

AFV 142

MAY/JUNE 2025 • £7.95 UK \$16.99

www.afvmodeller.com

modeller



SIXTEENTH SEVENTEEN POUNDER

JOHN MURPHY'S 1:16 KILLER ACHILLES

Airbrushes.com

Your UK HUB for everything to do with AIRBRUSHING!

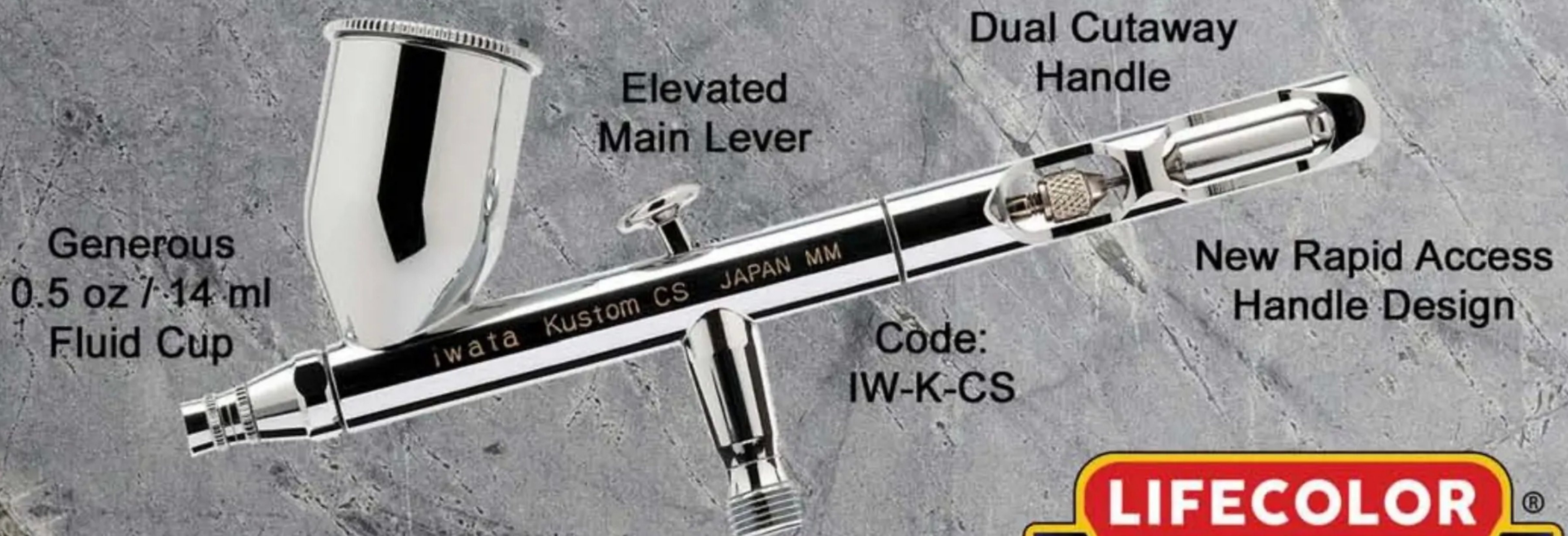


SCAN ME



NEW

Iwata Vault Kustom CS Airbrush



NEW



Lifecolor Primers and Sets Containing 3-4 Colours!

Top brands in stock:



www.Airbrushes.com 01903 767800 sales@airbrushes.com

The Airbrush Company Ltd. 79 Marlborough Road, Lancing Business Park, BN15 8UF

CONTENTS

2	Killer Achilles John Murphy's Sixteenth Scale Seventeen Pounder tank hunter.
20	Drag-Panther Andrea Vignocchi's superb small-scale diorama.
36	Big Mack Piggy-Back Resicast's Mack EXBX and Border Model's Crusader by Christophe Treize.
48	Alan Ranger Archives - WWII German Flak Unit Rare archive photos from the collection of Alan Ranger.
54	M2A4 Bradley Lukasz orczyc-Musialek finds the Magic Factory kit is indeed... magic!

AFV Modeller is published Bimonthly by
AFV Modeller Ltd
Old Stables
East Moor
Stannington
Northumberland
NE61 6ES
Tel: 01670 823648

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

ISSN 2059-4305



'Like' us to follow what's new and follow our build projects.

AFV Modeller welcomes contributions from interested parties, but cannot accept any responsibility for unsolicited material. The contents of this publication including all articles, drawings and photographs originated by AFV Modeller Ltd become the publishers copyright under copyright law. Reproduction in any form requires the written consent of the publisher. Whilst every care is taken to avoid mistakes AFV Modeller Ltd. cannot be liable in any way for errors or omissions.



KILLER ACHILLES

**JOHN MURPHY'S
SIXTEENTH-SEVENTEEN POUNDER**

Howzat!





1:16

Andy's Hobby Head Quarters M10 Achilles Tank Destroyer is my fourth venture into this increasingly popular 1:16 scale. Who would have thought a few years back we'd have so much choice in this exciting scale which continues to see modellers shunning 1:35 and cutting their teeth on these huge models. The presence of a sixteenth scale piece of armour on your workbench really does muster-up the modelling mojo and opens up a whole new level of detailing in both construction and painting. Remember, 1:16 is around four times larger than 1:35 and some of the finesse falls a little short on some kits of these big-scale beasts. This one is definitely my most involved so far as it features an open topped turret with a beautiful and fully-detailed 17 pounder gun and breach assembly and partial fighting compartment, which includes firewall and full compliment of sponson ammunition stowage.

What it doesn't include is any driver's compartment of any kind, which I totally understand as this keeps production costs down and it allows for a nice segway for the aftermarket and especially the 3D design wizards to step in and do their magic. Talking of which, I did end up incorporating a set of the AFV Modeller driver and co-driver's seats supplied by David as he was in the process of researching and drawing the full front interior area which suits both the U.S. M10 and British Achilles. These are beautifully detailed and did the perfect job of filling the area of the driving compartment, that is just visible from the open turret and avoids a 'hollow' appearance.

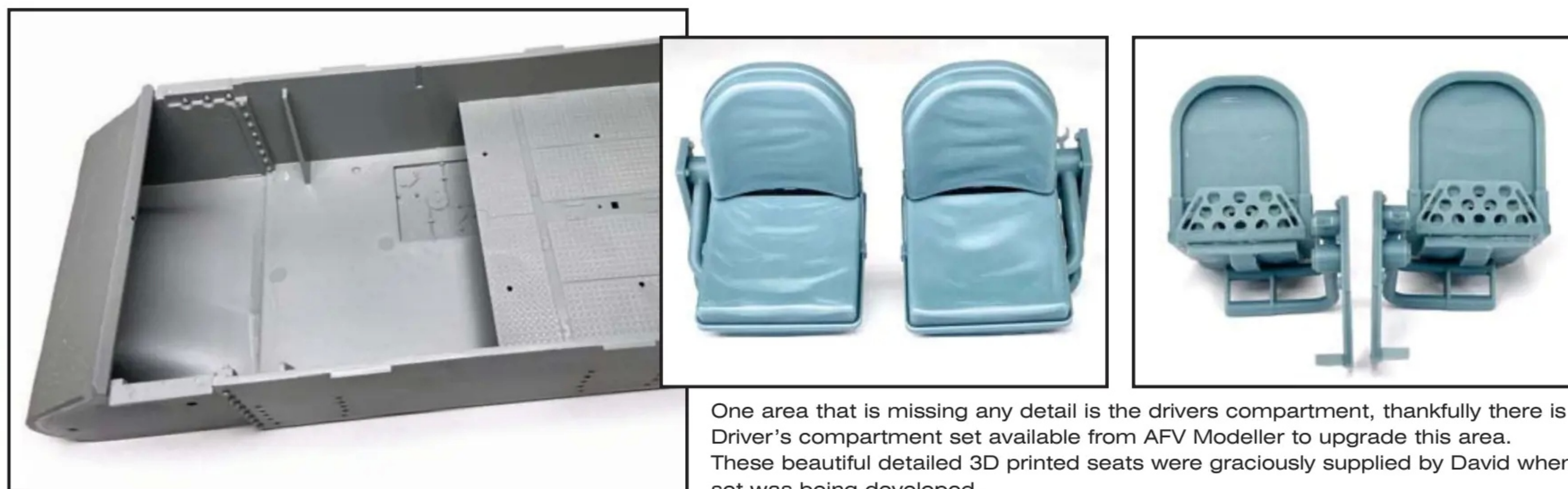
If you do fancy going the whole hog, and opening the drivers' hatches then you'd do no better than fitting the full detailing set for this area from AFV Modeller! Check out their full range of detail parts for the M10 and Achilles and prepare to get carried away...

Regarding the rest of the vehicle the level of detail is excellent and I struggled to find anything major to improve. So it simply boiled down to some missing weld seams, casting numbers and some cast armour texturing on the mantlet and some subtle re-profiling on the mantlet bullet splash guards for the sighting apertures.

From the outset of starting this project, my aim was to basically recreate a similar looking Achilles to the 1:35 Tamiya one I'd built a few years ago. Including adding the distinctive 'Mickey Mouse' (ears) camouflage scheme and rubber chevron tracks with extended end connectors (Duck bills). As I wanted to depict a British Achilles involved in the Battles of the Reichswald in February - March 1945, by this period of the war the vehicles certainly had a 'lived-in' look courtesy of their battle hardened and weary crews. It was also a great excuse to have fun replicating fairly thick wet mud, without wanting to completely plaster the whole thing in mud; insert a bit of artistic licence.

Last of all I couldn't resist keeping with a sporting theme, following on from my previous Easy-8 project and the infamous baseball bat, catcher's mitt and bucket of baseballs. It felt only right to go for the most typical of British pastimes and that was to include a cricket bat, stumps and balls.

Overall this was a fantastic kit to work on and by far the most involved of my venture into this scale and one I'd thoroughly recommend, but it's not one to be rushed; these sixteenth kits are to savour and the physical size of them naturally makes them more involved projects, not to mention the size of the boxes and the display space they command when finished! That said, something like the new Das Werk SdKfz. 250 or Gecko's Universal Carrier are no bigger than a 1:35 M1 Abrams so there's still plenty of choice if you're pushed for space.



One area that is missing any detail is the drivers compartment, thankfully there is a Driver's compartment set available from AFV Modeller to upgrade this area. These beautiful detailed 3D printed seats were graciously supplied by David when the set was being developed.

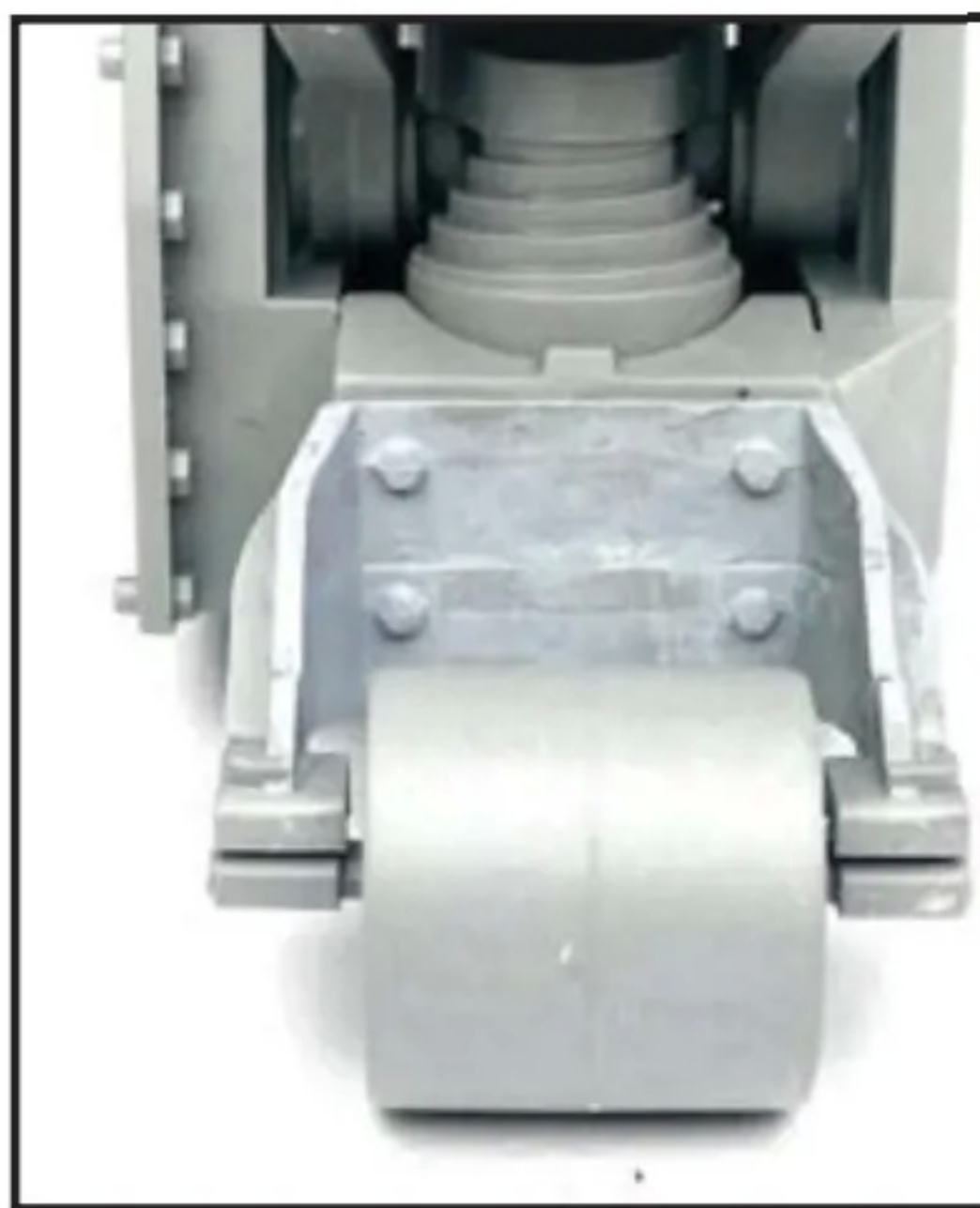


As can be seen here, each of the VVSS bogie units are a model in their own right. Careful study of the instruction will ensure they go together correctly, as it's easy to get swing arm orientation wrong. Some careful filling and sanding will be required to hide the join between the upper and lower halves of the return roller bracket.

This goes for the top of the units, where the front face joins the central spring housing. The press steel pattern wheels are beautifully detailed, but will require some delicate scraping with a scalpel to remove the seam that runs around the circumference and over each rivet. At this point the skids were left off as the kits parts were to be replaced with upgraded items from Panzerwerk Designs.



After much filling, sanding and stippling with mr Surfacer, the very noticeable joint had all but disappeared. In hindsight sight, I should have just covered this area in mud during the weathering.



The kit tracks and the grousers were also replaced with these stunning sets from Panzerwerk Designs. The worn T48 tracks and 'Duckbill' extended end connectors really change the overall look of the vehicle.



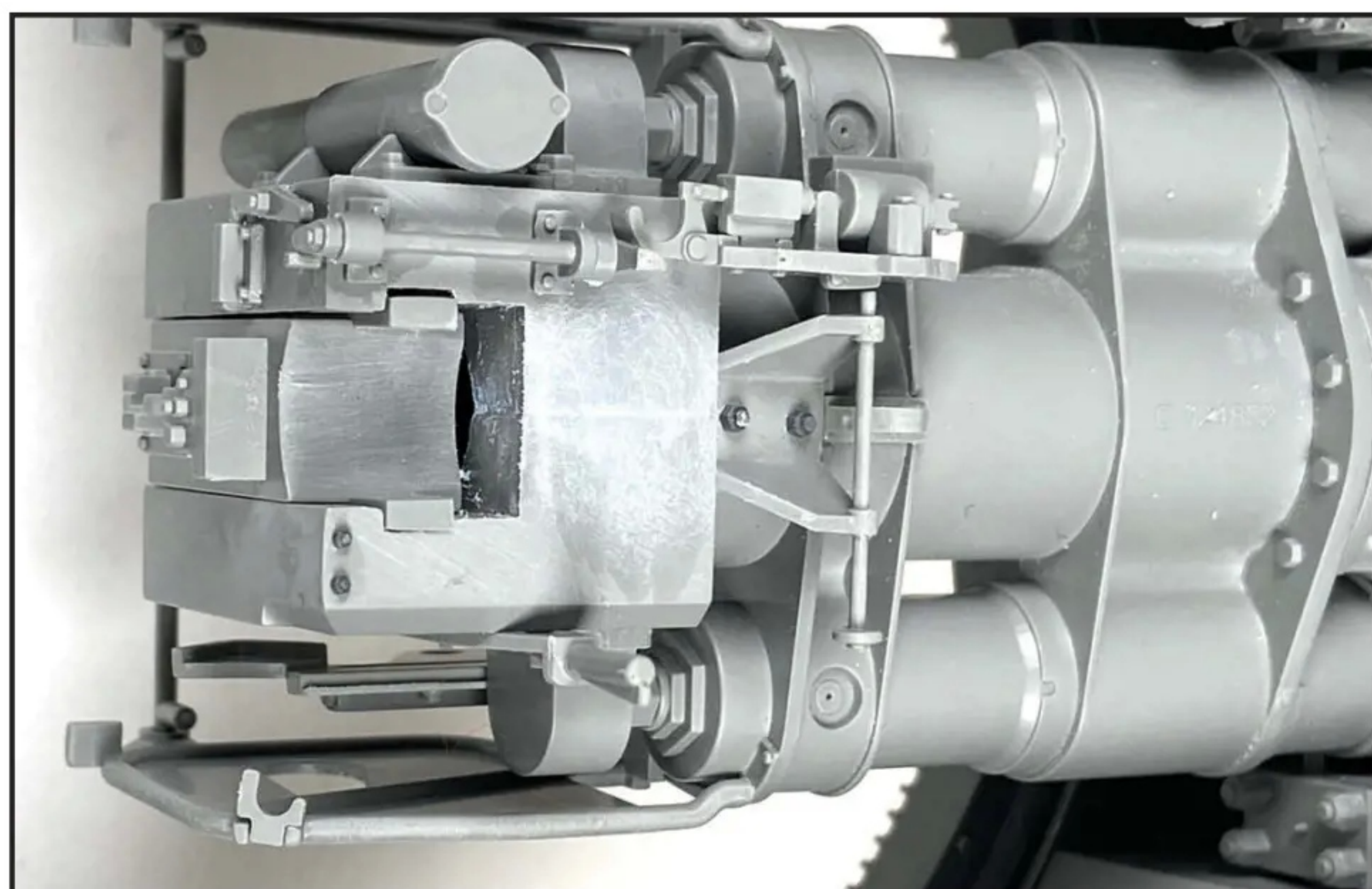
Some more filling is required along the edge of the sponsons.



The rear plate of the turret requires some filling and blending. In reality the rear plates are bent to form the angled lower portion and vertical upper. Then the two halves are joined with a vertical weld.



The duckbill counterweight, just needed some cast texture and foundry numbers, which came from an old Accurate Armour photo-etched casting number fret.



The imposing and beautifully detailed breach required some filling. A smooth finish is critical here, as any seam remaining will be glaringly obvious as would the turret interior.



Before and after showing the mould seam on the 17pdr ammunition rounds.

To remove these seams I wrapped masking tape around the projectiles and then placed them into a cordless drill and using various sanding pads and sticks to obtain an ultra smooth finish.

AFV Modeller now produce superb 17 pdr. ammunition sets but if you want to use the kit parts this is a quick route to prepping for a smooth metallic finish.



All the ammo was then primed and base coated in satin black automotive paint. It's critical to get the finish perfect, as the A-Stand metallics will highlight any and all blemishes.

A variety of A-Stand colours were used to give subtle tonal variations in the brass. Once happy further tones were added to add some subtle tarnishing.





The crew seat cushions were reshaped using Magi-sculpt to give them that well used and worn look. Each seat cushions was sculpted taking into account the angle each crew member would sit at. At the same time I scratchbuilt the signal flag storage bag, as this is missing from the kit.



Breach weathering underway. Some subtle modulation of the base olive Drab, followed by fading and shading with oil paints and finally grease and oil stains using Abteilung 502 Grease Effects.



To recreate a heavily worn fighting compartment floor, it was first airbrushed with AK Interactive's Stainless Steel from the Extreme Metal range, before applying a couple of coats of Alclad Aqua Gloss to seal and protect it. Next, a couple of thin coats of AK Dark Green thinned with tap water was airbrushed onto the tread plate areas.



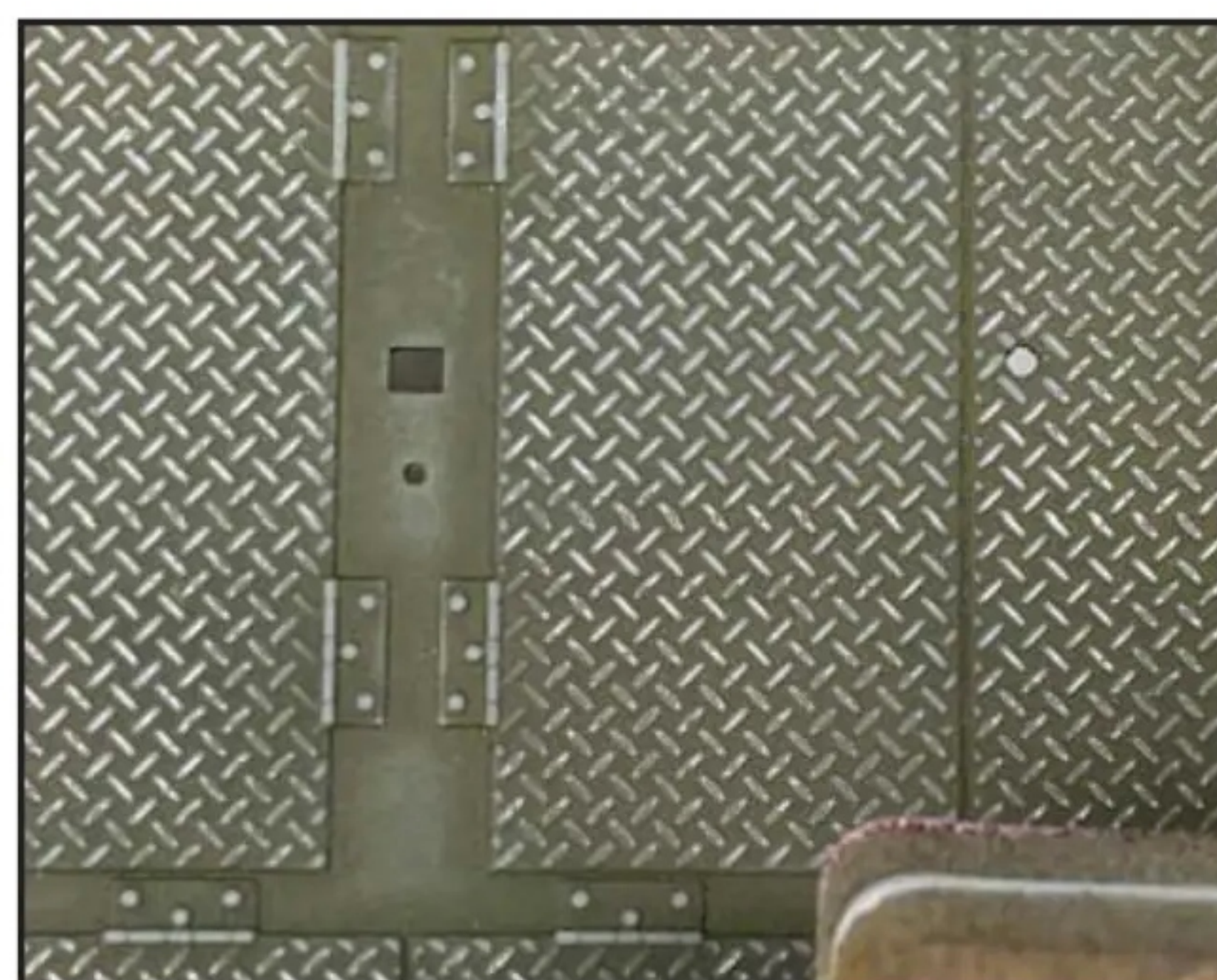
A heavy colourwash was applied to help highlight all the tread plate and hinge details. This wash was mixed from the oils seen here.



Once the colourwash had dried fully, some highlights were added with some good old dry/brushing with the base dark green mixed with a sand colour. Yes it is possible to dry-brush with acrylics if you're quick enough.



Using a sanding pad with no pressure applied, the areas of highest wear were gently sanded to reveal the underlying Stainless Steel. This basically recreates what happens to the paint in real life.



Here's a direct comparison between the kit Sten Gun magazine stowage and the 3D printed part from AFV Modeller. The kit part is very nice, but once you lay eyes on the AFV part, it just had to be used. Shame it wasn't available before I painted the kit part!



Another noticeable omission from the kit are the very prominently located Sten Guns mounted on the inside of the turret walls. Thankfully 3D Gizmo came to the rescue. Brackets were scratchbuilt from plastic strip and parts from an old copper photo-etched fret.

These are now also available from AFV Modeller with the brackets already in place.



Here is another direct comparison between the kit supplied M2 .50 Cal machine gun (left) and the AFV offering that comes complete with the correct earlier pattern ammo container and 'Goose Neck' pintle. Again, the kit part is very good, but the aftermarket part, truly highlights the leap that 3D printing offers.



The hull lifting eyes and drivers' hatch hinges all received some detailing in the form of the invaluable Archer Fine Transfer resin casting numbers, all though intended for 1:35 kits, they are perfect for these smaller components on 1:16 armour. Texturing was added using Mr.Surfacer 500 stippled on with an old stubby brush

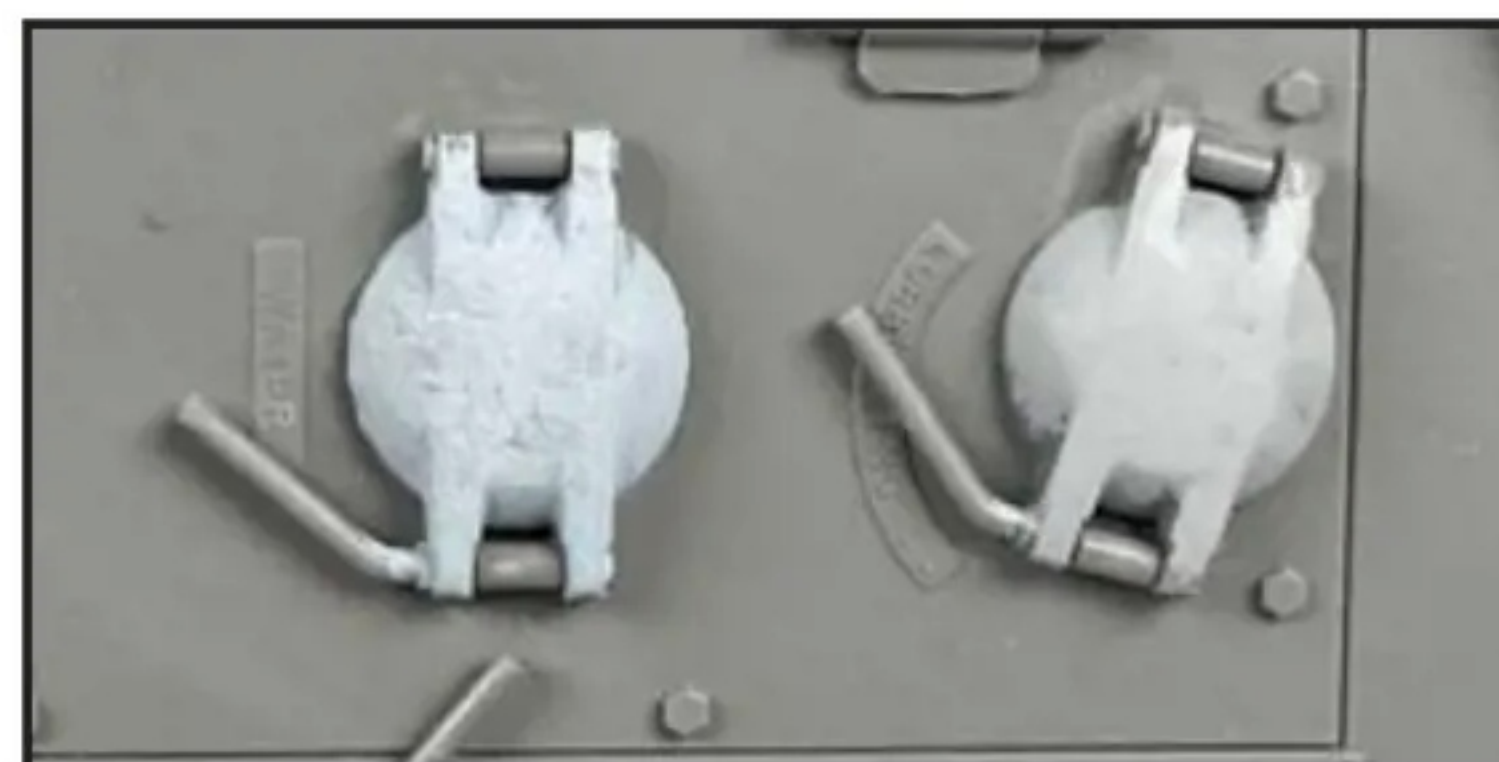
New weld seams were created using Green Stuff two-part epoxy putty, which was rolled into thin noodles and pressed into the join with tweezers. An old brush was used to press them in further and impart a nice texture before the distinctive weld scalloped effect was created with a tiny curved micro chisel by repeatedly pressing it into the putty.



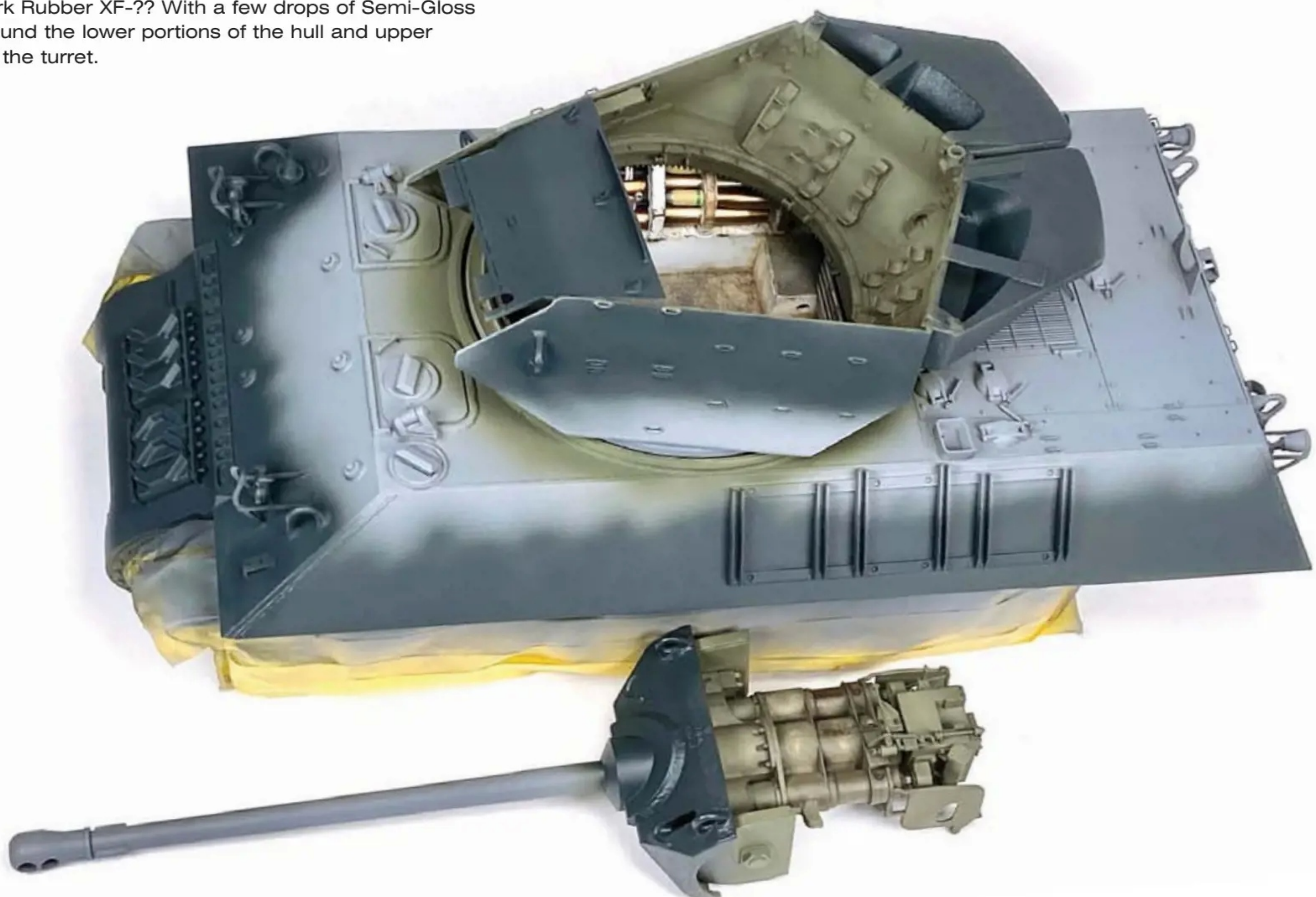
More welds were added to the headlight mount and guard. A tiny retaining chain was added to the headlight blanking cap, for when the headlights aren't fitted.

