soviet / Russian green. Some were left that colour, others were repainted. The 'Shafrahs' were usually sand yellow with the green left underneath. I painted some of the areas that showed the most wear green, or in the case of the additional armour red-brown, as these have a lot of this showing through (probably red primer and some rust).



After spraying on a couple of thin coats of Chipping Fluid, I lightened some Tamiya Wooden Deck Tan with white, and sprayed a thin coat over the whole model.



With a small stubby brush dipped in water, I gently rubbed away some of the sand colour to reveal the green areas underneath.



I followed the same pattern with the red-brown, especially around areas most likely to suffer wear and tear.



Following reference photos, I removed most of the paint from certain panels, using more of a scrubbing and stippling motion.

I followed my usual painting approach here, with home mixes of Tamiya acrylics for the base colour and various enamel paints and weathering products for most of the shading and weathering. I also used a little oil paint here and there and given the dusty nature of the real thing some pigments. I tend to mix my own

base colours as the subsequent steps push the appearance around quite a bit and I like to account for this to some degree up front. I go for lighter and more desaturated starting points as I find it easier to nudge towards the look I'm after.



I painted some scrapes and scratches with a fine brush using a slightly different shade of red-brown – this complements and enhances the previous approach quite nicely I think, and allows for more fine grained control.



I mixed up a dark brown enamel wash and brush painted it over sections of the model at a time.





Once the wash was touch dry, I worked over it with a clean brush dipped in thinner. This removed it from most of the raised areas, leaving more in the recesses. It gives a subtle and realistic stained patina.



I applied some fine-grained mud effect paste to the lower hull and horizontal areas, especially the fenders where it seems to gather.



Reference photos taken in urban environments show a lot of dust and rubble. I selected some small pieces of cat litter and glued them to the upper hull, focussing on the engine deck and areas where the fenders join the hull.



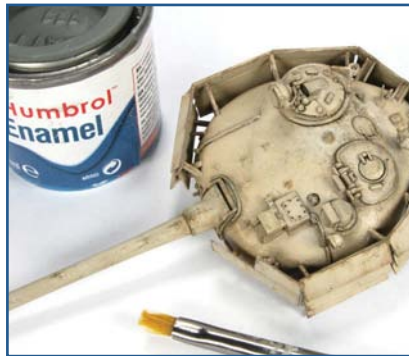
The dusty areas received a sprayed grey-sand enamel mix. A dark brown pin-wash around the details, including the rubble, helped restore some contrast after the dust effects.



I picked out some highlights on the rubble with dilute pure white enamel.



To simulate darker shades of dirt and grime, I painted dark brown enamel around some of the small details and then flooded the area with enamel thinners. This gave me some time to blend and feather the paint.



Although not as commonly used these days, dry-brushing is still a useful technique and I find it's particularly good for representing worn paint - giving a softer result than chipping. Field Grey looked to be a good colour to represent the green underneath slightly showing through.



The T-72 is known for throwing out plenty of smoke and soot from the exhaust. I dry brushed pure black enamel to represent this. I slightly directed it to the rear of the tank to capture the look that builds up when the vehicle is on the move.



I also lightly dry-brushed black along the high points of the tracks. This helps restore some of the definition and contrast.



I created some very small scratches and scrapes with a black watercolour pencil. I lightly ran this along some of the edges, to also represent very worn areas and again add more contrast to the finish.



I thought a couple of figures would look good and took some from the Paracel Miniatures range. These are excellent digital sculptures, 3D printed with very nice detail. I painted the main colours of the figures with Tamiya acrylics, diluted with Mr Levelling Thinner, and shaded them with enamels and oil paints.



I added some oil leaks and stains to a couple of the road wheel hubs.



