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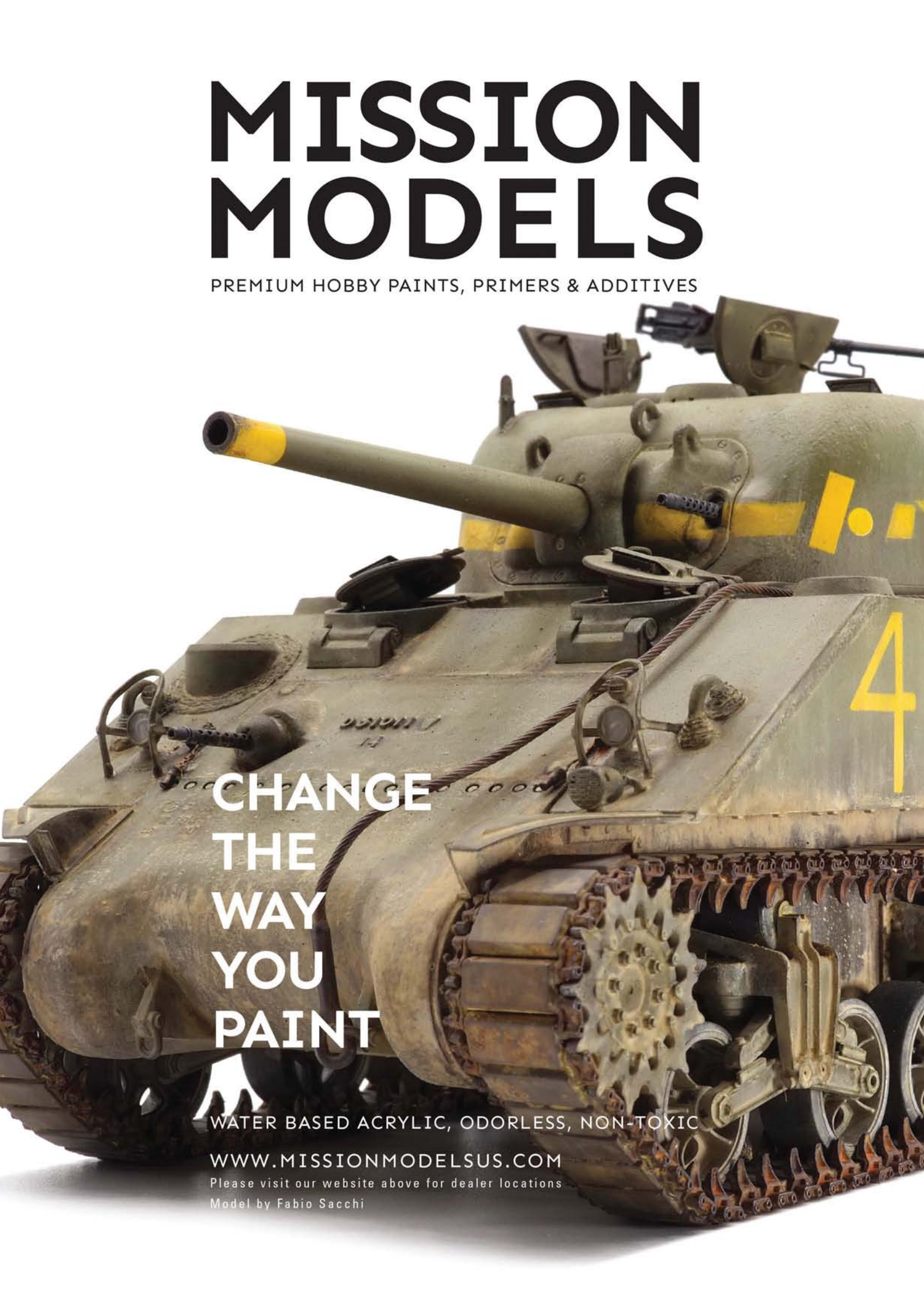


SVENSKA KUNGEN

Jari Hamilia's Swedish King Tiger

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Model by Fabio Sacchi

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SVENSKA



Jari Hamilia's Swedish King Tiger of 1948 | Takom 1:35



KUNGEN

THE SWEDISH KING



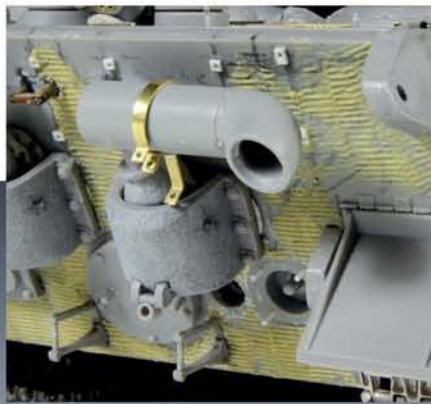
The idea for this model came via the internet. I saw a few years ago a few pictures of a Swedish M26 Dragon Wagon pulling a Porsche turret King Tiger in Swedish woods. I was more interested in the M26 than the Porsche turret KT, but anyway, pictures were forgotten. I had over a years pause in modelling so I was searching for something easy to get back in business again. Somehow I hit those pictures again, found more of them and boom, my next project was chosen: The Swedish King Tiger AD 1948! Everything is better in Sweden than Finland, they even had a King Tiger. But, hey, they lost it.

There is a cool story behind this particular tank, I highly recommend to check it out, here is the link: https://www.sphf.se/svenskt-pansar/fordon/utlandska-stridsfordon-i-sverige/en_the-swedish-king-tiger/

Here is the story briefly: Just after WW2, 1946 the Swedish army searched the most developed weapons, among them the King Tiger. At the end of August 1947, French authorities found one at Gien, south of Paris and handed it over to Sweden for free. The King Tiger was transported to Stockholm, where it arrived on 27th November 1947 and then brought in December to Skövde, where it was left outdoors nearly for a half a year. After some restoration, the tank underwent a number of driving tests and was then transported to Provsjuttingscentralen Karlsborg (PcK) in November 1948.

The King Tiger's engine and gearbox were removed and then the tank was used as a range target for a wide variety of different anti tank weapons until 1951. After shooting tests were made, the hull was scrapped and the turret sent to Kråk firing range for a practise target until there was nothing left, except the turret rear hatch. Due to the latest information, this particular vehicle is with chassis number 280006, so the 6th King Tiger ever built! It was used as a test vehicle at Kummersbach, Germany and this explains some late features like Kgs 73/800/152 tracks and late 18-tooth sprockets. The Swedish King Tiger also had some other details and features which I will explain soon in the plastic ready picture chapter.





The kit is mainly out of the box with Friulmodel's tracks, home-made zimmerit and printed 3D parts from FC Model Trend. The hull is paintbrushed with slight layer Tamiya Putty heavily thinned with their green cap glue and then sanded with medium coarse sanding stick to imitate rolled armour steel plate. Casted parts like exhaust covers and cupola are treated with a thicker mixture. The gun muzzle is correctly "wrong". It is turned nearly 1/4 round too tight and locked there. This feature can be seen in Swedish King reference pictures easily. Idea of locking ring/nut behind muzzle brake is to prevent this, but...

One of the main features of Swedish King Tiger are Flammenvernichter mit Abratzkrümmer exhausts and especially their mounting horizontally. The exhausts were locked on their position with steel supports bent over mufflers and bolted to hull rear wall applied location points. The exhausts are from scrap-box, originally Dragon's Panther parts and remaining support is made of PE left-over sprue.

The zimmerit was made of Tamiya Epoxy Putty Quick type with Trumpeter rollers. The rear wall is nearly totally covered with zimmerit paste, but in the rest of the vehicle, there is only some remains or any zimmerit left.

Some covers are removed and I built some interior detail behind openings. There is no preheater cover, this feature can be found in the reference pictures, but not 100% sure.



This model is my first use of 3D printed parts. I'm not a fan of PE parts but these printed parts seem to be mine. You only need to cut them from the sprue and super glue them in their place. There is no need to bend, solder etc so timesaving is huge! OK, some parts are still today maybe too simple, just like PE parts 20 years ago.

I used FC Model Trend's set 35635 Tiger, King Tiger and Jagd Tiger tool clamps. I am very pleased with the quality and details in general, but there was an issue too, why is there only one set of barrel cleaning rod/towing wire brackets, two are needed? I had to use PE parts instead and my idea was NOT to use them... The initial production left side port for used ammo cases is also removed by sanding it down. The Swedish King had funny details, the driving light is on a bracket, without a lamp and it has been turned to the left. Also you can see that there is no recession in frontal armour for radio-operator's periscope. This was a feature for the first few chassis. The machine gun opening has different type casting than normal, so I ground the top off and glued Plasticard disk instead. The part was then covered with "Tamiya putty casting".

The model has Friulmodel's ATL-37 whitmetal tracks. I haven't worked with Friuls for a while and it was a great pleasure to do it again. I had this set in my stash, but they can also be ordered from the manufacturer directly, so there are no retailers anymore. But hey, this is one good reason more to visit Moson Show at Hungary in April to get Friul tracks!

This ATL-37 have correct type late 18 tooth sprockets but there was kinda fitting problem, their own sprocket was too narrow to fit holes. I glued the halves together and forced track over them and so problem was solved. Maybe this was my own fault and we can put it down to my own lack of skill. Anyway, Friuls are always highly recommended!

There is no armoured ring on the hull roof protecting the turret, this feature came later from chassis -017. The armour cover for the snorkel is originally Takom Panther D part. The cover is opened

and Takom's D has it with nice inner detail so I use it here. The PE grilles over opening are from the kit, they are only superglued and then forced to have marks of crew walking over them.

After taking general pictures of the plastic-ready model, everything is stripped back to sub-assemblies to ease paint work. Takom model is good, the fit is just good and building was easy, as long as you follow instructions. Only extras were fitting sprocket wheels to the hull, making zimmerit and then applying tool 3D printed and photo-etch details.

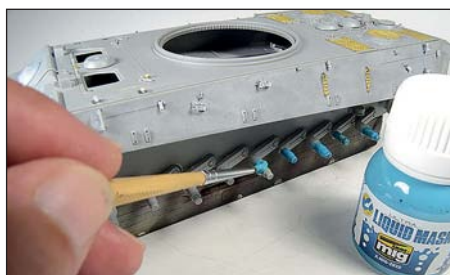
All parts are now washed with dish detergent and then rinsed with warm tap-water to eliminate greasy fingerprints. You only need to wait until the model is dry and then the real fun begins!



PAINTING

The paintwork is easy, one colour only, this time late war Dunkel Gelb with only some chipping exposing layers beneath. After careful looking of reference photos, thinking of basic principles of painting German tanks, I made following conclusions and so basics for paintwork:

- *The vehicle was painted with red primer in spring 1944 at the factory.
- *The zimmerit is applied over red primer
- *The vehicle is painted with Dunkel Gelb at the factory, probably with a darker tone.
- *During winter tests in Austria at spring 1945, lot of zimmerit is worn off revealing red primer



To prepare a model for painting first I mask axles with an Ammo Liquid mask to prevent paint or even better weathering products sticking on axles. This product can be easily spread with a paintbrush. The product is light turquoise colour but turns dark blue when it is dry. This process takes only a few minutes to complete. You can also use tape to cover axles but I found this easier to remove even after days/weeks.



The second step is to primer all the metal parts to prevent peeling. You only need to brush product on metal surfaces and after a few minutes they are primed. It is not totally clear for me, does surfaces primed with this still need primer or not. But, I primer all my models always, so if this metal primer gives extra help to prevent peeling, I will use it.



The model is at first primed with rusty tone Mr Mahogany Surfacers 1000 thinned with Tamiya Lacquer thinner. At first I paint all grilles and openings to ensure there is paint everywhere and then cover everything with a thin layer of primer paint. As all Surfaces, this dark primer covers even with a thin layer and the best thing is that you can start/continue painting right away, so there is no need to wait for the primer to dry for a day.

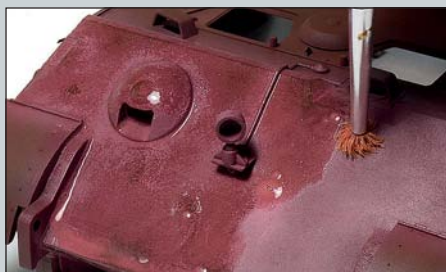


The next step is to add more rusty tones in the primer coat. Ammo rust colours are randomly airbrushed over the surfaces. The model will be subtle chipped but still it's good to have various rusty tones which will be revealed when chipped.

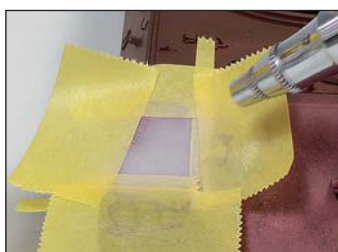
To get more controlled results, I chipped the model in small sequences. The chipped area is at first airbrushed with two thin layers of the chipping fluid. It's recommended to apply a thin layer first, let it dry for a couple of minutes and then apply a second more dense layer and let it dry for 15 min. The first primer red layer was a custom mix of Ammo acrylics. The base tone is Rot Braun 014, toned with Purple 127 and 049 and lightened with 209, mixing ratio is approx. 2:1:2:2, but test first! This mixture is thinned with Ammo thinner for acrylics and then sprayed covering the red primer area.



The tools for hairspray technique, hand warm tap water, bigger paintbrush to moisten chipped surface and small paintbrush to complete a chipping. The chipped surface is first moistened with water and then I start to work. You can use that bigger and softer paintbrush to "paint" chips, brushing grinds surface and let water go under paint and activates chipping fluid. This leaves cool microchips but also can rip paint off revealing rust colour lying below. The smaller, stiffer brush is more controlled chips, for corners and raised details. I painted red primer with very thin layer and used very sparingly, so chipping was dry soon



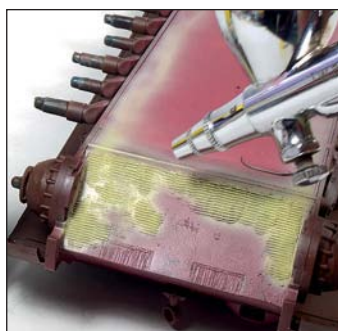
I want an extra tone for faded primer red and to have one, more light grey needs to be added to the mixture. Before painting, the surface was airbrushed with two layers of chipping fluid and when dry, painted randomly with a faded tone of primer red. And again after dry, chipped as described earlier. After the chipping was dry, I let the surface dry completely. You can now use varnish after chipping is done but you don't have to. You can also protect every layer of chipping if you want. This time I proceeded without a varnish layer. Anyway, the result is a cool faded primer red.



When looking at pictures of the nearly destroyed Swedish King, I noticed that there were some white bands painted on both hull and turret. These markings were painted on the factory during construction, maybe even before different openings were drilled and machined out. Anyway, I wanted these markings on my model too.

I use tamiya masking tape to mask the area to be painted. For paints I use a mixture of Ammo's washable white and dust to make faded white. Airbrush the white area lightly and remove masks right away. Paint is still touch dry and so it is easier to rub paint with a paintbrush moistened with tap water.

More you "paint" with water, the more paint will be removed. I really recommend NOT to test these paints on your masterpiece model final surfaces... When you are happy with the result, let the paint dry. Now we can protect the primer red layer with some thin layers of satin varnish. The result is a cool looking factory machining marking.



Painting goes on now with zimmerited areas. The chipping fluid is applied at first but only on rep primer areas. I painted zimmerited areas with dark tone Dunkelgelb and found a good substitute from the Ammo colour modulation set. This colour presents original factory paint. Primer red areas are cleaned so only colour remains on the zimmerited areas.



The hull upper is airbrushed at first with a couple of thin layers of chipping fluid. After the fluid is dry and airbrush cleaned, it is time to apply the first Dunkelgelb layer. I use a light tone late war DG and apply it quite thinly to help the next chipping step.



But more tones are needed. The hull is again airbrushed with two thin layers of chipping fluid.

Like in earlier chipping steps, I suggest working in a small area at once and so get more controlled chipping. Following the reference pictures I try to get the correct look for wear and tear but of course you can use your imagination too. After the whole hull is chipped, let it dry. The result is quite cool already at this step.



The only markings that the Swedish King Tiger had were hand painted "S2" markings on the front and both sides. I paint markings following my references using my best paintbrush and Panzer Ace's Stencil white paint. I'm lucky to get all the S2s that look like in photos. Small but cool detail and this will definitely open which KT is the subject! The hull base painting steps are now completed and I prepare a model for weathering steps by sealing everything with a couple of thin layers of satin varnish. The satin or gloss varnish is always recommended after paintwork before weathering, but especially in this kind of models with several chipped paint layers. Let the varnish dry overnight.

When dry, a new Dunkel gelb tone will be airbrushed, now with a different tone. This time the new paint layer will cover mainly previously painted areas, so it will keep old chipping as a guideline. The chipping is made just like previous layers, moistening the surface and then chipping with different paint brushes as described in earlier steps.



The turret is painted in a similar way as the hull earlier but with some exceptions. The gun tube is painted to look like baked Dunkel Grau with 50/50 mixture of Tamiya XF-24 and white, thinned with their lacquer thinner. Turret sides are painted with the same technique and primer red mixture like hull, as well as white band on turret lower corner. The Zimmerit areas are painted with Zimmerit ochre paint.

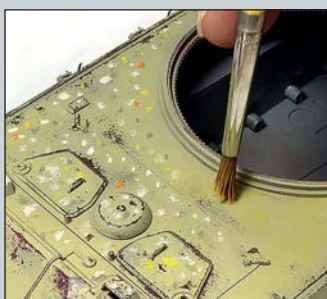
The turret is airbrushed at first with a couple of thin layers of Heavy chipping fluid. After the fluid is dry and airbrush cleaned, it is time to apply the first Dunkel gelb layer. Again, I use light tone late war DG and apply it quite thinly to help the next chipping step. Following the reference pictures I try to get the correct look for chipping.





The next step is to apply more tones, now with oil paints. This step can be called the oil filtering step. Ammo Oilbrushers are a good choice, they are ready-to-use oils so there is no need to wait until linseed oil separates, it can take hours. The oils are applied with a small paintbrush or even with the brush inside the oil tube. The bigger paintbrush is used to blend oils with enamel thinner.

The turret also needs more tones. Same process as earlier, couple of chipping fluid layers followed by new tone for Dunkelgelb. The new layer is randomly airbrushed over the previous layer and then partly chipped away revealing both Primer red and first DG layer. After chipping is totally dry, the turret is sealed with a couple of thin layers of satin varnish. The basic paintwork is now done.



I recommend to work in small sessions, as here, the frontal part of the hull roof only. Add oil dots randomly all around. Oilbrushes oils dry fast so be careful especially with the most intense colours like yellow and ochre. After dots are applied, I started to blend them. Moisten paintbrush with enamel thinner and with tapping motion on horizontal surfaces, blend the oils. On vertical surfaces, use vertical up and down motion to blend the paint. If you add too much thinner, you only clean surfaces, so tip paint brush thinner and then paper towel and you are ready to blend.

Because working in small areas at once, different panels can be in different shades. The turret is maybe too yellow for my taste, but no worries, I can fix it later. There is no need to apply any varnish over oils, it is enough to let them dry overnight.





The next step is to apply pinwashes. This time I use oils thinned with enamel thinner. Oils have a nice property, they can be blended easier than enamel washes. At first, I picked up every raised and recessed detail with oil wash using a small paintbrush. Just touch the surface and the capillary effect will do the work. I let washes dry for approximately 10 minutes and clean excess off with a small paintbrush moistened with enamel thinner. If you clean all

wash out. let it settle and dry for half an hour and repeat applying the wash. We can also add some fake shadows with oils. Add dark tone oil to the shadowed area, let it dry 5 minutes and then start to blend it with a small paint brush. You can use paintbrush both dry or moistened with enamel thinner.



As I said earlier, the turret looked too yellow for my taste so it is time to fix. The new round with oils is the solution. Now I use only white and greys and the yellowish tint is cut just like I preferred.



The next step is chipping. The sponge is the tool, you can use basic household/kitchen sponge like I do. The chipping paint is light tone Dunkelgelb, so I make a mixture of Vallejo Model color Dunkelgelb 978, White 951, Retarder Medium 597 and tap water, mix ratio is approx 2:2:1:4. The DG chipping with a sponge is a fast method, even if the whole model is chipped. Depending on the base colour, you can add white to the mixture to have needed contrast between base colour and chipping.