More welds were added to bullet splash guard in front of the Drivers' hatches. The welds and cast texture are visible on the hatch hinge.

The numerous filler caps all received some cast texture with Mr.Surfacer 500 along with the very fine copper chain to replicate the ones retaining the locking pins.



My inspiration for the Mickey Mouse scheme came from a grainy photo in a Polish publication on the M10 Achilles in allied service during WWII. The first step was to airbrush Tamiya Dark Rubber XF-?? With a few drops of Semi-Gloss varnish around the lower portions of the hull and upper portions of the turret.





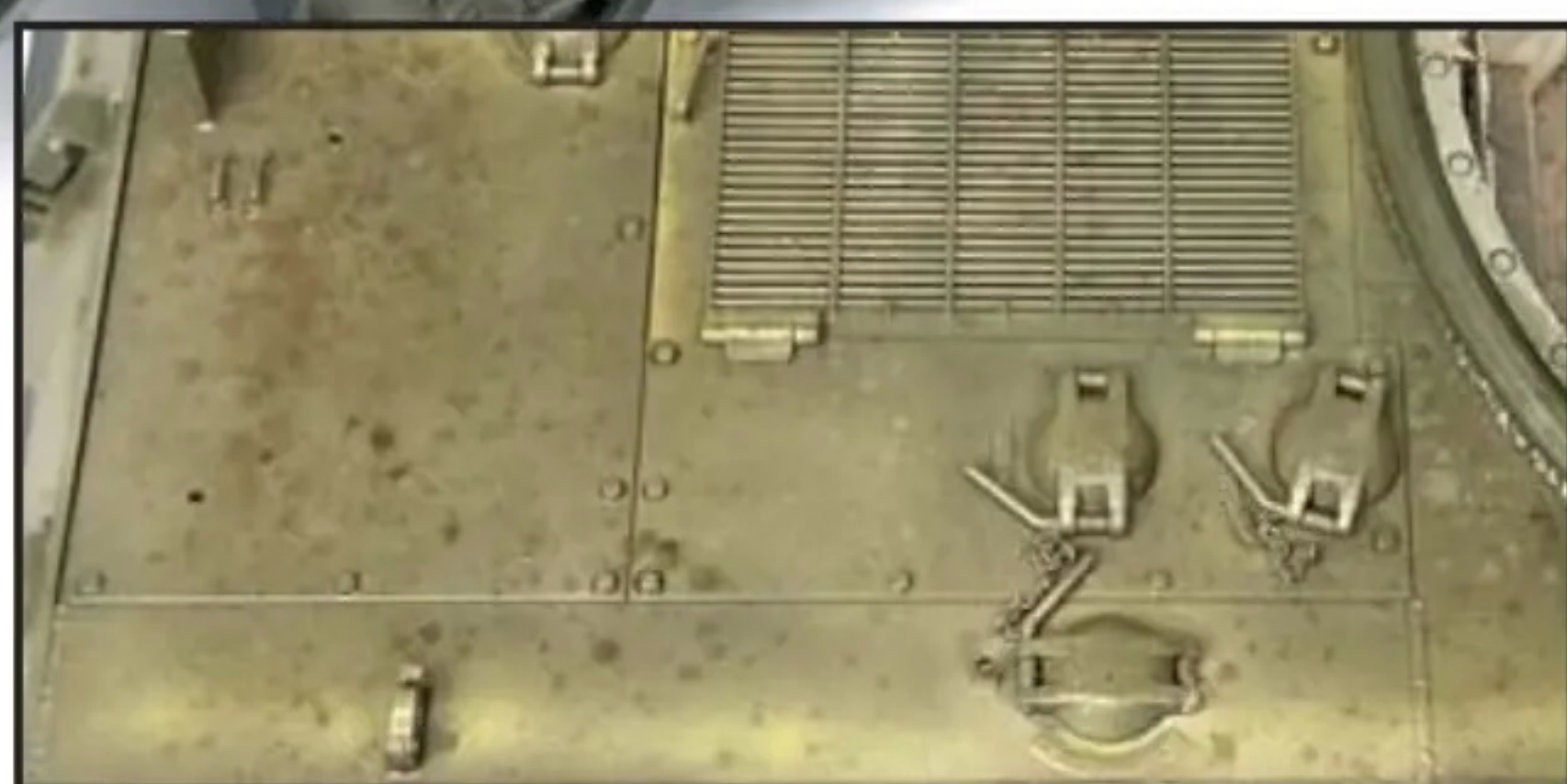
A cutting compass was used to cut-out lots of randomly sized and slightly irregular shaped circles into some low tack masking-tape.

With all the mouse ears applied, of base shade of the British version of Olive Drab was airbrushed on.

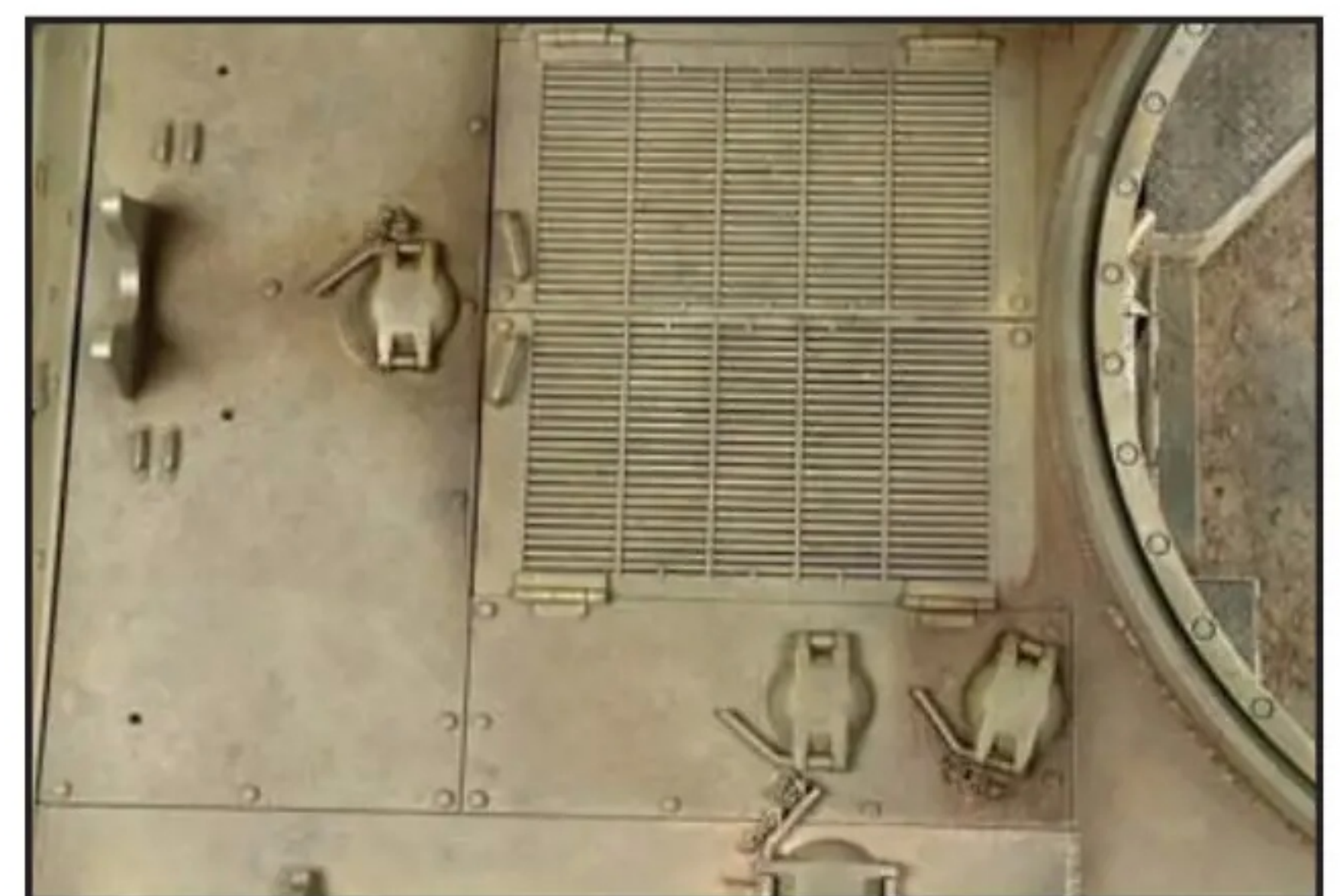
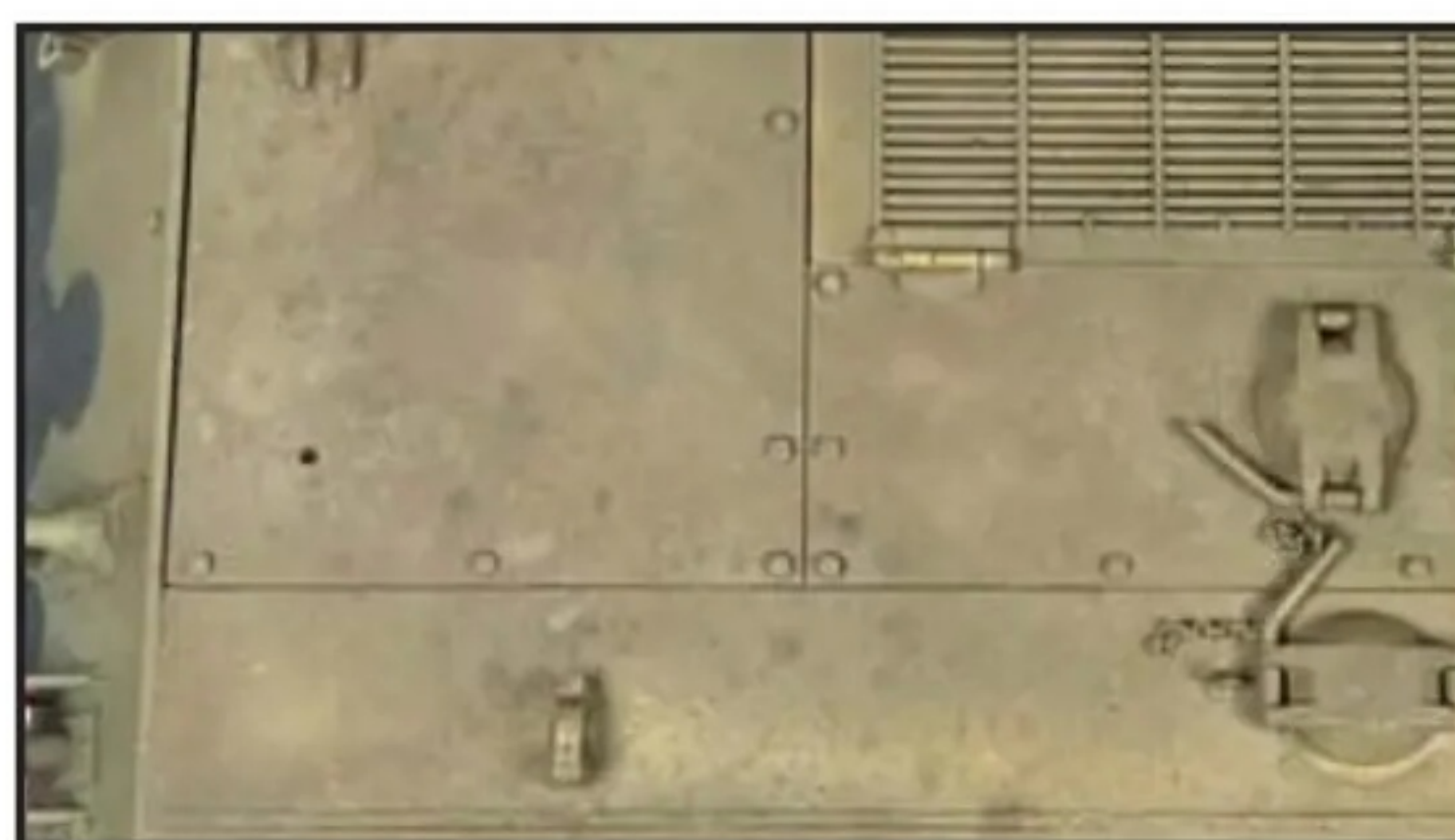


Some fading and streaking was then added by mixing some Tamiya Deck Tan. At this stage it may look a bit obvious, but that's the idea, because it will tone down considerably after the washes and other weathering effects have been added.

At this stage the distinctive barrel counter-shading was added. Again, the compass cutter was perfect for cutting the wavy lines into the masking tape.



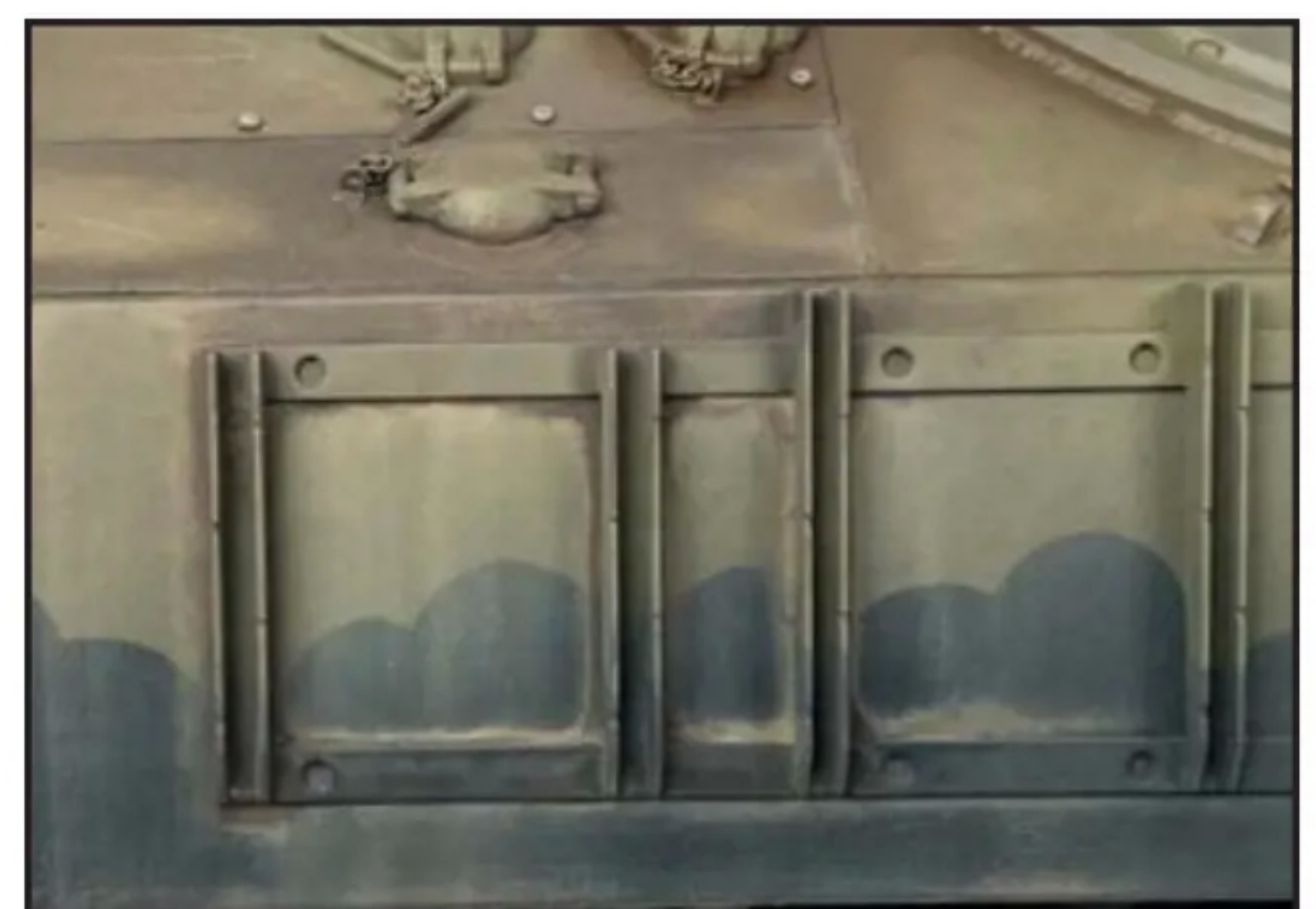
Here we can see the result of speckling heavily thinned oil paint onto the engine deck to help create that random grimy feel of dust spots, oil stains and general wear and tear.



A combination of 090 and 004 Abteilung oil paints are painted onto the side plates adjacent and around the outermost fuel filler caps. At this point it just looks a mess, but these colours will be blended and stark look softened with the aid of an angled shader Brush (the wedged shape one).



This is the result of the blending with the soft dry brush. Once the oil paints have been allowed to dry fully for a few days, this process can be repeated with grease effects oil paint to get that distinctive oily sheen.





These are the products I used to replicate the detritus that builds-up around the turret ring. It's a combination of chopped up sea grass, dried out tea bag granules and dust sweepings from my garage floor.



With the detritus mix sprinkled around the turret ring, it's then wetted with Tamiya XF-20A. This is applied prior to adding droplets of VMS Ballast Freeze, as it helps the glue flow much more freely.



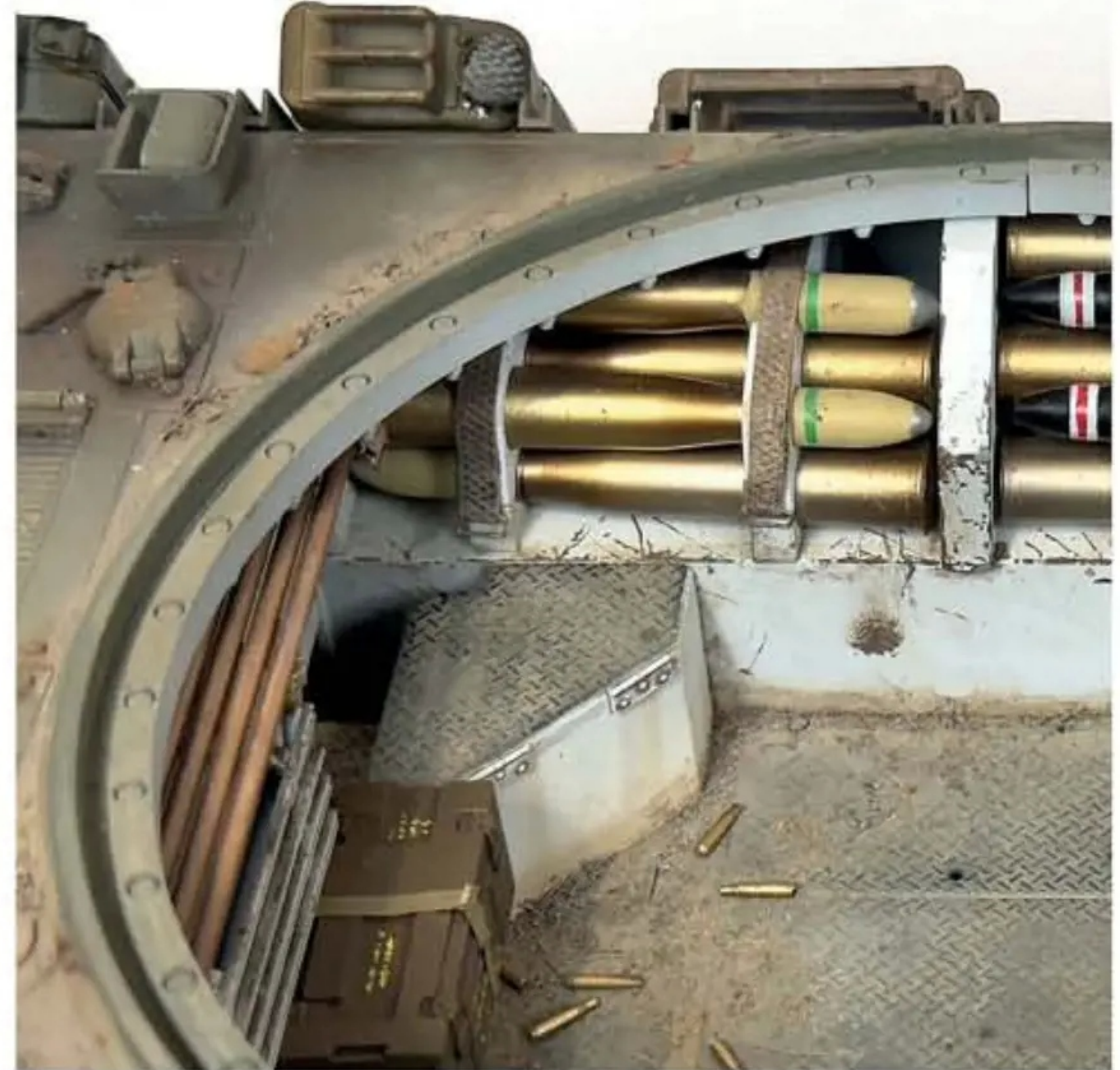
once the ballast freeze has set the dust mix used on the running gear was airbrushed on, then followed by adding washes on AK Interactive's Dust & Dirt Deposits enamel based product.

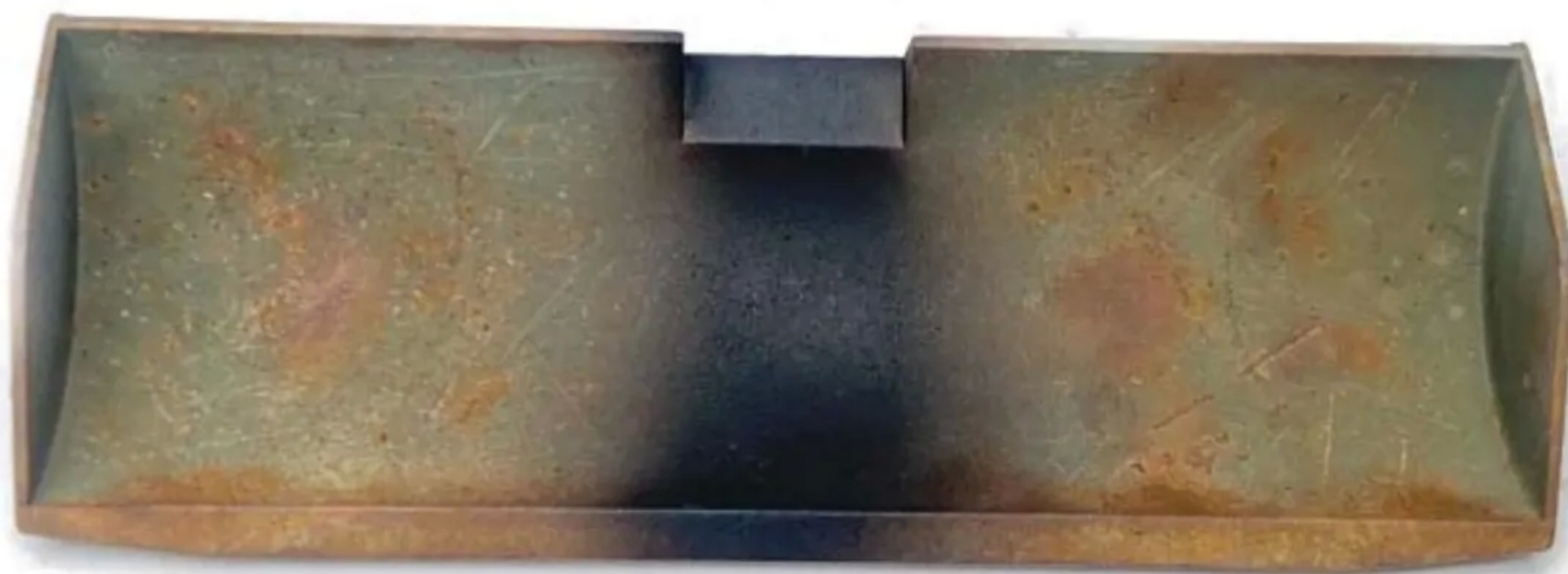


The next step was to help create more random texture, this time mixing Dust & Dirt combined with VMS Pure Pigment. This was speckled around the turret ring and allowed to dry.

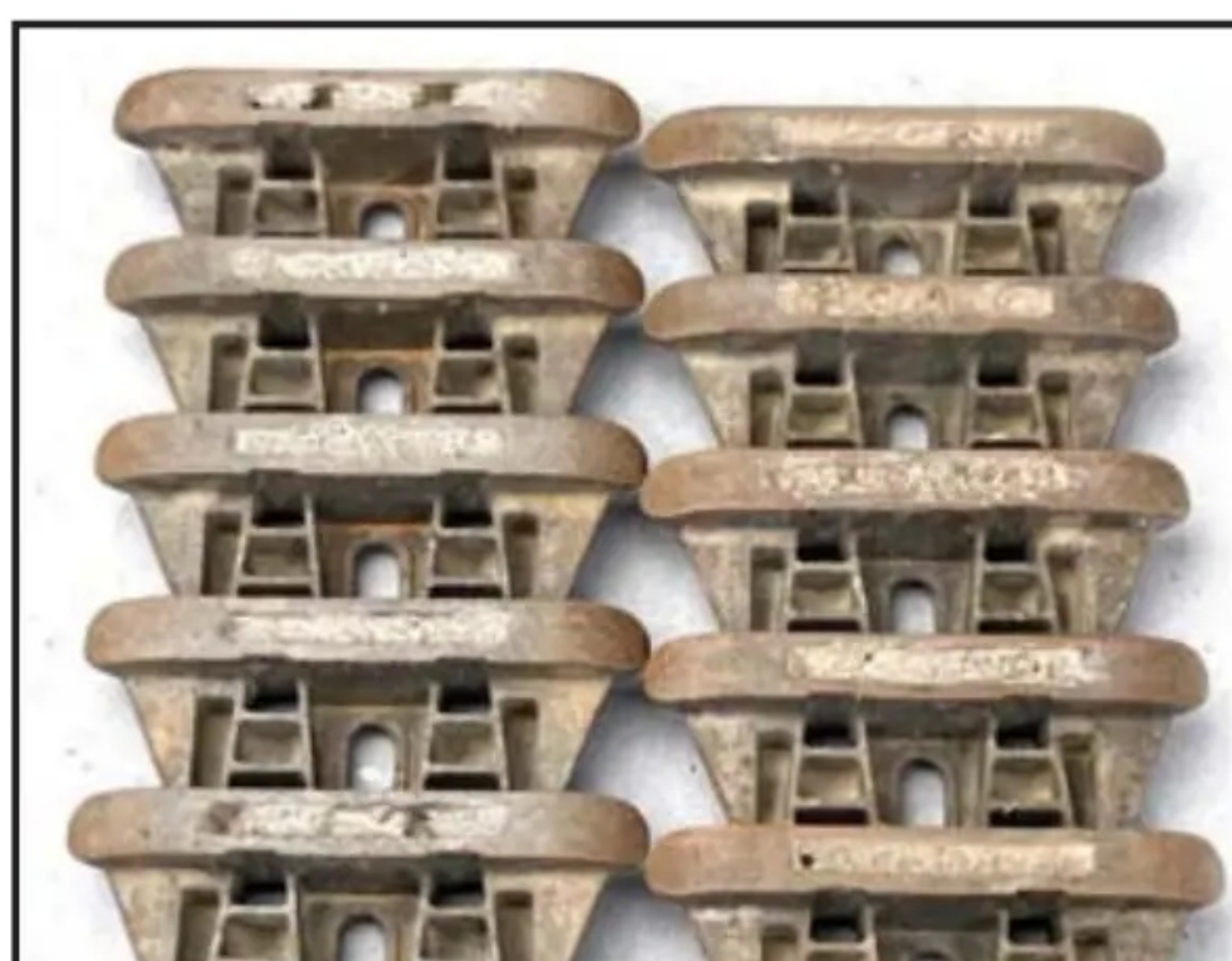
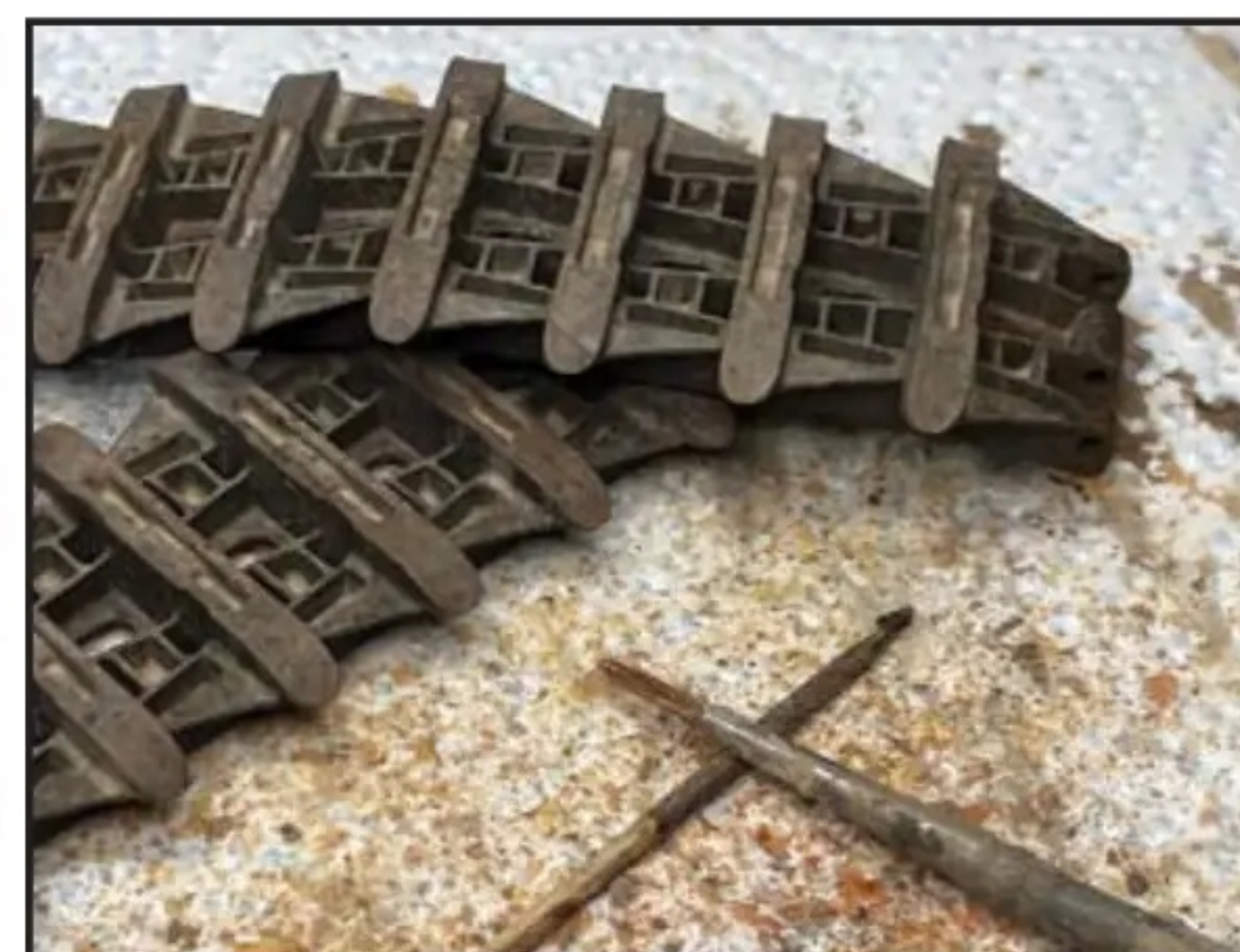
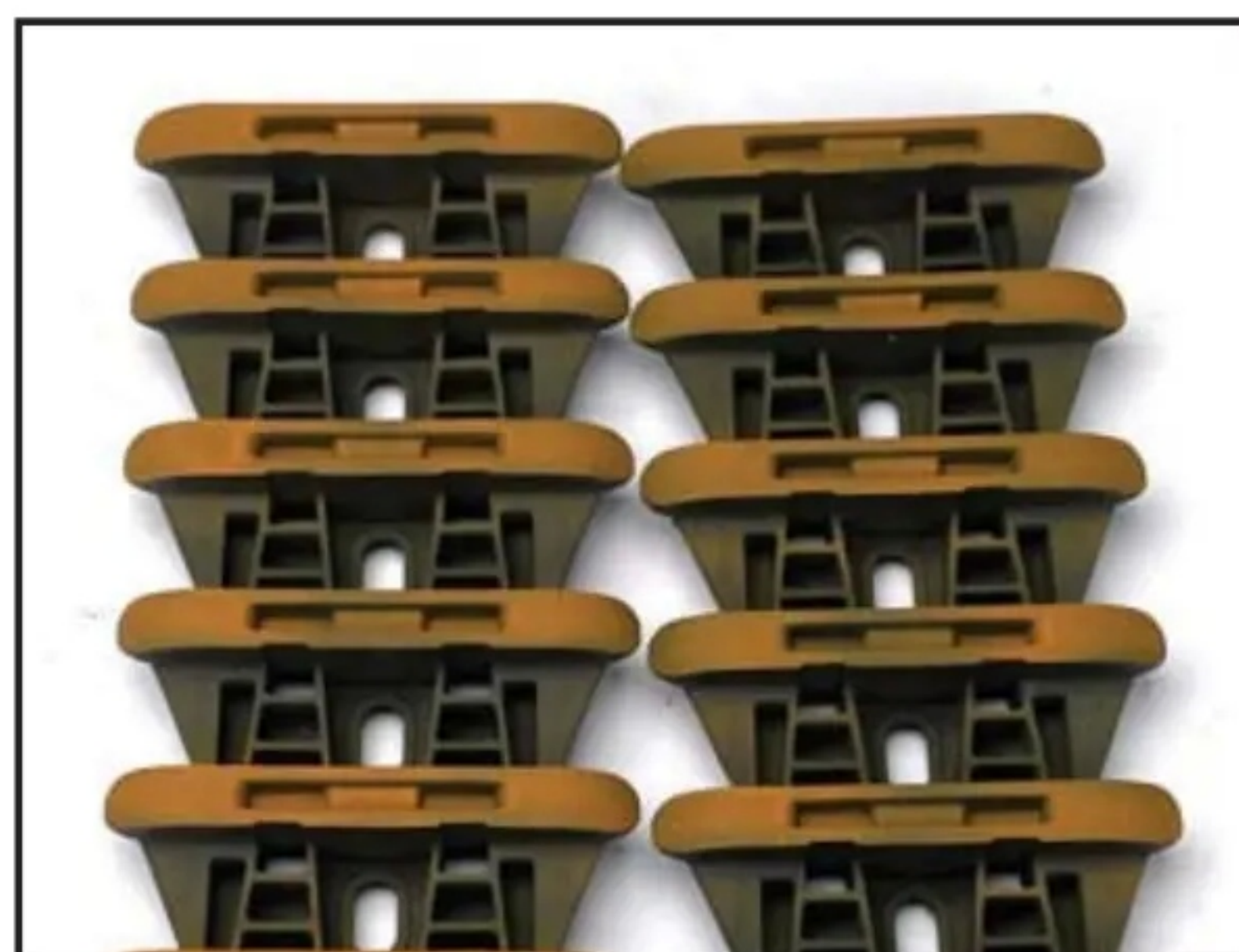
A cotton stick wetted with white spirit was used to remove and clean-up any unwanted speckles, by using sweeping strokes toward the turret ring.