1:16
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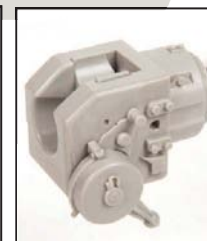
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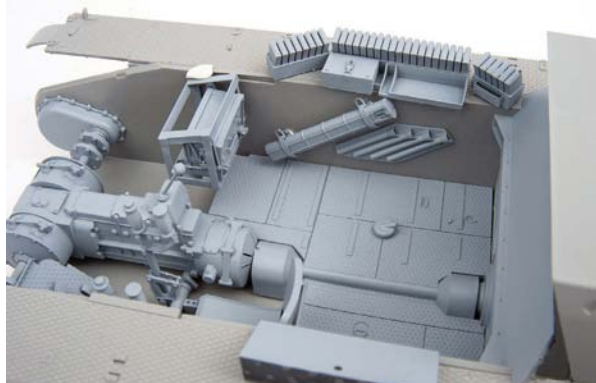
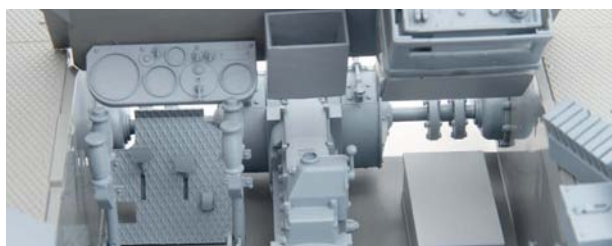


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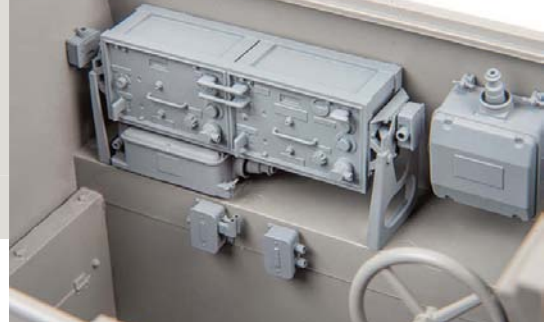
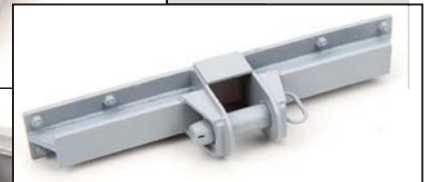
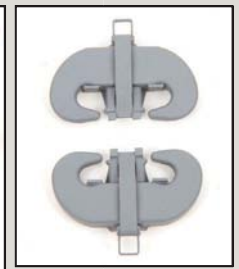
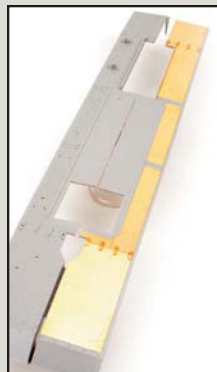
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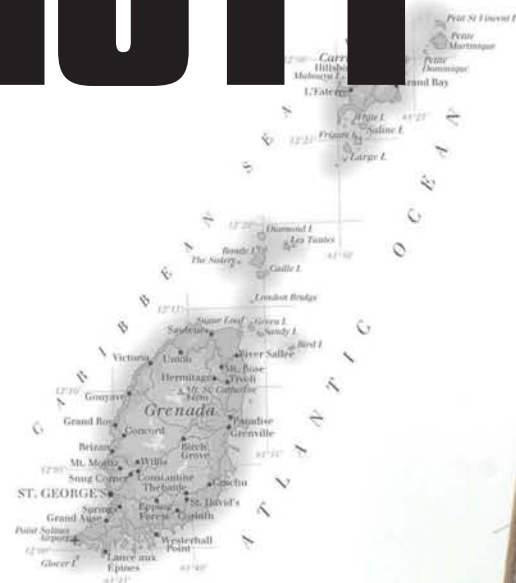


M151A2 MUTT

OPERATION URGENT FURY,
GRENADA 1983

I normally don't have kits in my stash. The model I'm doing is the only model I have at that particular moment. Also, I usually don't get involved in group builds unless it aligns with what I'm working on. It is a way of focusing on what I'm doing and finish projects.