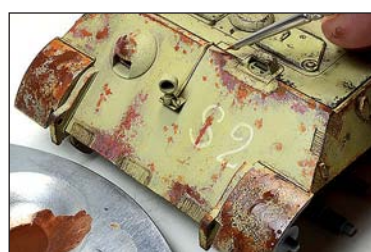
After Dunkelgelb chipping is done, the next step is Primer red chipping. Just like in DG chipping, sponge is used but also a small, official chipping paintbrush, Winsor&Newton Series 7 #000. Nothing beats it, nothing. The Colours are Vallejo Modelcolor Cavalry brown 982, White 951, Retarder Medium 597, all mixed with tap water in ratio 2:2:1:4. Following earlier DG chipping, there is no need to think where chipping is needed. You only need to fill yellow chippings areas leaving lighter DG visible around primer red. This step is more time consuming because mainly it is done with paintbrush, but also sponge can be used.



The last chipping stage is rust chipping. Now only WN7 is used and the idea is to randomly fill and stay at red primer chipped areas. Chipped area is smaller than earlier but be patient, it takes for a while to complete. But, the results are just amazing!



The chipping process is done. Chipping is for a purpose kept subtle, this vehicle has not been rusted for decades. The model is not ready so full forward!



Now I applied rusty washes. We need Ammo Light rust and Streaking rust washes, enamel thinner, palette for mixing/thinning and paintbrushes for both applying and blending washes. Please do not sacrifice your new WN7s, they are for acrylics only. I will start with a light rust colour. Wash is thinned with a drop of enamel thinner and then applied over those rusty chips. I also applied a darker tone to larger rusted areas with the same method like with light rust wash.

After five minutes, the washes are blended with fresh enamel thinner. I use a #1 size paintbrush to get it done more controlled. Again, use thinner sparingly, so only moisten paintbrush and with tapping motion blend the rust stain edges. If it feels that too much rust was removed, you can repeat this step until you get results you like. The final rust effect is rusty streaks on vertical surfaces. For this step, Ammo Streaking Brusher Rust is a good choice. You also need fresh enamel thinner for blending. You can use a brush inside the container but I used my old WN7 as with washes. I recommend again working in small areas at once, like half - of KT hull side is just good. Idea is to apply tiny streaks, starting from rusty chips. Let streaks dry for a few minutes, they start to change flat, then you can start blending. With vertical strokes. i.e. up and down movement blend streaks until you get results you want. If more streaks are needed, repeat this step as many times as you want.





The road wheels, idlers and sprockets are painted the same way as the rest of the model. The rusty primer with some extra rust tones and then primer red layer chipped with chipping fluid technique. Some wheels have chipped Dunkel gelb finish.



The road wheel treads need some extra attention. When a tank is in active use, these surfaces will be polished to shiny steel even after short use, despite the tank's environment. If the tank is moving in hot desert, muddy Vietnam or even in snowy Finland, running gears steel parts and the tracks will be shiny polished steel soon. But when the tank is inactive, parts turn rusty very soon. Our subject was stored outdoors for

approximately half an year starting mid December, so road wheels and tracks are totally rusted. To imitate this, follow this easy and very effective way to paint rusty steel wheels. The Dark rust base colour is brush painted and Lifecolor's handy Rust set is the next. Paints are diluted with tap water, approximately 1 part paint and 5 part water. With these mixtures, all wheels are sponged starting with the lightest tone and

continuing to the darkest tone. The diluted paints are transparent and lighter tones add layers and tones and are still visible after the darkest tone is applied. And the result is always totally flat! Wheels are also washed, at first dark brown pin wash and when dry, light and dark rusty washes are applied as explained earlier.



The final step is to apply some dust on the wheels. Dusting is kept minimum due to reasons described earlier. For dusting I made my own mixture. For the dust mixture, I use Tamiya paints, XF-52 Flat earth, XF-57 Buff and XF-19 Sky gray. Mix equal amounts of paints with a drop of dishwashing detergent and then add tap water until you get mixture 1 part paint 9 parts water. Without dishwash detergent, adding water turns mixture to a jelly and so can't be used. Test it! => The dust is paintbrushed on wheels and just let dry, it will collect around details and leave realistic results. This wash can't be blended, so be careful. If a lot of dust is needed, work on several layers and dust dry between.



The tracks are cleaned first with some acetone to remove all grease. Use a stiff brush, for example old toothbrush, brush track, especially all nook and crannies and then rinse them with warm water and set dry. Next measure equal parts Burnishing fluid and hand warm tap water and put tracks on it. You can brush tracks with a toothbrush to help liquid go everywhere and then let them be in the bath. After a few minutes, the liquid turns greenish, go on and wait approx 15-20 min and the liquid turns a rusty colour. Lift tracks from liquid and rinse them with warm tap water and put aside to dry.



Even though the tracks have nice rusty tone, I make an acrylic rusty wash, using 1 part Panzer Aces Track Primer and 5 parts of water. With this mixture tracks are washed and then left to dry. Next step is to apply more rusty tones. Like road wheels, I used the Lifecolor rust set thinning them with 1 part paint with 5 parts of water. Starting with the lightest colour 704, tracks are totally washed and once dry I repeat the previous step now with darker tone 703 and let it dry for a while. Next the darker tone, Rust base colour 702, is applied using speckling technique. Load paintbrush with diluted paint, you can vary amount of water up to 90%, wipe part of paint on paper towel and then spatter droplets to the tracks. This can be done

bending brushes with your finger or use toothpick like here. Repeat previous step with darkest rust color 701. Put the tracks aside and let them dry.

After rusty spatters are dry it's time for some dusting. I use the same dust mixture described earlier. I give them a general wash and then let them dry. Again, you can use several wash layers but always let the previous wash dry totally before adding a new one. Tracks can now be attached to the model. Finally UA 701 was lightly drybrushed when the tracks were in place to enhance contrasts.



The exhausts are first painted with dark grey base colour using Tamiya Dark grey XF-24 diluted with Yellow cap thinner.



To add rust colours to exhausts, we again use speckling technique and Lifecolors Rust set. Thin paint roughly 1 part paint and 10 part water. Starting with the lightest colour tubes are speckled. Let the paint dry between layers.



To add more tones, exhausts are airbrushed with a couple of thin layers of chipping fluid and when dry, painted with light pinkish colour. Using tap water and paintbrush, pink colour is mainly chipped away revealing rust. Using small paintbrush, the chipping is more controlled.



Some dark rusty chipping is applied with a sponge, but I keep it to a minimum. To add more interest to exhausts, some Dunkelgelb remains are added with WN7.



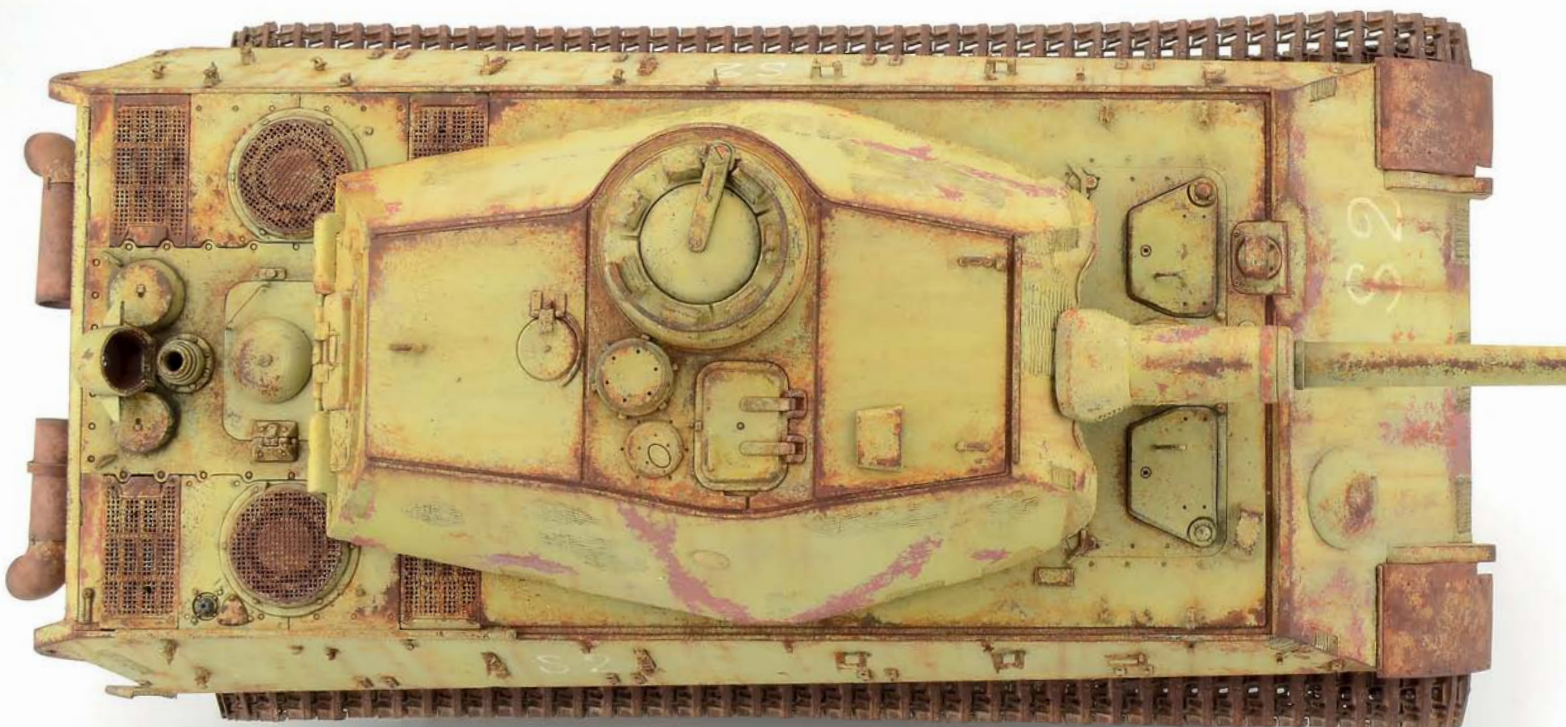
The first, darker rust wash is applied sparingly only over the dark rust chippings and then blended with fresh turpentine. The inside got a heavier rusty wash out of the jar.



The light rust wash is applied using a speckling technique with slightly diluted Light rust wash and applied randomly over exhausts.



The exhausts are now painted and washed so ready to be attached to the model. After final assembly of sub-assemblies and some touch-ups, the model is now completed and ready. After having a break in a hobby I'm satisfied with the results. I tried some new techniques, technic combinations and results are maybe subtle, but hey, one rusty model more completed!

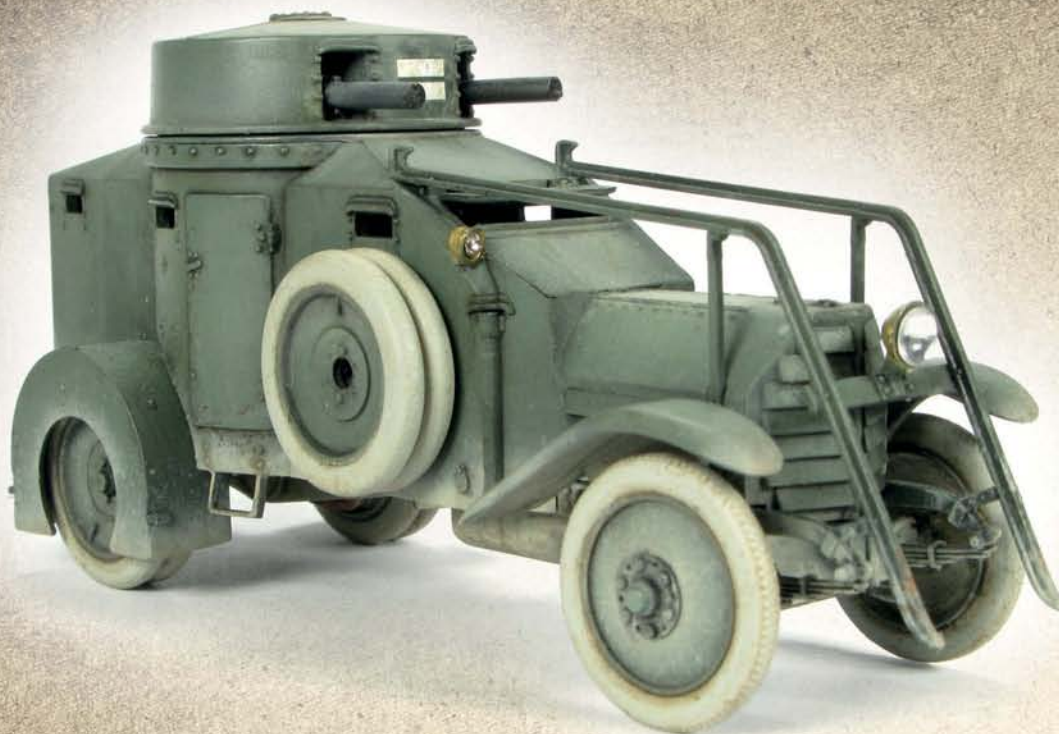






SVENSKA KUNGEN





LITTLE

Lancia

ALEX CLARK enjoyed
Copper State's new small-scale 12M armoured car
he just had to immediately build another...



The Lancia 12M was an Italian armoured car developed towards the end of the First World War. It was a further modification of the 12, an earlier vehicle produced from 1915. The most noticeable difference was the removal of a small secondary machine gun turret fitted directly on top of the main one. The 12M was used extensively between the wars, with the last modifications and updates occurring in the mid-1930s.

Copper State Models are well-known for their WW1 aircraft and armoured car models, the latter being (up until recently) in 1:35th scale. This release was their first step into 1:72nd scale and, apparently, they intend to scale down more of their range in the future.

Overall, it's an excellent little kit with fine and well moulded detail. The door are all moulded shut which is a slight shame for those wishing to open it up, but given the lack of interior detail (just the steering wheel) this is probably why. Two different types of armament are provided, along with several sets of markings. There's a section in the instructions that describe both the vehicle history and how the main vehicle colour changed over time from a light green to a darker greyish green.

After building the model, I realised I'd enjoyed it so much that I bought another! For the second one I chose a vehicle with the different armament and in the earlier and lighter shade of green. The second also sports the Italian national colours on the turret, giving it a more striking appearance.



1:72

GOLD STANDARD FROM COPPER STATE

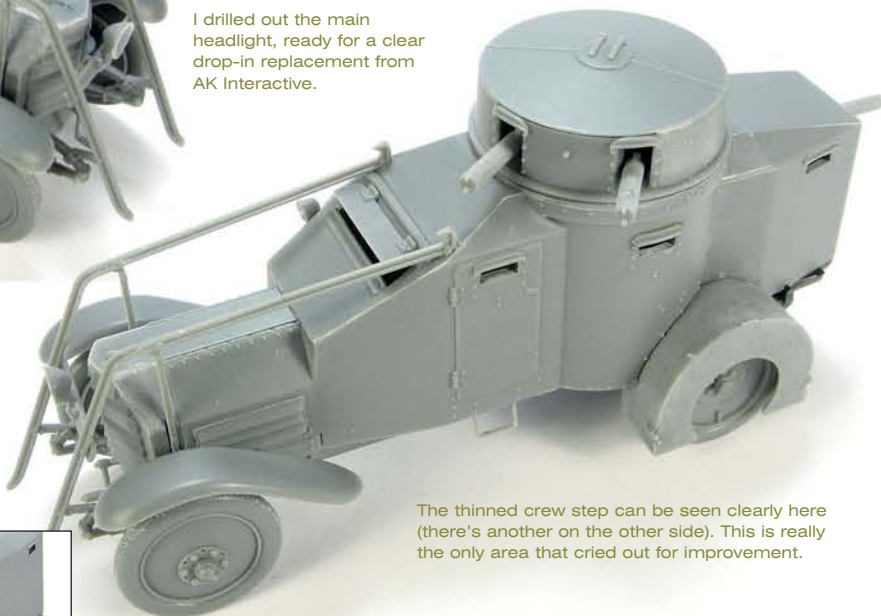
I followed the instructions in the steps given. They're clearly laid out and I found I just needed a little filler here and there on the body of the vehicle, mainly where the large hull panels join. Also a little around the front turret section. I painted up the vehicle interior before sealing it up, although very little can be seen once done (in fact only really the steering wheel and immediate surrounding area). The only detail that desperately needs attention is crew step under the doors on either side of the body.

They're considerably overscale but it's an easy enough job to thin them down with a scalpel and a small sanding stick. The other area I improved were the lights, the main headlight and a smaller right-side light. I drilled out the solid plastic in readiness to fit a couple of clear replacements. The smaller light was from the MV Lenses range and the larger from AK Interactive.

Although shown completely assembled here, I left the wheels, machine guns and rear mudguards separate to ease painting.



I drilled out the main headlight, ready for a clear drop-in replacement from AK Interactive.



The thinned crew step can be seen clearly here (there's another on the other side). This is really the only area that cried out for improvement.

The tyre tread is nicely done but a downside is the way the wheels are attached to the sprue with 4 point that obscure the detail. After cleaning the wheels up, I used a scalpel and razor saw to restore some semblance of the pattern back on. To ease painting I left the wheels, including the spare, separate. Because of this I had to leave the rear mudguards separate too.



I primed all the parts with AK Fine Surface Primer and Filler.

A couple of thin coats of Tamiya Field Grey, XF-65, formed the basis of the main colour.



For the second build the steps were almost identical, I just used the different machine guns provided. For anyone wanting a fairly quick, but accurate, build I'd certainly recommend it.

Once construction was complete, I covered over the various openings – the small vision slots around the body and the larger driver's opening – from the inside with masking tape. I cut a small paper circle and used this to cover the hole where the turret sits. After receiving an overall sprayed coat of primer, I painted the main colours with Tamiya acrylics. The weathering was mostly done with enamel paints and weathering products.

I kept weathering light as they wouldn't typically be covered in rust and paint chips. The accompanying step-by-step photos show the process in more detail for both builds. The first model was finished in the later, darker green whilst for contrast I painted the second one in the much lighter earlier green. Decals are provided for the red and white portions of the turret sides, but I masked and painted them to give a better look.



I lightened the Field Grey with some J.A. Grey (which has a slight greenish tinge) and airbrushed this over the horizontal and upper surfaces of the model.



The markings on this particular vehicle are quite sparse, I applied them with decal setting solution and once fully dry sealed them with a coat of clear acrylic satin varnish. This would help protect them from the various enamel washes and weathering steps.



To add a bit of contrast, I mixed up a dilute dark green enamel wash and applied it over the entire model. Once touch dry I used a clean brush dipper in thinner to carefully remove the wash from raised areas. It also breaks the flat surfaces up a little.



I mixed a light greyish brown dust colour and airbrushed this around the lower hull, chassis and some of the upper horizontal areas. With a clean brush dampened with a little thinner, I dragged downwards to give a random mix of soft and harder edges to the dust effect.



I spattered the dust mix around the vehicle, again focussing a bit more on the lower hull and horizontal and near-horizontal surfaces. I darkened the mix a couple of times and repeated to give some tonal variety and a more natural appearance.



I dry brushed some dust shades – this gives a complementary effect to that achieved with the initial sprayed application and spattering.



A dark pin wash around all the details helps to restore contrast and enhances the shadows.



The two lamp housings are made of brass on the real vehicle – I brush painted a few thin layers of AMMO acrylic Brass.



I painted the tyres in a very pale grey, with a tiny touch of olive green. Following this they received a dilute brown wash and some spattered mud effects.



I created some tiny scratches around the edges of moving parts such as the driver's vision hatch.



I lightly dry brushed a very dark brown enamel mix along the edges of the turret and hull.



I dotted and streaked a dilute rust mix from AMMO. I kept this to a minimum, just enough to be noticeable but not be unrealistic.



For the darkest shadows a pure black pin wash gives some additional contrast.



I ran a black watercolour pencil along the edges – this helps give a natural looking contrast and definition.

TAKE TWO...ACTION!...



The second build was almost identical to the first, with just the type of armament being different.



After receiving a coat of grey primer, I painted the sides of the turret with Tamiya flat White. There are marking included for the turret, but I prefer to paint them where possible. I masked the central section with a thin strip of Tamiya flexible masking tape and painted in the red and green. Once done I masked these off ready to paint the main camouflage green.