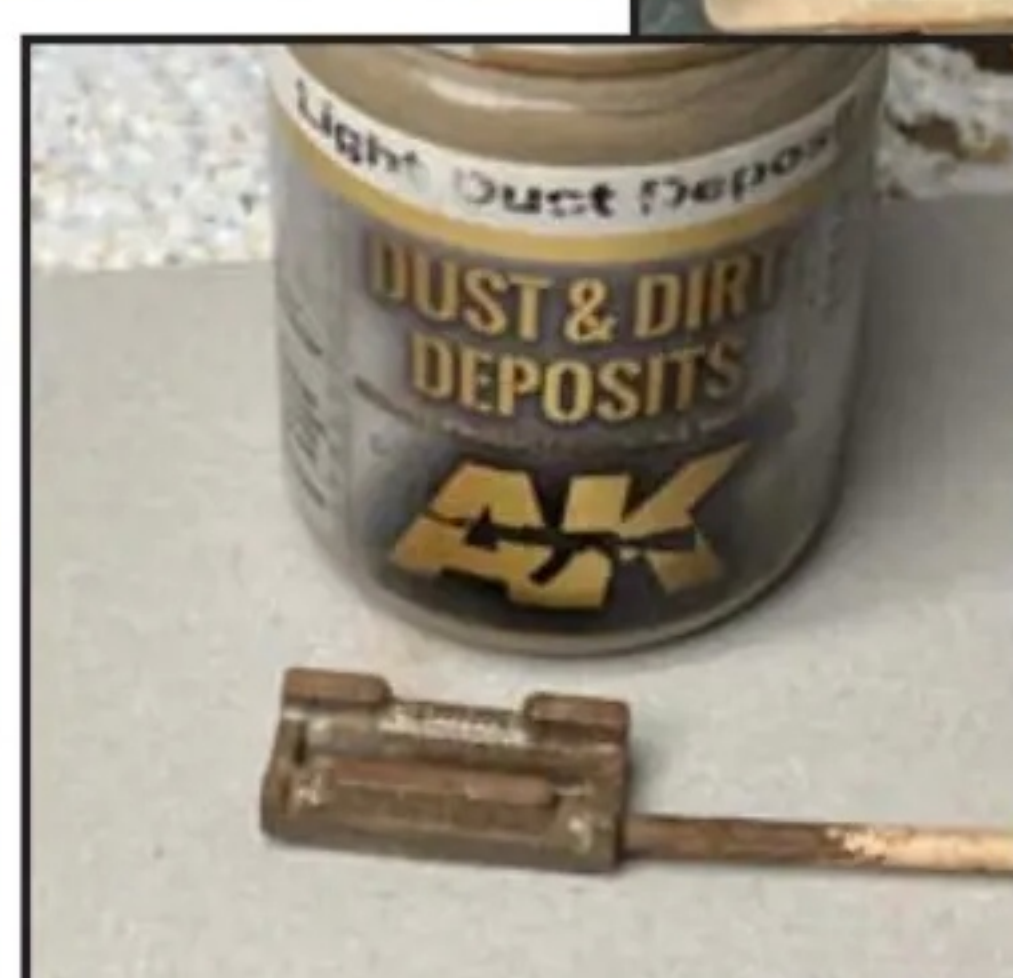
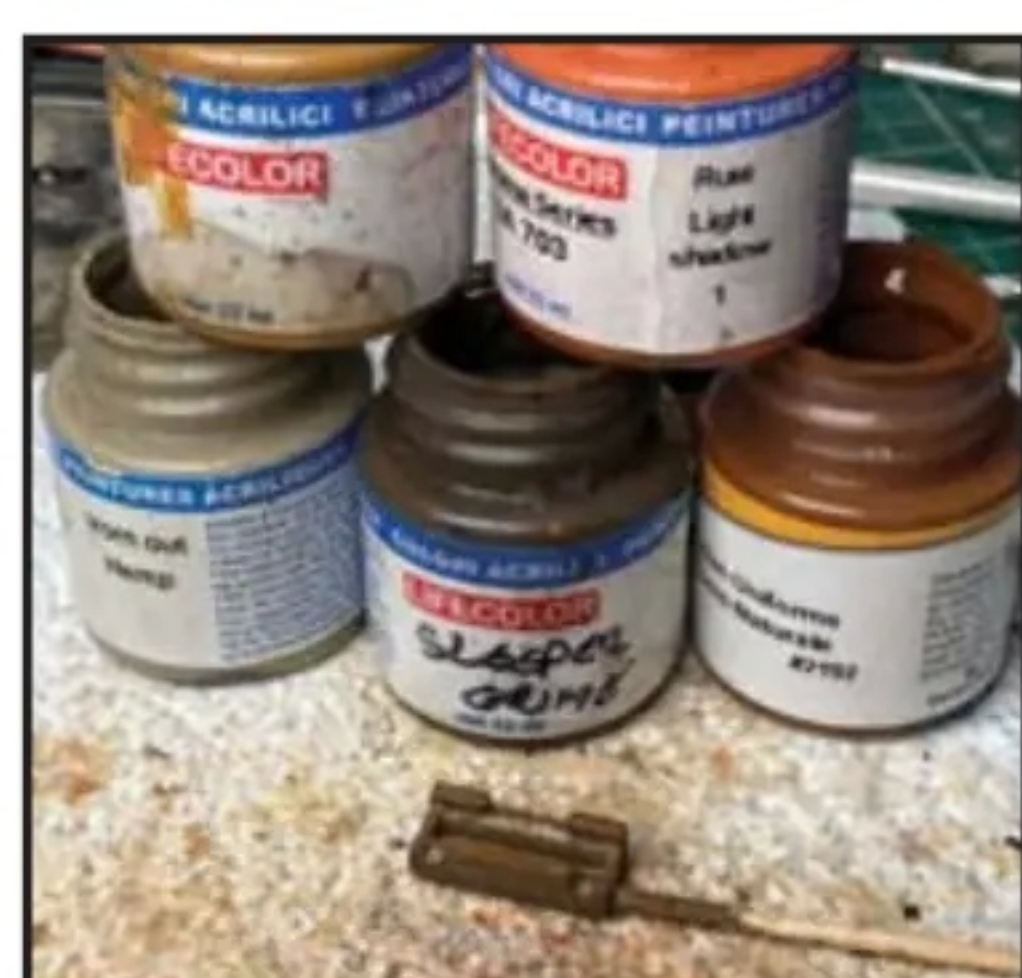




I wanted to try to replicate the type of rust effects seen on thin sheet metal, such as the exhaust deflector. These were created by first speckling with a light beige acrylic, followed by various rust tones from Lifecolor. Some chips and scratches were added with a fine brush, before final localised oilpaint rust washes.

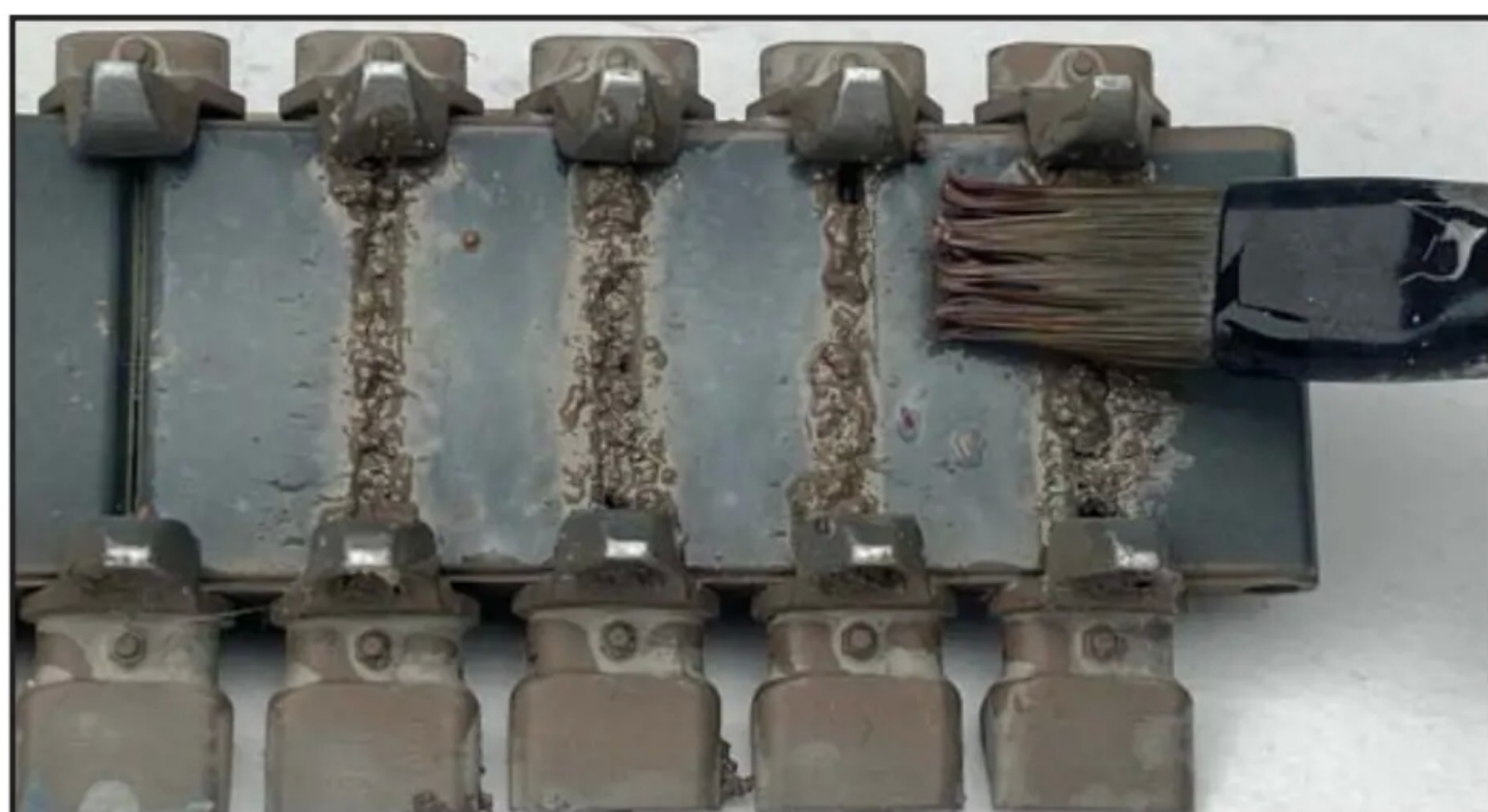


My good friend Mike in New Zealand, send me a load of Churchill track links that he'd designed and 3D printed, to use as appliqué armour for this project. They are first airbrushed in a base coat of durable lacquer paint. This overall tone isn't critical, so I just go for a none-descript dirty brown with an orange colour for the cleats. This rather large combination of Lifecolor acrylics and airbrush flow improver where then repeated speckled on varying between light and darker tones until the desired result was achieved.



Three of the other spare track-links showing how each of the processes have an effect on the link and how they look after the final dust wash.





After base coating the tracks from the actual running gear any excess mud on the inner face of the pad was cleaned up using a cotton stick dipped in water. Note the bare metal contact areas.

my chosen mud mix (see below) was carefully applied to the gap between each track pad, making sure there were no gaps and it looked like it was packed in tightly.

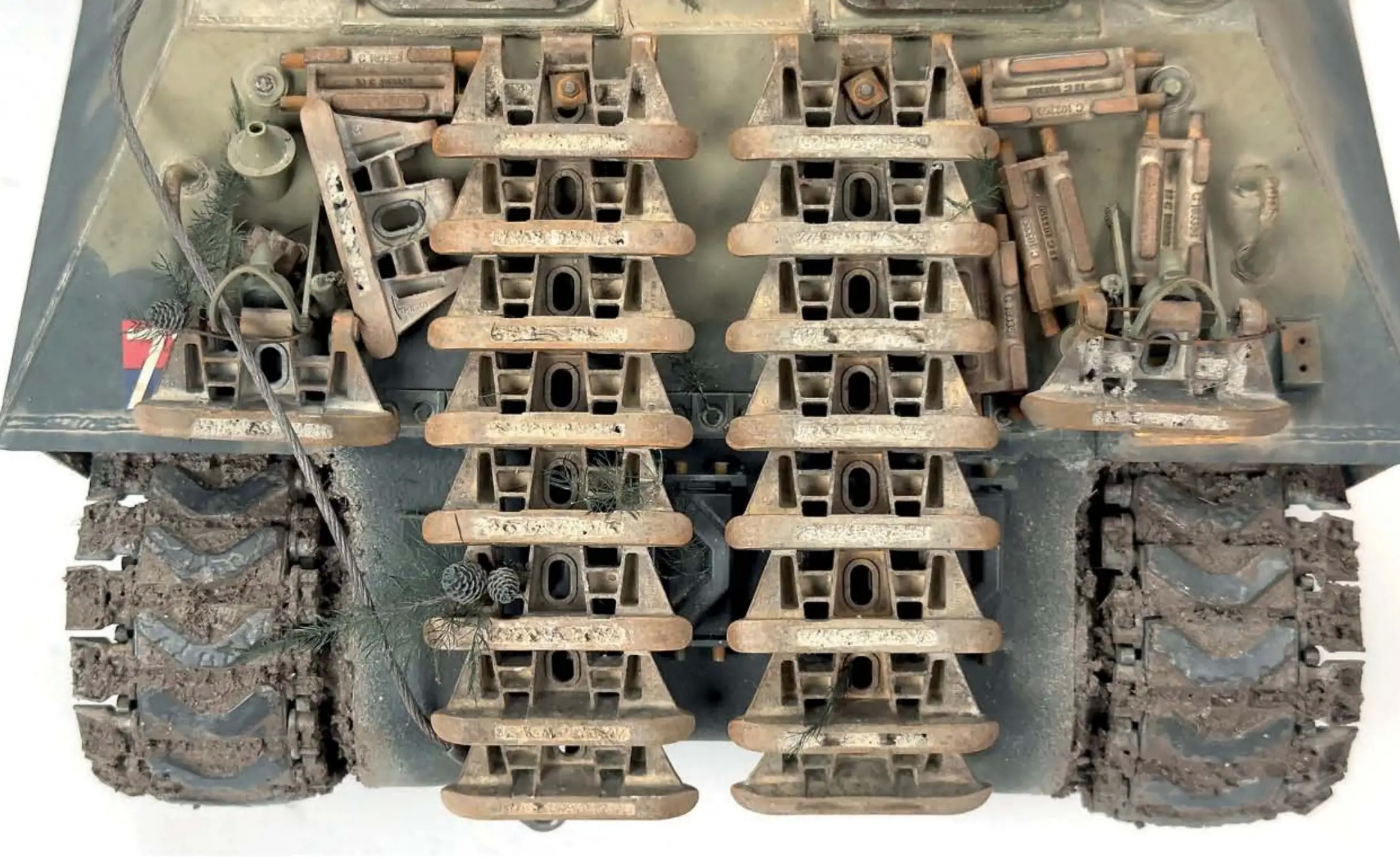
After measuring the length of a track pad and then measuring the circumference of the road wheel, I then cut some Tamiya tape into segments before adding more of the mud mix, to simulate the distinctive mud/dirt stripes that appear on the tyres where the mud oozes up between the track pads.



The mud mix consisted of two different acrylic AK Diorama products mixed with dried out tea granules from a used teabag. As can be seen here the tea granules help add a nice bulk to the texture. Perfect for replicating thick mud in this scale.

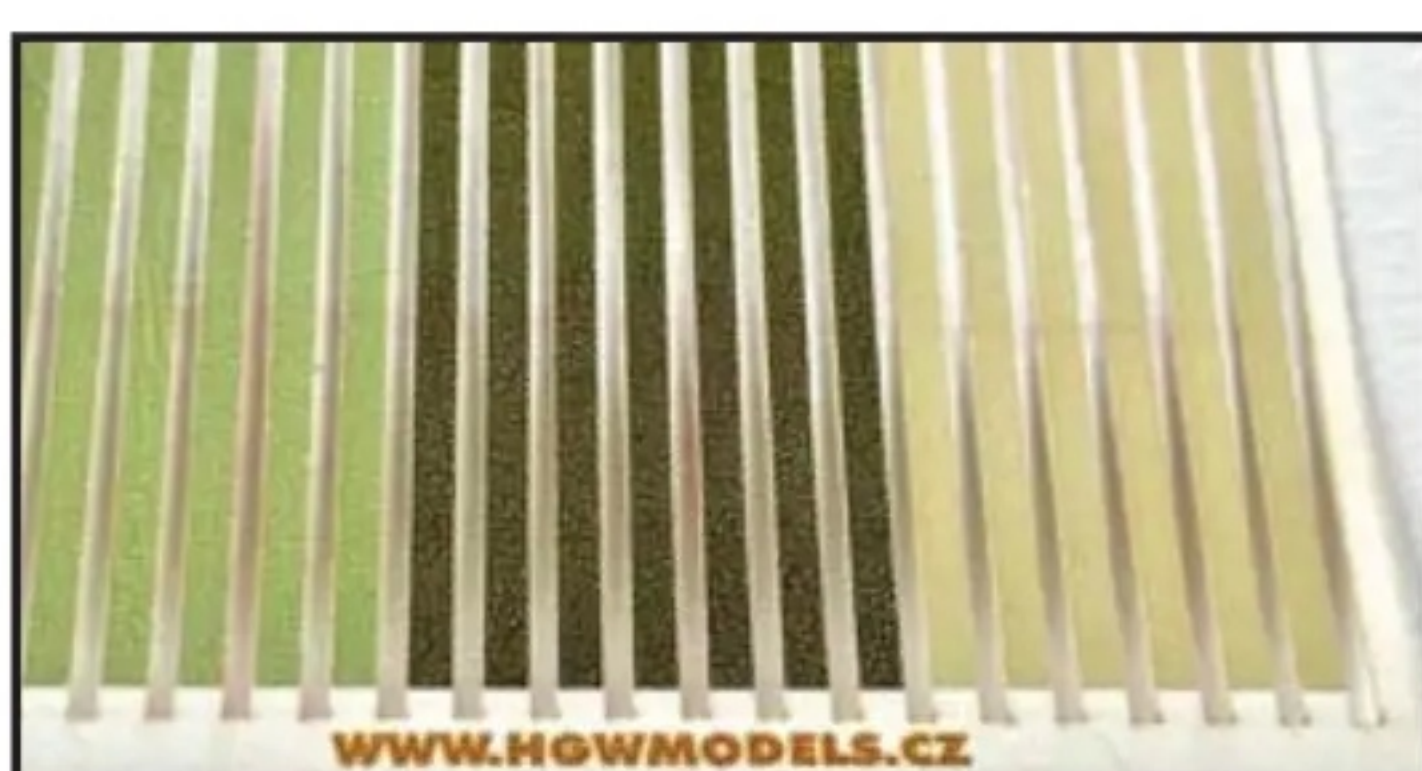
I think it offers a pretty realistic rendition of thick fresh and drying mud on the sprockets and around the rim of the Idler wheels.



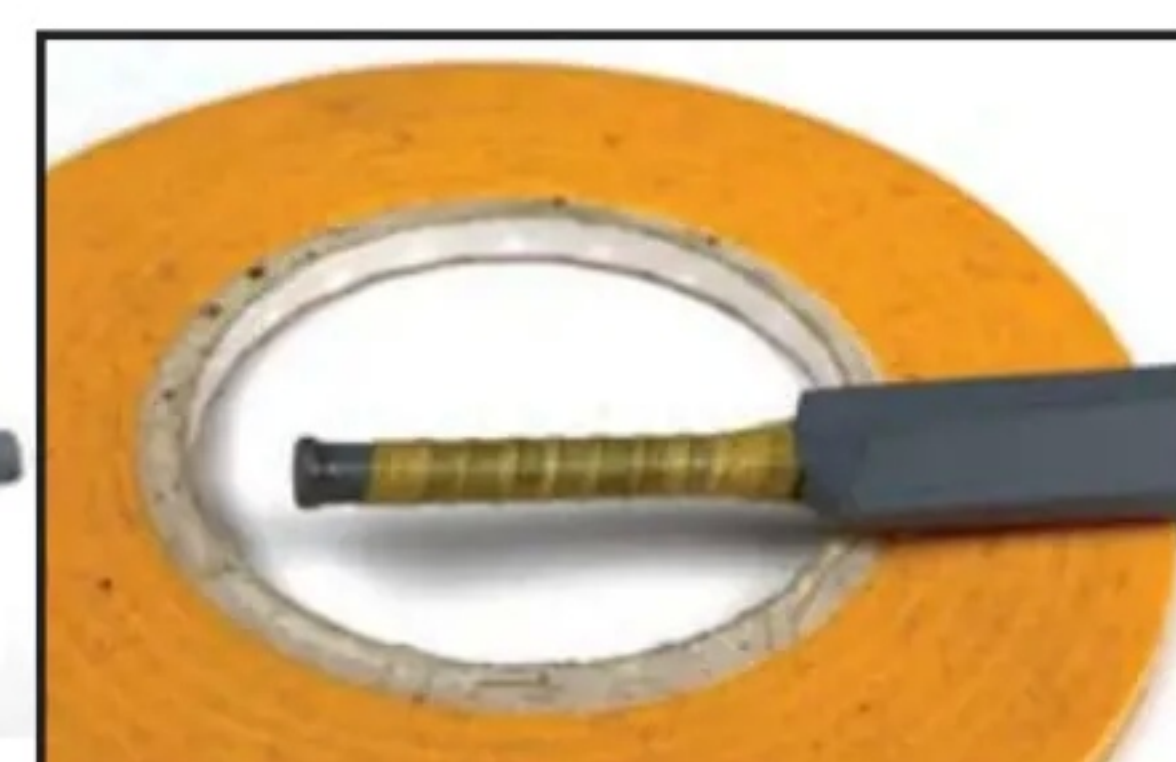
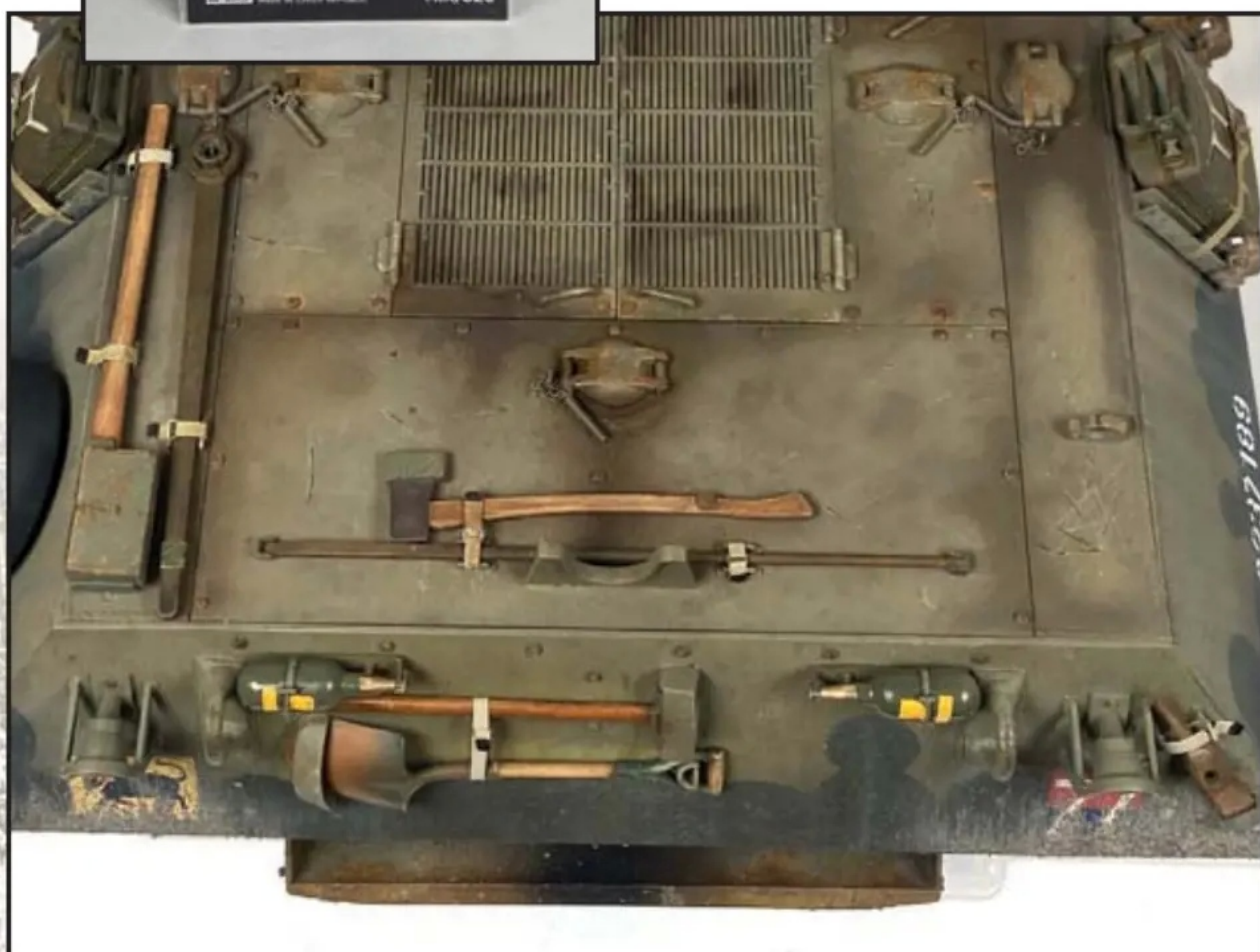




The pioneer tools are beautifully detailed and were so much fun to paint and weather. Here we can see how use of both hairspray chipping and sponge stippling with heavily diluted acrylics have helped to recreate worn and rusted metal.



I picked up these amazing textured straps and photo-etched buckles at the KMK Model show year, and they've proved invaluable for making the tie-down straps on the Achilles for the numerous pioneer tools.



HOWZAT! (a cry from the sport of cricket for those who don't know) As a nod to my 'Sluggar' Sherman Easy Eight (AFV issue 134) My good friend Mike in New Zealand designed and printed some cricket balls, stumps and a bat for a 1:16 scratch-built Churchill he's working on and was kind enough to send me some spares. Tamiya tape was wrapped around the handle to simulate the rubber strip grips seen on the handles of the real bats.



I wanted to try to add a large cam net to the turret side. The images above show an actual net and components. To create the net, I first formed a basic shape from Milliput then wrapped it in a couple of layers of surgical gauze that I'd dyed with brown acrylic paint. Thin strips of a dried out wet-wipe were then glued on to replicate the hessian strips.





Here we can see the basic colours in place. The hessian strips were carefully painted using Vallejo acrylics. The trickiest part is trying to make it look convincing as a rolled up net that has a natural organic feel and not a solid one-piece lump.



The bucket is another 3D printed item that's been base-coated in Mr.Color Aluminium, then sponge stippled in various mixes of, light grey, silver and white to replicate a galvanised effect.