Funny enough, here and there I get fooled by someone into doing something new. In this case, my friend Txus gave me this Tamiya kit and once I started looking into the Operation Urgent Fury, it captivated me from the beginning. Resulting on this small but passionate project.

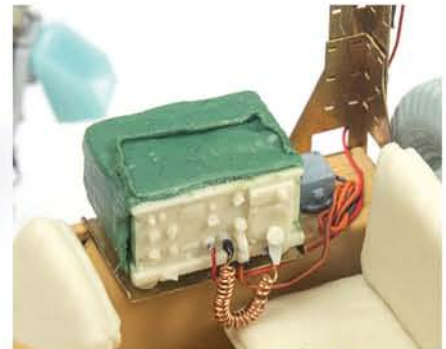


Modelled by Oscar Ebrí



Old Mutt, new tricks

This is a classic Tamiya kit with its usual enjoyable and easy build and its also classic simplification and omitting of details. It was an easy decision to use the Legend Productions ref.LF1377 resin kit that has several details like the deep diving kit, the canvas seats, front and rear lights and IR light. I also used the Def.Model wheels set ref. DW35138. There is nothing crazy about this build. I worked the resin and PE parts of the legend set and used CA to glue them all. The worst part of the kit by far is the M60 and its M142 mount. For the M60 I used a leftover of an AFV Club kit, although the best M60 on the market is probably the Bravo-6 reference 35080. For the mount I decided to use 3D printing as it is too complicated to scratch build. I did the design using Solidworks and printed in my Elegoo Mars





Figures



Paint References.
Figures. M81 Woodland.
Sand Base: AK11424
Sand Shadow: BASE + AK11125
Sand Light: BASE + AK11032
Brown Base: AK11107 + AK11112
Brown Shadow: BASE + AK11111
Brown Light: BASE + AK11101
Green1 Base: AK11150 + AK11153
Green1 Shadow: BASE + AK11160
Green1 Light: BASE + AK11050
Green2 Base: AK11025 + AK11029

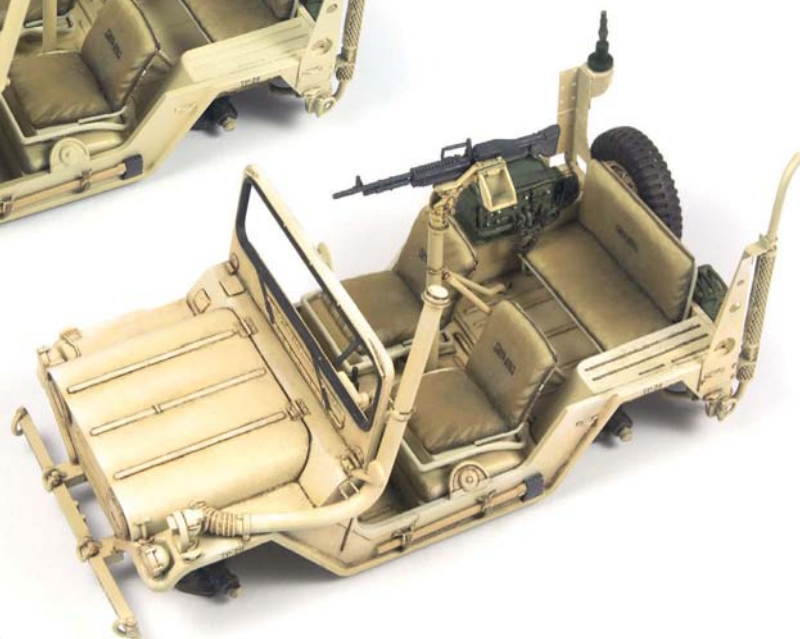
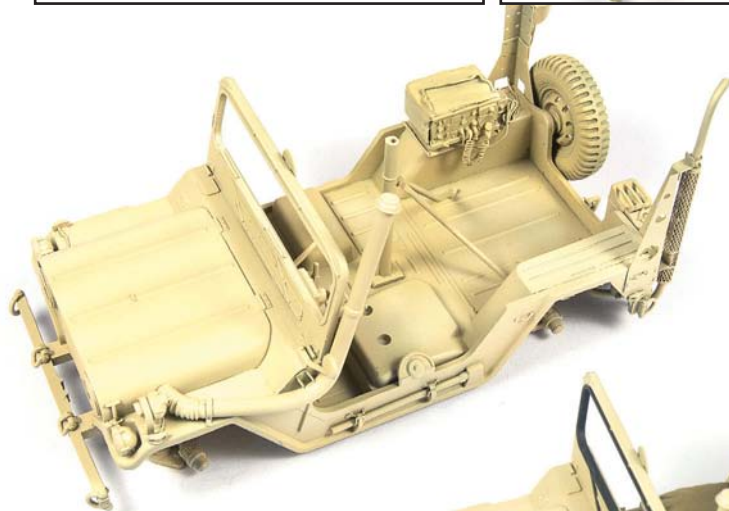
Figures. Flesh.
Base: AK11064
Light: BASE + AK11050
Shadow: BASE + AK11098