For the main colour I mixed Tamiya Green and Yellow. I lightened it a little more with some additional yellow and lightly sprayed this over the upper portions. I then mixed the initial colour with some Flat Earth and a touch of Black and created some darker shading on the lower areas and around the recesses.



I applied a similar overall dark green wash that I'd used on the first model. Again, once touch dry, I worked it around the surface.



The wash remains mostly around recessed details, but also gives subtle, random patterns over the main surfaces.



I airbrushed Humbrol Khaki Drill around the chassis and lower hull. I applied small amounts to the horizontal areas of the turret and hull too.



Khaki Drill was also spattered over the model, mostly to enhance the previously sprayed effects.



A dark pin wash restored some contrast and definition to the details.



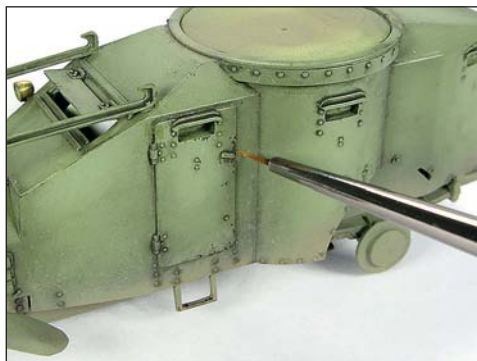
I painted the exhaust Humbrol 113 (Rust) and let it fully dry.



Humbrol Flesh was dotted and dragged over the exhaust to give a mottled effect.



I then dabbed a couple of different rust shaded washes over the finish, finally dotting over a very dark brown wash.



I added a few more chips and scratches on this model compared to the first, concentrating on moving parts and areas that the crew would come into contact with the most. Again, I used AMMO chipping acrylic, but I still kept the degree of chipping quite small.



I carefully lined some of the detail with a pure black wash.



I spattered a very dilute black wash over the underside of the chassis. Being more dilute gives rise to large splotches but with a more subtle contrast to the paint underneath.



I lightly dry brushed a very dark red-brown enamel mix over the edges of the various panels. Once done I attached the lights, machine guns and wheels to complete the model.

I thoroughly enjoyed building these little Lancias, even repeating assembly again wasn't a chore. Similarly, they were fun to paint up too and although perhaps a little ungainly looking I found they had a certain charm! Apparently the Lanchester armoured car will be the next release in this scale, a release I'll certainly be getting.



For such a small model CSM have packed-in some great detail and finesse. If 1:35 is more to your taste it's also available in their catalogue too.



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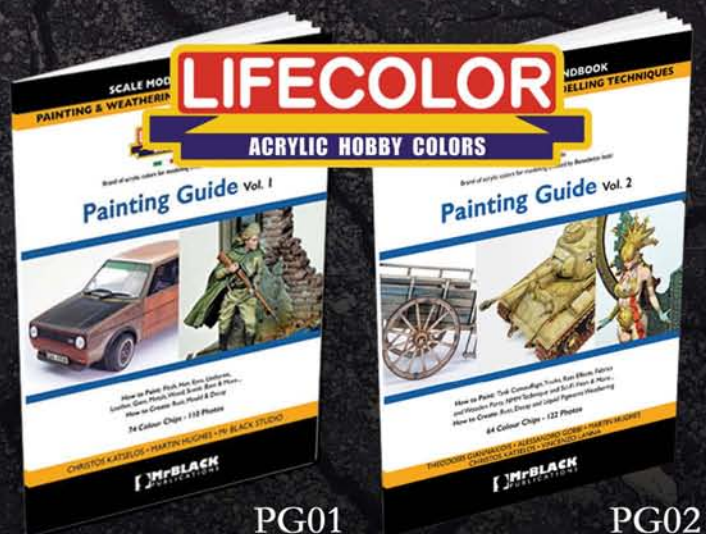


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FASHIONABLY

LATE

SAM DWYER

TAKES ON THE 1:35
PANZER IV Ausf. J
MINIART MEGA-KIT



Do we want to talk about the history of the Panzer IV? Yes! They were built all throughout WWII, all the way 'til war's end, and a small number were even produced by the Soviets post-war according to the Panzer Tracts reference series. To me, the early war Panzer IV's are kind of boring, for me it's not until the Ausf.J model that they get super interesting. By this stage of the war, they were entirely produced by Nibelungenwerke in Austria and towards the very end of the war were completed with a standard factory camouflage scheme. This last variant of the tried-and-true Panzer IV was a fairly stripped back, lean machine, with many design changes to speed up production and get as many to the troops as possible in the shortest time.

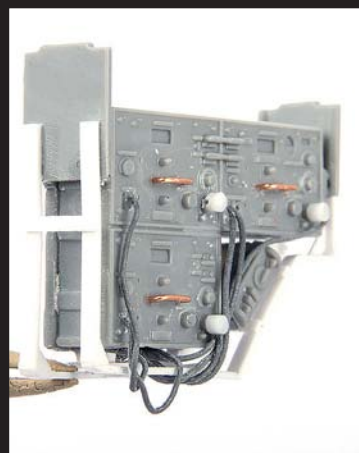
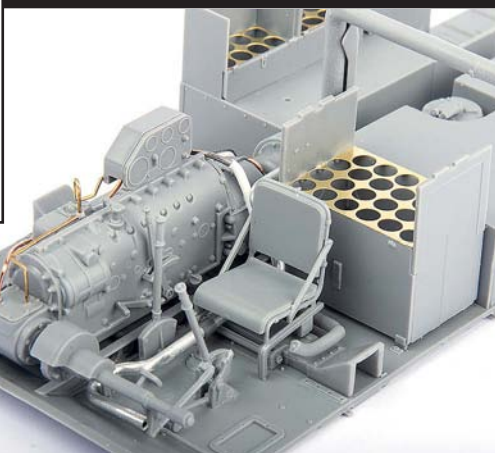
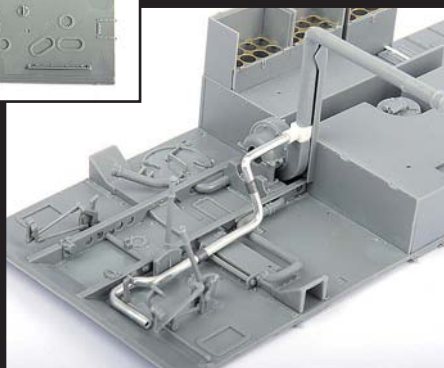
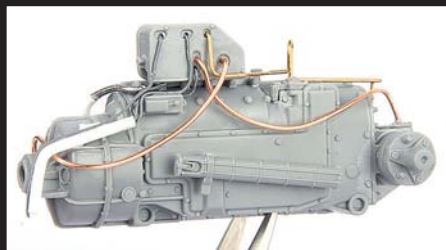
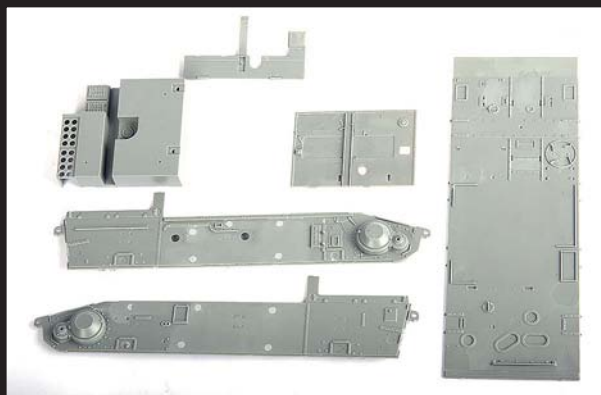
Miniart, from Ukraine, have so far released a large number of Ausf H and J Panzer IV's, covering all 3 manufacturers (Vomag, Nibelungenwerke and Krupp) – but the moment they released their 'late production Feb 1945' version, I knew it was the one to do. The Miniart kit is moulded in mid grey styrene, with very crisp detail, and comes with about 1,000 sprues in the box!

Construction starts with the interior, which at first glance is very comprehensive and complete. For the most part, this holds true, but the more you delve, the more you come to realise that it looks like they may have been copying someones homework – the

interior parts are from the Ausf.H version mostly. Who do we know that's building a large scale Ausf.H? Anyway, converting the interior Miniart gives you is relatively easy – some parts are included in the sprues, others will require a small amount of scratch building. I'll call these out as I go.

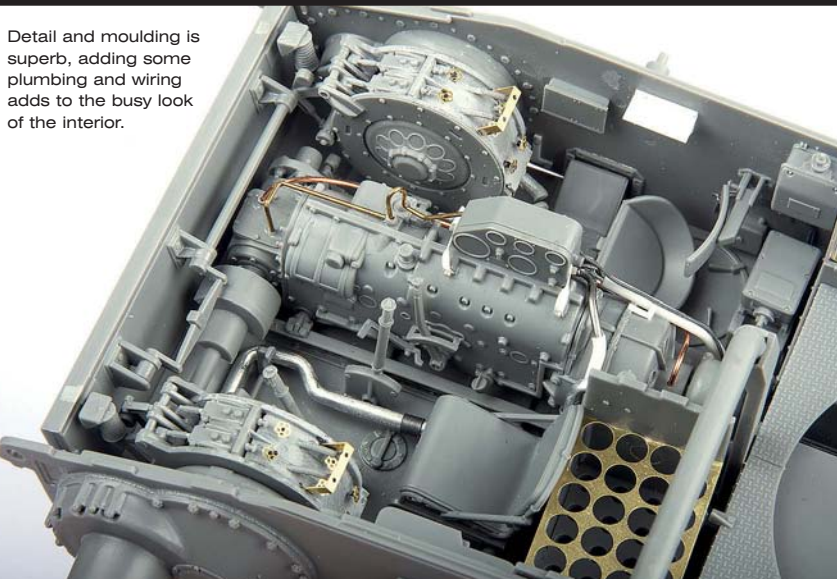
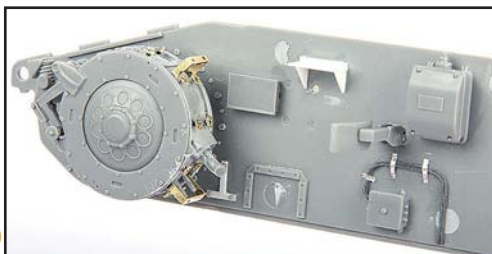
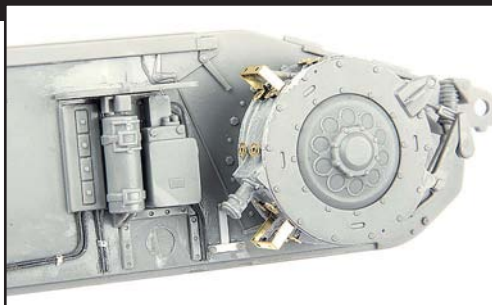
First step is to address the engine firewall, where you'll need to delete the hole for part Da20, and scratch build a master switch and fuel tank valve assembly – you can check back in issue 98 of AFV Modeller and see the Editor added one to his model too. The Miniart kit hull parts are built up like an Ikea kitchen, lots of flat panels; luckily they all fit with precision. I always find it best to get these assemblies together early on and then add the details to the larger assembly as you go. Miniart call out to add the 75mm ammunition early on. Forget that – leave that till just before you join the hull upper and lower together. Cleaning up mould seams, masking and painting individual rounds of ammunition is excruciating, I'm not going to sugar coat it. It's always deeply satisfying to glue the rounds in and have the full ammo racks look amazing, but until then, it's a total drag. A valuable shortcut here is you only need to paint the casing on the vertically stowed rounds, as they're mounted projectile down, and you can't see the projectile when mounted. You can thank me later...



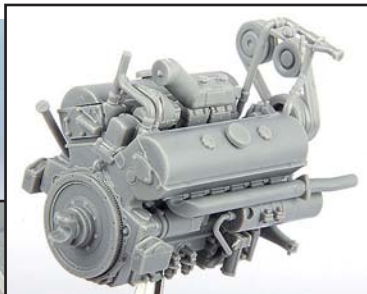
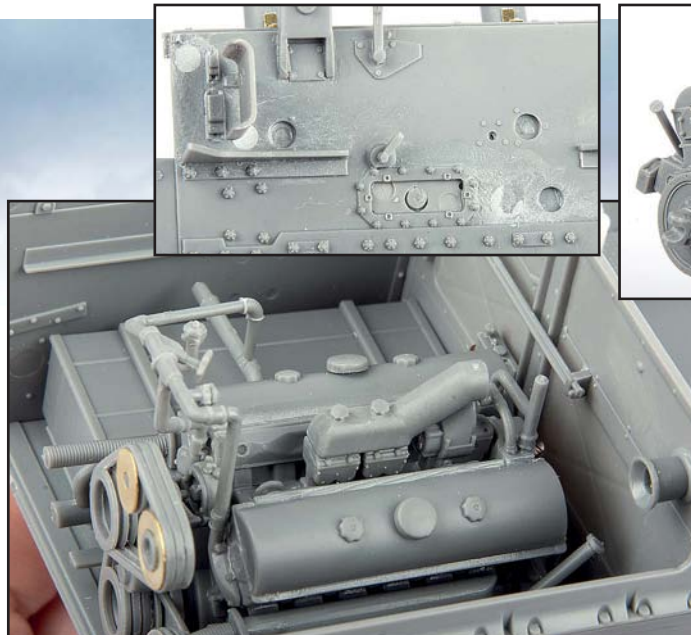


The driver's compartment that Miniart included is actually pretty well detailed and accurate, the modeller will need to add some power and transmission cables to the kit parts, which is very straightforward to do. Check back in issue 103 of AFV Modeller for where these should be routed. I used some soft copper wire and Evergreen rod for these. On the Ausf.J a heating tube for the driver's feet was added – this is a simple addition with some bent aluminium tubing with some strips of lead foil glued on to depict the flexible rubber joints. This heating tube ran off the venture fan that was powered by the main drive shaft running from the engine to the transmission. Miniart provide a large amount of detail in this area, with a lot of etch parts to be added, it looks fantastic under

paint. The radios included in the kit are correct for an Ausf.H, unfortunately will need some work to be right for the J. I removed the grab handles and some external details from the radios, replaced the handles with brass wire and scratch built the correct 'ski jump' style radio rack using some Evergreen styrene strip. Power and headphone intercom cables were added from fly fishing lead wire. One final thing to remove in the fighting compartment – the auxiliary generator foot switch. The aux-gen was removed in the Ausf.J, Miniart added this to the hull floor (part Ec1). Removing this and replicating the tread plate pattern is tricky, I filled the gap with some Evergreen rod and hoped for the best.



Detail and moulding is superb, adding some plumbing and wiring adds to the busy look of the interior.



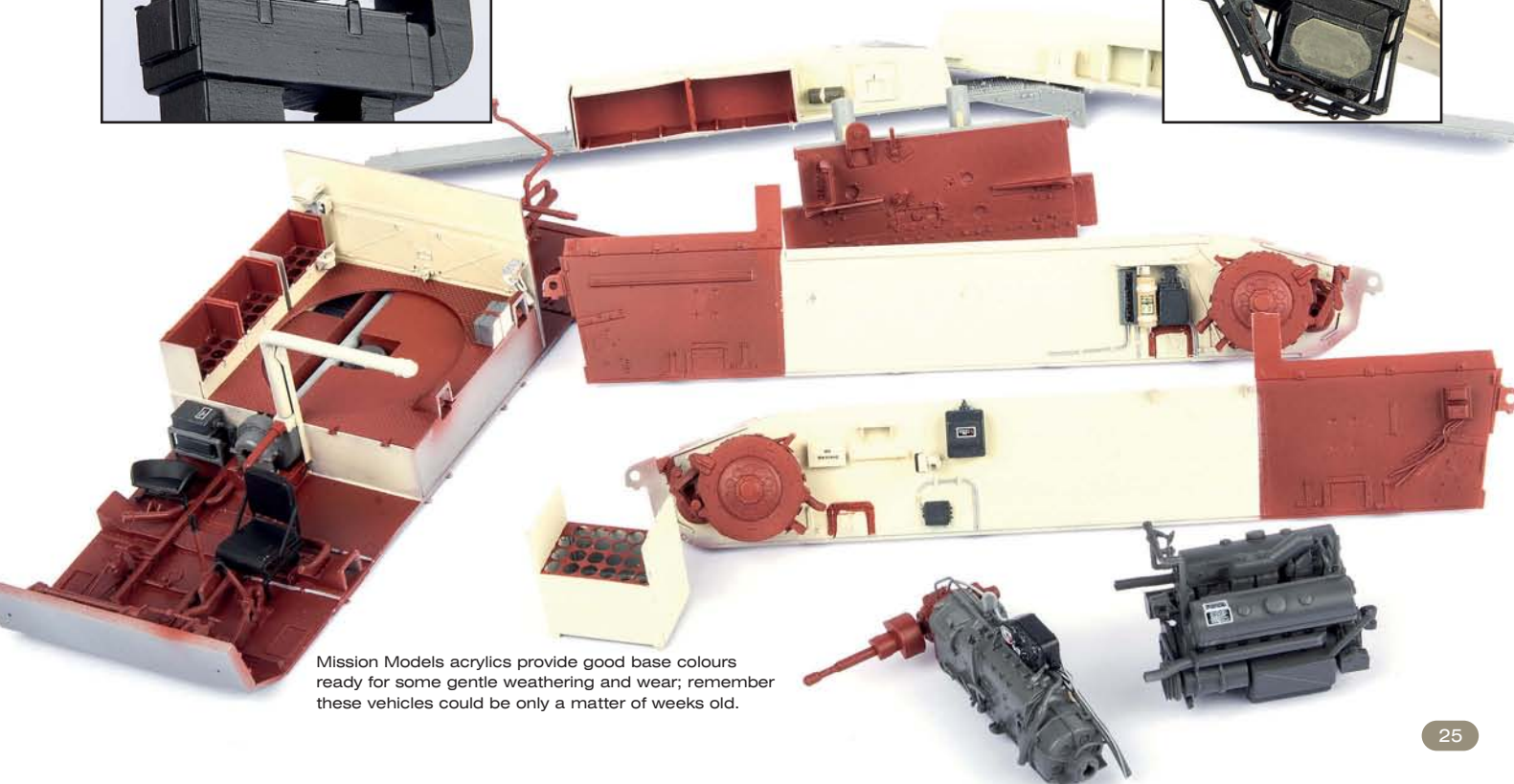
The Maybach HL120 engine included in the kit is a mini-kit in its own right. Its made up of a huge number of parts and is very accurate; with care this can be built up quite quickly and is a drop fit into the engine bay. Much of the engine bay and associated parts are correct for the J version, with a couple of exceptions. With the change from H to J model, the aux gen was dropped and a large fuel tank was added in its place. Miniart include the tank, sadly its shape is not accurate, nor does it include the prominent fuel filler pipe. Part Cd23 is the fuel tank, I added a vertical filler to it that snakes through some of the radiator blanking plates. Murphy's Law struck here – I didn't get information that shows this area accurately until after I'd finished the model.



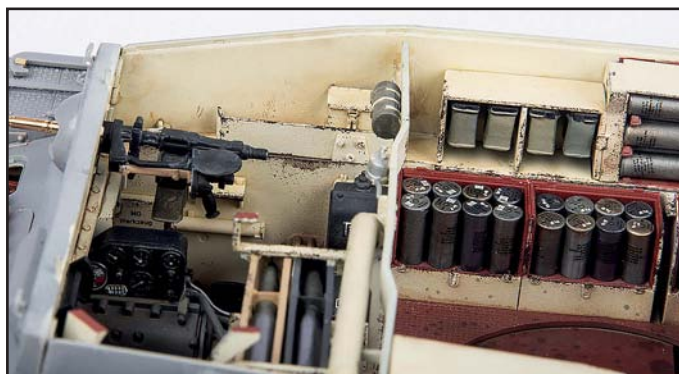
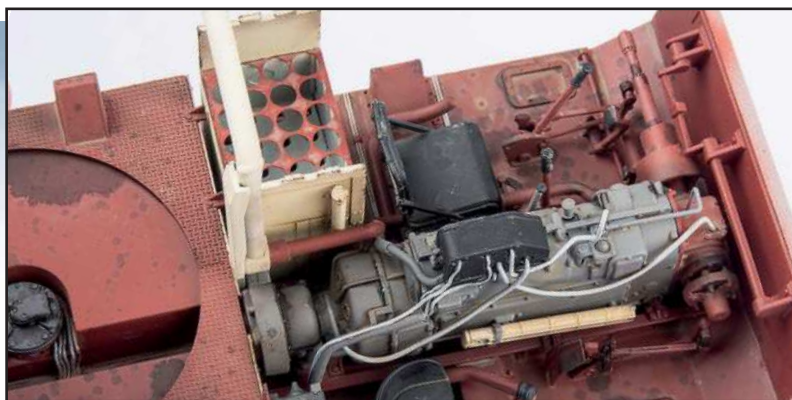
The other area that requires significant attention in the engine bay is the air filter assembly for the motor. Miniart gives you the air filter from the H – on the J this was changed to a strange looking filter assembly that almost resembles the Loch Ness Monster. The Editor came to my rescue here, drawing up the correct assembly and printing out an incredibly accurate and detailed Ausf.J air filter assembly. I wouldn't be surprised at all to see this part in the AFV Modeller store in the future, both in 1:35 and 1:16 scale. This part was the final part to be added to the engine bay before paint.