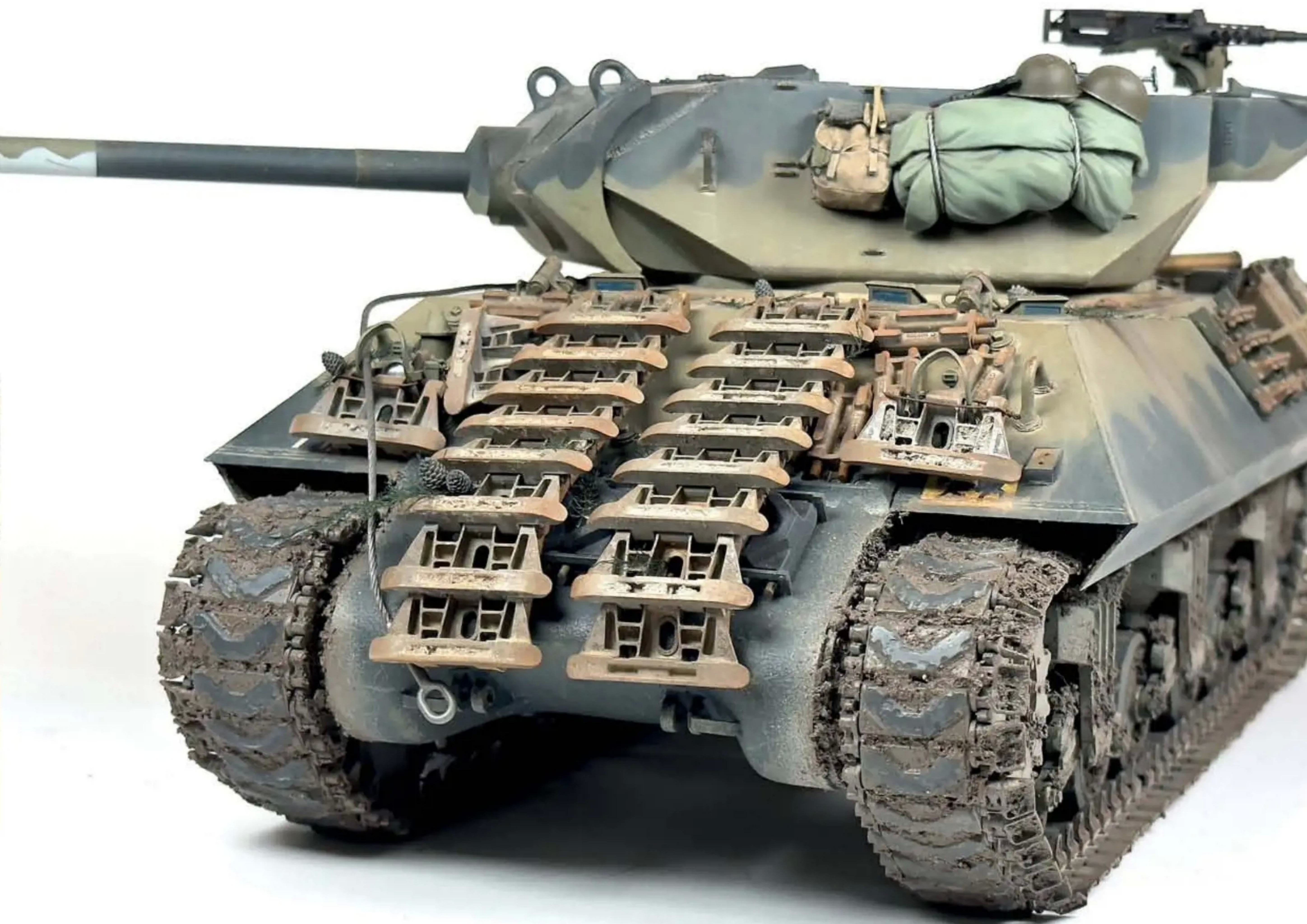
The tarpaulin is a resin item from SOL model and with the liberated U.S. Infantry M1936 Musette bag.





1:16
Howzat!
ACHILLES!

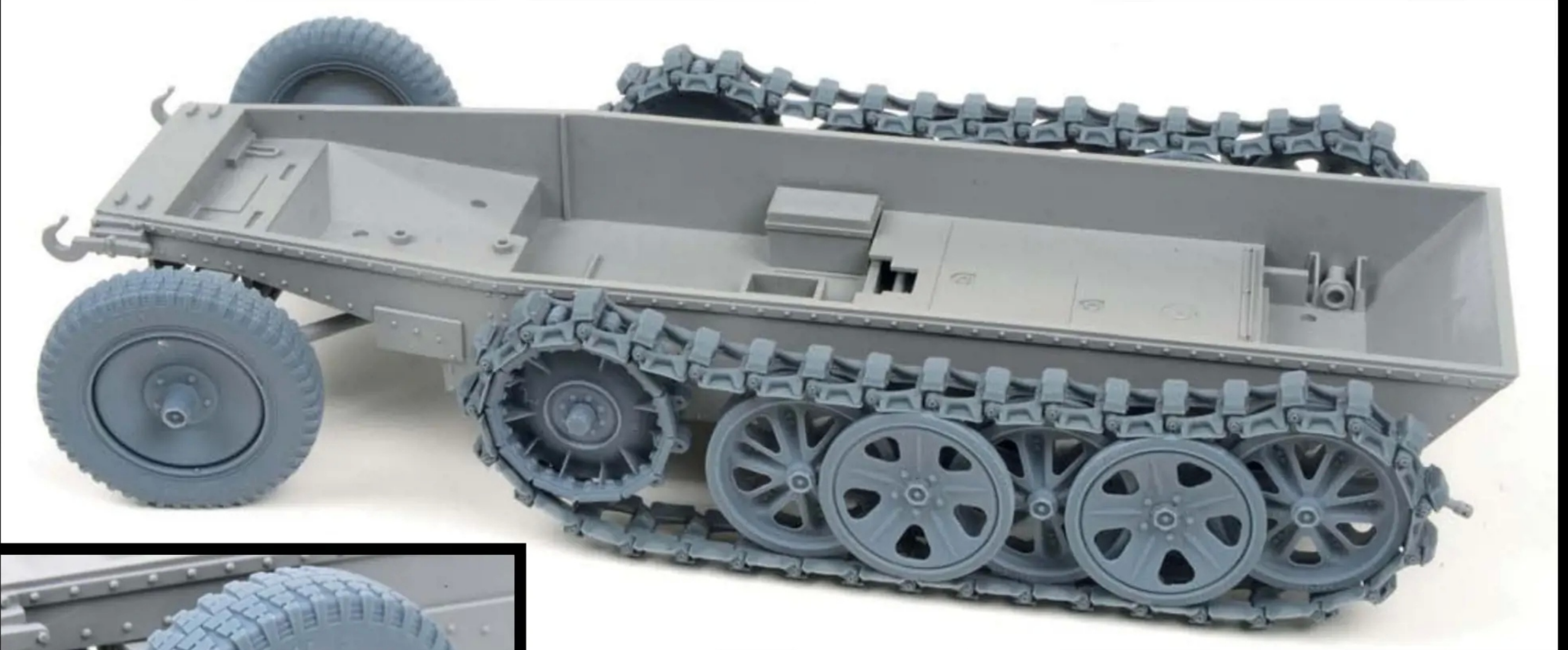




Sd.Kfz. 250 HALFTRACK

UPGRADES

1:16



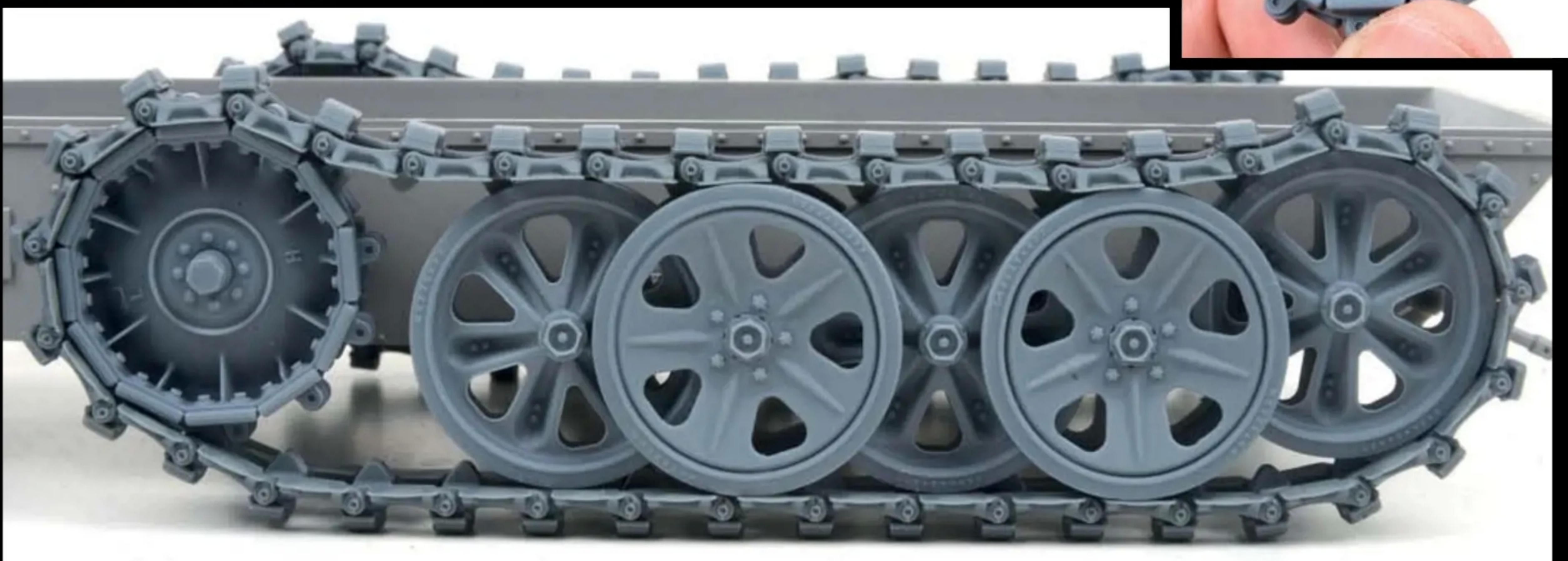
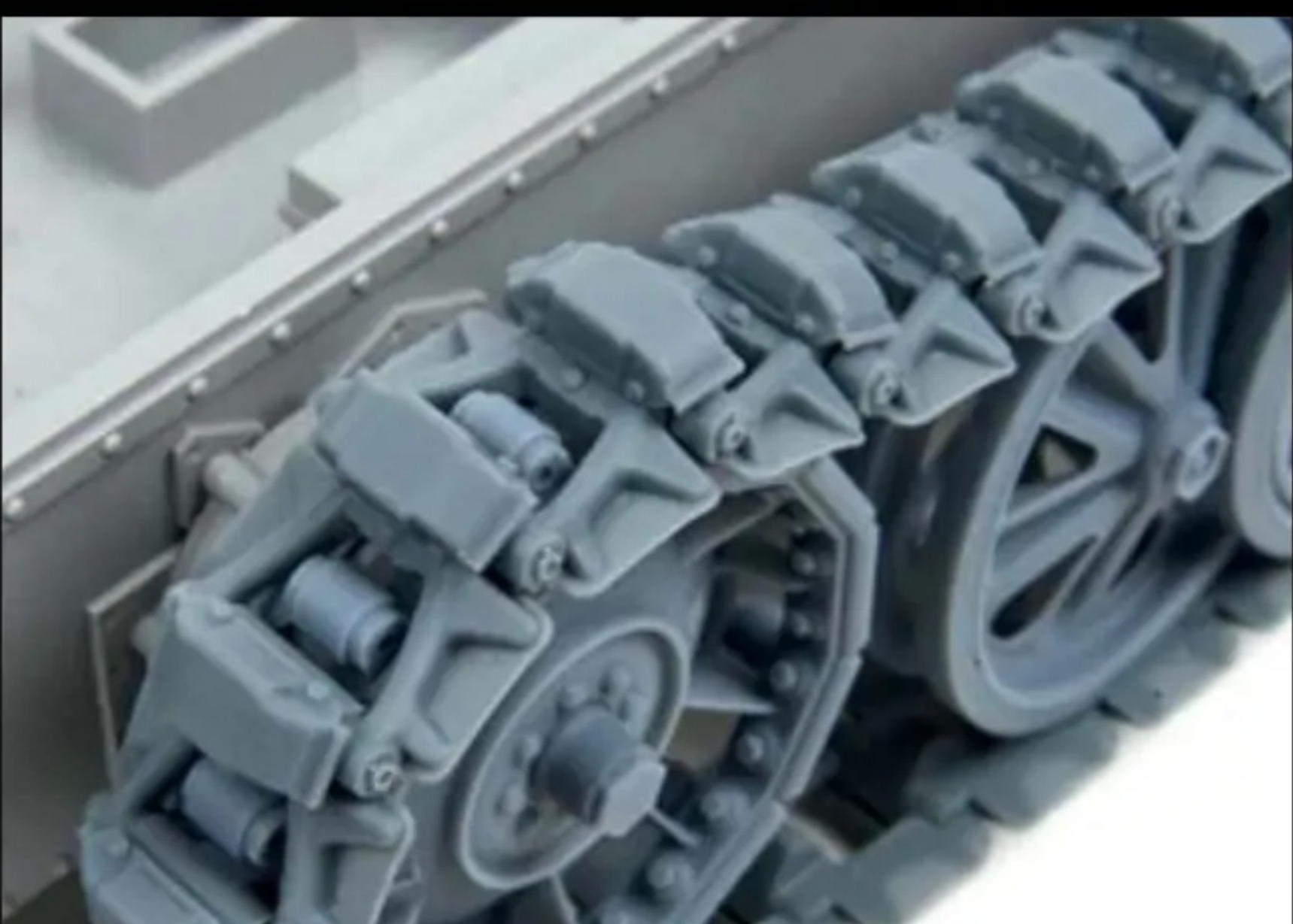
Sd.Kfz. 250 Correction and Update parts

Our comprehensive upgrades for the running gear are sold individually so you can select items you want to improve beginning with the **Weighted Front Wheels** which as well as offering greatly improved tire detail also corrects the errors in the kit wheel rims.

Corrected Sprockets fixes the mistakes on the kit sprocket hubs, provide much finer rib detail, cast texture and optional separate hub caps.

Corrected Roadwheels Corrects the over scale lips on the inner wheels and the bolt details on the outer wheels.

The Corrected Tracks 40 links supplied per side with individual track pins to assemble the tracks. Highly detailed with scale thicknesses, quicker to assemble than the kit tracks with a far more accurate finished appearance.



1:16

AFV modeller



Sd.Kfz.250 Open Exhaust Louvres

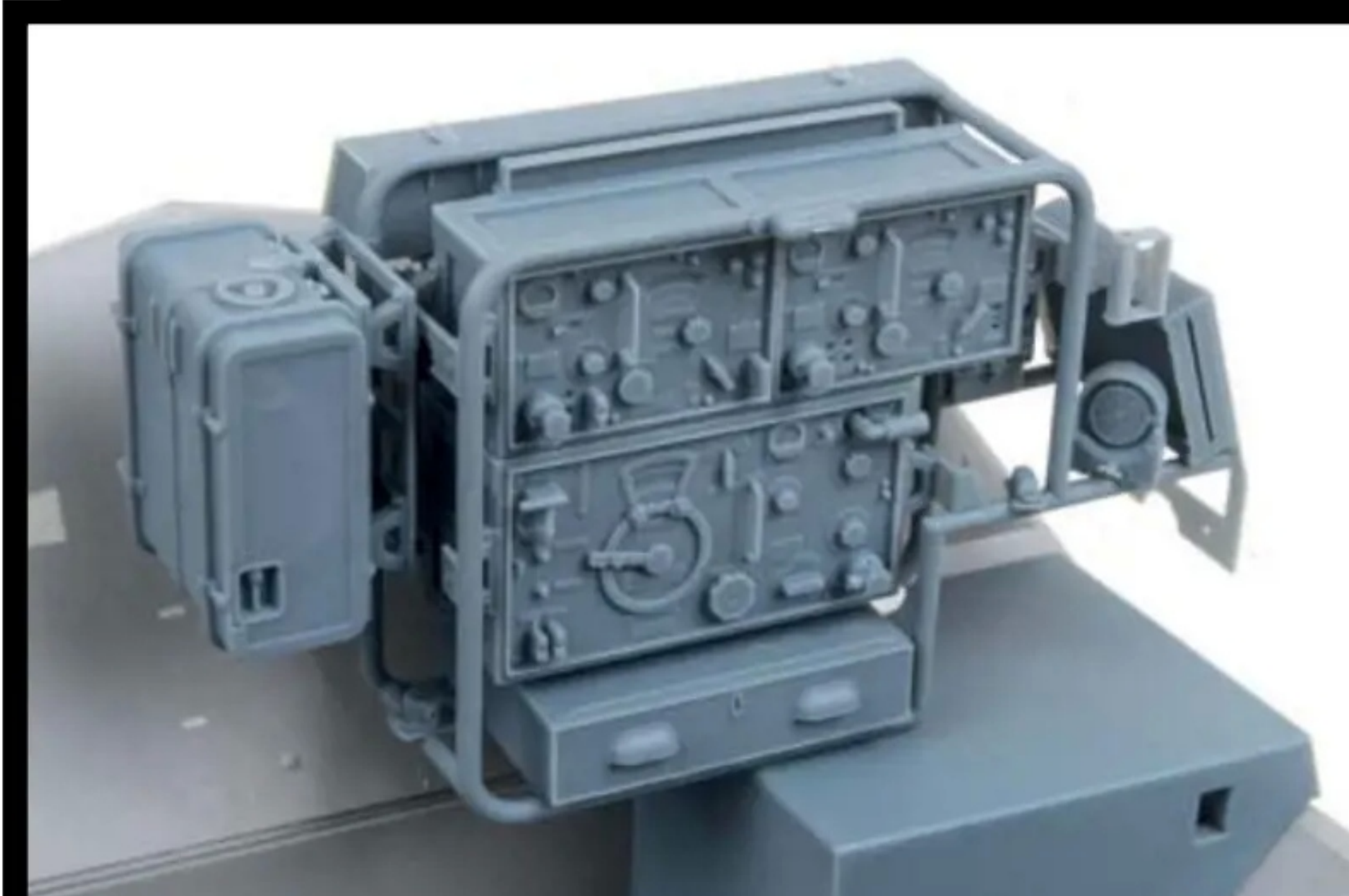
This simple upgrade opens the solid kit exhaust louvres with a choice of two louvre patterns.



Sd.Kfz.250 Tool Correction Set

This set corrects and significantly upgrades the vehicle tools with integral beautifully detailed tool clasps and stowage fittings. Along with the seven tools the set also includes the stowed Jack block and Notek/convoy lamps.

IN PREPARATION Sd.Kfz.250/3



Sd.Kfz. 250/3 conversion

This conversion set will provide the distinctive frame antenna and the radio rack installation to build the Leichter Funkpanzerwagen Ausf.A



★ DRAG- PANTHER

ANDREA VIGNOCCHI

HAS AN IDEA TO COMBINE TWO OF HIS FAVOURITE
VEHICLES IN ONE SPECTACULAR SMALL-SCALE
SCENE





1:72

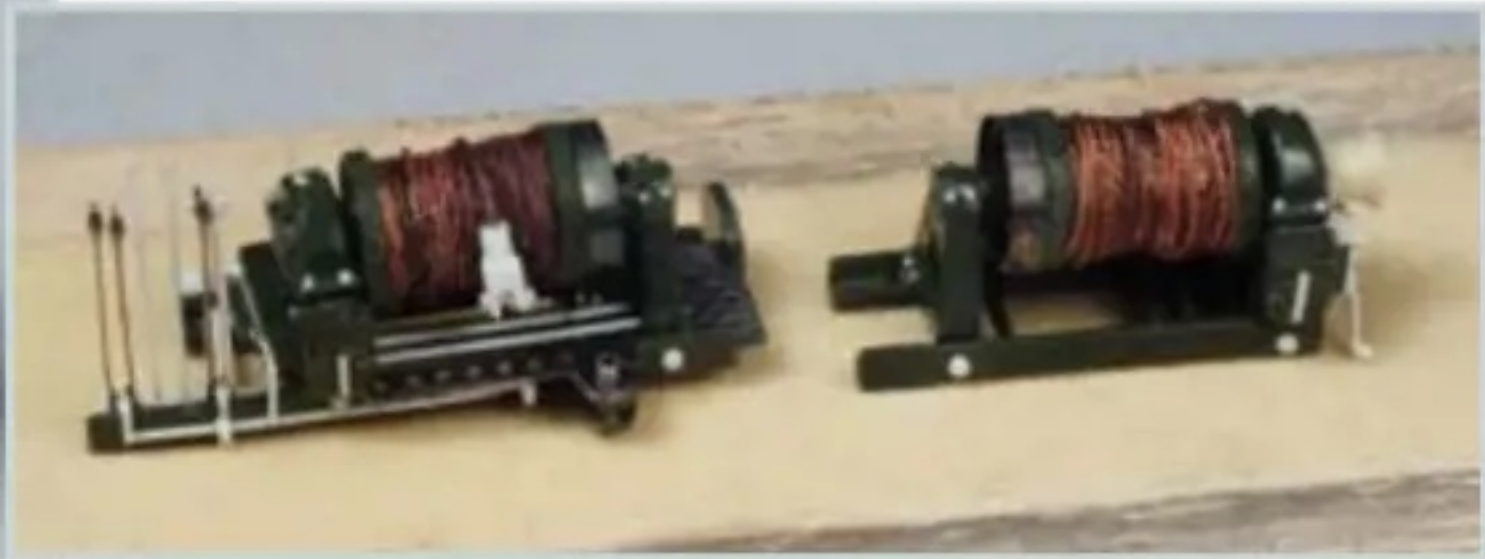
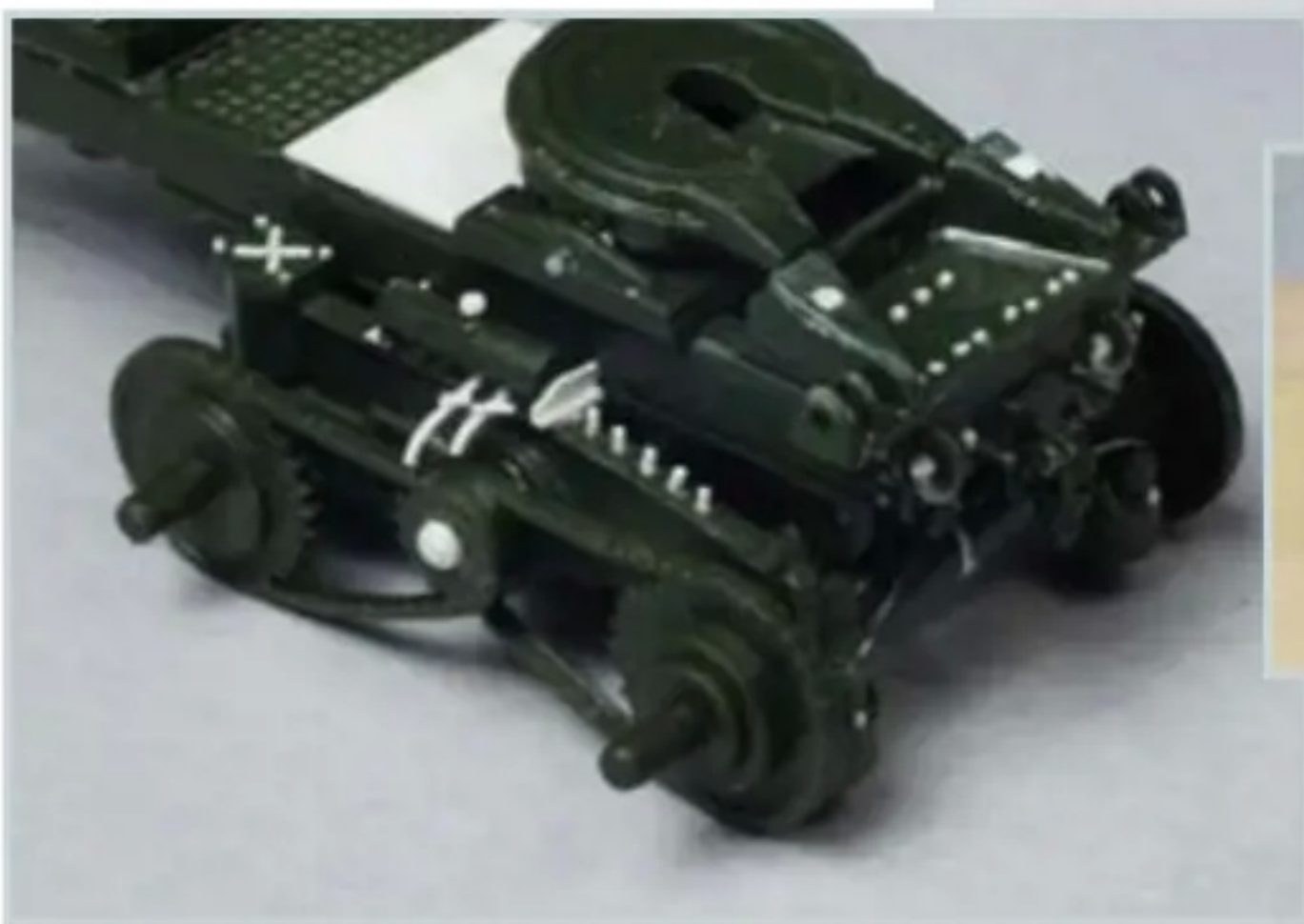


Dragon Wagon and Jagdpantzer are among my favourite vehicles and, since I had kits and accessories to build them both, why not make a nice diorama? As the work progressed, the idea developed into a fairly complex scene, in my opinion very impactful.

The M-26 Dragon Wagon is gigantic and very spectacular, with all its winch details and exposed pylons. I had two kits available: the Planet Models in resin and photoetched parts and the Academy in plastic, more traditional and less difficult to assemble. Perhaps, because I don't like photoetched parts and prefer to work on plastic, in the end I decided to assemble the Academy, using the best resin details of the other kit.



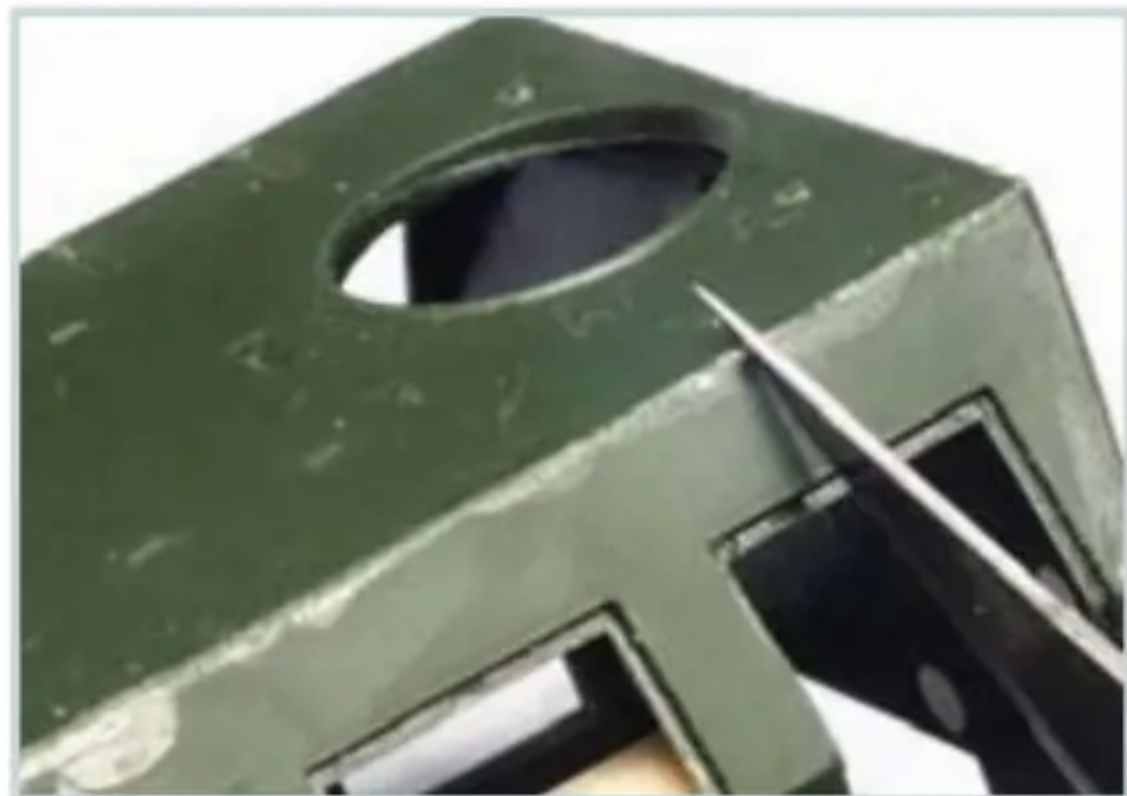
While the plastic parts need some thinning and sharpening, the details of the chassis, transmission, winches, etc. are better and more defined than those of the resin kit.



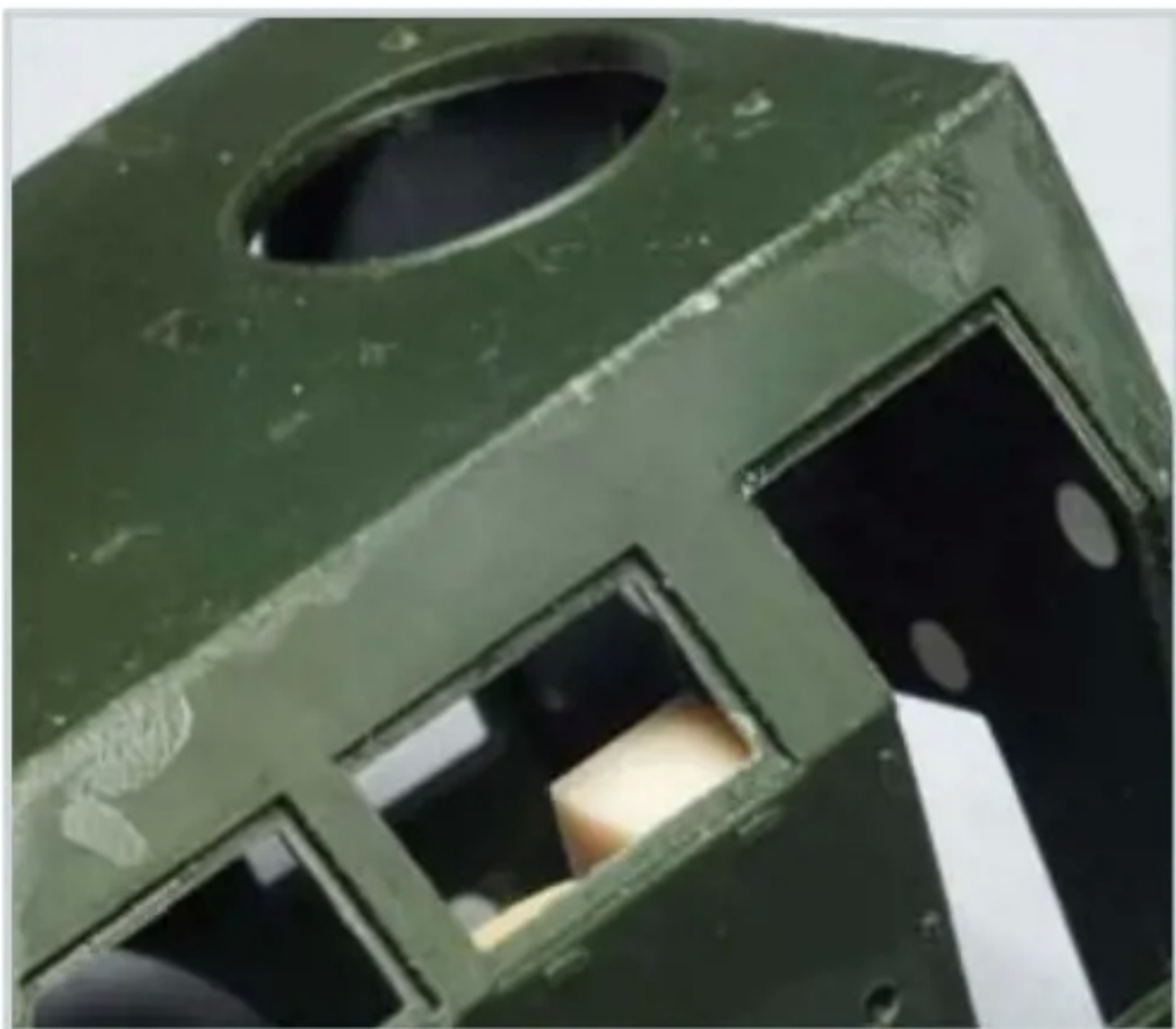
A lot of detail work needs to be done on the two large winches behind the cabin, which are very visible in the model.



Some parts of the resin kit are very well made, such as the resin seats, the large toolbox on the chassis and various photoetched parts. The cockpit is one of the areas most in need of super detail but with a little work the result is realistic.