For the figures I choose a Bravo6 set ref.B6-35041. These are Military Police figures from the Vietnam era, so I had to modify them. First, I adapted the figures to the positions I wanted and sculpted both arms from the gunner using resin hands from an Alpine set. I also used hornet heads as they are so much better. The Grenada invasion was the first combat usage of the new PASGT system but there wasn't fully adopted yet so it's easy to see soldiers using M1 helmets and the new ballistic vest at the same time. Perhaps the more correct way of representing soldiers is by using the new Kevlar helmets, but after trying some from Live Resin these were so big compared to the hornet heads that I simply forget about using them. I sculpted the correct vest using epoxy and reference pictures.

After some research done and looking into pictures of the soldiers during Operation

Urgent Fury, it is noticeable how the use of cotton rich fabric on the first deployment of the PASG made the look of the M81 Woodland camouflage look darker and with a colder hue than the Woodland patterns used later. With this in mind I started looking into mixes to represent the colours making tests to choose from. The sand base is applied using airbrush making shadows and lights airbrushing from the top and the bottom. I finished the base retouching the light using a brush. Then, every colour of the camo is painted by brush and the lights and shadows are applied using the usual transparency technique used with acrylics. Of course, applying shadows and lights on every colour is time consuming but the finish is well worth it. Once the camo is painted, I applied general and local shadows on details and dark places like armpits. I finish by outlining the details using black paint, and I spray a general layer of Ultra Matt varnish.



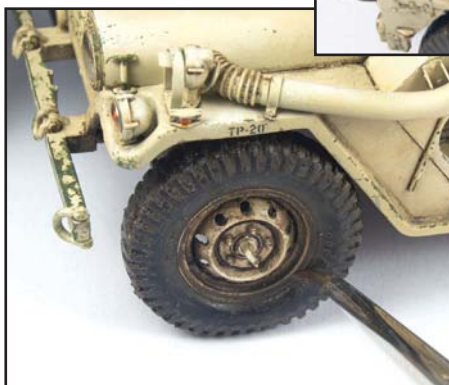


Painting and Weathering

Before starting with the paint, I disassembled some parts of the model like the wheels and steering wheel. I think it is a good way to proceed as you can paint them more comfortably and with better care. I always like to start by priming the model. For this, I normally use Mr.Surfacer as it is so easy to sand and work with once dry. I spotted several mistakes that I quickly fixed using more putty and some sanding. The project was stopped for several months after this step, so when I picked it up the painting process the first thing I did was to sand smooth all the surfaces with a 1200 sponge sander and then dust them off with a long soft brush.