The interior was painted solely with Mission Models Paints : MMP-013 Red Oxide on the lower parts of the hull interior, followed by MMP-082 Elfenbein on the upper sections. These colours are just perfect to my eye for German interior colours. The engine was painted with MMP-089 dark grey. The hull interior was then weathered with acrylic washes and chipping to impart that worn, lived in look. The vehicle I wanted to depict was only a month or two old at wars' end, so I didn't want to weather the interior too heavily. The 75mm ammo was painted with an array of metallic colours from Gunze and SMS then carefully glued into their racks.



Mission Models acrylics provide good base colours ready for some gentle weathering and wear; remember these vehicles could be only a matter of weeks old.



The exterior built up with very little modification necessary. Panzer Abteilung 8 fought in the last ditch battles around Berlin, and were equipped with a number of late Panzer IV J's; to me this seemed like a great subject. The exterior was built up mostly along the lines of the instructions.

These Miniart 'mega-kits' come with plenty of photoetch detail. MG barrel and antenna are from Aber.

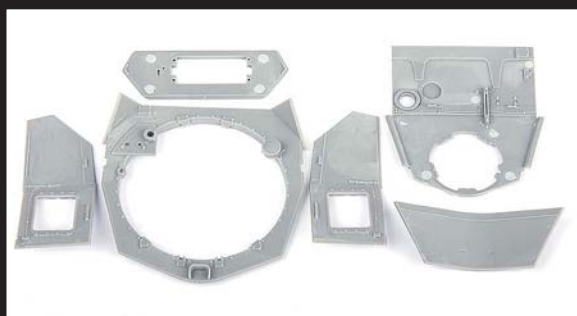


T-Rex 3D printed tracks are beautifully detailed and easy to assemble with no clean-up involved.



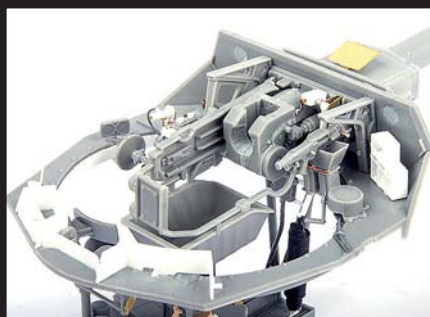
Building up the large mesh side skirts was relatively straight forward, they fit perfectly and really give the model that late war look.

I replaced the kit tracks and one sprocket with T-Rex 3D printed parts. The sprocket comes fully assembled, its amazing what 3D printing technology can produce now. The tracks build up very quickly and look amazing.



The turret interior requires some significant work to convert it from H to J. Miniart call-out for the builder to use turret floor part Gb19 – this part is supposed to represent the J turret without power traverse. It doesn't – its best to use part HB16, which has the mount for the traverse mechanism. The J model traverse mechanism is effectively the H model with the powered part removed, these parts are included in the kit. Build up the manual traverse mechanism using parts DB9, 11, 12 and 18. I detailed these parts up with styrene strip and rod, as well as some Titchy Trains rivets. I added a remote trigger again scratched from

Evergreen styrene. The kit gunsight was detailed in the same manner. Across the turret, on the loaders side I added the gun safety box, detailed the coax MG and mount, and scratch built the spare vision port rack. David helped out again, printing me an accurate gun counter lever spring and arm. At the turret rear I added the commanders stowage bins using more Evergreen strip, with a set of scissors periscope added to the back wall, courtesy of a Rye Field Models Panzer III. Painting the turret was done in a similar fashion to the hull, MMP red oxide and Elfenbein with black details, then weathered with acrylic washes and chipping.





Mr Hobby H313 offers a good pale dunkelgelb for late-war German armour. Careful masking of the interior work is worth taking time over!



The factory pattern was followed as closely as reference allowed.



The model was painted with Gunze Mr Hobby acrylics, H313 for the dunkelgelb, H303 for the green H406 for the red brown. Getting the Ni-werke factory camouflage pattern right took a lot of pouring over images of the real thing; of course there's never a 4-view plan of the pattern when you need one!

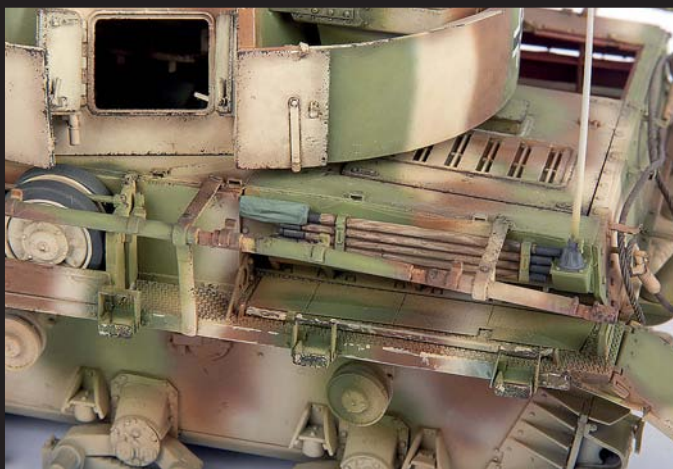


The most significant thing with this factory camouflage pattern is the order of colours as they progress around the turret armour skirts, and the very obvious upside down V in dark yellow on the turret armour at the 5 o'clock position. This is seen on all late or final built Ni-werke Panzer IV J's. The camouflage pattern was also applied over the mesh armour plates, with over spray showing

through onto the hull in places, as would happen on the real tank. Weathering was again done with acrylic washes and chipping – keeping everything restrained due to the life of this vehicle. I also airbrushed mixed shades of the camouflage colours around the model to show some paint wear and fading.

Depicting the model abandoned at wars' end meant I could throw all the hatches open, highlighting the very comprehensive interior that Miniart included, and the work I'd put in correcting certain elements.





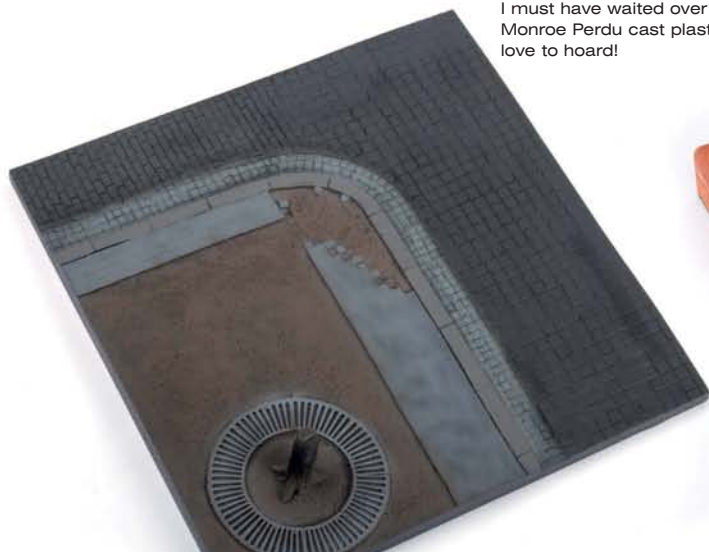
A small base was constructed to mount the model on, a Stalingrad resin Russian figure was painted-up and the model is a wrap!

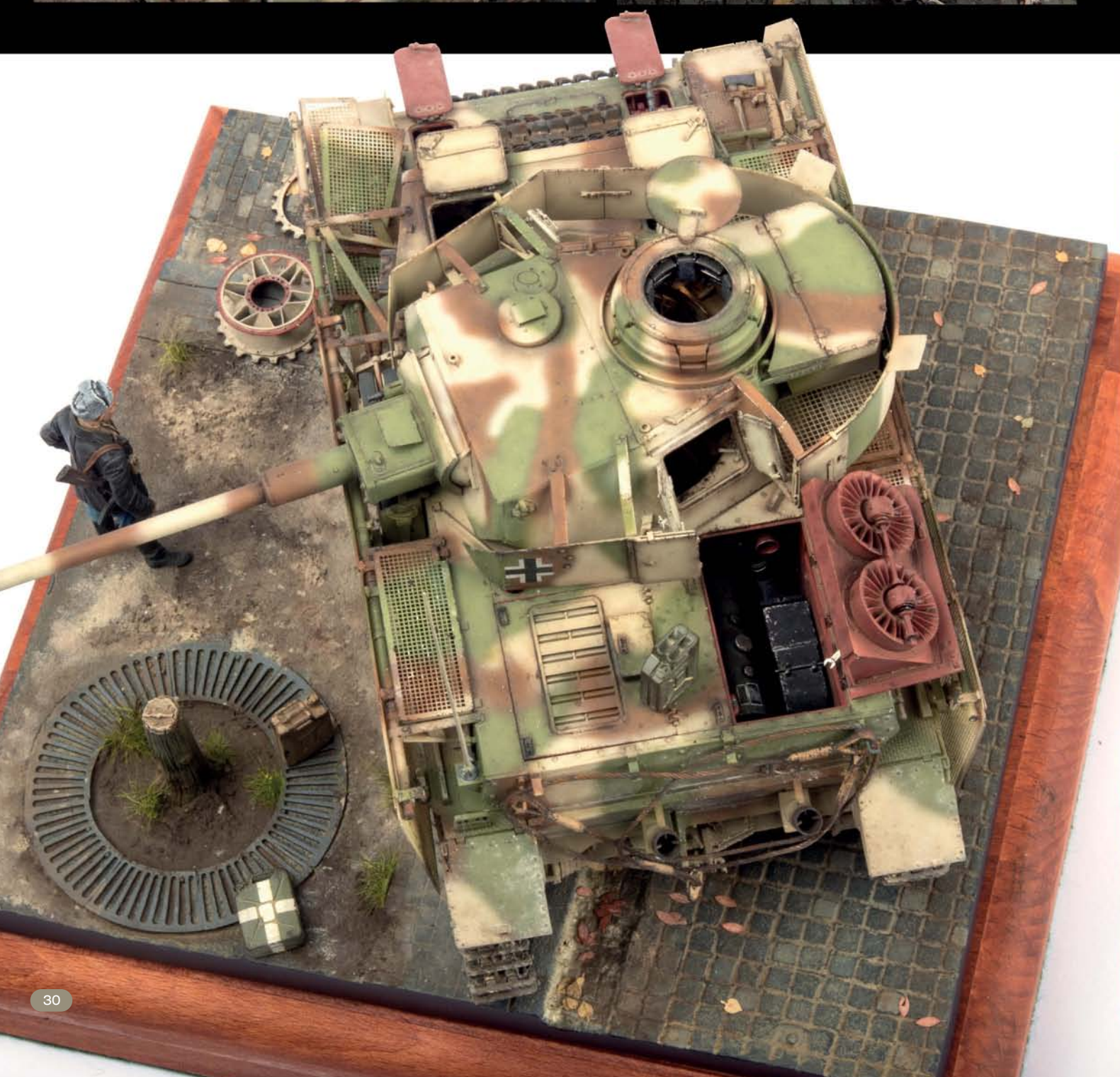
Miniart has a great reputation for releasing amazingly detailed models, and their Panzer IV Ausf J is no exception. It would have

been great to have the interior be slightly more accurate, but correcting this was worth the effort as it turned out to be a pleasing project. Special thanks to David Parker and Przemek Wojdas for their continued support throughout this project! Slava Ukraini!



I must have waited over twenty years to use the Monroe Perdu cast plaster base...we modellers love to hoard!







OPERATION EPSOM

PART FIVE



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

EPISODE NINE

The first day of Epsom was also the second day of Operation "Martlet". This took place on the direct right flank of the 15th Divisions' attack and was meant to secure the high ground around Rauray. Although the assigned objectives had not been reached the Commonwealth had punched a several Kilometre breach into the German front.

All across that zone, from Fonteney over to Carpiquet the HJ tries to plug the gap with whatever it had available. Part of that job meant that commo had to be restored.

"Watch those trees over there for Tommies while we pass across!"



"I don't like this open space at all!"



"I wonder what got that cow?"



"Maybe something from over there?"



"It doesn't matter boys, Sturmabannfuhrer Olboeter needs this telephone connection right now!"



"The Salby Creek is right ahead. We are still right by the St Martin Farm"



A replacement artillery forward observer tags along to the HQ area. The artillery needs to get back in the game and currently have to fire using only pre-registered targets.



Further south of Rauray, at the field repair facility of the I/12 SS PzRegt (Panthers) a motorcycle messenger delivers another note from the front.

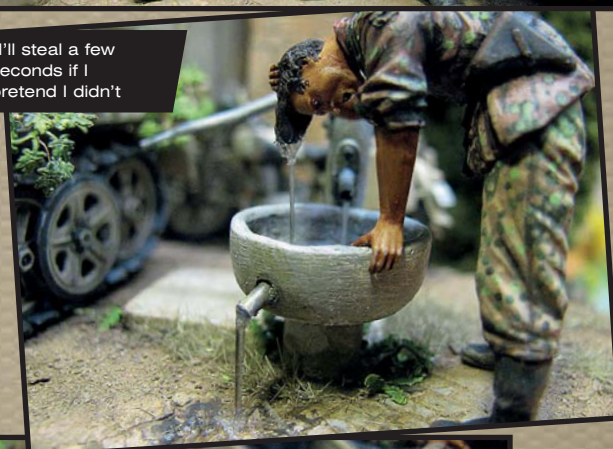


"Yeah, I know exactly where that location is Hauptschar and we...hold on...what's up with the commander now?"

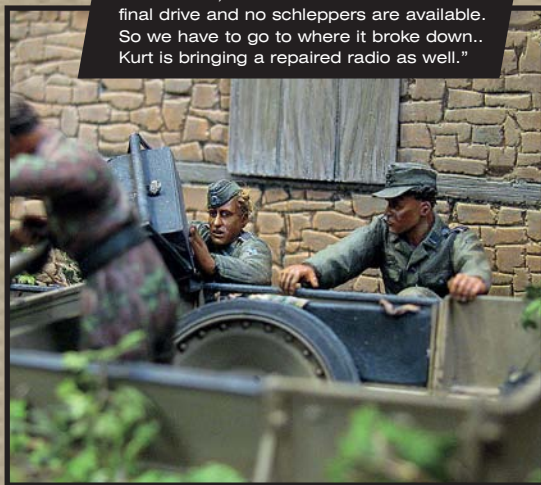


Commander shouts "Courier!" Courier thinks to himself "Scheisse, I didn't even get to wash the dirt from my head!!"

"I'll steal a few seconds if I pretend I didn't"



"We haven't slept in 2 days Dieter." "Tell me about it, but another Panther needs a final drive and no schleppers are available. So we have to go to where it broke down.. Kurt is bringing a repaired radio as well."



The driver slips into his well worn seat.

An HQ man removes boards placed along the sides of the vehicle to help break up its' shadow from the sky.

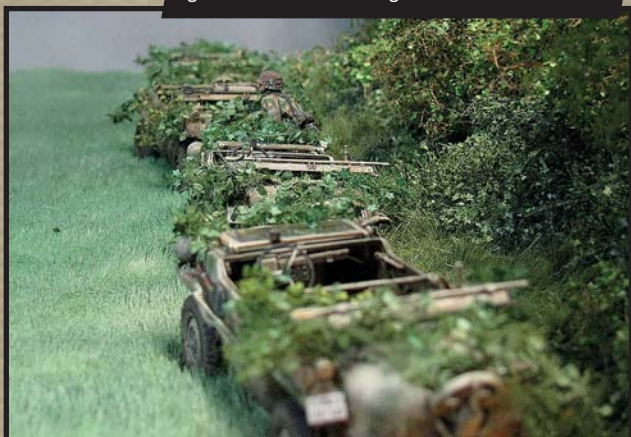


And so the halftrack assigned to the Instandsetzung (repair unit) of the Abt, loaded with a new final drive, repaired radio and new roadwheels takes to the road in the never ending mission of keeping the Tanks repaired and returned to combat as fast as possible. On the East side of the breakthrough, the Germans begin counterattacks and try to build a blocking position. The attack near Mercelet having failed the 12SS command looks for troops that can be detached and sent into the breach.

The Chief of Staff, Hubert Meyer quickly realizes there has been almost no activity in the sector of the 25 SS PzGrenRegt positioned on the far right flank and so tasks the 15th company (recon) of that Regt to try to contain the Scottish "shoulder" by occupying hill 100. Master Sergeant Boigk commands the remnants of this unit, the officers all having been killed or wounded during the fighting around Bretteville earlier...



The Schwimmwagen mounted recon men leave a guard at their camouflaged vehicles.



They quickly move off to the positions Boigk and the other NCOs have picked.



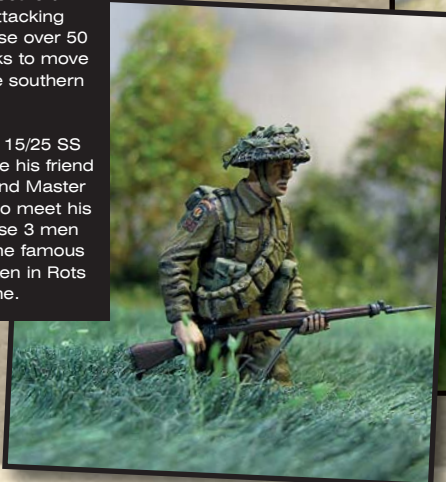
They spread out to the exact locations the squad leaders point to.



Stopping just short of the military crest.

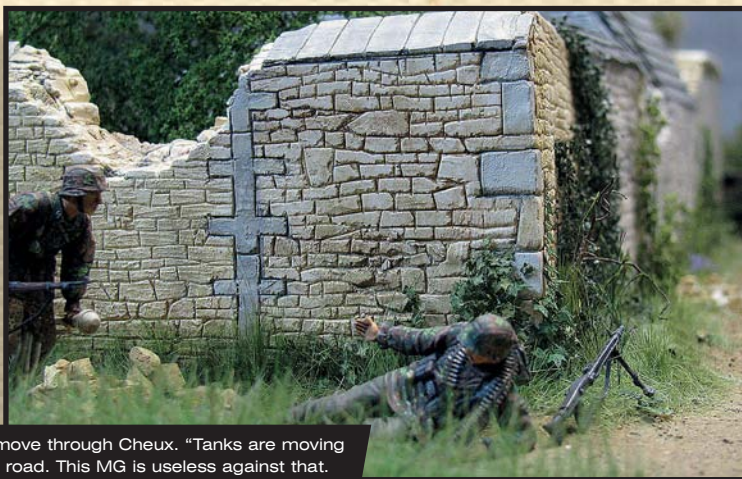
They are soon spotted though by men from the 7/Seaforth Highlanders who ,attacking southeast, would lose over 50 men and a few tanks to move the Germans off the southern slope of hill100.

Otto Funk, from the 15/25 SS GrenRegt would lose his friend Klaus Schuh here and Master Sgt Boigk would also meet his end soon after. These 3 men were portrayed in the famous series of photos taken in Rots the morning of 9June.



Meanwhile in Cheux the remains of squads and platoons of Infantry and Engineers try to snake their way back south through the town loosely held by the Commonwealth troops.

Constantly on the lookout in all directions. Driven by fear and adrenaline.



More exfiltrators move through Cheux. "Tanks are moving through down the road. This MG is useless against that. Bring up that Panzerfaust!"

"Hey ! One of them has stopped"



"I'll keep the commanders' head down while you get a shot off !"



"Ok ,clear for now but move fast !" "Get out there and shoot!"