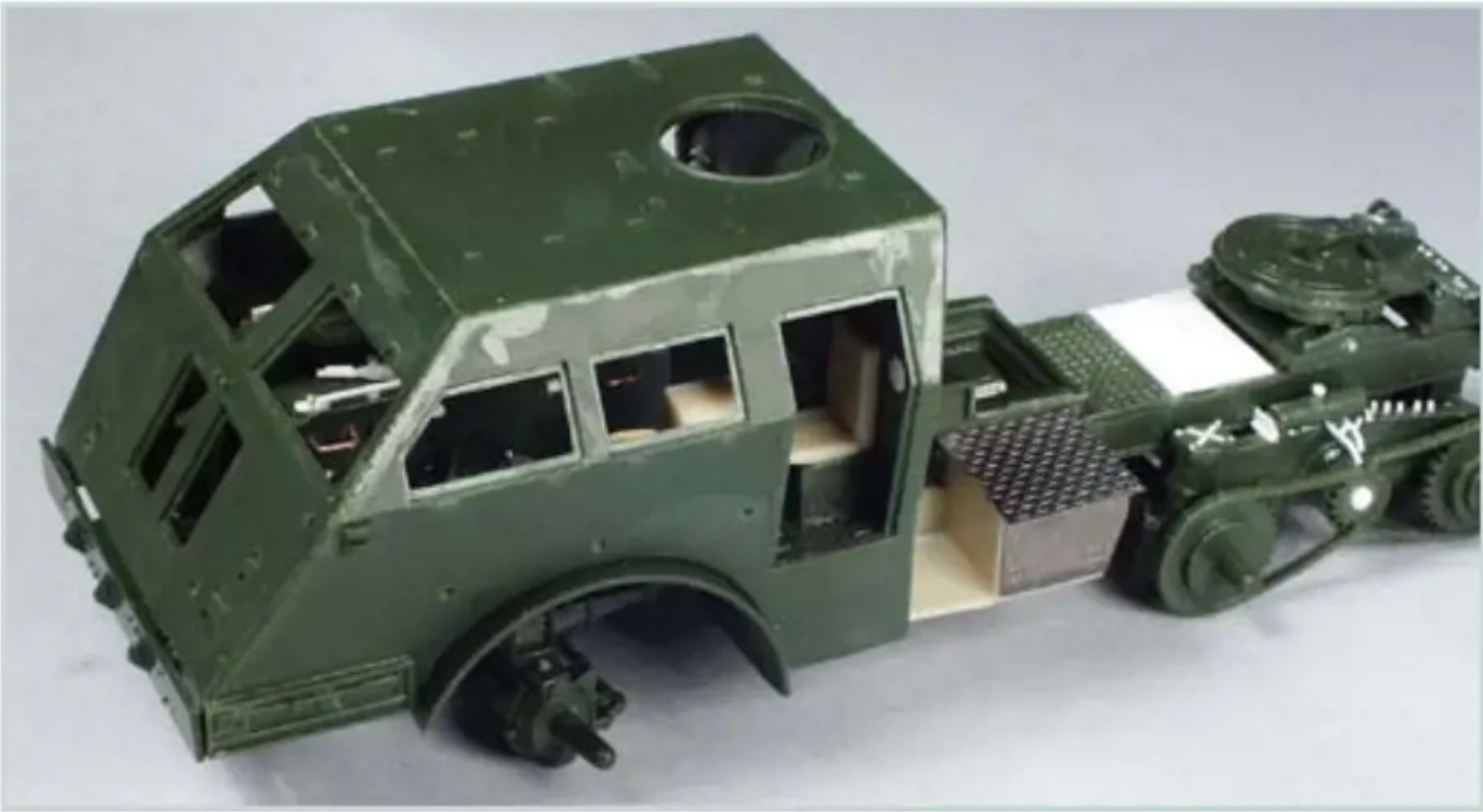


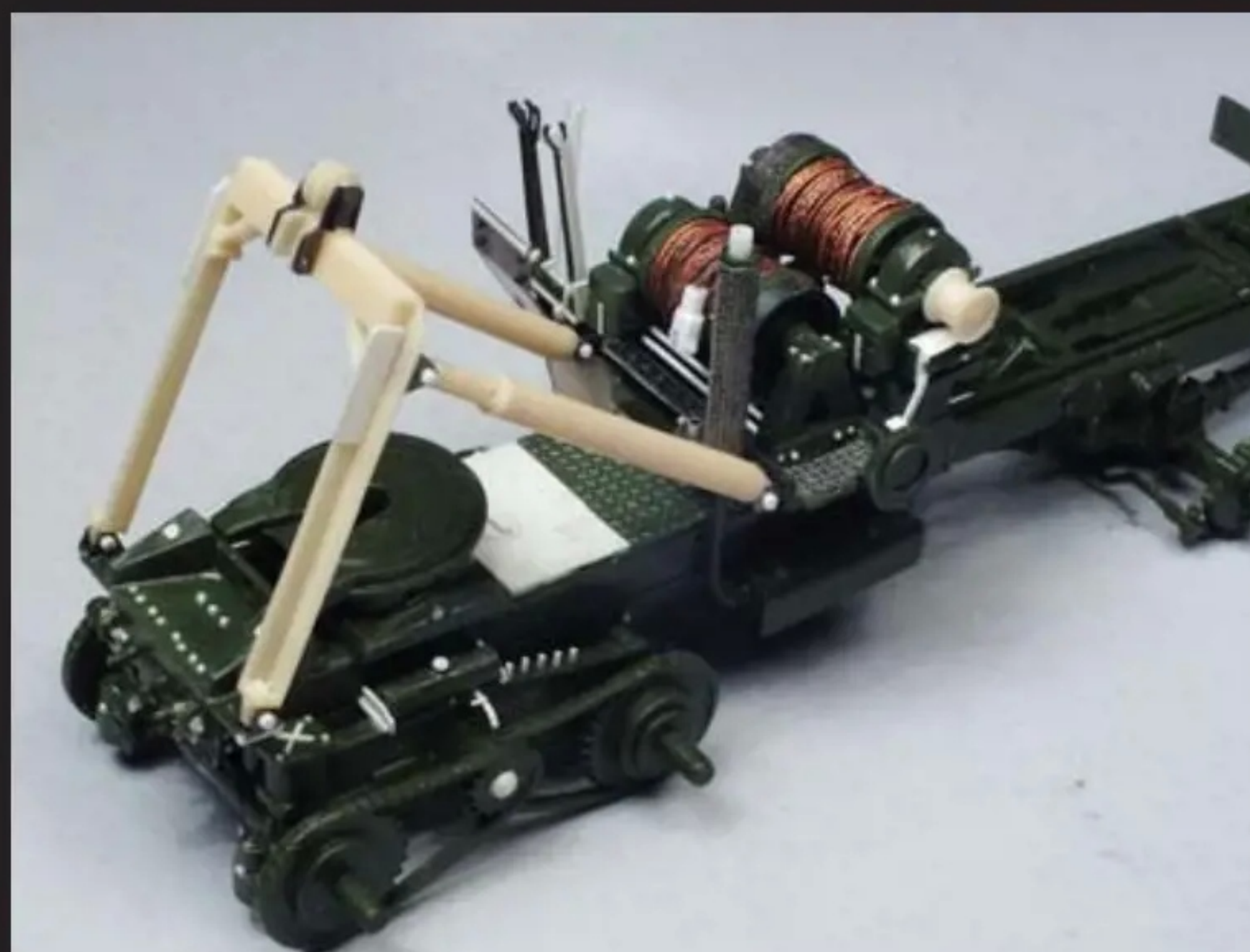
The armored cabin of the Dragon Wagon is particular: sharp and angled, it gives the vehicle an unmistakable look. I think that Academy has rendered this part at its best: even if a little thick, it has the stops of the various armored doors of the windows that are completely absent in the Planet Models kit, a rather serious error in my opinion.



After gluing the various parts, I simulated the welding by cutting the edges with a sharp cutter, then a coat of Tamiya glue made the welding uniform.

The cab fits perfectly on the chassis, making painting of the interior easier. Many details could be improved, such as the machine gun ring, numerous other small details and the clamp fixed to the back of the cab, which comes from an old resin tool set; it is a detail omitted from both kits, but is seen in almost every picture of these vehicles.

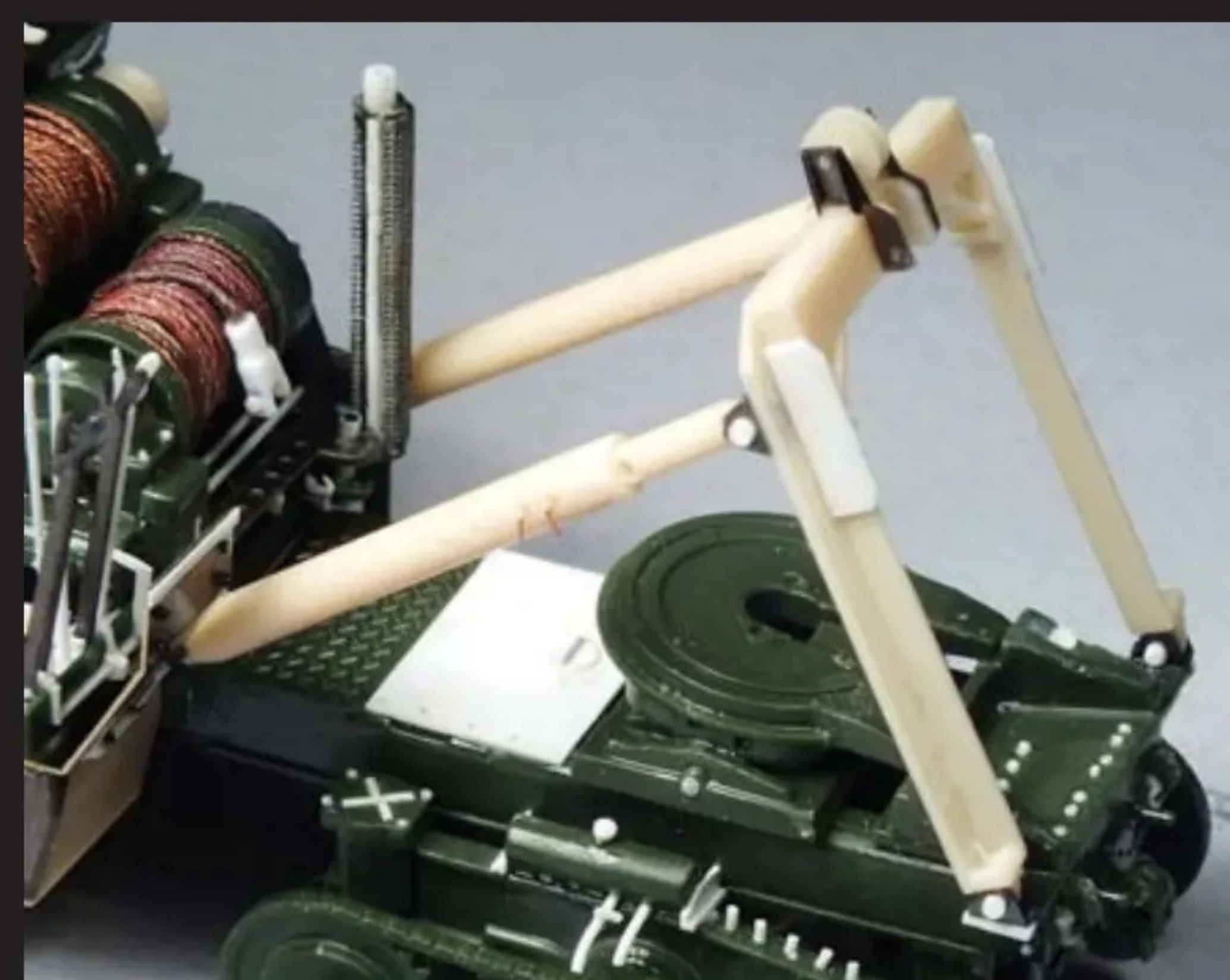
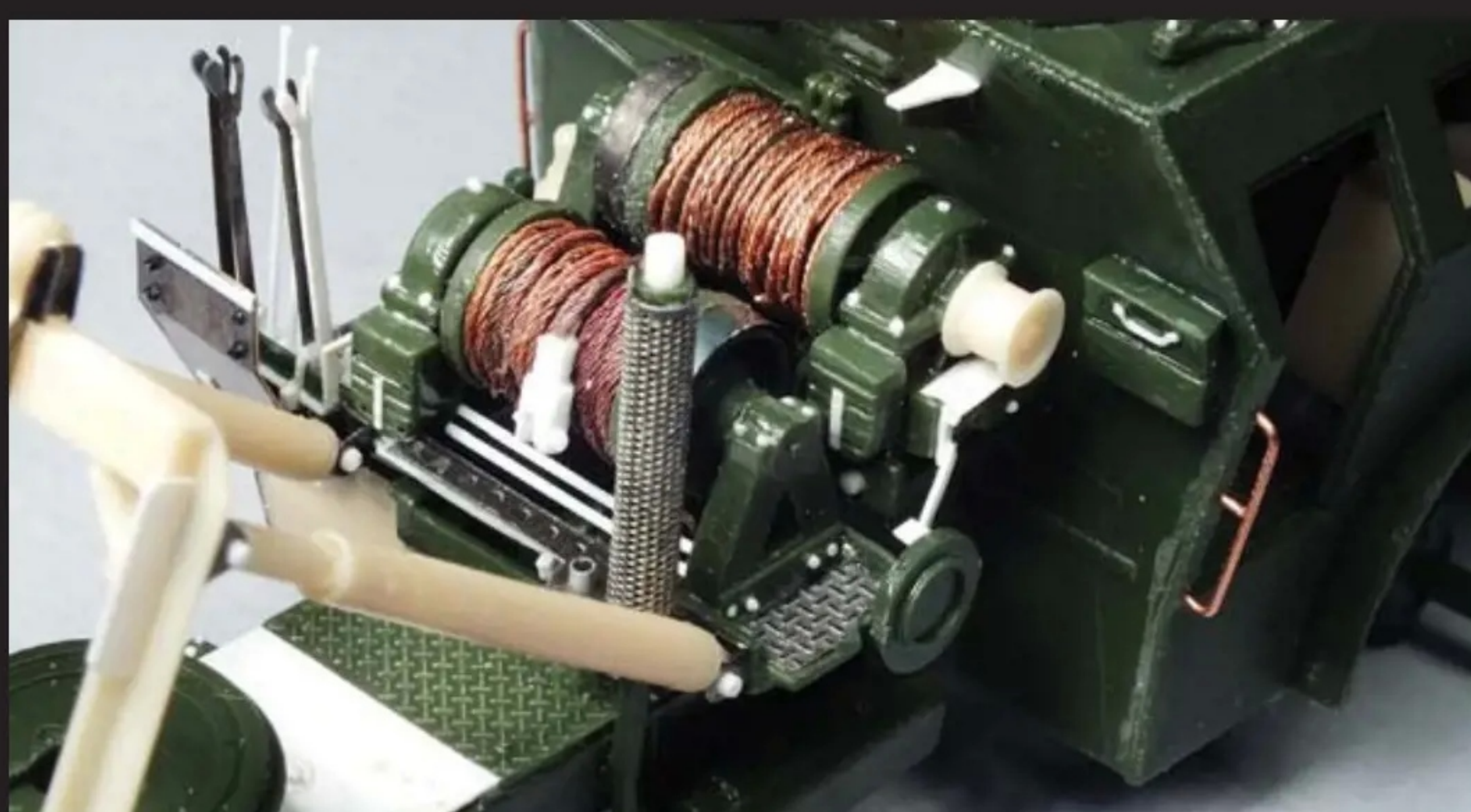




The resin tool boxes inside the cab were taken from the other kit. These vehicles were not usually overloaded with stuff, like other American tanks and vehicles, but a couple of folded tarpaulins on the roof will give a realistic look to the crane. The adjustable lifting truss comes also from the other kit; I decided not to use the trailer because I like the tractor alone.



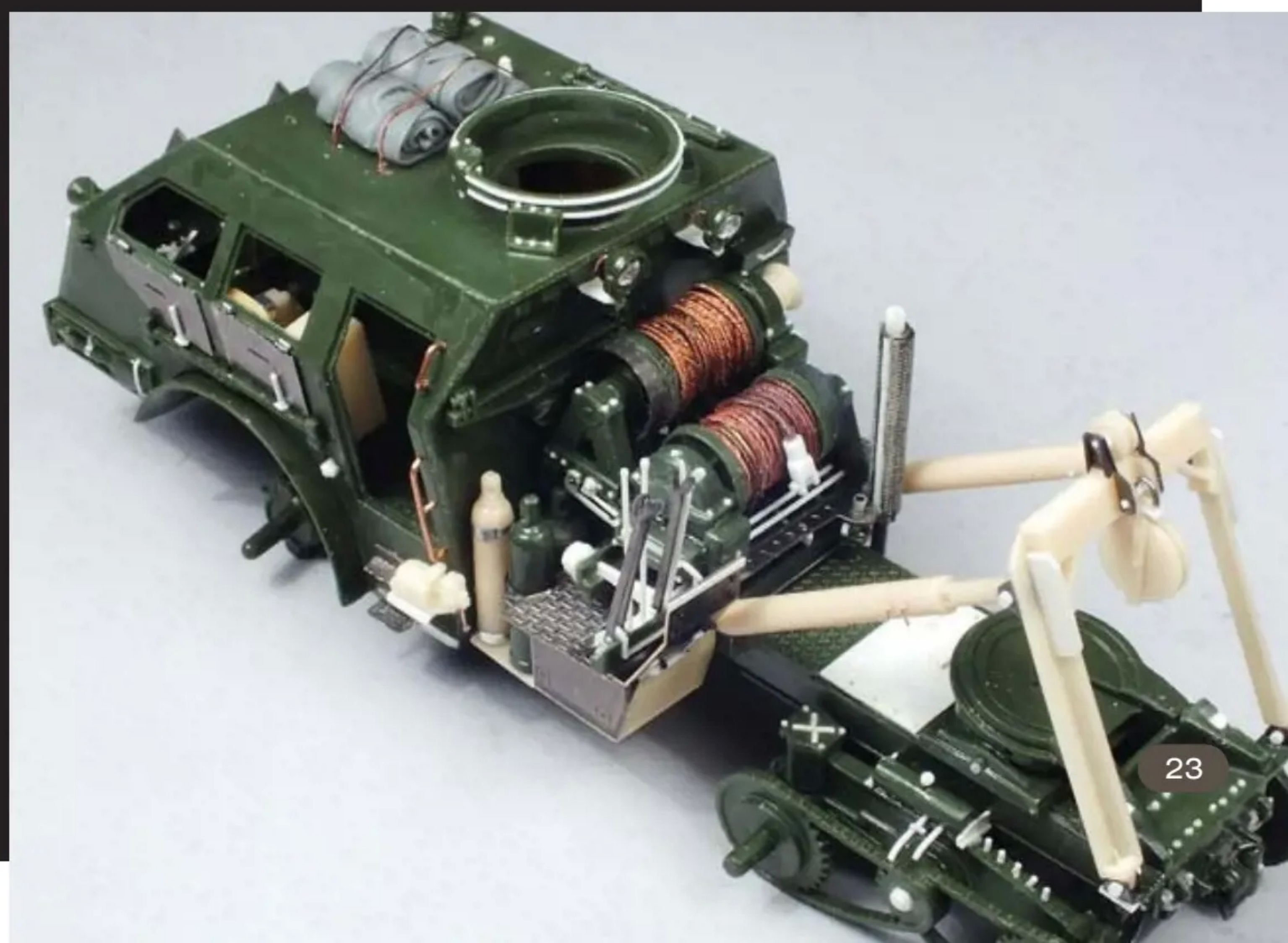
The cab-- is completed with the last details and some crew gear such as helmets, weapons, backpacks etc. The large fairing under the driver's seat, missing from the kit, is obtained from a block of shaped plasticard. Many dry tests are necessary: for example, the welding cylinders interfered with the upper part of the cabin, so I had to modify their position and thin the rear wall so that everything would fit perfectly.



The muffler guard comes from the other kit; you can see the large amount of bolts added, obtained from slices of 0.3mm plasti-rod. I used the white colour because it stands out better on the dark green of the kit plastic, making it easier to position.



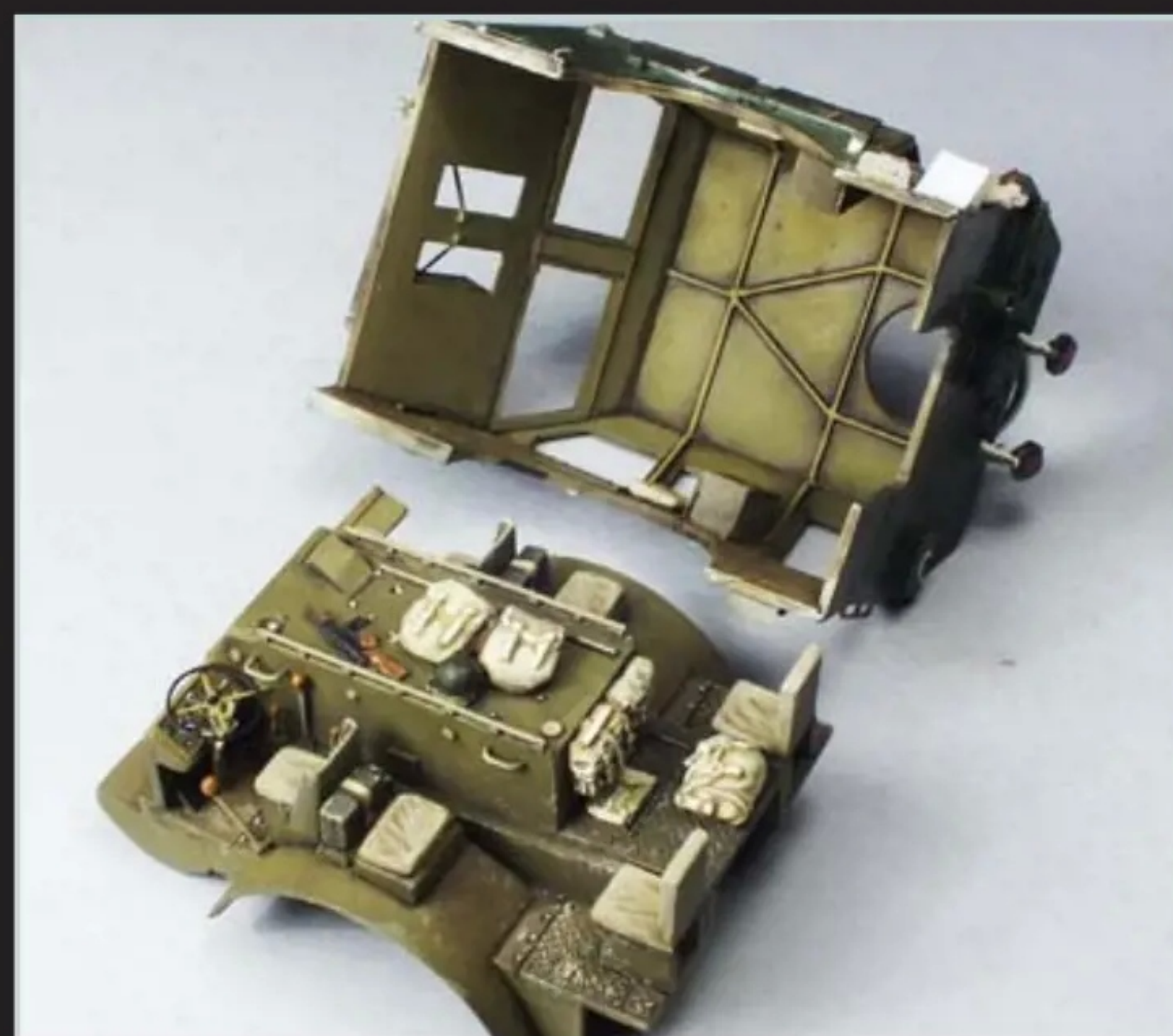
The detail work is finished; the armoured window guards are photoetched parts from the other kit, definitely very useful. Once again the idea of pairing two kits, even if expensive, has proven to be a winning one; after the last dry tests, I can move on to the painting phase.



GREEN GIANT



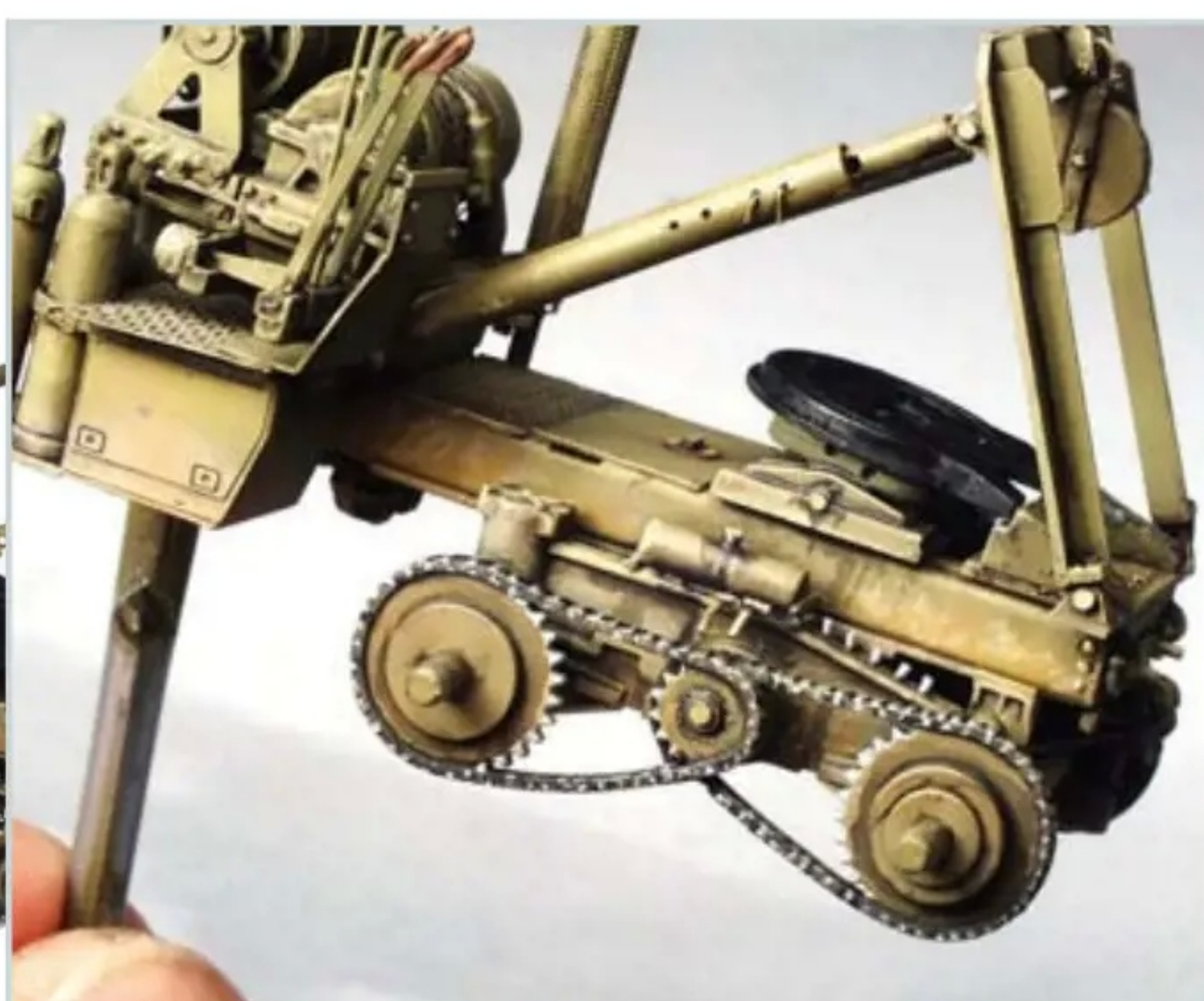
First I applied a coat of white as a base, then the Olive Drab. The details were brush painted with Vallejos, then the oil washes and the weathering brought the interiors to life.



The chassis is very complex, with all the differentials and drive shafts; I airbrushed a coat of Alclad black base to highlight the shadows; a light coat of Olive Drab lightened with Cream Yellow creates the first three-dimensional effect. The wheels of the Academy kit are beautiful and after careful painting they have nothing to envy to a resin set.



For a good result in the small scale a careful painting work is essential: I prefer to use very diluted acrylic colours because a simple oil wash does not allow the prominence and precision of the details obtainable with a figure painting technique.



The photoetched set dedicated to the Dragon Wagon provided the parts to improve the chain transmission of the rear wheels of the kit, but unfortunately it was unobtainable; so I created some engravings along the plastic strip to simulate the links of the chain, then a "trompe l'oeil" painting created the illusion of single links and I think the result is excellent.

A glossy black mixed with aluminium colour applied on the fifth wheel created the effect of the grease with which it is covered, then oil stains and dripping finished this part full of details.



The wheels are glued at this point, then a delicate sanding on a board will give the right weight effect to this beast.



Once the frame is finished it is time to take care of the cabin: after installing the front glass, the upper part is glued, then the openings of the side windows are masked. On the first coat of Olive Green I did a light pre-shading, followed by glazes of the lightened base tint, until obtaining a good colour depth.

After a transparent gloss coat, I applied the decals.





A glaze of acrylic colour toned down the excessive shine of the insignia; insisting on the lower part of the cabin, I created the first dirty effect. A sepia-coloured oil wash, immediately removed from the light areas, gives depth.

Even on the cabin the fundamental steps were made with acrylic colours: all the raised details were highlighted with Middlestone, then drips, chippings and various halos were made with very diluted colours and applied in overlapping coats, giving life to the piece.



After gluing the cabin and spare wheel, the Dragon Wagon begins to take shape.

The strange solution of the chain transmission on the rear wheels was due to the fact that, carrying such massive weights, the differentials could not handle the effort and furthermore this solution allowed great off-road mobility; the 4 wheels were independent on each side and could adapt to the roughness of the terrain.

Another particular aspect was the lubricant tank that, through two pipes equipped with a tap, lubricated drop by drop the enormous chains during the movement. The winch group is another of the distinctive details of the model: the time spent on detailing and painting was very useful.



Other pieces supplied by the Planet Models kit were the small chain winch that was used to lift the huge spare wheel and some rear wheel guards used on the semi-trailer when loading tanks; the chain is photoetched, as is the lifting clamp.



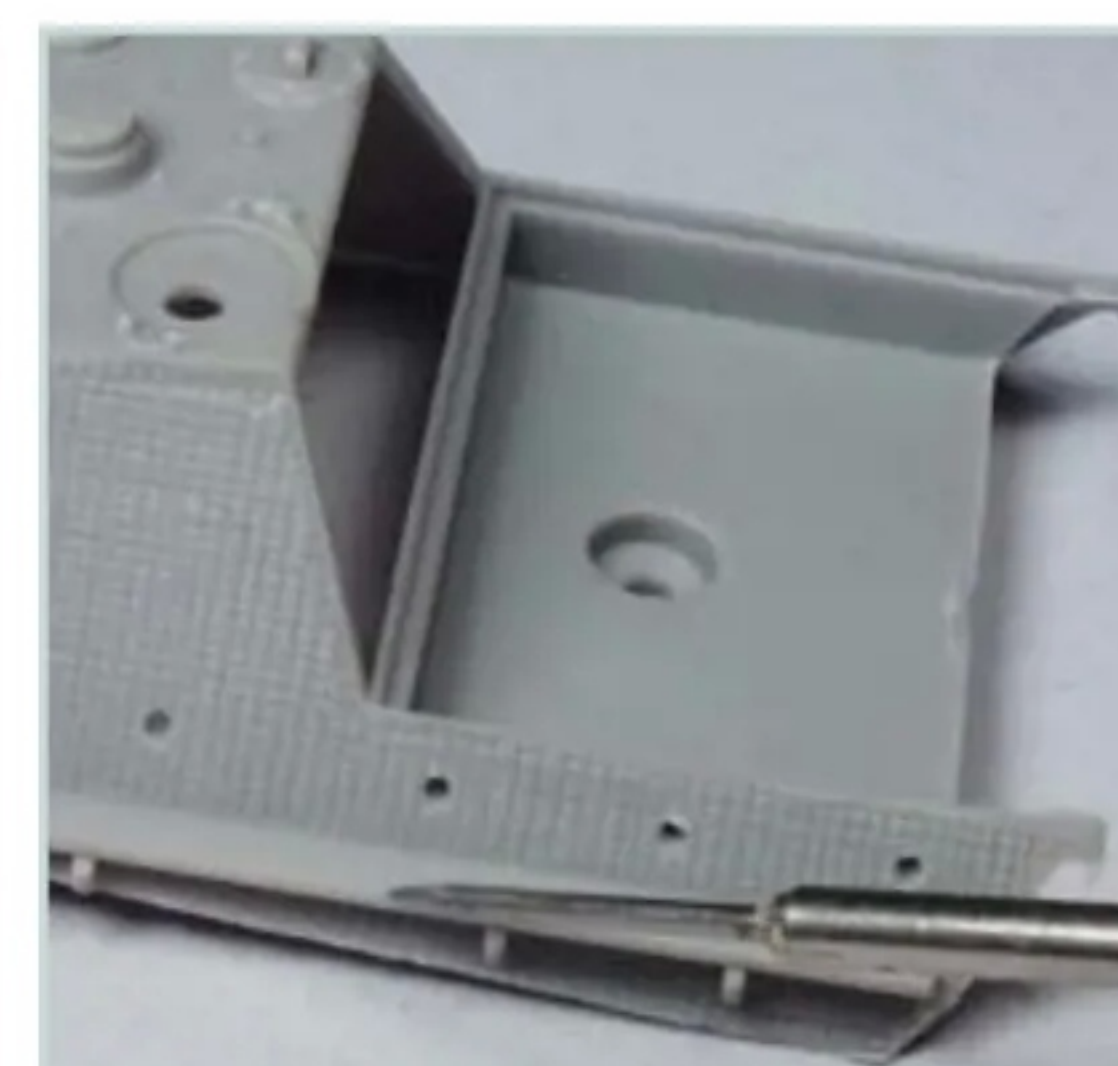
I then installed the 12.7 Browning heavy machine gun and the cable that will be unrolled by the figures at the end of the diorama and the vehicle is finished. The Dragon Wagon is beautiful, without a doubt one of the best vehicles I have ever built.