The model was all this time in a plastic container so perhaps it was unnecessary but I wanted to make sure no dust or other particles were onto the surfaces. First, I sprayed the basecoat which is a mix of XF-59, X-55 and X-2. Once it was dry to the touch, I sprayed some lights adding X-2 to the mix. The result is partially semigloss. This doesn't matter much as I'll need to spray glossy varnish on the areas where the decals will be placed. I like to let the varnish dry for 24-48 hours to ensure it is rock hard to work with.

I keep working with the Microset and Microsol chemicals as I consider them to be awesome products. The decals from the Tamiya kit are a bit thick, so I sand them down with extreme care using a 1500 or 2000 sander. This effectively reduce the thickness but it is easy to over sand them so you better practice a bit with some of the unused decals. Once the decals are in place, I apply two or three times Microsol over them and I let it dry. Now is time to seal the model and I do so by spraying two light coats of semigloss lacquer varnish. As I did with the glossy varnish, I let the varnish dry for several days. I paint the details while the varnish is drying and I do so by using acrylic paints. I start with the seats, making shadows and lights. I also applied decals on the seats but this time I used home decals that I printed using transparent decal paper.

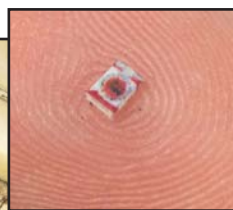


Starting with the weathering, I decided to apply some more lights and post shading to the model. It is important to understand that this will make the model to look a bit more contrasted and less realistic so it greatly depends on your personal style. Also, by not doing it perfectly smooth with an airbrush, it helps rendering the surface with some texture and richness. I use a very simple technique that consist in applying a bit of oil paint and then blend it using a long flat brush without using thinner. If you need to blend it further just rub the brush a bit more time. If you are not happy, simple clean the surface by using thinner. Once done, let the model dry for at least three or four days.

Next, I use the popular dots technique to add more richness and simulate discolouration. After letting this dry at least 24 hours, I apply a pinwash around the details using sienna oil and thinner. All these steps change the look of the model completely so take your time and do them properly. I started to apply the mud on the

lower parts of the chassis. I used a mix of AK8030 and AK8017 making accumulations and also streaking effects.

I apply the same mix on the wheels. This acrylic mix dries to a matt effect so I had to apply a mix of wet effects and sienna oil to achieve damp effect on some areas. This effect can be adjusted using more or less thinner on the mix or by blending it. Now I paint the chips of the paint using a green acrylic and a dark rust acrylic for the deepest chips. It is better to use a bit of retarder medium and a good, pointy brush. Be patient and stop frequently to analyse the work you've done. The general dirt is done by applying enamel earth colours and letting them dry for 10 to 20 minutes. Then I simply blend these areas using a long brush damped with thinner.

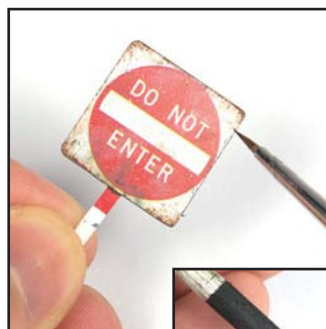


To make the model unique and give it a human touch I decided to represent some day-to-day objects like packs of cigarettes that I made using styrene and home printed decals. I also used a radio cassette set from Eureka XL that while being a bit of an artistic license looks pretty cool. I end up by making the side belts using lead sheet and painting them with acrylic colours. This is how the model looks with all the details glued in place. To glue the vehicle to the base, I drill the wheels and insert metal rods to pin it to the Styrofoam. To glue it permanently I use quick epoxy glue. To integrate the model to the base I apply some more mud mixed with fresh grass using an old brush.