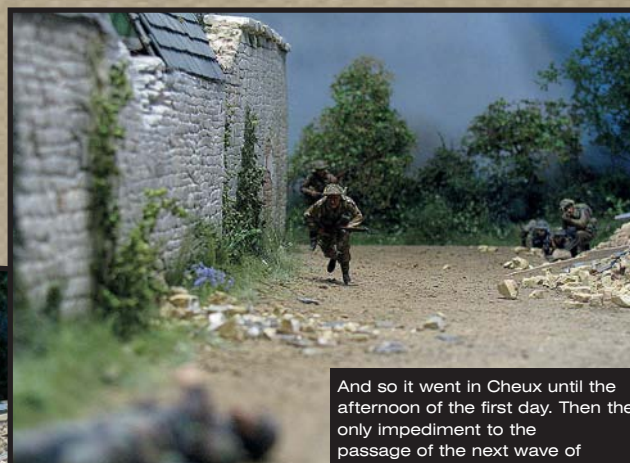


They have indeed been noticed ! The Churchill quickly pulls into cover and Infantry move in to clear the ally. "Hold on,let me get some supporting fire ready !"

"He missed ! They know we're here now ! Get back that way...QUICK !!"



They have indeed been noticed ! The Churchill quickly pulls into cover and Infantry move in to clear the ally. "Hold on,let me get some supporting fire ready !"



And so it went in Cheux until the afternoon of the first day. Then the only impediment to the passage of the next wave of Commonwealth Might would be the narrow,rubble choked streets of the drawn out village. But...the advance continued into the afternoon.

"Bren up and correct !" "We have you covered. Move to the next corner !"

TO BE CONTINUED...

BEST BRASS AROUND

eduard

Panzer II

1/35 Academy

Cat. No. 36477



M18 tank destroyer

1/35 Tamiya

Cat. No. 36478

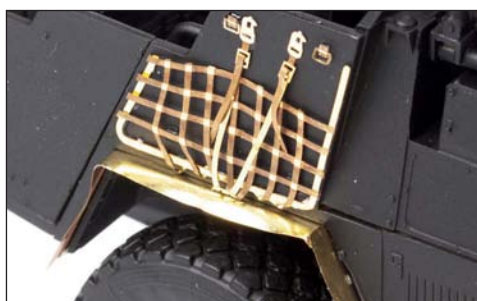


Jackal 2

1/35 Hobby Boss

Cat. No. 36479

Release 05/2022



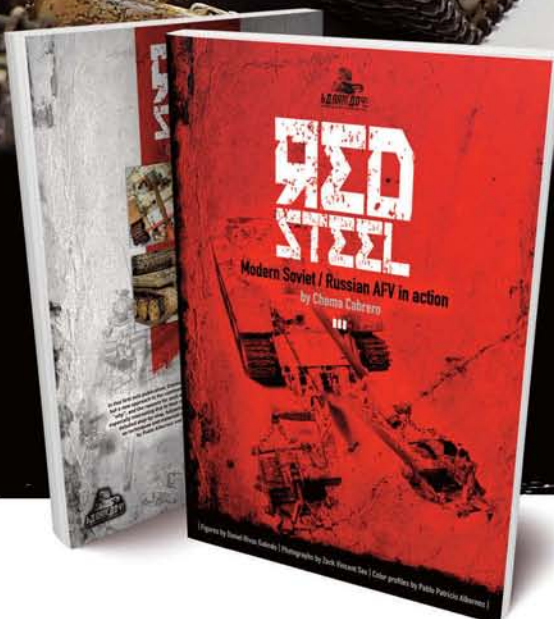
VALLEJO PUBLICATIONS

NEW!

A must have book for modern Soviet/Russian AFV lovers



Chema Cabrero show us in his book Red Steel the “how” and “why” paint process and weathering effects, sharing techniques and experience, as complete step by step, with full articles and dioramas, profiles by P. Albornoz and photo reference by F. Keegan.



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Panzerkampfwagen

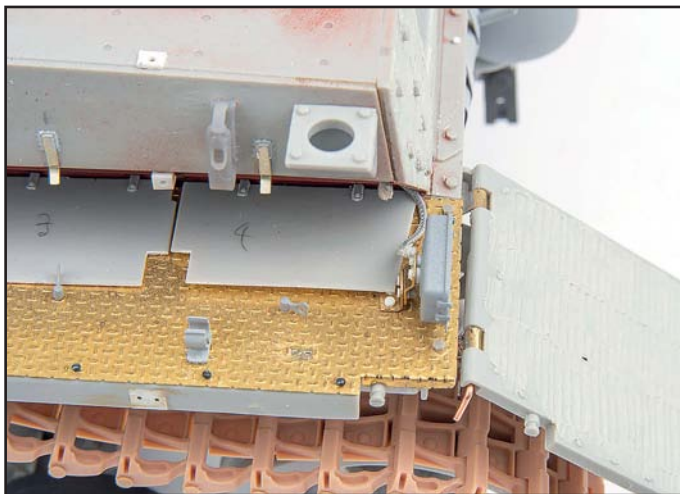
David Parker builds Trumpeter's 1:16 kit

W

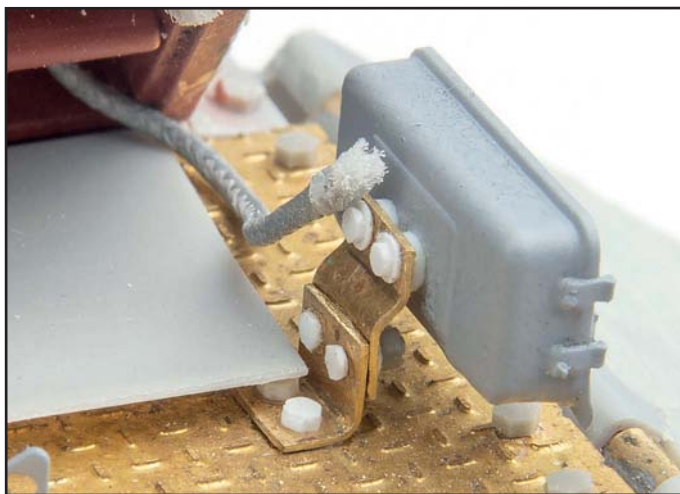
Part Forty Two

This installment sees the end of construction and the start of painting but not before a few loose ends were tied up. There seemed to be so many things to complete and to check that I wrote out a small check list to help. I remained unhappy about the position of the spare roadwheel on the RHS fender and after studying the original Bundesarchiv image of the subject tank I realised that I would need to destroy the carefully constructed brass skirt support frame.

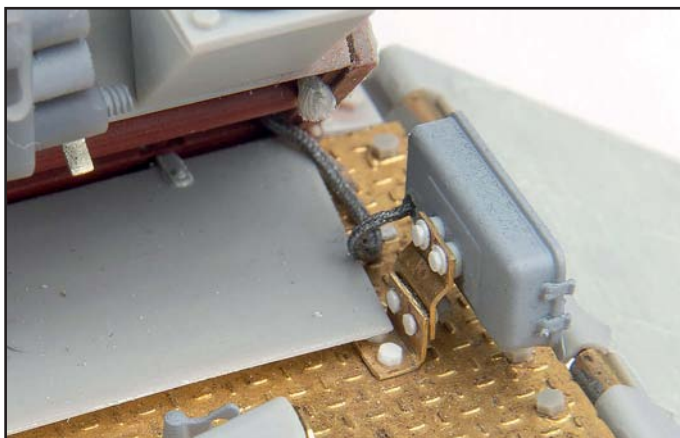
Painting required a lot of time spent on masking and then in the actual painting itself. Applying the dunkelgelb and two camouflage colours took a whole days work to complete. Applying the markings was equally time-consuming as it was all done by hand and brush painted. The finished results really brought the model to life although the prospect of starting to weather it is extremely daunting.



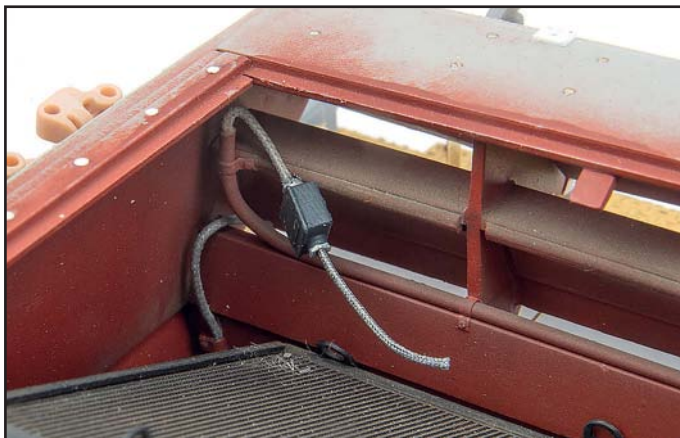
The rear convoy light was replaced with one that I designed and 3D printed and the mounting brackets were made from scrap photoetch.



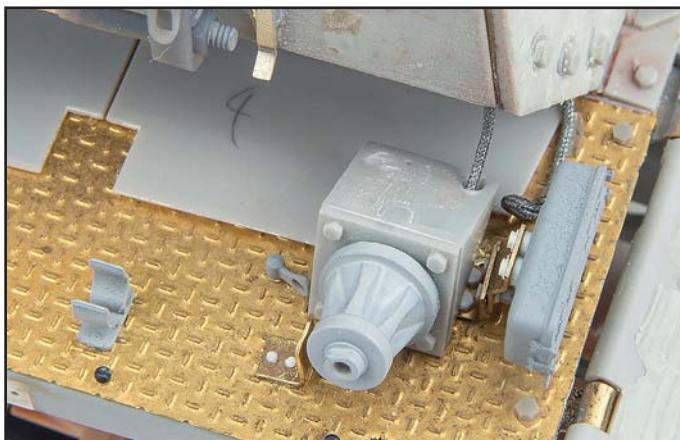
The rather frayed electrical cable need to be connected to the back of the convoy light and in the end I replaced this cable with a length of the ANYZ cable which was easier to manipulate into position.



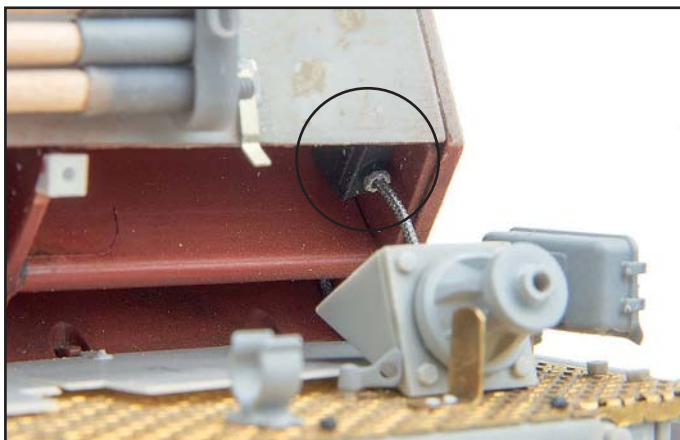
The convoy light seen here after it was connected. Connecting the antenna was incredibly fiddly and the junction box should really have been fitted much earlier in the build.



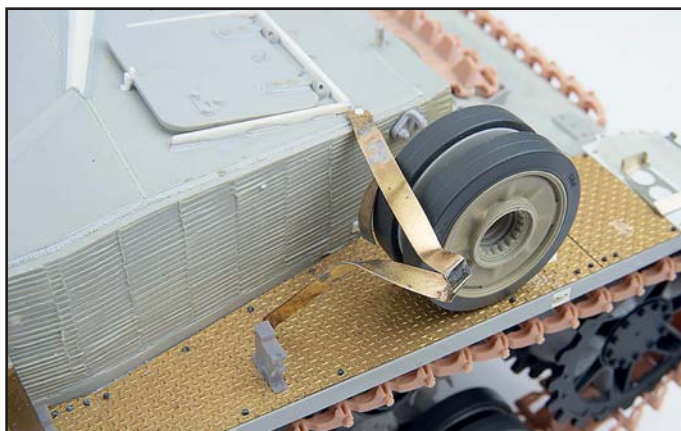
I glued the box onto the cable which comes out of the conduit. I then had to pass the box and cable through the gap in the louvers.



The cable then is glued into the back of the antenna mount. I replaced the rubber antenna base with a new 3D printed version.



The junction box was mounted on the inside face of the rear wall where it is just visible and the antenna mount could be glued into position.



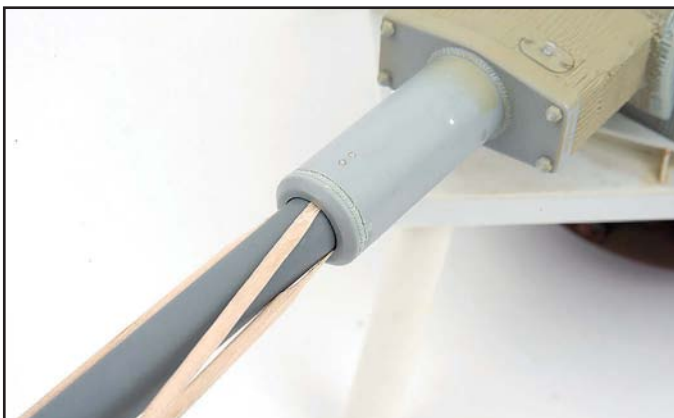
My subject vehicle carries a spare roadwheel on the trackguard but I could not get a wheel to fit in the same way. Closer examination of the real vehicle appears to show the front skirt hanger has been badly damaged.



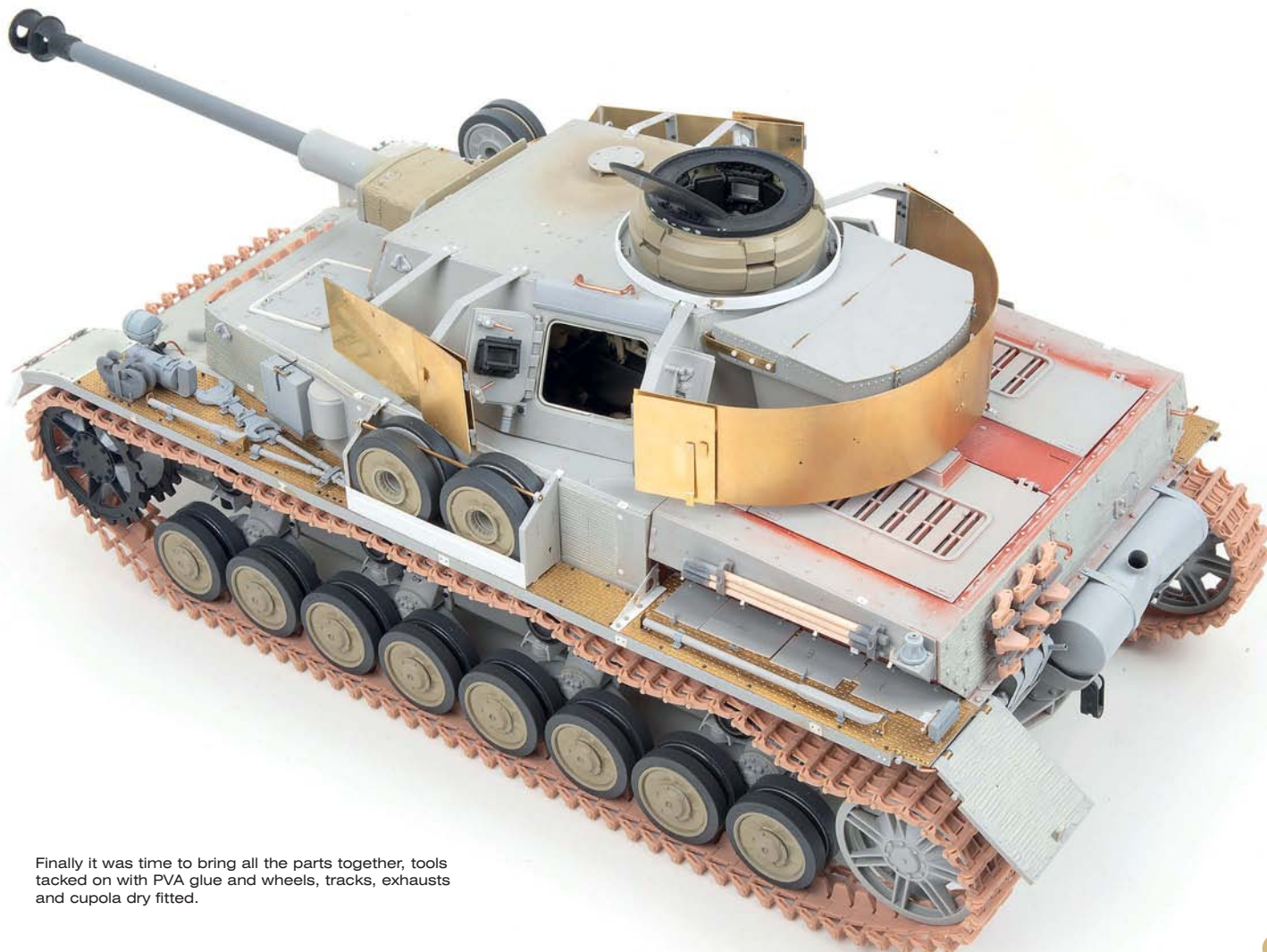
Padlock hasps were added to both front hatches, the position of these can vary but Nibelungenwerk vehicles have them mounted centrally.



I decided to rework the cupola hatch which I had glued open to make it functional. I inserted a brass tube into the hatch hinge and secured it with a brass rod in the cupola rim.



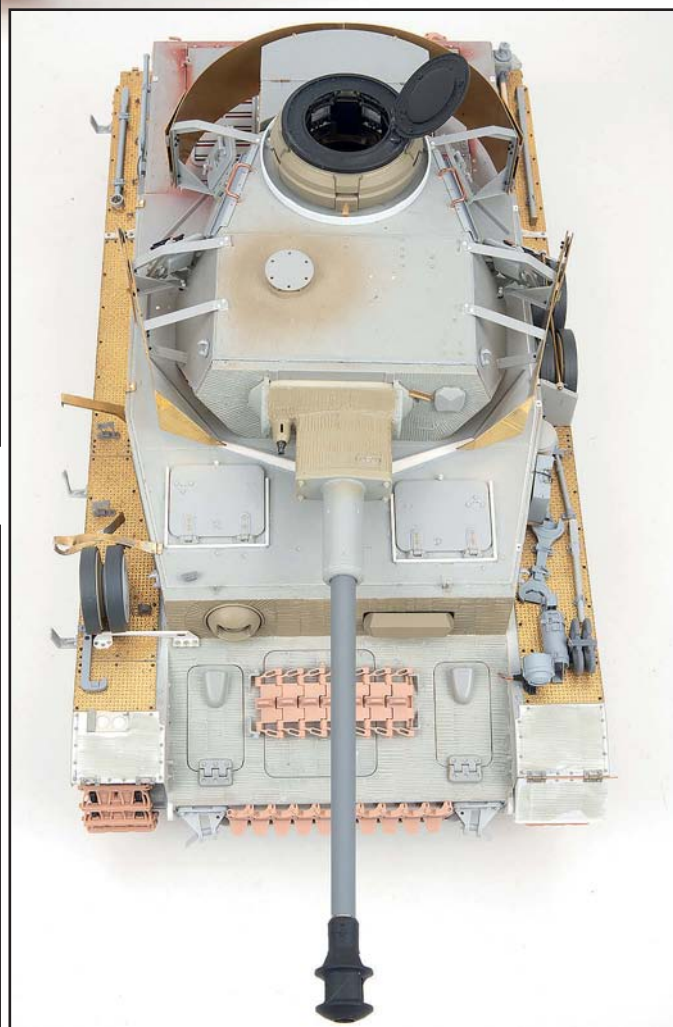
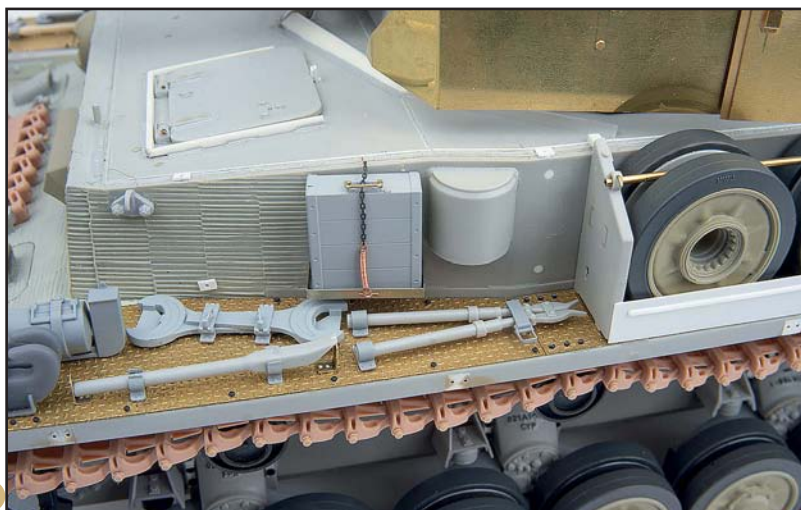
I used 5 minute epoxy to glue the mantlet to the turret and used cocktail stick shims to make sure the barrel was centrally positioned.