UP TO SCRATCH

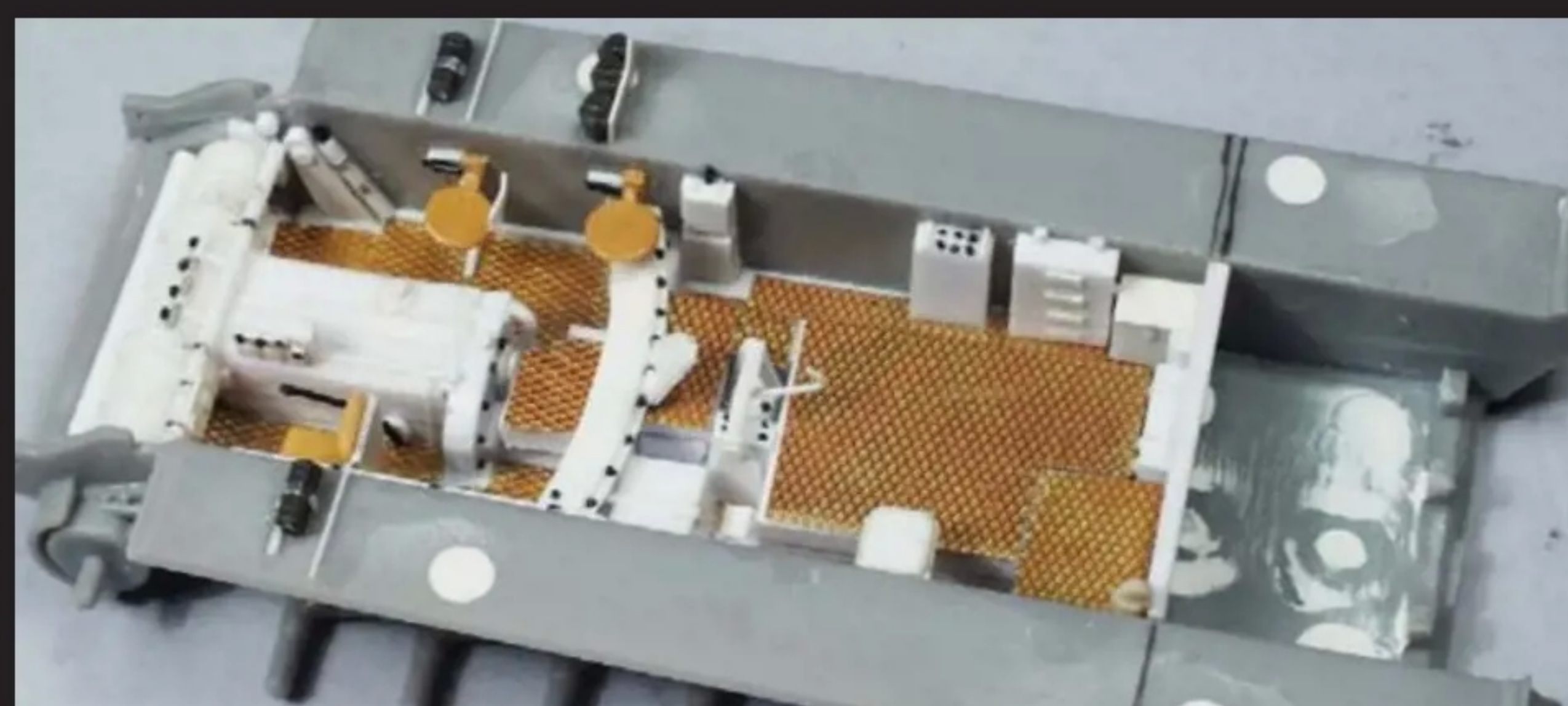


I think the Jagdpanther is the most beautiful AFV of the Second World War. The starting kit is the Dragon, which was disappointing at first glance: a lot of approximate solutions and details not up to par, but it also has a beautiful reproduction of the Zimmerit, the running gear and the details on the combat room's roof, in short lights and shadows...



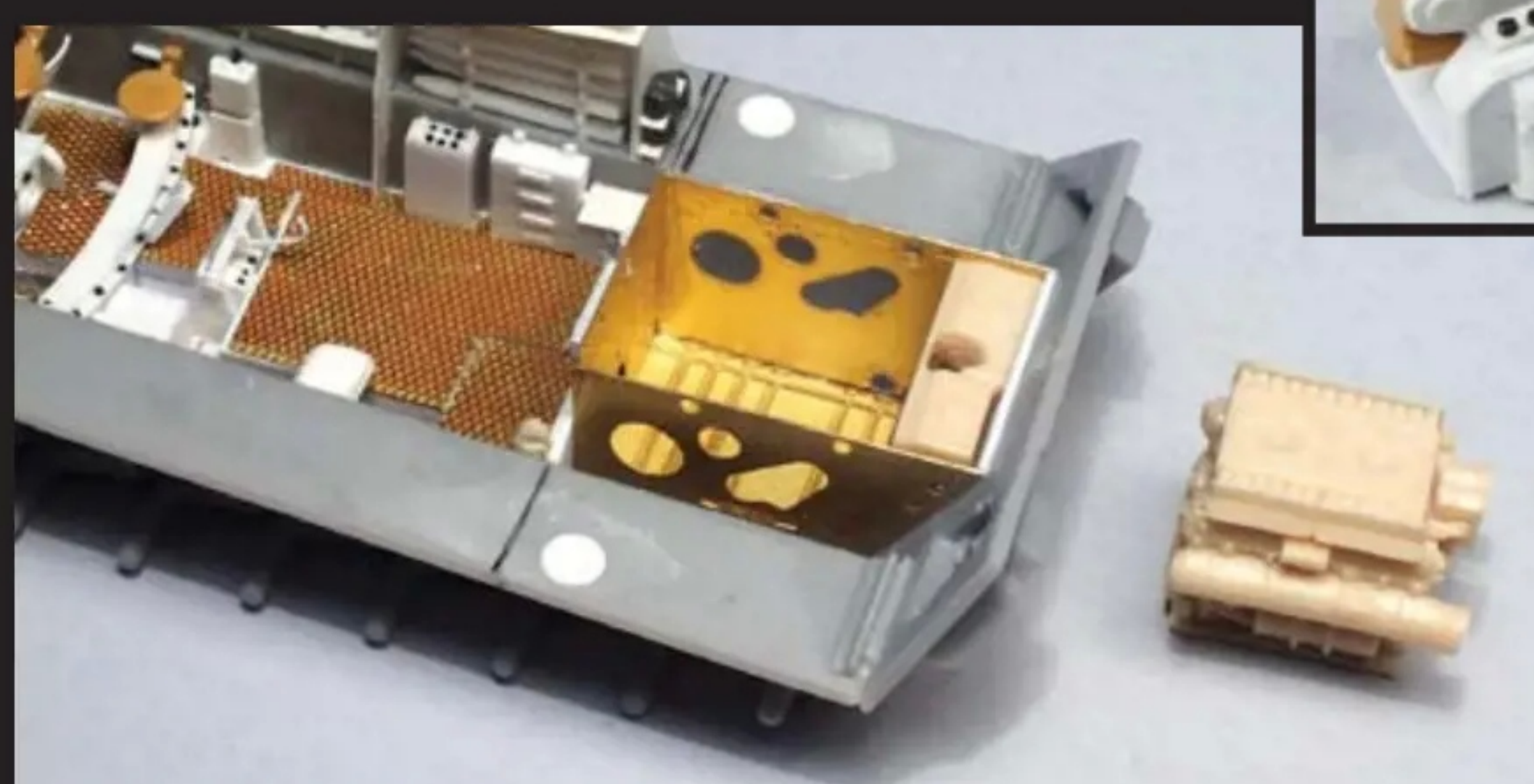
One step I would have gladly skipped is removing the hideous supports for the Schurzen plates, which are completely out of scale; I started by removing the lower parts with a pair of wire cutters, then I cut the plastic strip from underneath and, with a razor saw, I detached the strip. I tried to ruin the Zimmerit texture as little as possible, even though it had to be engraved anyway where I removed the plastic; a chore that could have been avoided if Dragon had designed the plate fixing system differently.

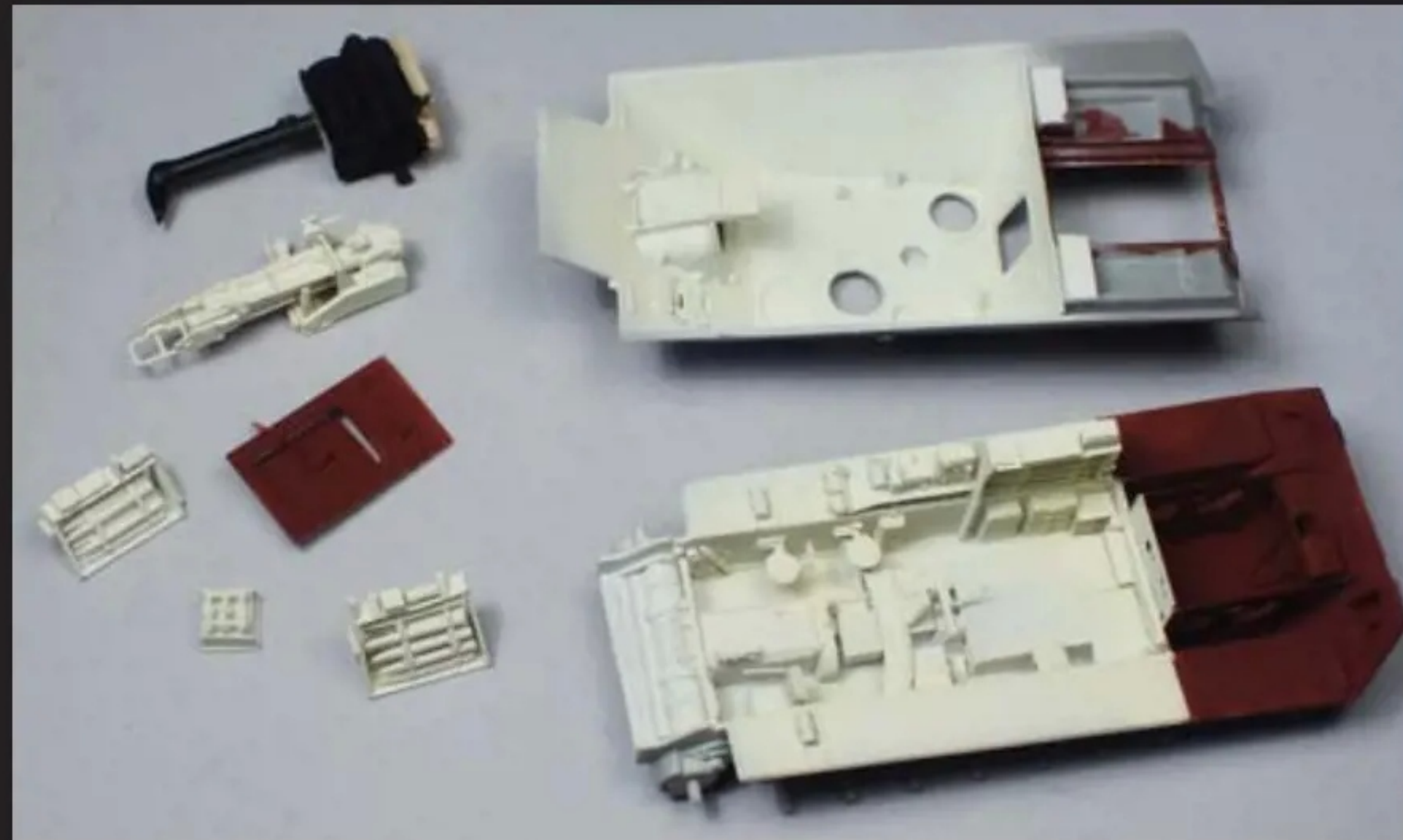
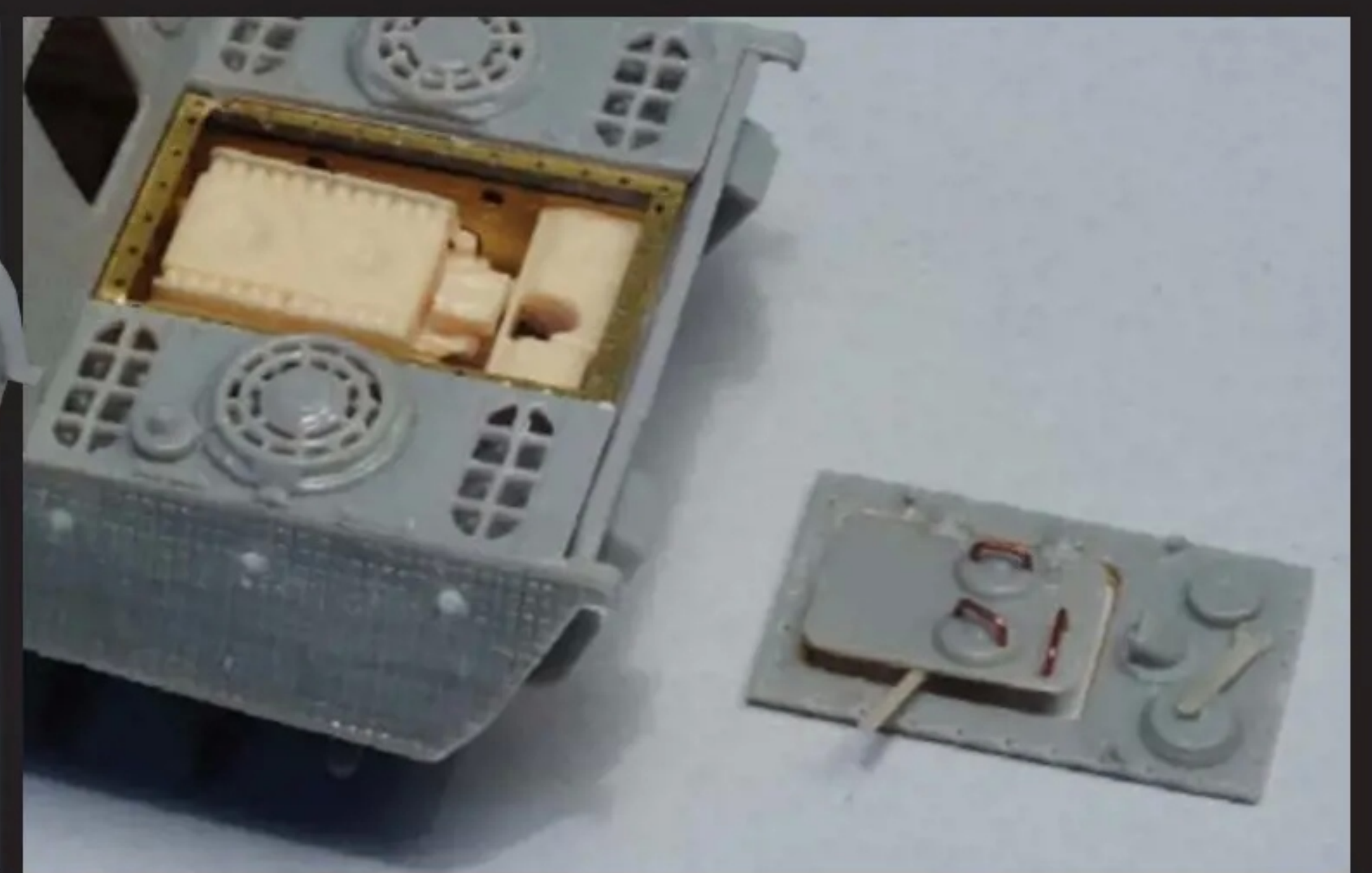
The scene I imagined sees the Jagdpanther abandoned after an engine failure, so all the doors would have been open and the interior visible. I had not found anything on the market apart from the Extratech engine, so I resorted to scratch building:



I started from the driver's seat with the large transmission between the two seats and, step by step, I redid everything, taking inspiration from pictures of the real vehicle and the 1:35 scale kits. The anti-slip floor is cut from an Extratech photoetched sheet, while the rest is scratch built in plasticard; the shells were obtained by turning a 0.75 mm rod.

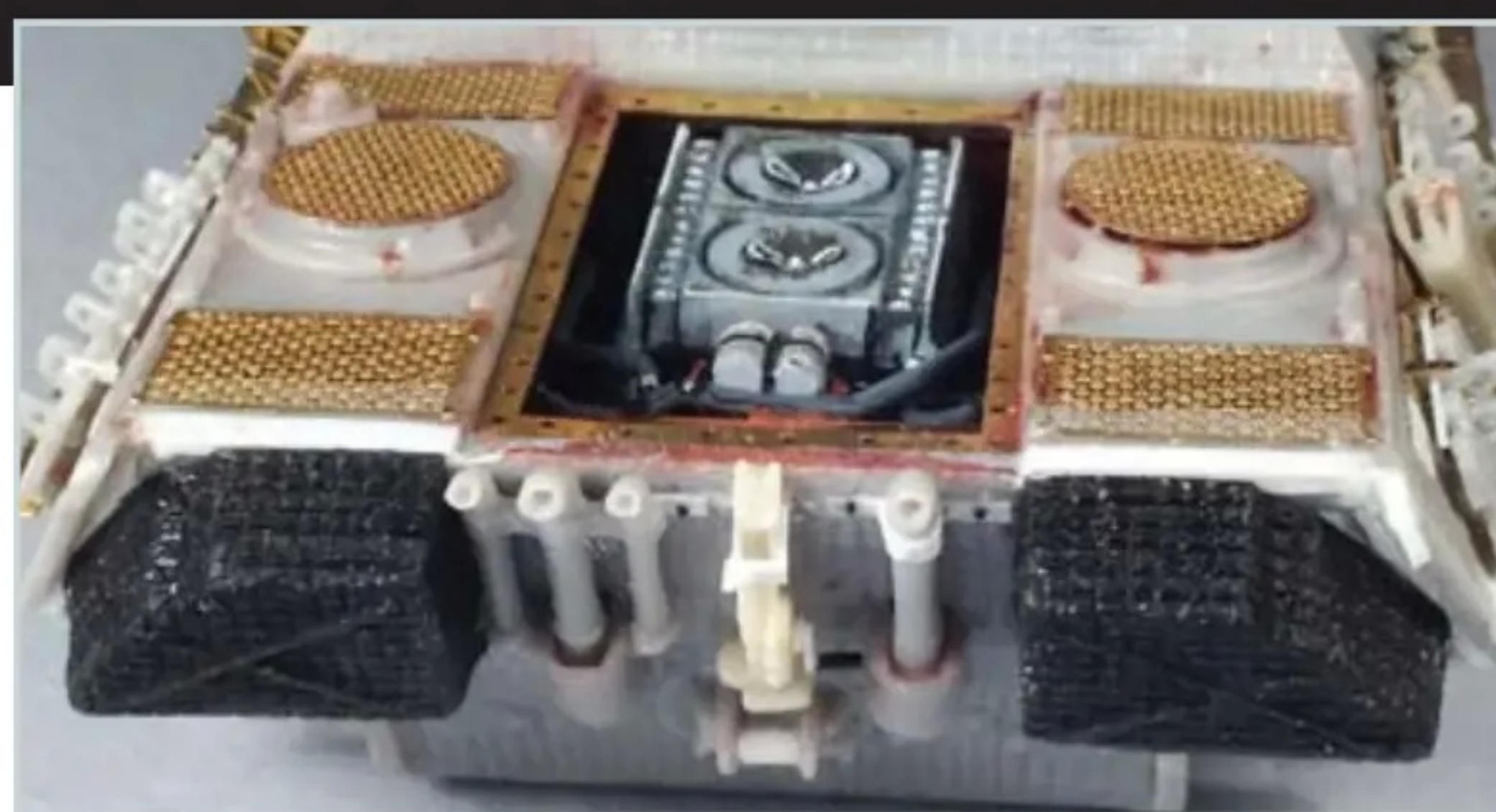
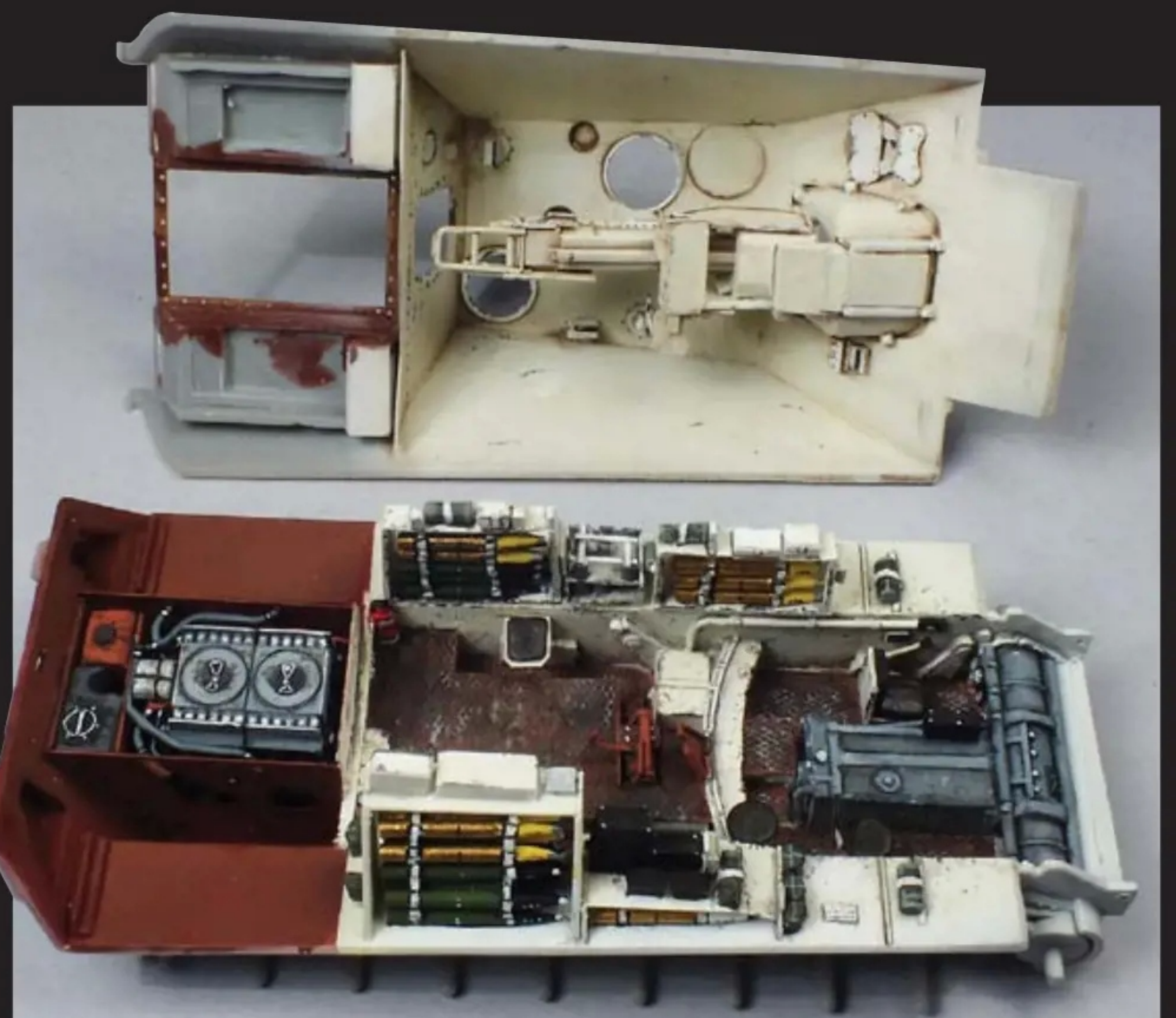
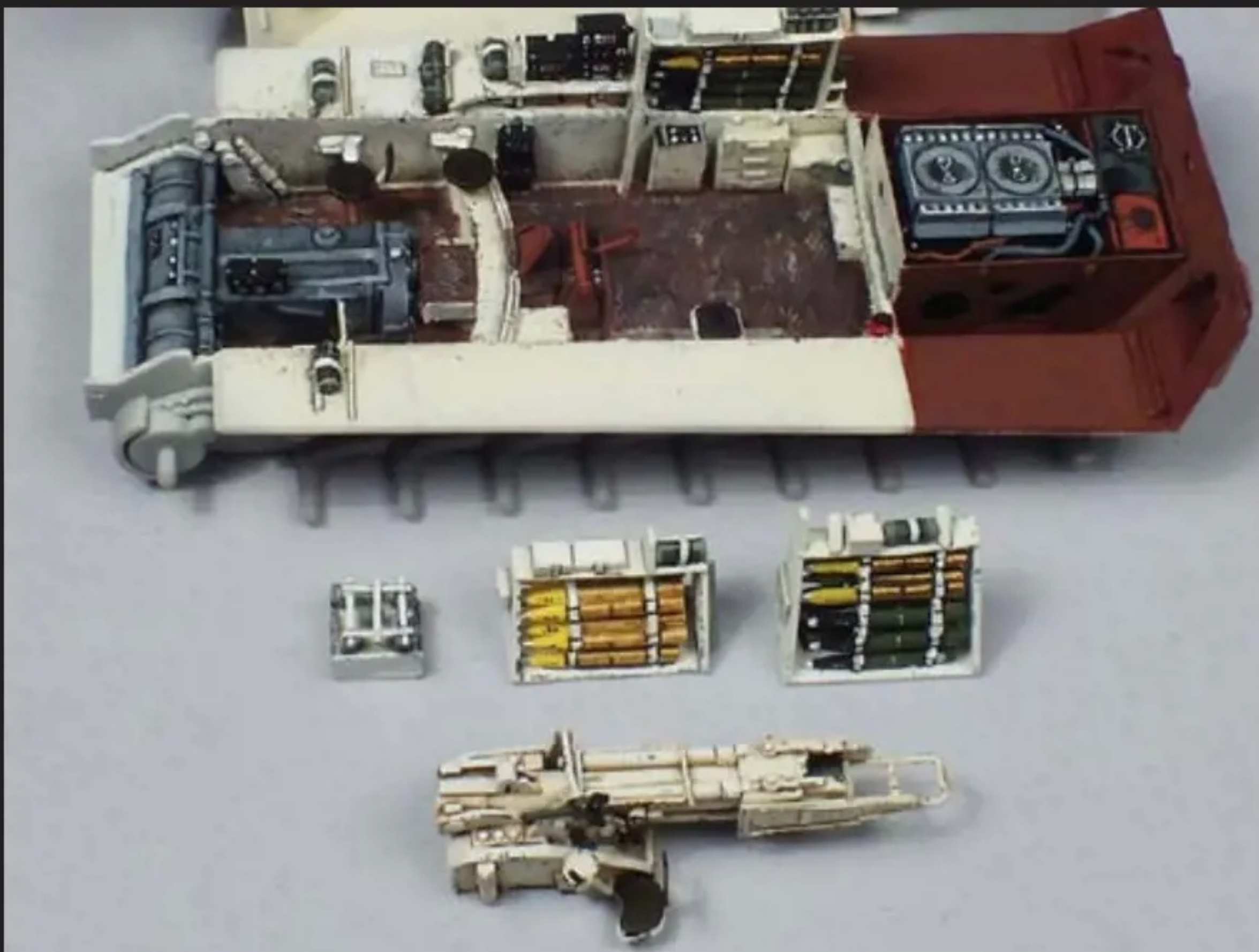
I naively hoped that the 88 mm gun mount would be identical to the field artillery piece, but in the tank it is totally different, so I had to scratch build most of the gun. It is easier to work on the engine, where Extratech supplies the walls of the compartment and everything else; the set was supposed to be for the Panther, but since the lower hull, running gear and engine are the same, there is no problem.





The interior painting begins with a coat of Alclad white primer that will allow better adhesion of the colours. In order to show the engine, I decided to leave the central part of the engine hood on the ground to give the idea of a field repair attempt, interrupted by the arrival of the enemy.

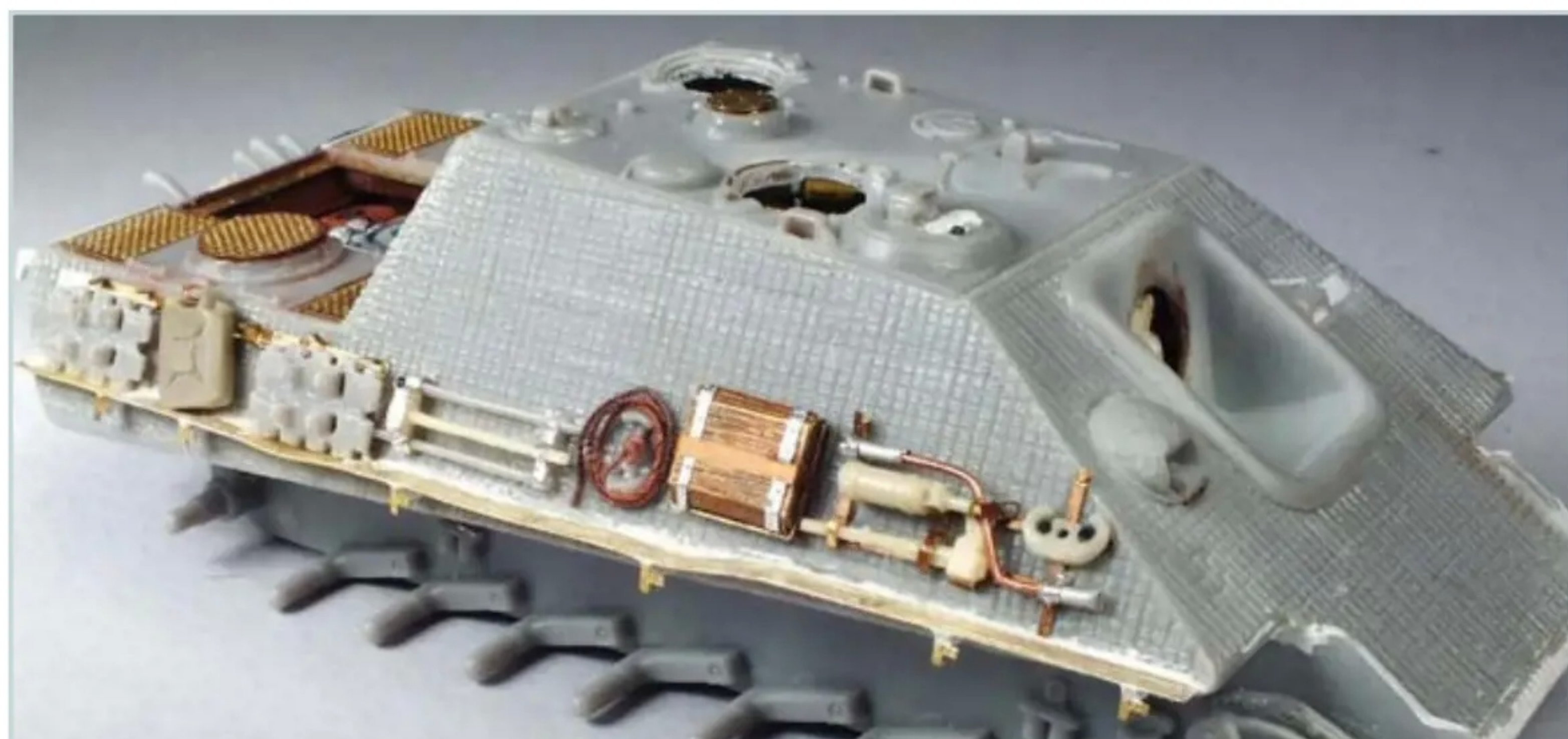
The German interior colour is Elfenbein, with the engine compartment interior in red oxide. The front transmission was painted in medium grey, then the usual series of oil washes and acrylic painting completed this very busy interior.