The base for the Mutt is made with a block of Styrofoam surrounded by 1mm balsa wood. All this is glued with white glue achieving a lightweight and sturdy base to work with. The ground consists in an asphalt road with a small zone of earth and vegetation. I recreate this using the acrylic pastes AK8013 and AK8017. The asphalt paste has a great texture but the colour is too dark, especially if you want to recreate an old and degraded road like this. I sprayed Tamiya colours to simulate a very worn and weathered road. I start the weathering by applying random patches of oil colours insisting on the side of the road and then blending them with thinner. For the grass I used the reference AK8126 that I sprayed with AK11142 to simulate some of the grass being green and fresh. I simply glued the grass using

cianoacrylate. I cut the grass using precision scissors to adapt the height. To represent some of the dirt and earth of the road I use the acrylic pastes again but a bit diluted with tap water. I wanted to give it a wet and tropical appearance, so I made humidity effects using a mix of Wet Effects and sienna oil. First, I apply the mixture and then, if needed, I blend it using thinner. I also made a traffic sign using styrene and homemade decals. I weathered it with oils and did chipping effects using acrylics. The post of the sign is made using a plastic rod that I textured using a coarse sander and I painted using lacquer and oil paints. I made the base as if the vehicle had just entered the asphalt being offroad so I did some mud and dirt accumulations accordingly.



References used:

M151A2 Ford Mutt Tamiya 1:35 ref.35123
 Legend Productions M151A2 Detailing set No. LF1377
 Def Models US M151 Jeep Sagged wheel set DW35038
 Bravo-6 U.S. Military Police, Nam No. B6-35041



RAKETEN JAGDPANZER

Jaguar I



Ivan Momcilovic Momcha
creates a cool little Cold War
scene with the vintage Revell kit

The Raketenjagdpanzer (RakJPz 3) Jaguar 1 was a German tank destroyer equipped with anti-tank guided missiles. From 1978 to 1982, 316 obsolete Raketenjagdpanzer 2 units were converted into Jaguar 1s by replacing the SS.11 missile system with a HOT launcher and upgrading the armour. From 1993 to 1995, new optics and a thermal imaging system were added to create the Jaguar 1A3.

The base armour is formed by the Kanonenjagdpanzer chassis. It was made of welded steel and had a thickness of 10 to 50 mm steel. When the Kanonenjagdpanzers

were upgraded, applique armour, consisting of perforated steel plates coated in a rubber-like substance, was fastened shock-mounted on the front of the vehicle and the side of the casemate structure. Leopard-like side-skirts were also added. Further protection is provided by eight smoke dischargers, which are now installed on the glacis instead of behind the casemate.

The Jaguar 1's survivability is still mainly reliant on its low profile, high speed and long combat range, which exceeded the combat range of contemporary tanks.





Revell released this kit I believe long time ago. It was moulded in dark green plastic, characteristic for Revell old kits. There were no PE part included and no details like some parts of interior or etc. Tracks are provided as vinyl, old fashion type. I was attracted by this kit because it has look little bit of WW2 German tank and modern.

I started with construction with lower chassis part, following the instructions. As I always do with most of my models, I made torsion bars "workable". With construction of any of my model, I always leave a chance to build diorama or small vignette for it and one of most "powerful" things that you see is vehicle adopted to uneven surface by its weight. As I already mentioned, this is old mould kit and some details are not provided to nowadays standards. Some exterior parts were full with gaps so I needed to fill them with putty.

As my plan was to include figures with this model I corrected some gaps on interior side of parts and some parts needed good sanding from extra frame parts.

Construction of a model is complete. I added camouflage net from Value Gear Details. Inspiration came from a lot of pictures and videos that I found on the net about this vehicle. Time for painting. Model was firstly painted with Ammo black one shot primer. I wanted a dark base primer for the next steps that I was planning.



Next was painting model in Rotbraun primer Red colour from War Front. As it can be seen on the pictures, black primer is still visible under painted layer, giving it very nice shade. Next step is was reserved for highlights of red primer colour. I used A.Mig 014 Rotbraun. Both colours have basically same name or should represent same colour but there are differences, which was in this case more then welcome. I have got the look of the model that I was looking for, factory painted tank. My guess was that this is how real vehicles looks like before they put camouflage or basic paint on them in factories.