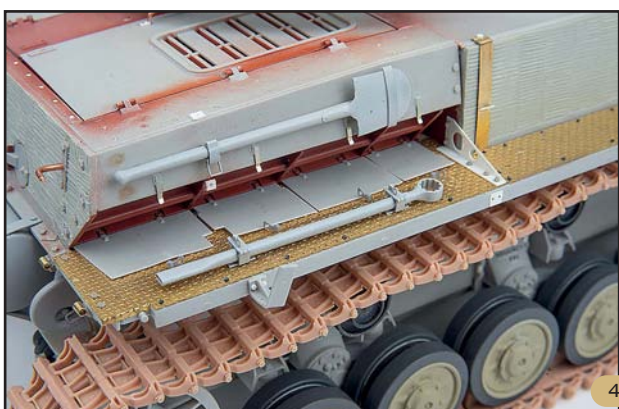
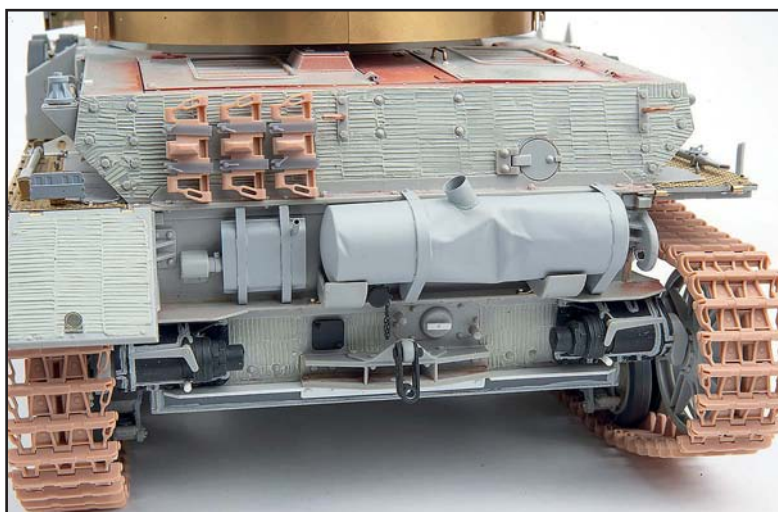
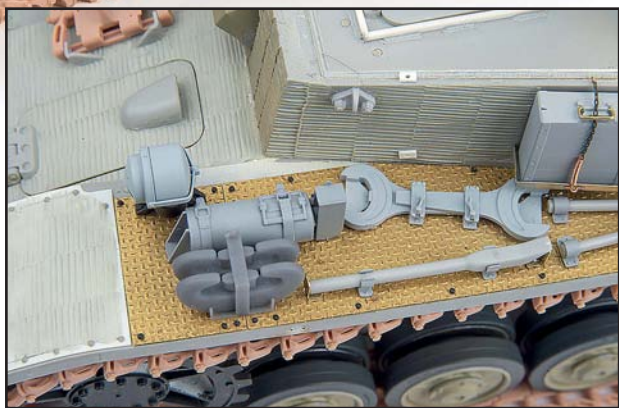
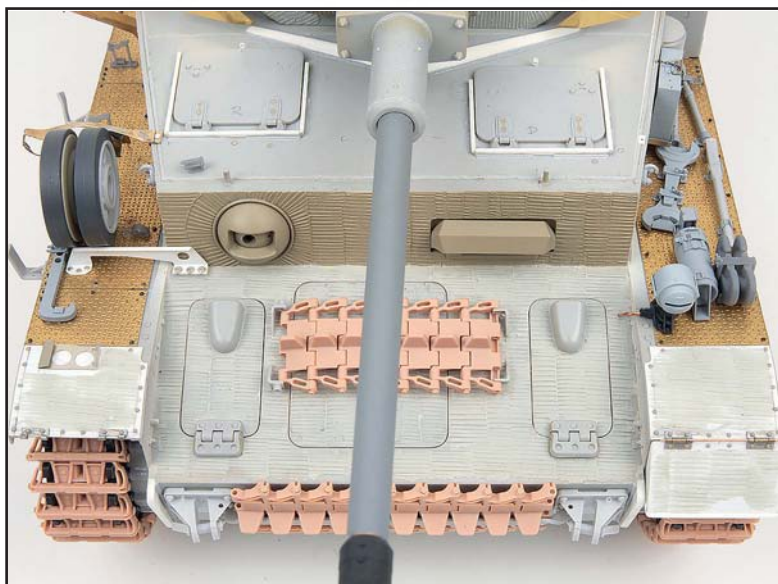
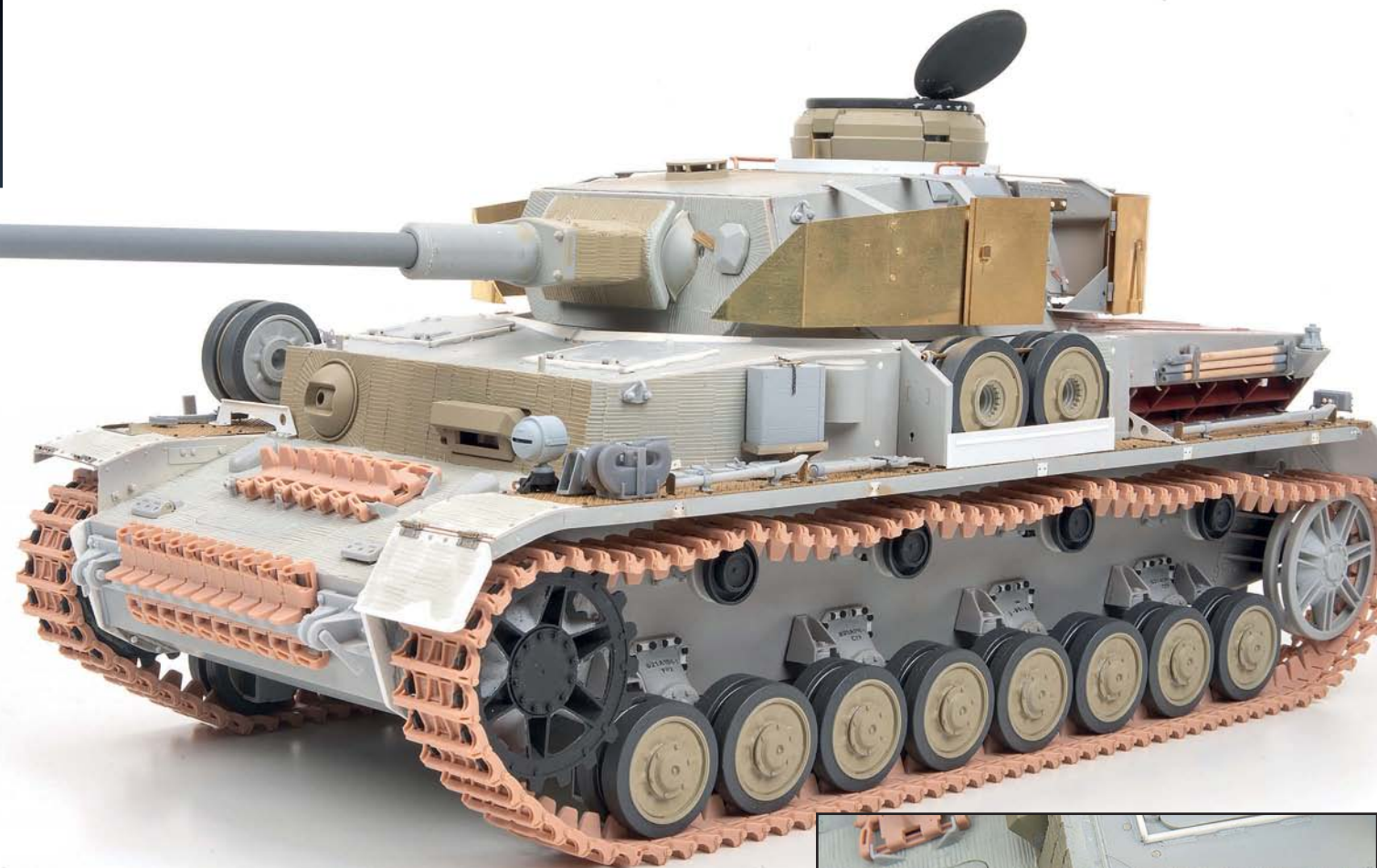


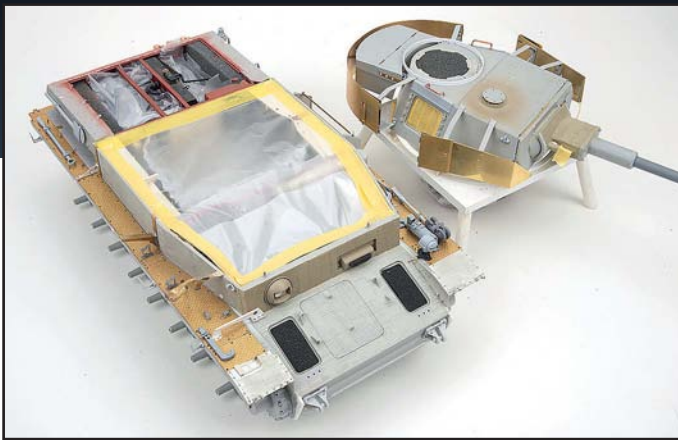
Finally it was time to bring all the parts together, tools tacked on with PVA glue and wheels, tracks, exhausts and cupola dry fitted.



Below the chain used to secure the jack block was designed to allow me to remove the block for painting but in fact I managed to damage it before the final shots. The Jack block was a new 3D printed part that I scratchprinted.







Always a nervous moment when you have to mask off all that work inside the tank in preparation for painting. I tried to use my best judgement but with many removable panels the risk of overspray getting in was high.



All vehicle tools were glued temporarily in position using PVA and the upper hull was fitted ahead of the painting.



The turret basket was wrapped around in plastic and taped to the underside of the turret floor.



Painting began with a primer coat using MR Primer Surfacer 1000 diluted with MR Color Levelling Thinner.



This showed up the rolling marks on the armour plate looking a bit too crisp for my liking so I used some diluted Mr Surfacer which I brush painted into the lines individually to help soften them.



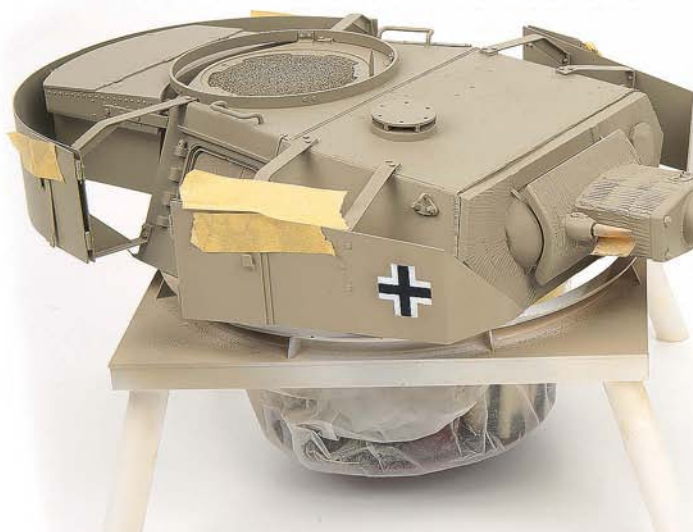
The gun barrel and muzzle brake were painted dark grey first using Mission Models paints.



This was followed by a coat of Mission Models Dunkelgelb MMP-011 which I thinned with water.



I cut my own masks to spray the three sets of Balkenkreuz markings on the turret skirts. These markings were factory applied at this time so are consistently positioned on the front edge of the turret skirts and the rear centreline.



Because the turret skirt doors were not yet fixed they are free to swing around so I used strips of tape to hold them in place but still allowing me to access both sides of the doors for painting. Photos show that the inner sides of the doors were also camouflaged.



Camouflage next using Mission Models Olivegrun MMP-009 and Rotbraun MMP-012. Fortunately there exists a superb colour image of tank "514" from the also from Panzer Lehr which clearly shows the predominantly green camouflage and loose application just like "634"



"634" shows no signs of camouflage along the gun barrel which is not uncommon so this was left in grey with a slight overspray of dunkelgelb where it enters the gun sleeve. Turret skirt crosses were roughly oversprayed to match those on the real vehicle.



Centrally positioned big rear turret numbers posed a dilemma about the pre-existing balkenkreuz. Study of other Lehr tanks showed a variety of approach from purely overpainting to painting out the cross with a big colour block. I went with a camo overspray. The numbers were brush painted using Mission Models white primer which is very opaque.



In the same way the smaller side numbers were also brush painted. The overall shape is outlined in tape and the shape of the numbers drawn in pencil first.



I was so focussed on hand painting the numbers that I didnt pay proper attention to the shape and proportions of the number 4. I had no choice but to sand off the existing number, respray the area and to repaint the 4 paying attention this time to the real vehicle. The shield symbols (NOT a diamond

shape as is usually depicted) were cut from masking tape to maintain size consistency and brush painted. I used masks also to establish the positions of the red diagonal lines on the shield.

The project continues in the next Issue

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Models for Ukraine

Models For Ukraine is a new book published to raise money for humanitarian aid for Ukraine, with the full profits being donated to the Disasters Emergency Committee Ukraine Appeal to help refugees and civilians affected by the war

The models featured include only kits manufactured by the Ukrainian companies that modellers know and love. Including aircraft, armour and even subs, and are from modellers including: Rick Lawler, Brett Green, Kamil Feliks Sztarbała, José Brito, Ugur Kenel, Ilya Yut, Kristof Pulinckx, Tracy Hancock, Will Pattison, Harvey Low, and more. This book was made possible by the kind cooperation of Guideline Publications, AK Interactive, and the very kind support of our printers: Doveton Press, in co-operation with Folio Bookbinders

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ILYA YUT RECREATES A T-54 FROM THE SYRIAN CONFLICT SPORTING UNIQUE IRON FENCE ARMOUR



MINIART 1:35

I had been planning to build a Syrian up-armoured tank for quite some time and eventually managed to get to such a project. The photo reference is plentiful and inspiring... so it was a real challenge for me to choose the coolest option to build. Eventually I came across two T-55 carrying stand-off armour derived from fences. Bingo! It was the most unique armour package that I had been looking for! It was no rivet-counting project and I didn't hesitate to combine these features into single model, let alone using T-54 instead of T-55.

I chose to use T-54B by Miniart for several reasons: price & delivery speed and somewhat lesser part count comparing to T-55 & T-55A. You see, not the most die-hard approach for choosing a proper kit. Though Syrian photos sometimes show early versions of T-54 (I could have used even T-54-2!), I haven't seen one with the early IR light mount from Miniart kit. Well, anyway it looks good, so let it be there!



Miniart kit itself is very good, though overcomplicated with enormous parts count. Quite typical for their T-54/55 series. It was my 3rd approach to these series, so it was somewhat easier to deal with it.

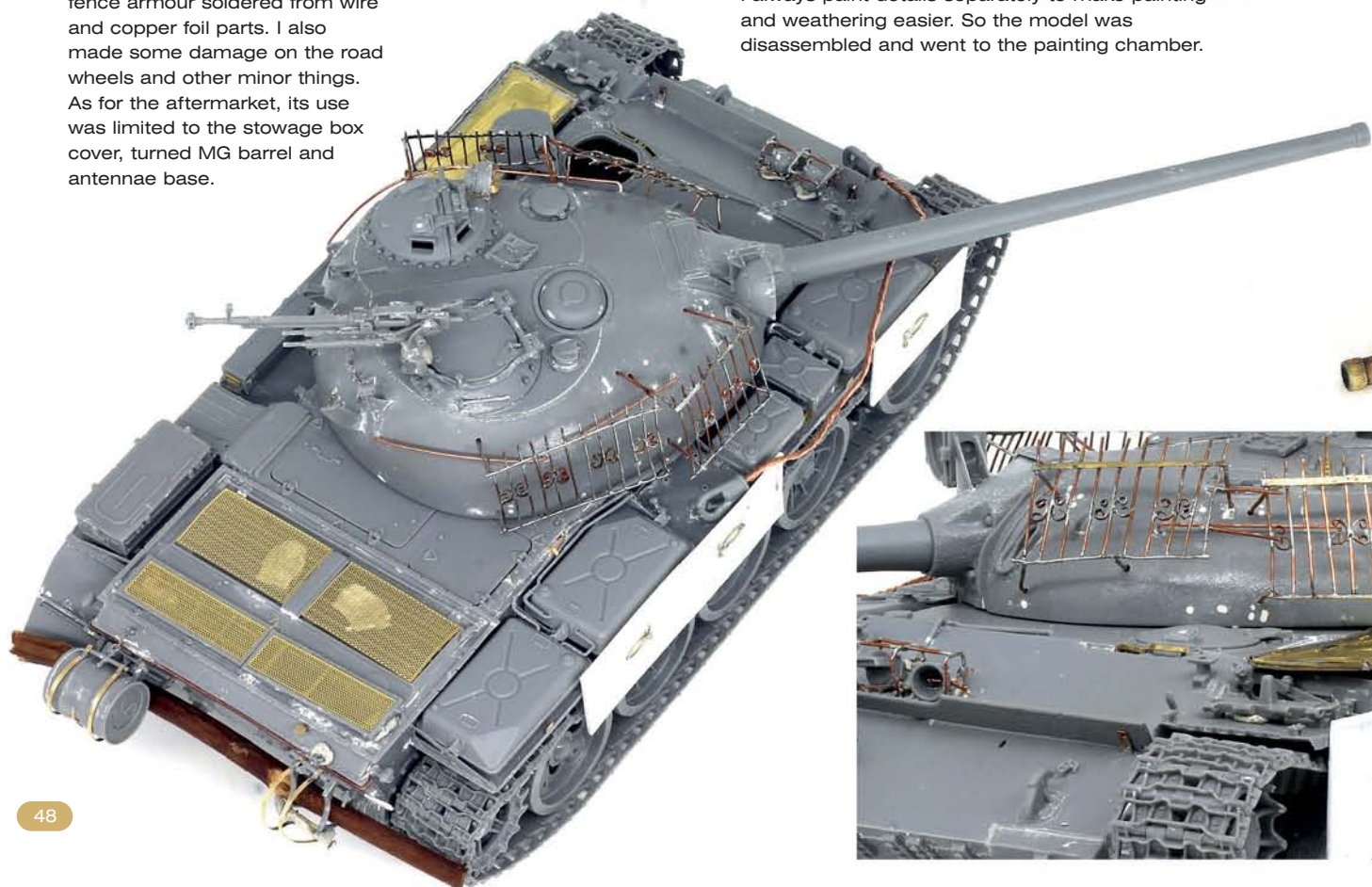
A nice thing about this very kit is the fact, that Miniart provides it with 2 complete sets of wheels of 2 types and 2 gun barrels. So you can combine them and leave in the spare-box. I didn't go too far with detailing the kit and fixing small bits.



I think I added several weld beads, replaced grab handles, light guard and some other details with wire and copper foil.

The side skirts were fabricated from plastic sheet and the turret fence armour soldered from wire and copper foil parts. I also made some damage on the road wheels and other minor things. As for the aftermarket, its use was limited to the stowage box cover, turned MG barrel and antennae base.

I always paint details separately to make painting and weathering easier. So the model was disassembled and went to the painting chamber.





I prefer using lighter shades for the base colour because they will be inevitably darkened during later weathering steps. The base green colour was mixed from Tamiya paints. I added a bit of gloss varnish aiming to achieve satin finish, suitable for weathering and avoid using additional layers of satin varnish.