After closing the hull, I needed to fill the many cracks that have formed. After sanding to perfection, I took care of the rear part of the tank: I glued the two large boxes with Zimmerit, detailed the exhaust pipes and replaced the jack with a more detailed resin one.

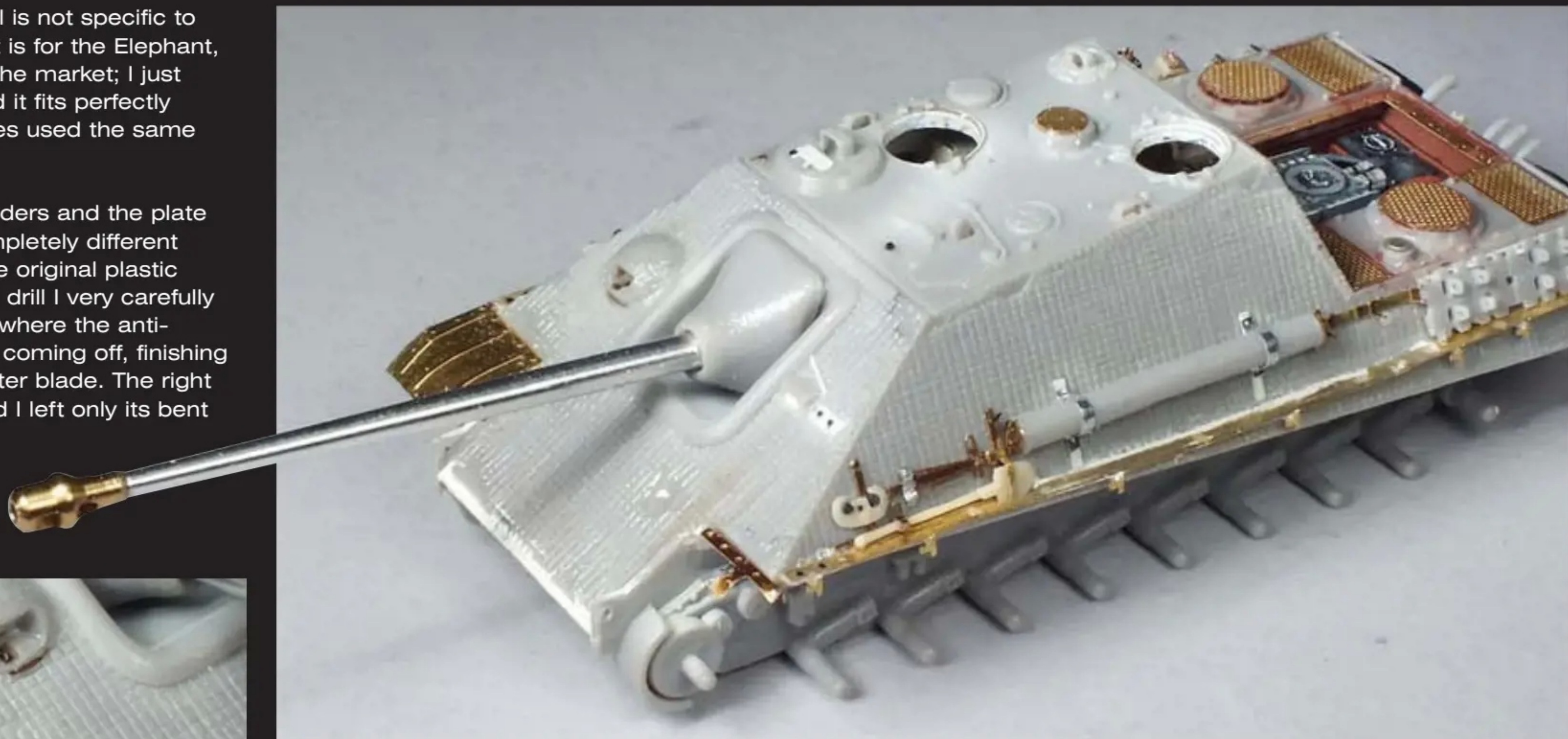
A peculiarity of the Panther family are the tools fixed on the sides, a detail that must be taken care of as it is very visible.

Thinking with hindsight, it is unlikely for a tank in the last months of the war to have all the complete equipment on the sides; usually only the attachments and a few other things remain, so, attaching all the tools is not a real mistake, but an unlikely situation, not impossible but certainly not common.

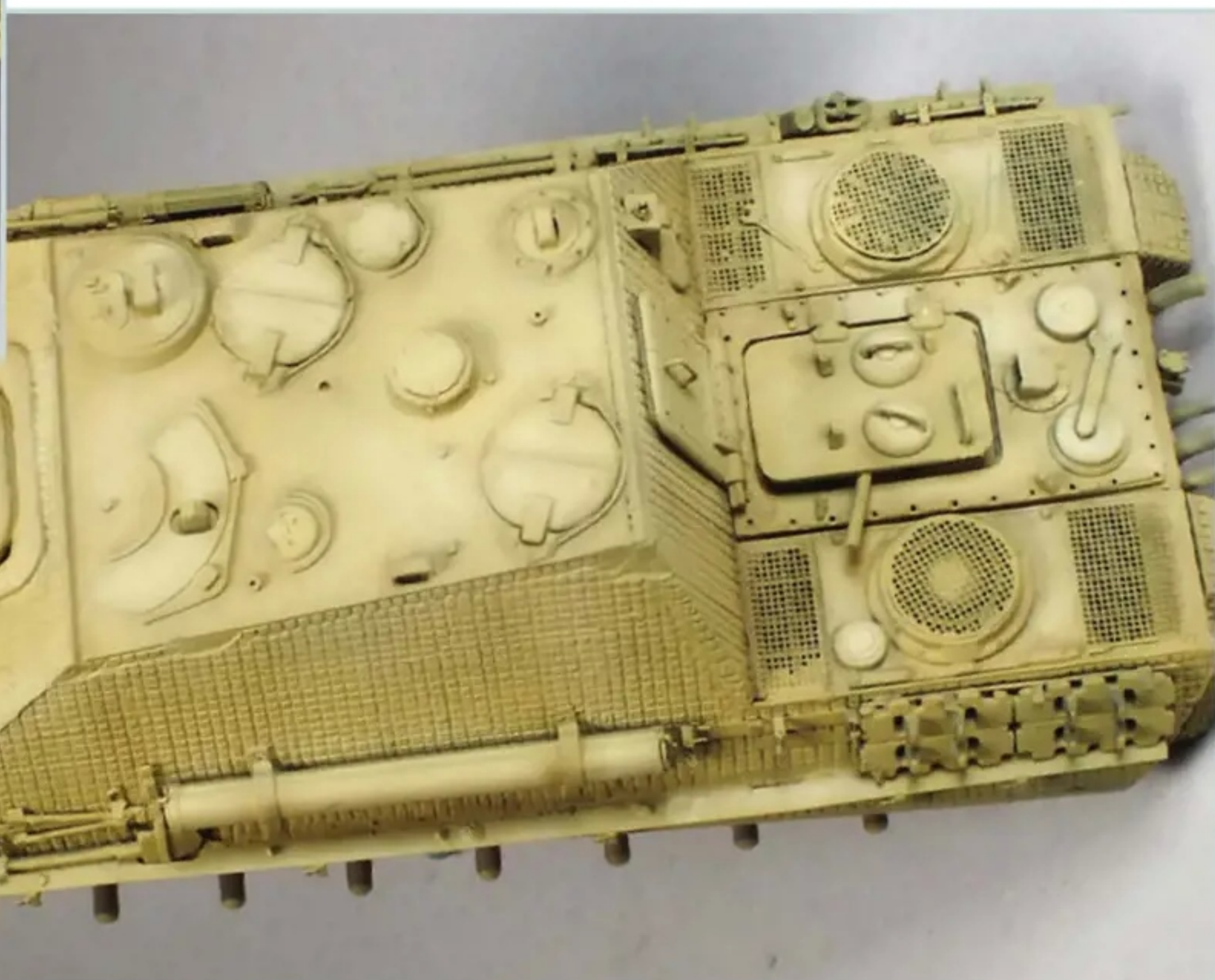
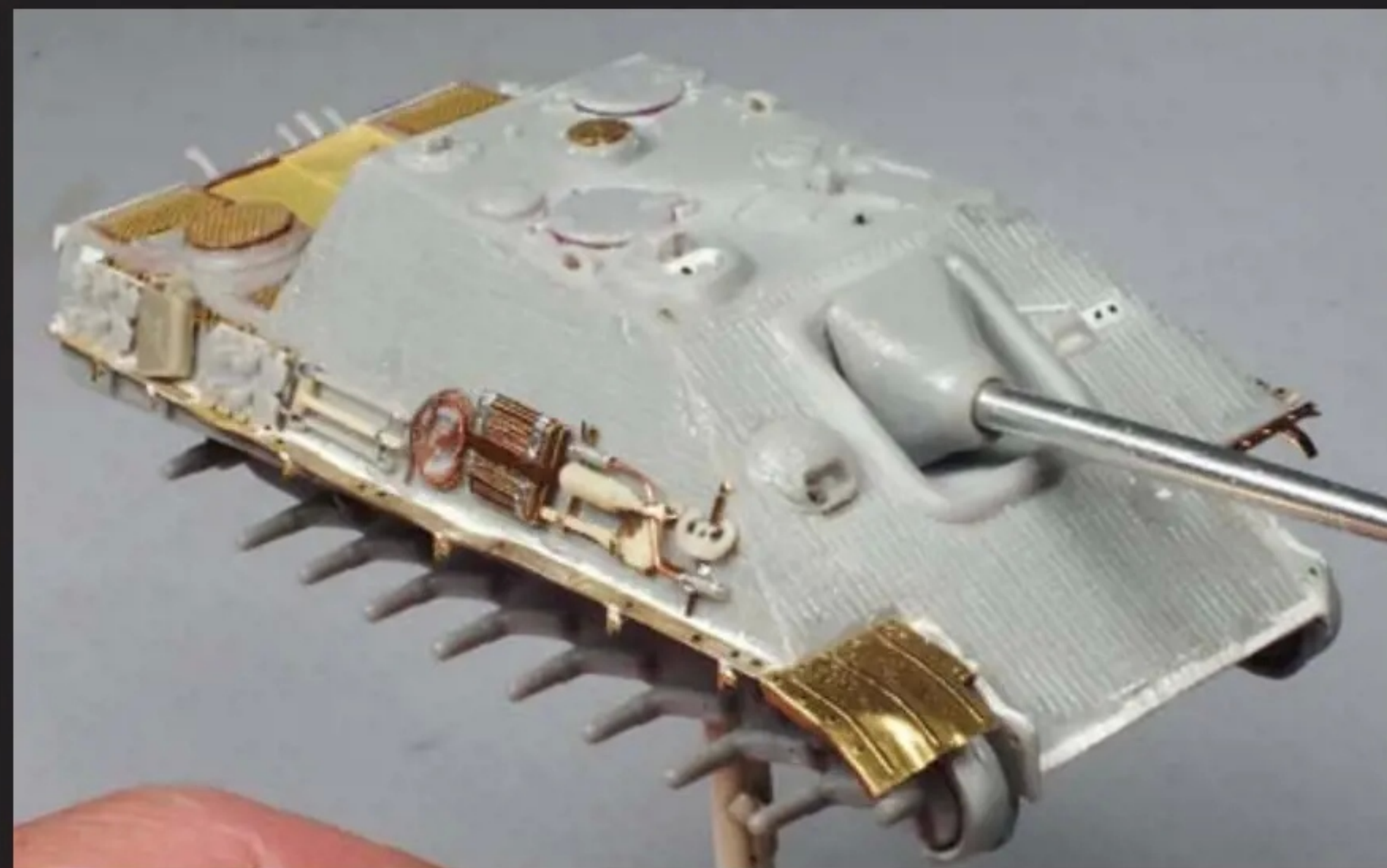


The aluminium barrel is not specific to the Jagdpanther, but is for the Elephant, the only one still on the market; I just shorten it slightly and it fits perfectly because both vehicles used the same gun.

The photoetched fenders and the plate supports have a completely different look compared to the original plastic parts. Using the mini drill I very carefully simulated the areas where the anti-magnetic paste was coming off, finishing the edges with a cutter blade. The right fender is missing and I left only its bent support.



I prepared the running gear for painting, damaging some wheels with the cutter to simulate the wear of the rubber part. The tank is fixed on a piece of sprue to handle it more comfortably during painting. The rear photoetched grilles give another touch of realism, but you have to pay attention to their shape because in the initial series of this vehicle they were different; you need to get good information, but fortunately these are very famous tanks and the documentation is certainly not lacking. All the doors are temporarily fixed in their place with Maskol, while the engine compartment is masked with the usual Tamiya tape.



The tank is covered with Zimmerit and the base colour is German yellow; on this colour you can't do the usual oil wash, because otherwise the vehicle becomes chequered, so how can I highlight the texture of the anti-magnetic paste without exaggerating?

I changed my usual way of painting, first airbrushing a layer of dark brown, then making progressive glazes of yellow; in this way the texture of the Zimmerit remains slightly visible, but avoiding the chequered effect, really hateful in 1:72. Some glazes of light yellow highlight the upper part of the tank.



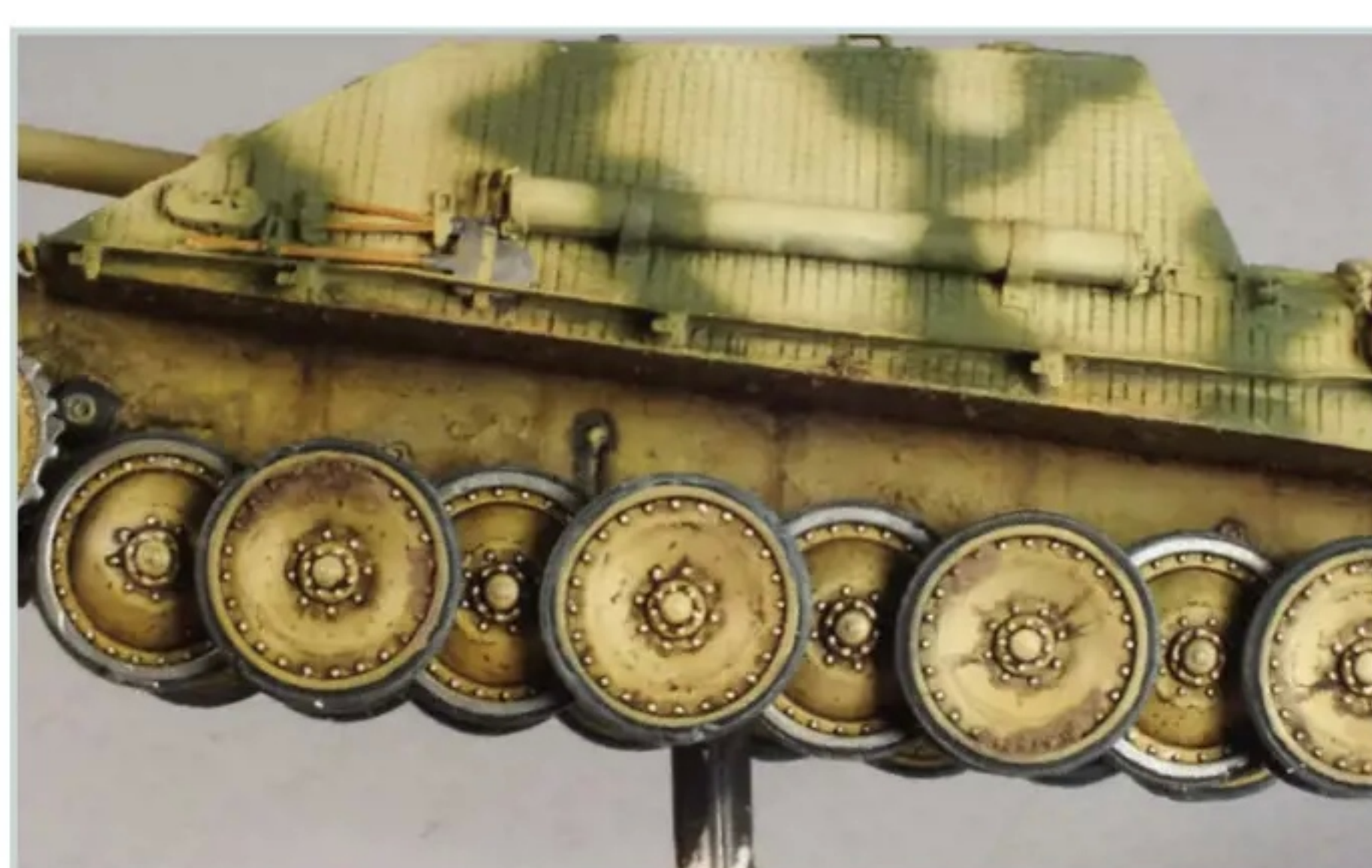
The green grid is made using an Iwata CM-B airbrush, very precise and suitable for these precision jobs. The mud on the sides is made with an AK product; I was not enthusiastic about it, but in the end, after a good painting, it looks good enough.



Now I can glue the running gear and start preparing the tracks; once again I used the OKB resin ones, complex to install but unsurpassed as a detail. They are designed for the Panther, but, as mentioned before, the lower part of the tank is the same.

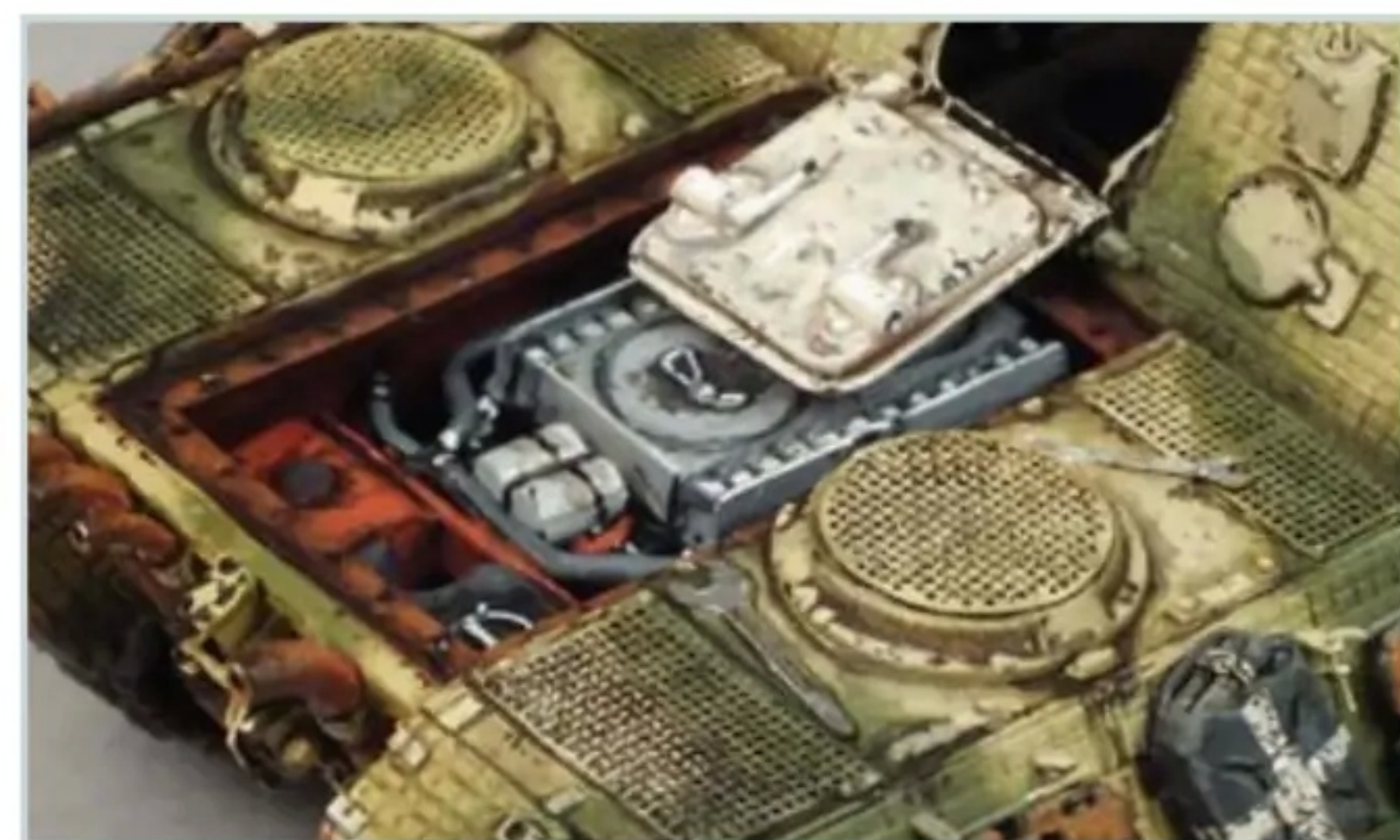
To create this tank I was inspired by the beautiful 1:35 Jagdpanther built by Martin Kovac, a real source of ideas for me who I am not an expert on German tanks.

The resin tracks are divided into four pieces; I first painted them to perfection, then I glued a part and with the heat of a hairdryer I delicately modelled the track on the drive wheel, heating it and curving it little by little. It is a delicate job but the result is spectacular. The final phase is probably the most important: it is done with acrylic colours, adding drips, chippings, dirt and highlighting lights and shadows where necessary. It is a delicate and fundamental step for the success of the model.



The assembly of the antenna made of guitar string, the tow cable placed on the ground and the camouflage branches complete the model. Talking about the insignia, I only put the crosses in the three standard positions, not wanting to create one of the most famous and photographed tanks, almost all destroyed and not suitable for the scene I wanted to create.





PICTURE THE SCENE...

The idea of building a typical German house came to me last year at Moson Model Show, where I had seen a beautiful winter diorama; even if I had to adapt the house a lot for my scene and the 1:72 scale, I got a lot of ideas from that work, such as the windows arrangement, the main door, the passage under the vault and many other details. I think that taking inspiration from those who have done beautiful works is a great thing because it allows you to find new ideas and improve your technique. Building a house like that entirely was a challenge because I had never tried to do something like that; the material used was high-density styrofoam.

Having a basic idea was essential; certainly I would not have had the ability to make a complex construction like the original, but by simplifying the building a lot it became relatively simple to put the walls together. For the roof tiles I used a Miniart kit of an industrial shed; to glue the walls I used thick Glue 21. To make the gratings and the covering of the dormers and the protruding room (usually they were drop-down bathrooms) I used wooden strips for ship modelling of various sizes and thicknesses.



Once the various walls have been assembled, making sure everything is as perpendicular as possible, all that remains is to fix the roof, cut to size following the inclination of the house in the diorama. In the picture you can see the first attempt to make the dormers, then I was advised to redo everything because they were unrealistic... The orange plastic of the roof is terrible, but fortunately it will be painted!



The biggest advantage of using styrofoam is the possibility of engraving it with the texture of bricks, stones or whatever you want: I used a metal tip, which, to tell the truth, tore the styrofoam a little and required a lot of delicacy, but the result was realistic. After engraving, the material remains quite porous and it is advisable to make a few applications of vinyl glue diluted with water to make it uniform.





Behind each window I glued transparent plasticard, painted black on the inside, in order to eliminate any possible transparency; I certainly didn't want to build all the interior furnishings of the house too... In the picture you can also see the new dormers, which are definitely more realistic.



The walls were painted in an off-white, which is great for giving the impression of weathering; the various stones were painted in greyish tones, but the joints between the stones appeared too dark, so I had to paint everything over again. All the wooden parts were weathered with diluted acrylic colours to give the idea of old wood exposed to the elements. I started to paint the roof in cold tones, but an examination of some pictures of typical German villages made me change my mind and I used reddish tones, much more in harmony with the scene.

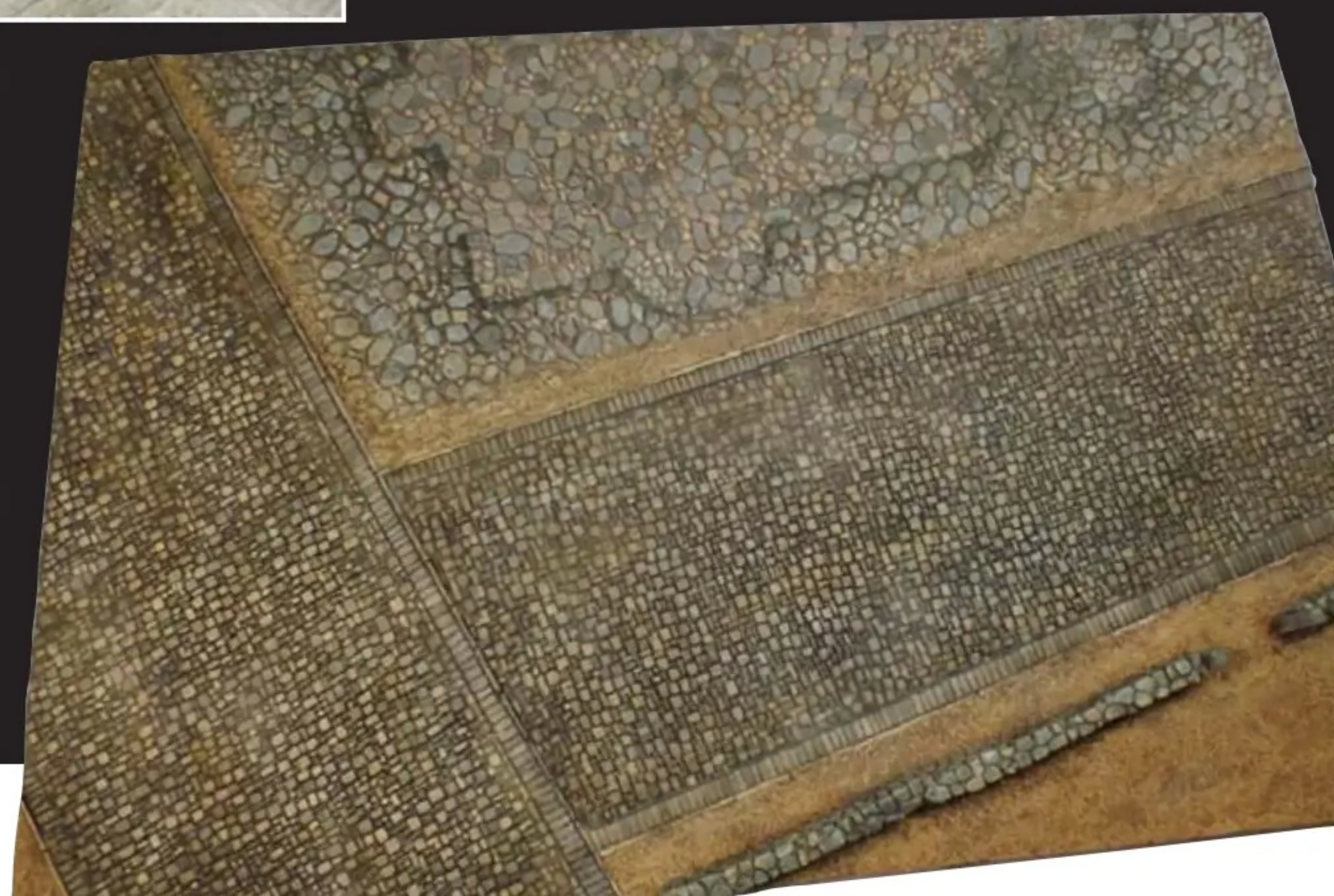


The area around the house was meant to look like a sort of paved area made of stones: I used one of the Green Stuff rolling pins to impress the pattern on a thin section of styrofoam. I wasn't very happy with the result because it looked too flat and regular, so I went over the spaces between the stones with a rounded toothpick to create more three-dimensionality.

Given the partially satisfactory previous results, to make the road pavement I initially laid out a layer of Magic Sculpt, then I engraved the pattern of the cobblestones with another type of rolling pin; this time the result was excellent, with the irregularities that a country road of that period must have had. However, it was necessary to engrave the bricks at the edges of the road and some recessed areas, where the rolling pin had not impressed the pattern well enough. The soil areas and the edges between the road and the house receive a light layer of dust.



The difficulty of this work was not the construction of the vehicles, the house or the painting of the figures, but the thousands of tiles, bricks, stones, rocks, to be painted one by one, a truly unnerving job! To facilitate the painting of the road and the surroundings of the house, I traced with a dark colour a streak simulating humidity around the edges of the walls, so as to always have the position of the house in sight, thus regulating the weathering.





Grass and bushes are essential to the realism of the scene and to give a certain idea of abandonment, typical of that period; bushes and creepers invade the field beyond the wall and also grow around the corners of the house. To give some variety to the paving stones, I placed tiny tufts of grass in the spaces between one stone and the other, insisting in the area near the road and around the fountain.



While positioning the vehicles I noticed that there was an empty area on the left side of the house; I should have put a lot of figures there, but since there are already quite a few of them (15-16 characters), I would have risked an excessive crowding, so I put the usual Jeep (now my trademark...). To change at least a little, I used a Black Dog set to overload the Jeep as seen in certain vintage pictures, then I found a very old Preiser set featuring a crew with really beautiful poses; a Military Police officer stops the traffic while the Dragon Wagon manoeuvrers to hook the Jagdpanser and remove it from the road, a perfect scene!



Most of the soldiers come from a 3D Ammo set, really beautiful, even if difficult to detach from the moulding sprues; the civilians are also from Preiser. The figures play as always a fundamental role, animating the scene and creating points of interest for the viewer.

The figures are distributed with a certain logic: the most lively scene is that of the Jeep. In addition to the military policeman, near the house there are a couple of soldiers exhausted from long marches: one is sitting on a stone bench and the other has stood up and walks slowly to reach the rest of the troop. Two soldiers observe the German equipment hastily abandoned after an attempt to repair it in the field, while the owner of the house with his son watches the invaders remove the tank. The white flag hanging on the windowsill was a signal that there were no Germans in the house or in the village; many villages escaped destruction in this way. The last two soldiers are preparing to explore the abandoned field in search of any dangers.



Once the Jagdpantser is positioned, the scene is complete. The Dragon Wagon needs dedicated figures, that is, one that controls the winch on the platform, two that unwind the cable and one that is about to hook the tank to try to move it from the road; also in this case I turned to my friend Davide from TOP 72 who did a great job. The figures are perfect and bring the whole scene to life; many thanks for the beautiful work, Davide!

In my scenes, figures often play a fundamental role; I noticed that sometimes the initial idea doesn't work well when it comes to positioning the figures, so you have to move, modify or eliminate some characters to have the right balance of the scene. In this case, I removed the soldier walking along the wall and moved the one smoking, leaning him against the wall of the house so as to leave the vehicles at the centre of attention in the front area; these are small things, but important for the realism of the scene. In conclusion, it was a long and demanding project, but it gave me a lot of satisfaction.



DRAG- PANTHER







BIG MACK PIGGY- BACK

CHRISTOPHE TREIZE
COMBINES THE RESICAST
MIGHTY MACK EXBX AND
BORDER MODELS'
CRUSADER



1:35





ON A CRUSADE

The Crusader was the most widely built Cruiser tank of WW2. Mainly used in North Africa, it had its baptism of fire during Operation Battleaxe (June 1941) and played a crucial role in Operation Crusader, named after the tank because of its crucial role in the plan (Nov-Dec 1941).

A small auxiliary turret armed with a Besa machine gun was mounted on the front left. This turret was not easy to use and was often removed for combat.

The arrival of the Shermans hastened its disappearance from the battlefield, relegating it to other menial tasks (anti-aircraft defence, artillery tractor, etc.).

Weighing just under 20 tonnes, it was the ideal complement to the Mack, as several period pictures attest!

The Border Model Crusader is a modern, good-quality kit, with a large number of finely moulded sprues and precise assembly. The only drawback is the tedious track assembly. I quickly abandoned this option in favour of the famous Friumodel white metal links. Assembly was therefore fairly quick. All hatches are closed, as the tank will be mounted on the Mack's transport platform. A coat of white 'One Shot' primer from Ammo is sprayed on to detect any defects or unsightly traces of glue.