As this is vehicle from Cold War Era and served in Western Block, it was painted in colours characteristic for NATO pact vehicles. I used U.S. green base colour from A.Mig Vietnam painting set. Reason for using this shade of green was because time life of this vehicle was about in same years when Vietnam war was, so it was kind of logical for me.

Also, Rotbraun painting, in my opinion, gave also nice look to following green colour. Mixture of U.S. green colour and sand colour, ratio 70/30, made a nice shade for first highlight shade. It was made on the parts that I thought it would be highlighted by natural light. Next step was to add a little more highlight to existing with adding same mixture, but this time in different ration, U.S. green 20% sand colour 80%



Time to made some details on crew hatches. As I mentioned, assembly instructions didn't provide option for open hatches, but I was planning crew for this model. By observing pictures and videos on the net I found how details on the inside of hatch looked. I used some parts from unused PE parts from old models and masking tape to make a handles from inside. As it is visible, some extra filling was needed to make them look smooth.



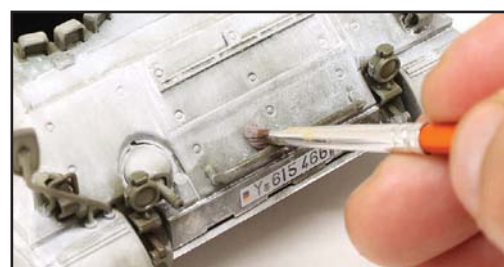
Time for painting the wheels. I used same colours and highlight mixtures for them. As they were firstly painted in black/rotbraun colours, I needed some kind of masking for accurate painting. I bought a year ago Helix combo circle template. Circle templates that are provided can help you in painting any wheels in any scale. There is no need for expensive "one-time-use" masking tapes or templates for one specific vehicle. For a small price, you can get all in one.

Winter White



Decals are added and model was sprayed in light coat of Tamiya Clear, to protect colour and to give nice surface for weathering effects.

Again, a lot of inspiration for this model I got from the net and youtube, while I was researching and vehicles that were painted in white-winter camouflage gave me an idea for my model. I used Ammo washable white colour and made camouflage painting with flat brush, I made very light painting or better to say, colour was very diluted. I wanted effect of almost washed colour. My guess was that white colour was not of long life, especially if we know that they were painted like this only for



To get more realistic look, I added little bit of oil white paint on some specific parts and then I blended it with dry brush from top to down achieving the effect of washed colour.

Time for details. I made pin wash with oil brown colour and enamel thinner bringing model to life with all details. In same time, I also made small weathering effects on the sides of the model.

Lately I like to use Ammo diorama ground products for models. They help me to get more realistic look of muddy/dirt effects, specially on the lower part of chassis so lower chassis got muddy treatment. As a base I used Turned Earth Ground. I put it randomly on the lower parts, trying to get as much as realistic texture. Very nice thing is that this products are on acrylic base, so very soon after adding them you can proceed with other weathering with oil paints or enamel products with no worries that you can ruin previously made effects.





Some contrast was needed and I added brown oil paint on same areas and blended it with thinner. As it can be seen on the pictures, I made this contrast effect randomly, trying to keep some of previously made mud shades, to get more deep look or 3D look on mud texture. Same thing I made on the wheels, using same methods. At this point I had snowy diorama in plan, so I didn't want to make any wet effects on lower chassis. In extremely cold conditions, wet effects on the vehicles are usually not present, but maybe I am wrong.

Now, to make realistic snow I used some tricks that I used before. I made a mixture of snow flakes from woodland scenic and white glue. Mixing them in right range you can get very realistic snow. If you can't find snow flakes, bicarb or baking soda can be always used as a second choice. Also if you add acrylic water and white colour, you can make various snow condition effects, but that is a different story. So, snow effect was added to lower chassis and wheels. While it was drying, I made more texture effects with tooth pick.