I decided to apply multi-tone camouflage and make it heavily worn and beaten. With this goal in mind, I applied hairspray technique between all layers and scratched each layer before applying another one. For hairspray technique I use branded products by AK and Ammo. Sure, they are more expensive than hairspray, but I don't need to choose the proper general purpose hairspray. I applied 1-2 layers of product and let it dry for some time.



Once it dried, the next layer of Tamiya-based grey-blue mix was applied. I let it dry for a few minutes while cleaning my airbrush and then scratched it with brushes, toothbrushes and other stuff on my workbench. Speaking of airbrushes, I used my old non brand Chinese airbrush bought 12-13 years ago for some 50 bucks. So you can also use a cheap option for hairspray in 1/35. As for the brushes, I use expensive Winsor & Newton Series 7 brushes for fine works. They are perfect in their quality and durability. Bought some 9-10 years ago they are in much better shape, than those bought from well-known modelling brands this year already.



The next camouflage colour was yellow, again applied using hairspray technique.



It was then followed by the brown color to complete the scheme

Wash is the classic step in weathering models aimed to emphasize details. It is recommended to apply wash (and other weathering techniques) over a slightly satin surface to ensure controllable capillary reaction. I didn't use a layer of varnish, but rather added Tamiya X-22 clear varnish in my base colours. I found out that dark brown-grey wash works better for many color schemes than pure black one.



I'm no master of oil effects, but this time I decided to emphasize my model more using oils by making fake shadows and ... well... something good-looking, shall I say. Black brown oil by Wilder was used here. It dries to a matt finish does so relatively quickly. I put a bit of paint on a piece of cardboard, then mixed it with enamel thinner and applied on the model. Once it dried a little bit, I used another brush (almost dry) and stippled and blended the paint. The effect was then partly covered by dust, but remained quite visible on the gun barrel.



Dusting was started with applying light pigment mixed with enamel thinner in a liberal manner. No problem that it looks ugly – it will be easily wiped off when dried. Lower hull is mostly hidden under the wheels and side screens. I didn't put much effort weathering this part. AK Dust and Sand deposits was blended and than some streaking and speckles were added



Then more dry dust was applied in a more precise manner

Light dust was emphasized with dark areas to achieve more contrast. I applied oils and enamels and blended them. I tried to leave clean areas adjacent to the dirty ones

I decided to add some rust to my model by applying oils and enamels to several details. The method is pretty simple. I randomly applied the effect all over the place. Once it dried I wiped out a part of it with damp brush and then emphasized here and there adding more rust with a fine brush.



Wet areas and spilled fuel was made by mixing my favourite oil colours with enamel wet effects and enamel thinner. It was then deposited on the model and blended with a fine brush. I put this effect mostly over dark dust areas to make the contrast even more pronounced.

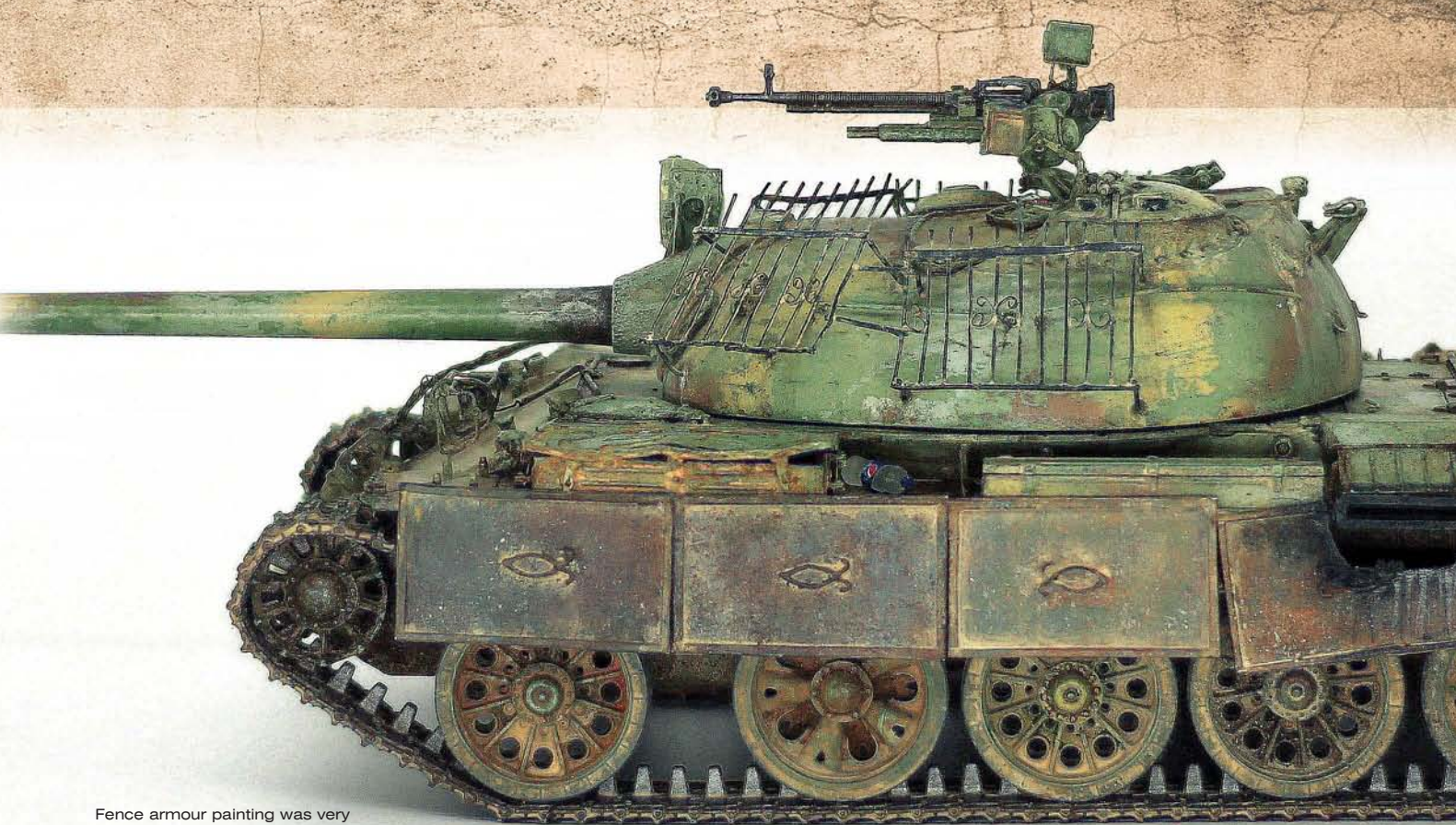


Adding streaks is a powerful weathering effect. It helps emphasizing the vertical surfaces and add even more variety to the finish. Here I again used oils and pigment mixed with thinner. The streaks were roughly applied and then fixed with a small brush dampened with enamel thinner. Note that streaks don't follow any regular pattern.

Wet areas and fuel drops were painted with oils heavily mixed with wet effects fluid (similar to enamel gloss varnish).

Exhaust pipe and area around it was airbrushed with Tamiya acrylic black. Black pigment was then applied with a small brush. The final touches were made with engine oil effect to add a tiny bit of glossiness and streaks, visible in that are on T-55 and T-72 tanks with side screens.





Fence armour painting was very straightforward. First, I covered it with Gunze primer for metal parts, used also for other wire & PE details earlier.



After letting it dry for a day, the fence was sprayed with Tamiya Black. Then some dusty pigments were added to emphasize the surface. So it was as simple as that!



Painting side screens was more tricky. The initial coat of dark rust base was applied with an airbrush. Lighter rust shade was also airbrushed. Then I used hairspray technique to add black color with scratches. I was not entirely satisfied with the result and thus repeated the process but made much more intense chipping and also used sponge and lighter grey shade. Weathering was done with pigments and enamel products. I tried to avoid uniform look of every screen and after attaching to the model some mud specks were also added.





Painting tracks was started with a dark brown mix



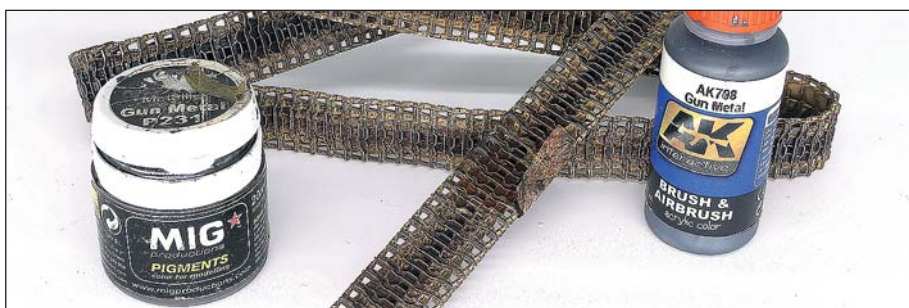
It was then followed by a light rust color



Dust was easily made with dust and sand AK deposits – product not unlike a thicker wash. You can apply it liberally and then remove excess with enamel thinner.



Darker mud areas in the middle of the track links was added with dark mud product, diluted with enamel thinner



Surfaces, exposed to wear were painted with metallic color and rubbed with metallic pigment. After gluing the tracks to the model, I added more light & dark pigments and graphite



Weathering wheels was a satisfying step. I simply added enamel products to emulate lighter and darker dust. After getting them dried, I removed excess with enamel thinner.





After painting and weathering all parts separately, everything was assembled together. I added several stowage bits and the project was done. It was my second model of modern vehicles with makeshift stand-off armour and I really enjoyed it.



1:72



ANDREA VIGNOCCHI Takes the vintage Italeri M-8 to another level





SNOW BOUND GREY HOUND

At the beginning of WWII the U.S. forces did not have armoured cars with heavy armament in the turret, so the M-8 'Greyhound' was developed; initially the specification was for a 6x6 wheeled tank hunter vehicle, but the lack of punch of the 37 mm gun and the light armour plating of only 19 mm made it clearly unsuitable of carrying out this task and it was immediately moved to fast reconnaissance duties. About 8600 vehicles were built of the M-8 and M-20 versions, also used by many American allies, especially after the war.

The Greyhound began military operations between the end of '43 and the winter of '44; after the initial difficulties in Normandy, due to the particular type of terrain that made it difficult to drive off-road (the famous Normandy Bocage), this vehicle proved very valid and was used extensively, even if the losses, due to insufficient protection against mines and light armour, were considerable. The armament consisted of a 37mm gun in the turret, a Browning 7.62mm coaxial machine gun and a 12.7mm heavy machine gun mounted on a ring in the turret. The vehicle was very fast for its time and could reach 90 km/h. The crew consisted of four men: the driver and radio operator sat side-by-side inside the hull, while the commander and gunner were in the turret; space was tight and looked rather uncomfortable.

Big work on a small kit

I've always loved the M-8 Greyhound, so over time I bought everything I could find on the market, including the Extratech kit, resin improvement set for wheels and turret, various loads, photoetched sets and so-on. What made me decide to make the model were the beautiful figures from the Scale 75 range, with really natural poses and very fine details; 3D scanned and printed figures allows a spectacular level of detail and finesse, even in this small scale.

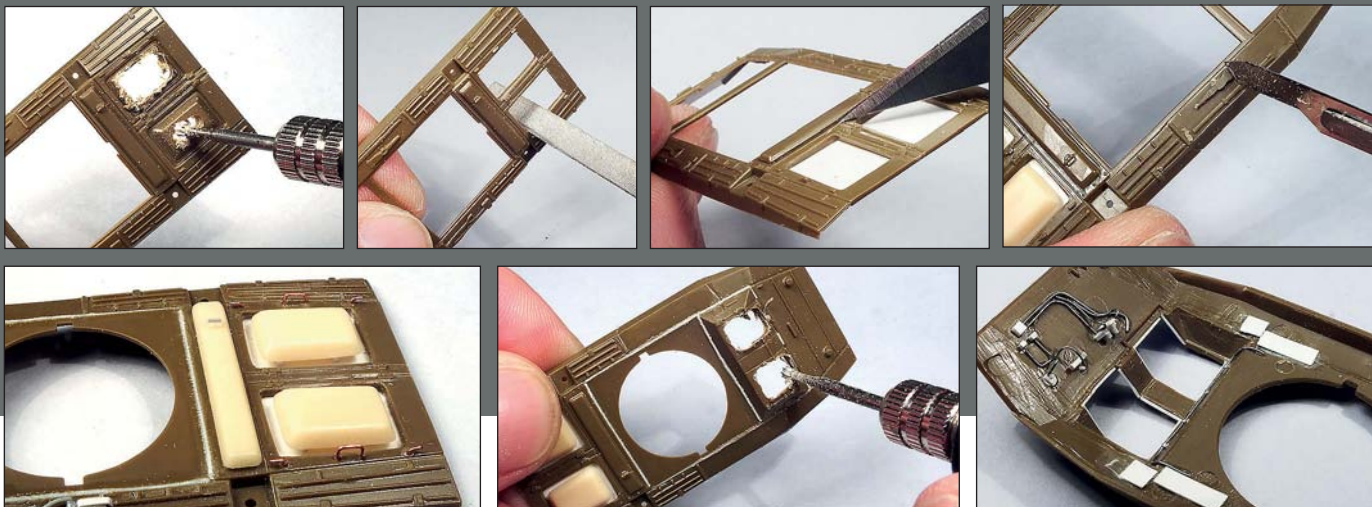
I decided to use the Italeri kit for the greater ease in modifying and opening doors compared to the resin one by Extratech: I find it much easier to work with plastic than resin and photoetched parts. Having decided to open all the doors of the armoured car, the interior has been detailed to the fullest; the Part and Eduard

photoetched pieces are very useful, while some details were scratch-built, taking care to put inside the vehicle the things that the crew needed: it is a detail that will give life to the model and just a few bags, water bottles, the "Grease Gun", a helmet and some ammo containers will do. Given the limited space inside the M-8, we must not exaggerate, just give an impression as most of the load was stowed outside the vehicle.

The Italeri kit is very dated and has some simplifications that need to be corrected if we want a faithful reproduction of the vehicle. First of all, with a cutter, I eliminated the armoured protection of the engine compartment vents, moulded integral with the hull; after finishing the openings I created a plasticard support

surface and inserted the resin parts with the right spacing. At first I thought of leaving the longer transverse protection that protects the fuel cap; I tried to separate it slightly from the hull with a cutter blade.

After eliminating the usual tools moulded integral to the hull, I made some welds using a 0.3mm Plastruct profile softened with Tamiya glue and textured with the cutter blade. Glued to the front of the hull, I opened the crew doors; in the end I could not resist and I also replaced the last protection of the engine compartment, also adding the copper wire handles. Many details come from old Shermans from Dragon: shovel, hull lifting shanks, 12.7mm Browning, headlights, horn, etc.

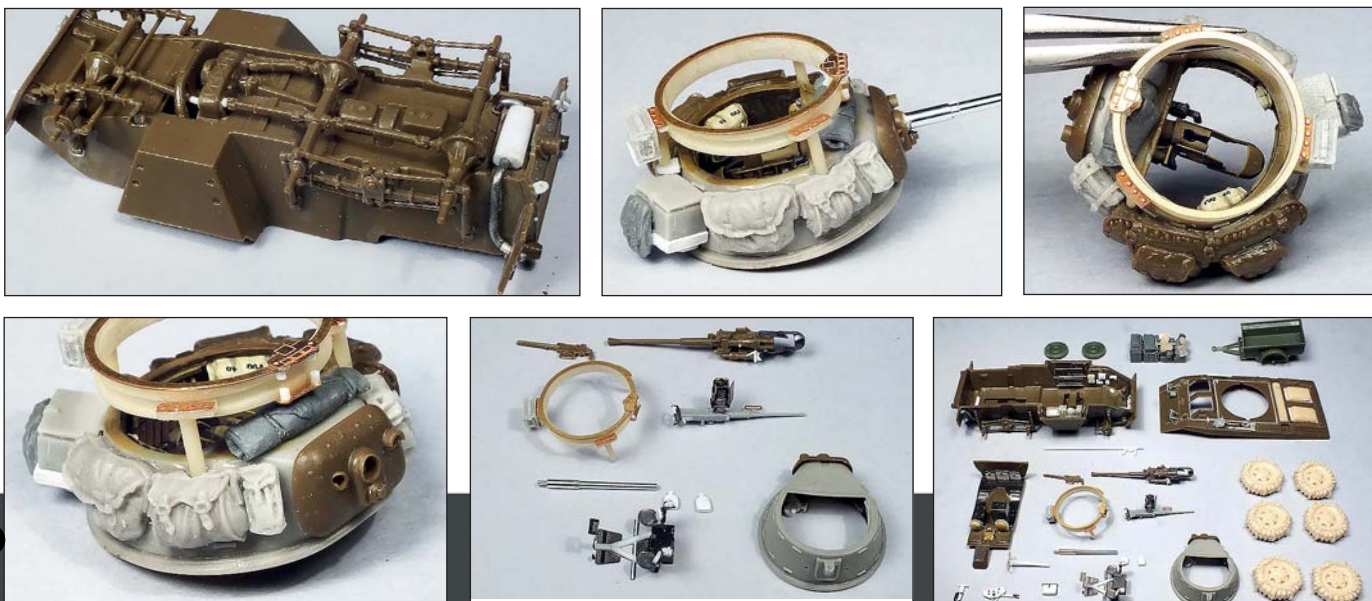


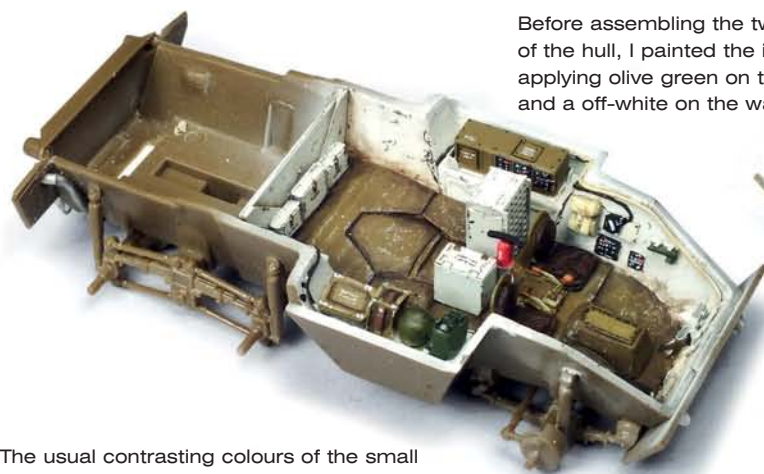
Using a square section of Plastruct profile, I created the stops for the front doors. Some wiring and details on the inside of the hull were scratch built. One of the areas best reproduced by the kit is the chassis and drive train: the complex differential and suspension system of the 6X6 transmission is very well done, I just had to redo the exhaust which is too simplified. I completed the two parts of the hull by adding the tow hook, also coming from Dragon, and the tow rings, taken from the Sherman kit; I did not believe that so many details would be usable, since we are talking about a very different vehicle

from a tank, but probably the standardization of American industrial production of that period helped me somewhat.

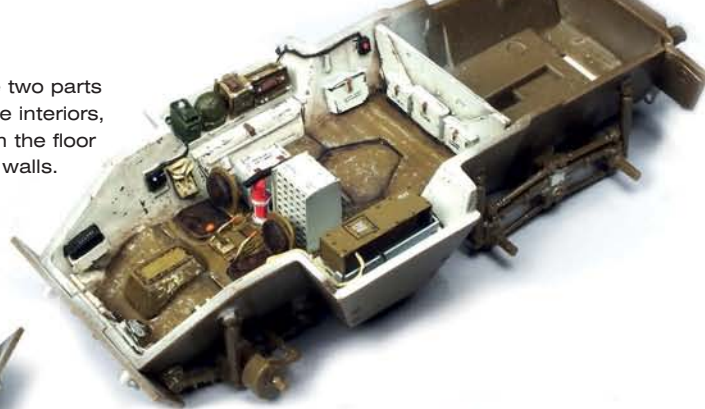
Unlike the underside of the Greyhound, the kit turret has a completely wrong size and shape but luckily I had bought a correction set which has a turret of the right size, all hatches, a set of backpacks and loads already shaped for the sides of the turret. The machined aluminum barrel provides another upgrade, while the Browning 12.7mm gun ring comes from the Extratech resin kit and the turret basket is a

photoetched part. Practically the only usable parts of the kit are the gun mount, improved with photoetched parts and small scratch built details, the front shield of the gun and the coaxial machine gun. The initial construction is completed by preparing the small trailer and its load, taken from a Jeep kit, and cleaning the resin wheels with the snow chains mounted on; these are a real rarity and I bought them a long time ago and then forgot about them for years in a drawer. In the end they were decisive in choosing the winter scene in which to set the armoured car.