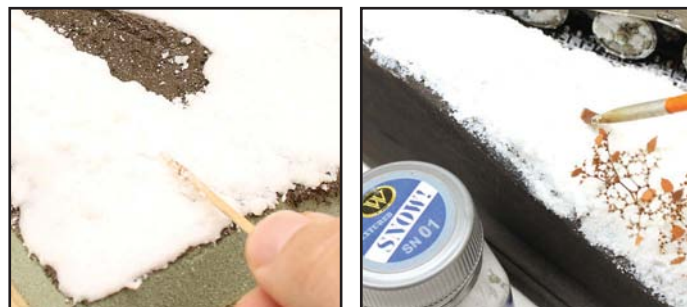
Back to the upper parts of model. Some bigger damages were not present on this vehicles, because there were relatively new in that time, regularly maintained and most important, they were basically first line of defence/fight in possible Nato/Warsaw pact conflict, so I stick to "small" weathering/damage on this one. Medium grey oil colour random size lines were made on the sides. Then, using fine brush and thinner I made streaking effects. Light grey oil colour was also applied on the rear deck and top of the vehicle and with taping move of dry brush blended. I made small chipping effects just to make model look little more dramatic. Tools and extra equipment were also painted. When light gray colour has dried from blending, I made one more small pin wash on some parts, just to highlight them a little bit more.



Snow Bound



For diorama I had in plan vehicle on some open terrain. Of course, workable torsion bars were made to be used, so I made a small hill. For the base, I used styrofoam for flowers. It is lighter and softer then regular Styrofoam and it can be a little bit tricky to work with. Then I used muddy ground product for the base. I used flat brush and artist sponge to get realistic texture. When it has dried, same mixture of snow flakes and white glue was used for snow. Again I made some texture effects with tooth pick. Mini Art electric pole, together with small bushes was a nice detail to add on the diorama. On one side of electric pole I added a little bit of snow effect, as a result of wind during the snowy storm. Model was placed on diorama and it was time for some final touches. I used Wilders snow powder to fill some gaps between model and diorama and I made dry leaves from paper and green stuff world tool for this purpose. Figures are from Valkyrie Models. Firstly they were painted in black/white technique and after it in colours specific for Bundeswehr army.





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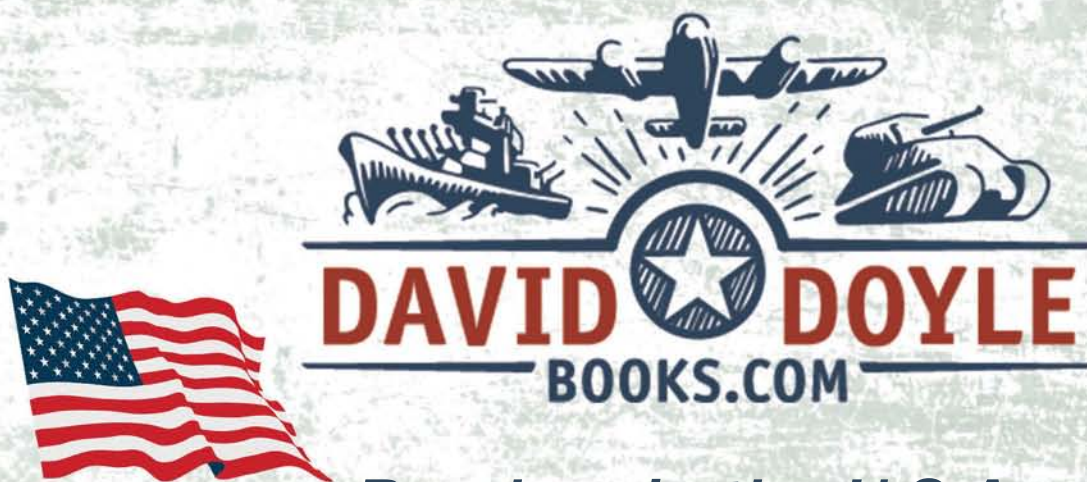
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