Before assembling the two parts of the hull, I painted the interiors, applying olive green on the floor and a off-white on the walls.



The usual contrasting colours of the small details and heavy weathering complete these areas.



After the interior painting stage was finished, I was able to glue the two halves of the hull, taking care of the joints and angles of the armour. If we imagine an American WWII vehicle overloaded with 'stuff', the Greyhound is certainly one of the classics; the reduced interior space forced the crews to literally cover the vehicle with all kinds of things, a feature to be reproduced if we want a realistic, period look. I searched in my stocks for bags, cans and small tarpaulins suitable for the limited space on the hull and around the turret, in the end I think I got a realistic result compared to my reference images. External mine racks receive different loads, cans on the left and ammo boxes on the right; the tow cable is an aftermarket item, much more realistic, while the supports for the two long antennas come from the Extratech kit.

Once the hull was completed, I took care of the replacement turret. The various bags and crates fixed to the outside are from various sources: some are from the original kit, others from the same set as the turret, while the case comes from my parts 'warehouse'. To achieve the 'resting' appearance of the bags around the turret, I joined the edges of the various resin accessories with vinyl glue, applying the glue with precision thanks to a copper wire.

After having painted the inside of the turret and adding some details, such as the rotation mechanism, I coloured the gun mount and all the other details that will be assembled before gluing the turret on the hull.

I glued the machine gun ring, adding a case of ammunition welded to it; now all that remains is to glue the aluminum barrel and the assembly of the turret is also completed. By inserting the turret into the hull, the look of the model well represents the chaotic overloading of these vehicles.



The photos that inspired me for this model were of a Greyhound without the front fenders, so I had to work a little on the inner part of the hull behind the wheels, as this area will remain quite visible. First, I created a mixture of Tamiya Diorama Texture Paint and coarse-grained powder, applying the mixture with an old brush; I remind you that we are working in 1:72

and you need to be very subtle. When the mixture dried, I applied a coat of dark earth with an airbrush, then I increased the contrast with an oil wash with Cassel earth and, after a coat of opaque clear coat to isolate the wash, I highlighted the mud and the details of the leaf springs with light brown acrylic colours.

Looking more carefully at the photos of the vehicle I wanted to reproduce, I noticed that the road and the ground were frozen and there was no trace of mud on the vehicle, so I changed the colours inside the fenders to simulate only a certain accumulation of snow and ice; in the end the effect was more consistent with the scene I would have created.



The painting of the wheels followed the same principle: in the photos the wheels appeared shiny and clean and there was only a little snow inside the wheel rims and in the tread. So I started by painting the wheel rims olive green and the tires semi-gloss black using a mixture of Black Gray and Buff, while the chains were painted with Vallejo Steel.

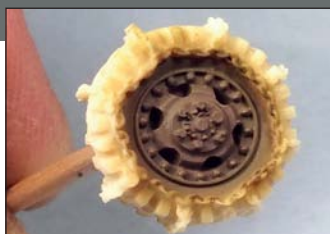
To give depth I used two oil washes: sepia for the wheel rims and black for tires and

snow chains. After the usual coat of opaque clear coat to isolate the wash, I used Vallejo again to highlight the details of the really well-made rims.

Working in small scale, sometimes just a touch of colour is enough to give the impression. For example, the accumulations of snow inside the rims can be reproduced in this way, obtaining a very precise and defined effect. I later tried using the white beads on a small drop of vinyl glue and was not completely satisfied

with the result, too inaccurate and dusty to my taste. Once the wheels are finished, all that remains is to glue them to the hull, turning the front wheels slightly.

Finally I was able to mount the rear fenders, filling the gaps and adding the clip chains of the box located in the upper part of the side. A long masking phase will protect the interior of the Greyhound and the lower part of the hull, already painted and weathered.





The painting phase begins by applying a coat of light olive green, obtained by mixing Gunze Khaki H-31 and Cream Yellow H-34. A slight shading, done using very diluted colours, will improve the base tone: it is a useless exercise, since everything will be covered by the white washable paint, but I wanted to practice with the airbrush! A coat of clear gloss prepares the model for the installation of the decals, positioned with the help of the ubiquitous Microscale setting liquids.

A second gloss coat, followed by a matt one, will protect the decals from subsequent steps. This time I was unable

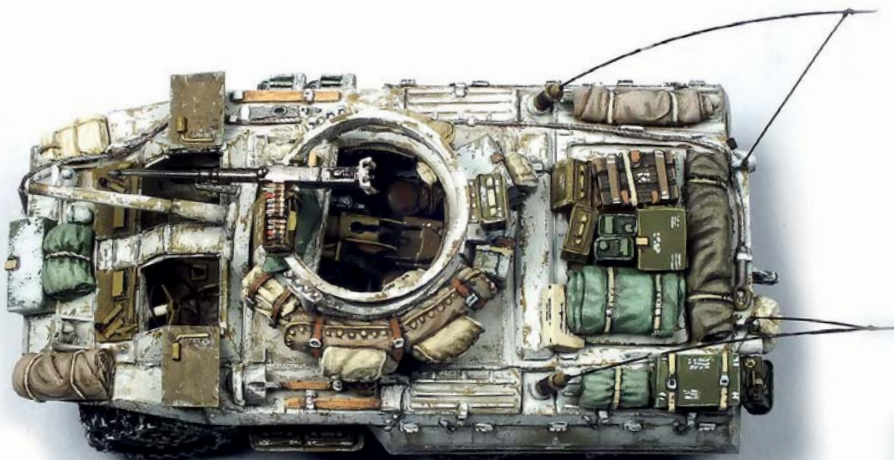
to use the painting technique used on the Churchill Crocodile (featured in issue 118), first applying white and then creating the green scratches and shadows with a brush. In the photos of the armoured car from which I drew inspiration, you can see that the serial on the sides partially shines through under the white paint and in addition the winter colour appears roughly applied, with many areas where the original olive green can be seen; I therefore decided to use the Chipping technique, absolutely unknown to me, I know, I'm old school and ancient...

First I applied a generous coat of Heavy Chipping AK with a brush and after drying I

started to airbrush some very diluted Tamiya flat white, trying to obtain an uneven look. After letting the colour dry for a few minutes, I started to wet the hull and peel-off the white paint, always working in small areas and following as much as possible the look of the vintage photos. I used the brush carefully, because there is the risk of creating an effect that is too pronounced for 1:72, the precision work was achieved with the tip of a toothpick and a knife blade. At the end of the work the result is excellent and all my doubts about the use of this product have vanished as if by magic!



Now I can remove the masks and begin the brush work with Vallejo acrylics, a fundamental step to bring to life and highlight the details of the model. After the 'scratching' job, the basic colours are applied to all the loads with a little trick: given the winter scene, I avoided using too saturated and bright colours for the various backpacks, crates and tarps, but I used cold and washed-out tones, in order to harmonize the vehicle with the snow-covered road. These are apparently insignificant things, but they will ultimately make a realistic difference. Another fundamental step is to highlight all the recesses with a very diluted mixture of black and brown. With the white colour I created more saturated areas and drips of paint. In this small scale the contrast is essential to bring out the details of models only a few centimeters long.





Having chosen a small ready-made resin base, I noticed that the armoured car left too much empty space around it, my reason for adding a small trailer. Usually associated with Jeeps these were often also pulled by Greyhounds as seen in some wartime photos. To differentiate the trailer from the armoured car, I used a darker Olive Drab and created a winter camouflage in bands, roughly painted with a brush, always inspired by wartime photos. The load was carefully positioned, then I glued the various components so that it could be extracted from the trailer in a single piece, facilitating the painting of all the details.



Frozen Earth

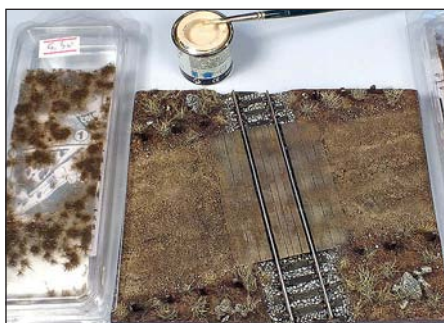
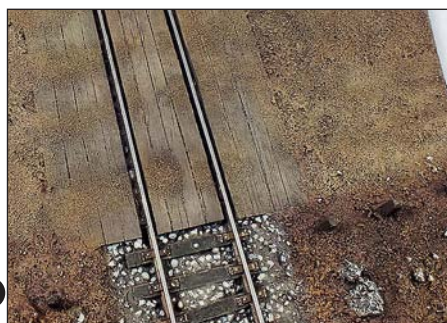
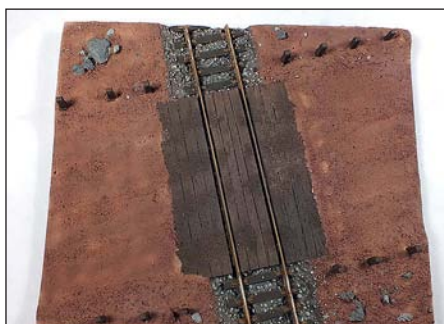
As mentioned I wanted to use a ready-made resin base, purchased some time ago at a modelling fair; sooner or later you have to use the things that accumulate over the years. The scene is very simple with a wooden railway crossing made with and small posts that mark the roadway. The painting is done as always, alternating oil washes to give depth and drybrushing, always with oils, to enhance the relief detail of the ground. The scene was painted as if the snow wasn't to be applied, because I thought something of the ground would show in the end, it didn't! The Miniature

grass bushes in colours suitable for the winter period and further yellowed with a drybrush using Humbrol 103, complete and emphasize the truly minimalist scene.

In my previous winter diorama of the Churchill Crocodile I had used 'microballoons' because I find them very realistic in 1:72. In my stock I had a bag of this material from Tauromodel, a product similar to that of AK and which allows the same results. After applying irregular drops of PVA glue slightly diluted with water, I dusted the snow using a pipette. It took a

lot of coats of snow to get a good result; little by little you get a road with irregular accumulations of snow, which will give a very realistic look to the scene. It takes patience, but it's worth it!

Placing the Greyhound on the base, you immediately notice how the colours of the vehicle and the base create a homogeneous effect, the M-8 stands out, but without seeming to have fallen from another planet...





Once the model with its antennas and trailer is completed, all that remains is to glue it on the groundwork, taking care that the wheels rest perfectly on the snow-covered ground, but without exaggerating, since the scene is inspired by some photos of the real vehicle on a frozen road in Bastogne, where the wheels are not seen sinking into the snow and there are no traces of mud. The small trailer perfectly fulfills the task of filling in the empty spaces, balancing the scene.

Tiny Troopers



The quality achieved even on a small scale by the 3D printing process, made from scans of real people wearing wartime uniforms, has become truly impressive. For this model I used Scale 75 U.S. tankers and infantrymen figures; at the beginning I also thought of using some figures from Millicast, very nice and with winter coats, but after painting the first subjects, I immediately realized that the quality and finesse of the drapery and poses of those in 3D print, made it impossible to combine them with others, which appeared clumsy and out of scale. To give an idea of the qualitative leap, until now I had found the Millicast figures exceptional, both in the sculpt and in the details; I think I will still use figures of this brand, but with the warning to use them by themselves, without combining them with 3D figures. To complete the scene I was able to find another 3D figure of a tanker looking through binoculars; the fourth crew member would still be missing, but let's imagine him out of the scene...

The work is completed by inserting the figures into the scene and to give a certain winter look I have painted gloves and neck scarves in some figures; I think that the one with the Thompson with the magazine in hand is fantastic, as is the tank driver resting his foot on the pole at the side of the road, in short, a really nice leap in quality which are really fun to paint and the final effect is very realistic.





SNOWBOUND GREYHOUND





It's a wrap

This was a fairly quick and fun project to do. Despite extensive modifications to the M-8, the small size of the vehicle in the scale allowed me to finish everything in a few months; sometimes it's nice not to stay on the same model for long periods, as always happens to me with aircraft models. Making the snow was interesting, as was the use of 3D figures, perfectly scaled on such a small vehicle. These are details that may seem trivial, but which are fundamental for the realism of the scene.



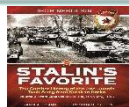


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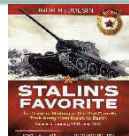
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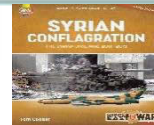
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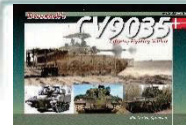
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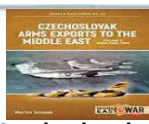
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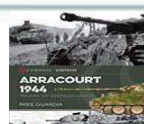
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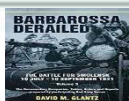
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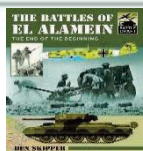
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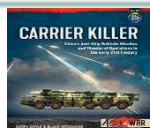
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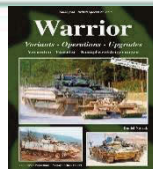
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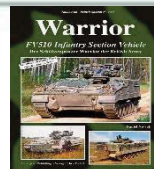
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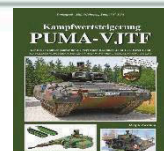
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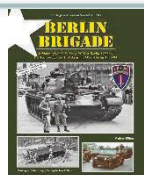
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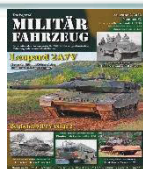
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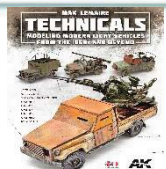


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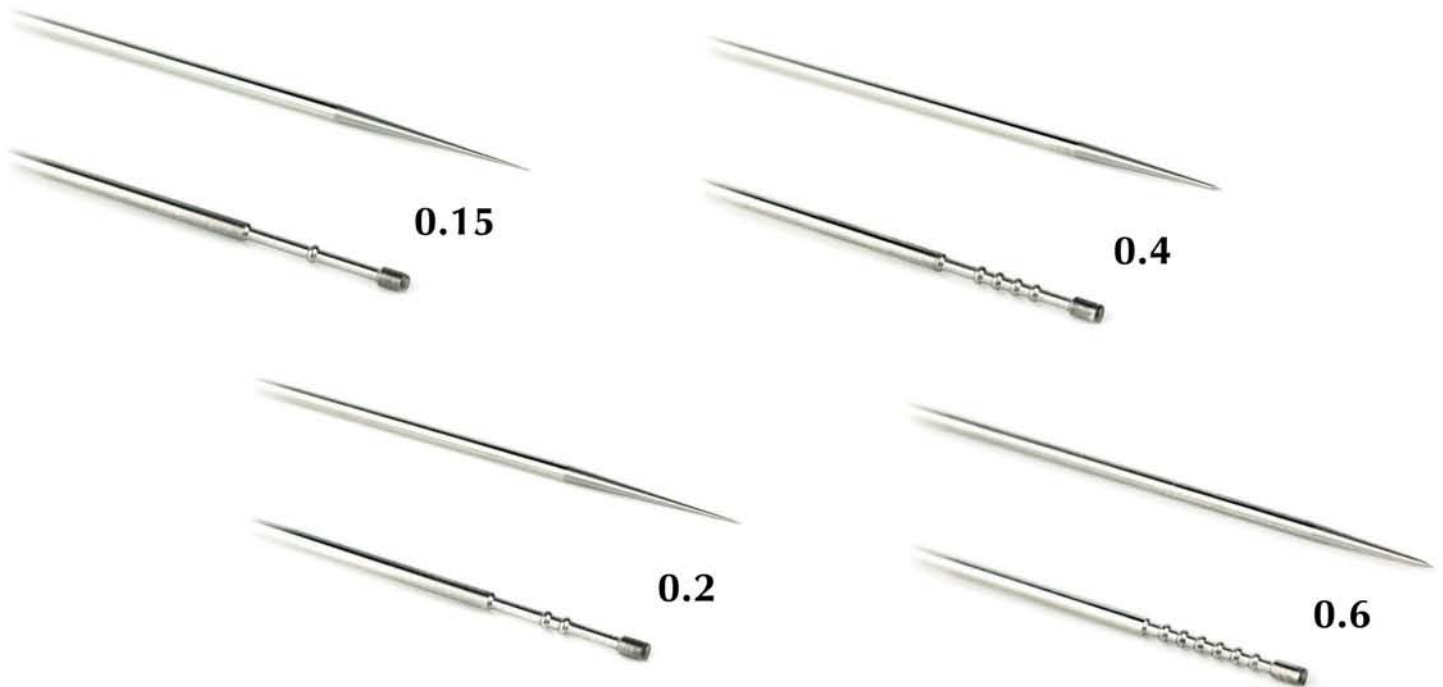
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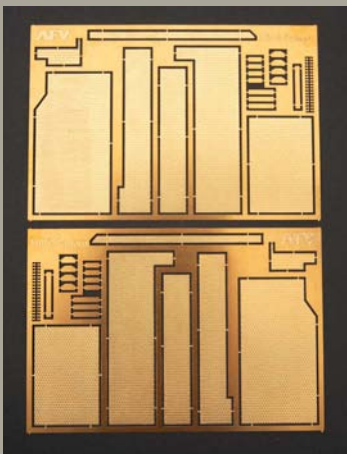
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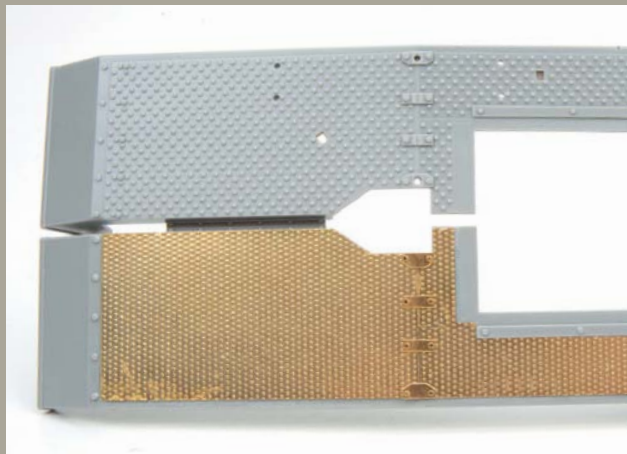
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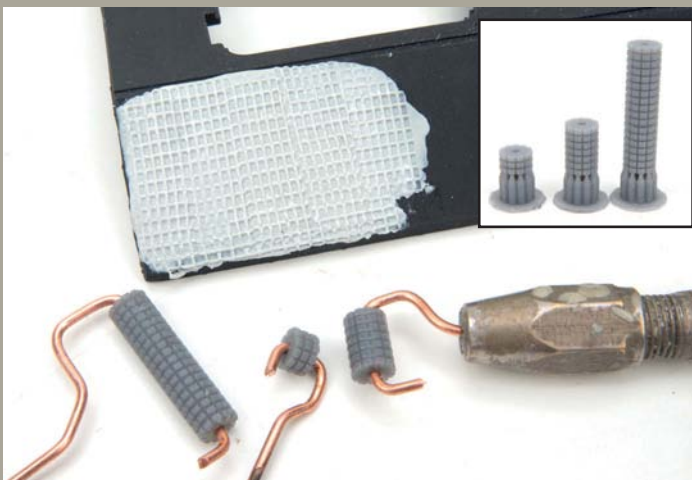
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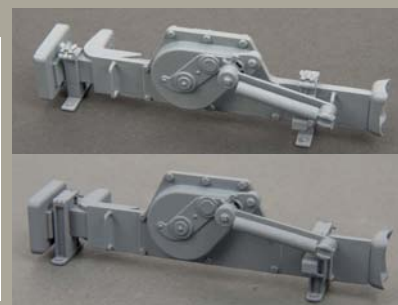
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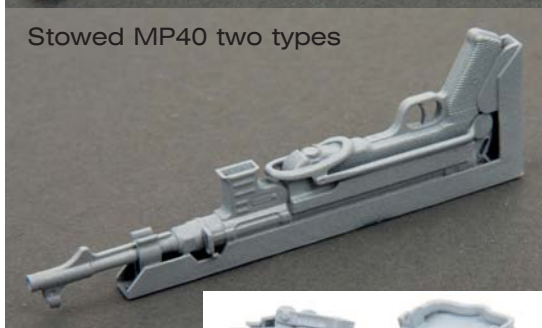
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