I started by airbrushing Mission Model's 'Olivegrün'. Using MX Putty, I hid this first colour and sprayed on Light Stone. The various shades were lightened from above to give the camouflage depth. After removing the masking, the flaws were corrected with a brush using the shades previously used. The black and white border was applied freehand by brush.



'DESERT' MENU



A small session of micro-painting using a sponge and a fine brush is carried out to represent the wear and tear of the paint by the elements and frequent passage of the crew. A very diluted dose of Ammo's Modern Vehicle Wash is applied to the entire vehicle. The excess is removed with a make-up sponge. This initial effect acts a little like a filter, to darken the base colours a touch more. A normal consistency pin-wash is then applied around the contours and in more localised areas. Any excess is removed using the same technique as above.

After spraying a sandy yellow tint on the lower parts of the tank at very low pressure, I applied AK 'North Africa Dust' pigments to represent the inevitable dust encountered in North Africa. Unlike usual practice, I didn't fix them with anything.

As mentioned earlier, I replaced the tracks in the kit with Friul links. After assembly (admittedly tedious and time-consuming, but less

so than the manufacturer's plastic version!), they were immersed in a bath of AK's

'Metal Burnishing' overnight to give a realistic raw metal finish. They are rinsed with water, cleaned and dried before being treated with a very diluted wash of 'North Africa Dust' pigments and thinner. A pass with fine sandpaper simulates the metal exposed by the friction of the contact points.

I used two component putty to make the equipment carried on the outside of the tank, which can be seen in the many period pictures. This stowage is now available from Resicast. It can be used in at least two different configurations, with and without an auxiliary turret. The stowage is painted in a very traditional way, using acrylic and oil-based paints.



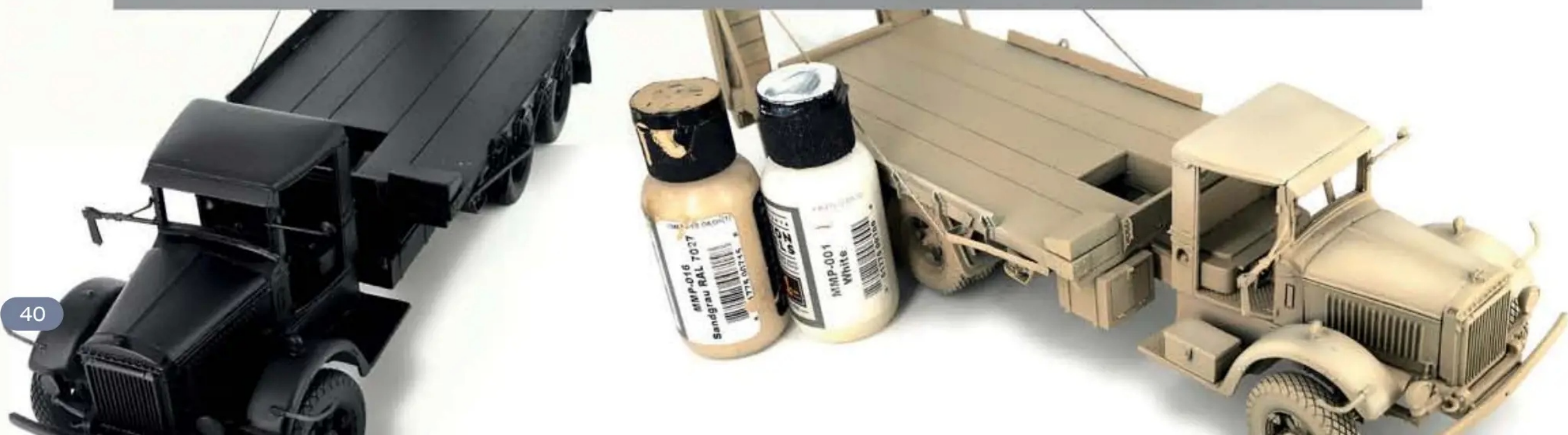
MACK EXBX

In 1940, to meet an order from the French army, the American company Mack sent 260 trucks equipped with a 4800-gallon tank (just over 18,000 litres). The outbreak of hostilities on French soil implicated the convoy to be redirected to Great Britain. As the British were in urgent need of trucks to transport their tanks, most of them had the tank removed and were fitted with a platform capable of carrying a load of up to 18 tonnes. The first converted models were fitted with 'Bees Knees' ramps, while later models were seen without them.

Resicast is back with a subject never before reproduced in 1:35 scale for this latest release. It's an American tanker truck, used by the British, with an old-fashioned look, a typical 1930s cab and an extraordinary size! In fact, the chassis is so long that it's in two parts! Make sure you have plenty of room on your shelves... More than 120 parts assemble the kit in the brand's usual resin. A little novelty: the instructions can be downloaded from the internet via a link provided in the box. The PDF file can be printed out or viewed on a tablet, computer or smartphone. This way, you can zoom in on the photos and get a clearer view than in paper format. A sheet of decals is supplied to represent

three different trucks. The various dials and counters are reproduced, so you don't have to worry about painting them! The engine is just like the rest of the kit: huge! It's well detailed, and only needs a few cables and hoses to bring it to life, if you opt for an open bonnet. The rest of the assembly calls for no particular comment, as the design of the kit is well thought out (Master by Leon Hassing). The ramps can be deployed or folded. Sufficient cord to replicate the cable is provided to allow both options.

In a very traditional way, the whole model is covered with Vallejo black Primer. The primer needs at least a day to dry thoroughly. I chose 'Sandgrau' from Mission Model Paint as the base coat sprayed over the entire model, while trying to maintain an initial depth effect with the help of the black undercoat showing. A few drops of white are added to the base colour and sprayed from above. I added a few more drops of white to this last mixture, brightening up the centre of the panels and a few details. After drying completely, the whole model is protected with a coat of VMS gloss varnish. The decals are applied before two coats of satin varnish.



SAND & SUN

Using the sponge technique, I apply a light sand colour to start the scuffing work. Still using a sponge, this time I apply an olive green colour to simulate the scratches that have marred the light colour, revealing the truck's green paintwork before it arrived on African soil. A final step with the sponge using a brown colour is applied to simulate the metal exposed by the frequent passes and handling by the crew. The effect obtained is quite strong and will be softened by another sponging with the basic 'Sandgrau'.

A first coat of 'Africa Korps Wash' from Ammo was applied to the recessed lines and various details. As the platform was made of wood, I started to reproduce the grain that had been damaged by the tracks, but I didn't get very far as the idea of putting a tank on it quickly became obvious and you wouldn't be able to see anything once it's up there! The metal ramps have been given a thorough sponge treatment to show how intensively the equipment has been used.



A few lines of Ammo's 'Warm Dirty Grey' are blended in with a flat notched brush to provide a point of interest on the cab roof and bonnet. The effect is fairly slight, but still visible. A few details, such as the small position lights and the direction indicator, are painted white. The main headlights have been painted black, as can be seen in the wartime pictures.

On the deck, a few drops of previously used wash are deposited to mess up this part of the truck. Different levels of opacity will allow you to vary the effects and simulate the stains of petrol, oil or any other liquid lost by a broken-down tank! Once again, nothing will be visible once I've put the Crusader on the platform... The tires are painted in Mission 'Tire Black'. A small amount of Ammo 'Rust' is applied to areas prone to rust. The product is blended with a brush soaked in thinner.





I mixed Ak Interactive 'North Africa Dust' pigments with thinner. The entire chassis, the wheels and any other places where dust might accumulate were brushed with this mixture using an old, damaged brush. Once dry, the excess was removed either with a make-up sponge, a finger, or a flat notched brush very lightly soaked in thinner. The effects obtained vary according to your choice of 'tool'!

'Dark Steel' pigments from Ak Interactive are rubbed in with a blender to imitate metal polished by the passage of caterpillar tracks or by the repeated actions of the crew. The winch cables are painted black and then rubbed with AK Interactive 'True Metal' aluminium paint. The tire sidewalls and treads are drybrushed with black oil paint from 551st abteilung.

Traces of hydrocarbon or grease are applied in the right places using 'fuel stain', 'oil stain' or 'grime' from Ammo. Pieces of clear sheet are placed to reproduce the windscreen and windows. They are quickly dusted with a mixture of pigment and thinner. No need to make masks for the windscreen wipers, as these trucks had none! The doors are glued at this final stage to prevent any







ROCKY ROAD

The Crusader is now on the rear deck. It is secured to the rings provided using chains painted and patinated with AK 'Dark Steel' pigments. A simple stage set was quickly created using plaster, pine bark and plastic card. A coat of primer from Vallejo is sprayed on before painting.

The rocks are painted with MMP 'brown' lightened with 'light stone', in fresh paint. 'Afrika Korps Wash' was applied to reinforce the shadows. The ground was covered with AK 'Terrains Desert Sand'. After it had dried completely a very diluted wash was applied. Small pieces of plaster were added to represent stones. They are painted in the same tones as the rock. Ak's 'North Africa Dust' pigments are applied to the sand to make it more 'dusty'.

The figure is an old reference but still in the Resicast catalogue. It is painted exclusively with Winsor & Newton oils, in a zenithal manner. Although it depicts a rather tall man, the figurine seems very small, leaning against the lorry, emphasising the imposing size of the rig and it's load!

CONCLUSION

The Mack EXBX is the first major innovation for Lionel Delhalle, the new owner of Resicast. It's not a revolution, but a few changes that are part of the continuity to maintain the brand's level of excellence, and former boss Graham Sellar is never far away! With a vehicle that's quite rare in the field, it's up to you to make it original by loading its platform. I've chosen a Crusader, but there are many other configurations, particularly with enemy vehicles.







BIG MACK PIGGY- BACK







Alan Ranger Archives

In this series we gain exclusive access to the unpublished images in the collection of long-time Military historian and collector Alan Ranger. Most of the images are from private sources taken by the service personnel in the field or in training, hence the varying quality and often a lack of date and location recorded but offer a unique insight into lesser covered subject material.

German Flak Units

Many of the following photographs included in this collection are from an album I purchased from a small junk shop in Duisburg, Germany, that had been compiled by a member of Luftwaffe Flak regiment 6.



This photograph of a 3.7 cm Flak 36 and its crew are shown here at action stations searching the sky for potential targets. This weapon from a mobile Flak unit is set up in the open to protect a length of railway line. By 1943 the Allied tactic of using railway lines as both navigation aids and targets of opportunity was well known.



A nice photograph of part of the barrack complex of Luftwaffe Flak regiment 6 part of which was posted along the Rhine valley in order to provide protection to the many industrial towns located along that river. The photo was taken in May 1941.



This photo of civilian housing that had been requisitioned to provide accommodation for troops from Luftwaffe Flak regiment 6 again along the river Rhine near Koblenz taken on the 3rd of April 1941.



A 20mm Flak 30 again belonging to Luftwaffe Flak regiment 6 and also taken in the same area along the river Rhine in April 1941.



This flak crew from Luftwaffe Flak regiment 6 was billeted in this house in Koblenz throughout the spring of 1941; many sub-units from Luftwaffe Flak regiment 6 were posted to Africa later that same year.



An evocative and atmospheric view of a 37mm Flak 36 taken on the evening of 23rd of May 1942 somewhere along the Rhine valley being protected by elements from Luftwaffe Flak regiment 6.



This gun and crew from Luftwaffe Flak regiment 6. Are seen in transit from Belgium to their next assignment around the Pas de Calais area of Northern France, on June 28th 1940. The truck is a 1934 pattern 2.5 ton Mercedes and the gun it is towing is a 20mm Flak 30.



Here we see a badly damaged Sd.Kfz 10/4 or 10/5; I can't tell which as the gun has been removed already is seen back at the home barracks of Luftwaffe Flak regiment 6 in Hamburg. The vehicle that had been assessed a repairable but beyond the capabilities of the unit's field based maintenance troop has been returned to Hamburg for full repairs. Its gun removed and no doubt being part of the channel defences as the photo was taken on November 1st 1940.



Taken in the Panzer hall yard (Garage area) of Luftwaffe Flak regiment 6 Hamburg barrack's in the summer of 1940, this photograph shows gun crew preparing for an imminent inspection. Note the 20mm Flak30 still attached to their transportation trailers (Sd.Anh 51's), the trucks in the background are Henschel D33's



Here we see members of Luftwaffe Flak regiment 6 sunbathing and listening to the radio during a break in an exercise somewhere along the river Rhine in Germany during the summer of 1941, the trailer on the far left of the photograph is an Sd.Anh 52 that would have belonged to either a 37mm Flak 36 or 37.



This Flak installation is dug into a garden of a residential house (of a very modern design) in the Weser Valley to the south-east of the German city of Bremen. It is an odd location as it does not offer a 360° field of fire; the house will surely prove an obstacle to both observing a low flying enemy and indeed engaging it with fire. The site must be considered semi-permanent as a lot of work has gone into the ground work around the firing platform.



This photo, taken somewhere on the coast of Denmark, gives us a good look at the top of the 37mm Flak 36. We can see the top of the gun sight at the right bottom of the photo, then the cocking spring housing on top of the gun's breech and lastly the ammunition feed tray, here loaded with a full clip of six HE Flak rounds. Note the sixth round is already loaded in the weapon's breech.

Seen here guarding a railway line running through this valley is a 37mm Flak 36 or 37 it appears as if the crew are lined up in front of the gun for a group photo with the photographer seen to the left of this photo caught in the act of taking the crews picture. This photograph is dated 25th of December 1943 but unfortunately no location is given.



A snowy day in January 1943 sees this Flak 36 and its crew on duty on the hills above an industrial area on the outskirts of the German town of Glessen. Ready ammunition is spread all over the place as are empty ammunition boxes, an indication that this crew have had a busy night thanks to the RAF.

A nice portrait of a flak crew Senior Sargent from Luftwaffe Flak regiment 6 taken in the grounds of its Hamburg barracks on the 17th of July 1941 his name is given as Albert on the back of the photo but the note does not mention his surname.





Two more members of Luftwaffe Flak regiment 6 in the field an officer with a 9mm pistol holster and bayonet on his belt and a Luftwaffe soldier with a full infantry type shoulder harness & belt with rifle ammunition clip pouches. Photo dates as 25th December 1943.



This photo of a group of Luftwaffe officers was taken outside a summer house/shed attached to garden wall of a guest house that had been commandeered by the Luftwaffe and was used as an officers mess and accommodation in the pas de Calais area during the summer of 1940, it is dated as July 21st of that year.



Here we have a photo of Flak troops from Luftwaffe Flak regiment 6 in the process of building a semi-permanent flak position in a hillside next to the channel coast in the summer of 1940. This position probably was later reinforced/expanded with concrete structures as part of the Atlantic Wall.



The Luftwaffe soldier seen here sleeping has nodded off during a drinking session with his mates on the 14th of September 1940 again in the par de Calais area.



The same summer house/shed as seen before in the Calais area pictured here with a group of troops seated outside it the happy group was photographed on the 23rd of July 1940.



Taken in November of 1940 in an Eastern area of Belgium near the German border this picture shows a 37mm Flak position with a smaller protective dugout to the right of it for a soldier to use an EM 34/36 rangefinder in.

This photo was also taken on a sunny day in November of 1940 in eastern Belgium in the same area as the previous photo and shows a dug in firing position for another 37mm Flak 36/37 being guarded by one soldier with his Kar 98 rifle.





A real candid view of military life – after a long night on duty these two gun crew have had their breakfast and are catching a quick nap while they can. Note the mess tin on the gunner's seat and the lump of black bread also left unfinished. I can attest that sleep is one of the rarest commodities in combat, and any and all opportunities to sleep were taken



Elements of Luftwaffe Flak regiment 6 are pictured here travelling through Ghent, Belgium in the summer of 1940 sadly no date is given but I think looking at other photos taken in this series it was in late May or early June of 1940. The truck seen behind the barrel of a 37mm Flak gun is an Opel Blitz 2.5 ton type.



A typical day in the life of a Flak crew, a relaxed group portrait of the gun crew of this 3.7 cm Flak 36, who are on duty watching over the perimeter of the Peenemünde weapons research facility close to the German/Polish border on the Baltic coast. Of note is the observation that the only member of the crew who is wearing his greatcoat is the seated gunner, as he will be the most inactive and therefore will get cold the quickest – and a cold gunner is a slow and inaccurate gunner, even his hands are tucked into his pockets.



This photo taken on a bright but overcast day on October the 17th 1940 in eastern Belgium shows us members of Flak regiment 6 eating their lunch with Sd.Anh trailer being used as a table in the foreground and its associated 37mm Flak gun emplaced to the right of the photo.



A Flak crew at rest under a homemade shelter close to their emplaced gun, with many hour of inactivity interspersed with short moments of intense drama; time was filled with other pursuits such as playing cards as seen

This Doppelfernrohr 45° 10x80 Flakfernrohr is set up in another quickly prepared Flak position in North-West Belgium in October 1944. This location gives a good impression of an army in retreat as they move into another location further back. The note on the back of the photo tells us the crew member is setting up the Flakfernrohr in readiness for the installation of the yet-to-arrive Flak gun that has had its dug-out position already prepared by the unit's advance party.





Above. A 150 cm Sw. 37 is used as a backdrop by a proud Leutnant (2nd Lieutenant) for his hero shot to send home in this photograph. A Doppelfernrohr 45° 10x80 Flakfernrohr is mounted on the side of the searchlight, which would have been used as a last resort to find/track a target if no targeting data or inaccurate targeting data was being supplied from other targeting/location equipment. The photo is dated July 1943, but no location is given.

Above Right. In this winter scene taken on January 2nd 1944 in the Hamburg area of Germany depicts a 150 cm Sw. 37 type searchlight in a well-constructed wooden sided earth filled bund type of position. The wooden shelving we see on the side of the bund wall would have been for the crew field equipment to be placed in whilst working on the searchlight such as helmets, gas masks, canteens and other items.



This Luftwaffe anti-aircraft unit, equipped with both the Würzburg Radar and 150 cm Sw. 37s powered by Maschinensatz 110 Volt 24 kW 37 24-kilowatt electrical generators, is seen withdrawing from the Babruysk area in the winter of 1941/42.



This is a profile shot of one of the few early style 150 cm Sw. 34 searchlights. This example is even rarer as it is one of the very few early 150 cm Sw. 34s to have stowage boxes mounted to the base trailer on both ends above the wheel axles and in-between the mudguards. The photo was taken within the perimeter of Frankfurt airfield in October 1940. It is worth noting that one of these very rare early 150 cm Sw. 34's with stowage boxes attached is on permanent display at Romania's military museum in Bucharest.

Unfortunately, the exhibit is outside and showing signs of its age, and the museum is unlikely to ever be able to restore it due to being underfunded



Here we have a 150 cm Sw. 34. In its early production format, it was mounted on a rectangular platform with four wheels and a levelling jack mounted on a steel tubular fold-down frame in each corner. This same four-wheeled base frame was used to mount some early Würzburg radars and even a few 20 Flak Vierling, as evidenced by photographs in my own collection. The photograph is of a searchlight in a brick culvert on the Rhine river bank in the Demag factory complex in Duisburg, Germany. This factory searchlight unit was manned by Luftwaffe auxiliaries who worked in the factory. The photo was taken in January 1944.

NB: The Small Würzburg Radar in the British Imperial War Museum is mounted on one of exactly the same types of rectangular four-wheeled bases.

CACTUS JACK

Lukasz orczyc-Musialek

builds one Bad Bradley with the
Magic Factory M2A4 kit

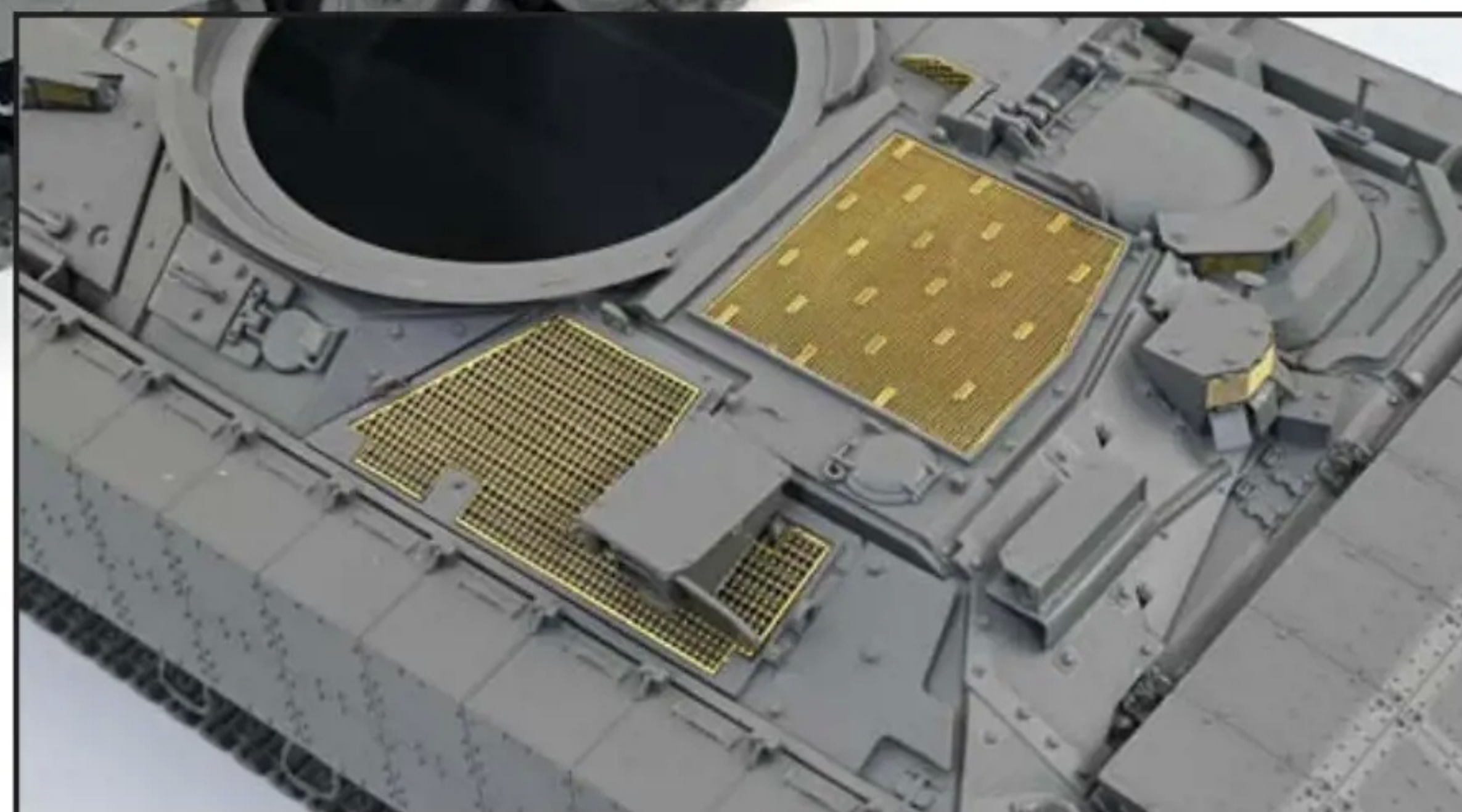




MAGIC!



The set includes photo-etched plates, which contain mesh for the air outlets above the engine and covers for optical elements.



The side covers of the vehicle consist of several elements and here too their details are sufficient. A good example here are the handles with an imitation of a steel cable.

When I started a new project, I wasn't entirely sure whether the great quality of the parts on the sprues would translate into their very good assembly. But after just a few fitted elements, I knew that it would be pure pleasure and that the effect would satisfy me 100%. I wasn't wrong.

I decided to minimally enrich the set with tow ropes from Eureka XXI (which I always do for my models), metal shells and ammo connectors from Orange Hobby and figures from mInuart with resin Alpine heads. That was quite enough.

I must also mention a few details that I placed on the model as additional equipment - barbed wire from Eduard, a portable fridge from Plus Model, boxes and canisters and containers from Eureka XXL, a transport belt from Miryoku and a piece of camouflage netting from AK Interactive.

All this created the model that you can see in this article. If you need it, you can check out its construction in a mini series on my YouTube channel where I show exactly all the stages of its construction.



The amount of details is sufficient, although the model can be enriched with photoetched elements. It all depends on the individual approach to the amount of details and the final finish of the model.



From photos of real vehicles, I copied the roof made by the crew over the optoelectronics system. Two pieces of plastic were enough to enrich the look of the vehicle's turret.



All the periscope glasses were previously masked with tape. Note the texture of the anti-slip, which, as for the possibilities of plastic production, is very good and clear.

Like the periscopes, all the bulletproof glass were also masked. Both hatches will remain open because I am preparing crew figures for them.



I have included 2 Miniart figures enriched with resin heads from Alpine. I have also added to them imitation cables made of copper wire.



STRAIGHT INTO PAINT



The entire model has been disassembled into elements that can be painted separately. I have mounted all of them on wooden sticks.



Regardless of the material, I cleaned all the model parts with degreaser to get rid of any dirt picked-up during the construction process. The product evaporates very quickly and thanks to this the model is ready for primer after just a few minutes.



Mr Metal Primer ensures safe adhesion of primer and base-colours on photoetch.



I based the vehicle's colours on the plans included in the instructions. I found this scheme most interesting, it has good contrast and is a great base for weathering. I painted all the colors with Real Colors paints.

I used the stencil included in the kit to paint the wheels. I painted the rubber wheel rims with a special shade of gray 'Rubber Black' that best imitates the tyre colour.



AK Interactive prepared a special set of paints that covers basic colours of modern U.S. AFVs. Perfect for this scheme with all tones used.



Clear orange and red over a bright mirror silver give a realistic finish to the front and rear lamps.



I covered all the decals with a softening fluid to better blend them into the paint surface and make the carrier film invisible.



I painted all the bolt heads with lighter shades to increase the contrast. I used a different paint for each colour.



I used a mixture of metallic colours with a touch of grey to paint the tracks. This gave a very good effect of the track steel.



After all the colors and decals had dried, I covered the entire model with gloss varnish to prepare the surfaces for weathering.



On the light camo, the light wash was sufficient, but on the dark one I used deep black due to the shade of the tritonal NATO camo.



At this stage I painted some metallic scratches around the hatches. These are the places most often used by the crew, so it is logical that the paint on them is the most damaged.



I protected the work so far with matte varnish. Notice how much all the screws on the side panels are highlighted and how I changed the color intensity on some of them using only wash.



I stained the periscope glasses with Earth Grime wash, thanks to which they do not shine as much but their transparency is still visible.



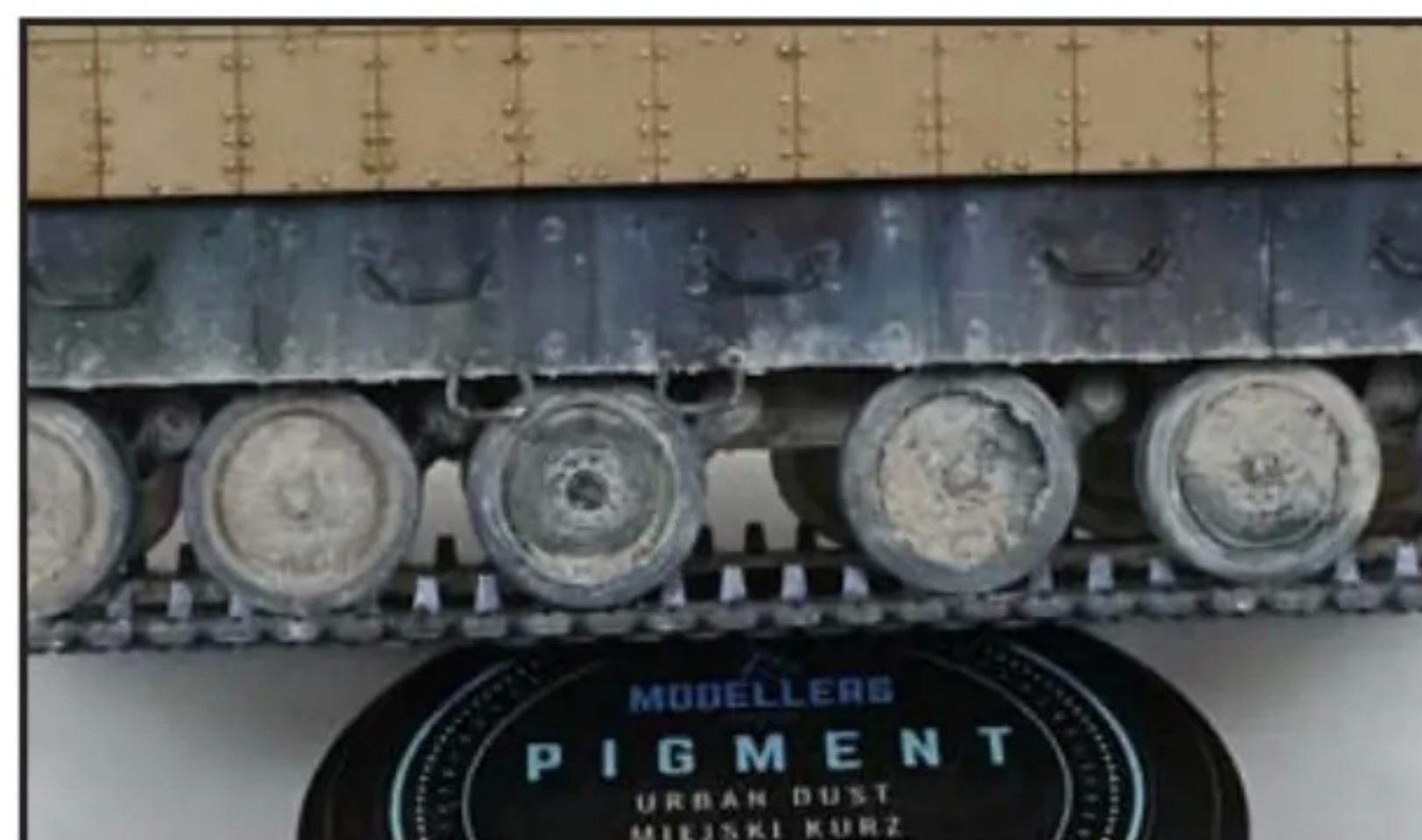
I painted the first layer of dust with airbrush by applying a thin layer of Weathering paint. The reference photo I based on working on this model shows a very dusty vehicle. Reproducing the same level of dirt would be a mistake because the model would look bad, so I do it to a limited extent but still showing that the vehicle is dirty.



I stained the bottom of the vehicle with pigment and fixed it with thinner. Although this place will be almost invisible, it still needs to be treated properly, just like other parts of the model.



Accumulated dry mud looks great on the front of the vehicle, where it gives the viewer a proper idea of the terrain conditions in which the vehicle is working. Building such a structure is not difficult but it does take some time mainly waiting for the pigment to dry properly. It is worth using a hairdrier to speed up this process.



I prepared the wheels in a similar way, but here this is not their final appearance. Notice the middle wheel, which has different marks than the others. It could have been replaced by the crew during exercises, hence its completely different appearance.



Dry mud appeared more and more on the model. As is my habit, I used it to build contrast between individual elements of the vehicle. On the dark camo the pigment is very clearly visible. the amount of dirt collected covers almost completely the base camo colour but less contrasting on the tan armour. Note the splashed and dried mud and accumulated earth around bolt heads. In reality mud can reach to the top surfaces but most modellers show restraint so as not to end up



Despite the initial heavy dirt on the wheels, I now used cotton buds to clean them of pigment. I tried to make its intensity varied, which can be seen on the first and second wheel. Note the mud that can be seen in the depths, on the side of the vehicle.



Wet streaks diversified the look of dry mud. A little is enough to make it look good.



Similarly on the upper parts of the vehicle. It looks best on dusty surfaces.



Coiled barbed wire is a great addition to modern vehicles. Here I used a tried and tested product from Eduard, which looks very good when rolled up and secured. Remember that even though it is only a modelling element, it is easy to cut yourself with it. XF-56 was airbrushed for the best metallic effect. Note the spent ammunition cases painted in the correct finished based on on-line reference.



I made the exhaust and its surroundings dirty with black pigment and removed the excess with a small vacuum cleaner. The tow rope was secured to the model with a piece of thin wire.



I enriched the right rear of the vehicle with a few additions, which undoubtedly add interest and variety to the Bradley.



On the left side I attached resin boxes manufactured by Eureka XXL



Thick rope is ideal for attaching to modern vehicles because it is often part of their equipment. Proper arrangement and painting reveals an interesting weave and complements the appearance of the model, as do all the little things placed on the left and right sides.

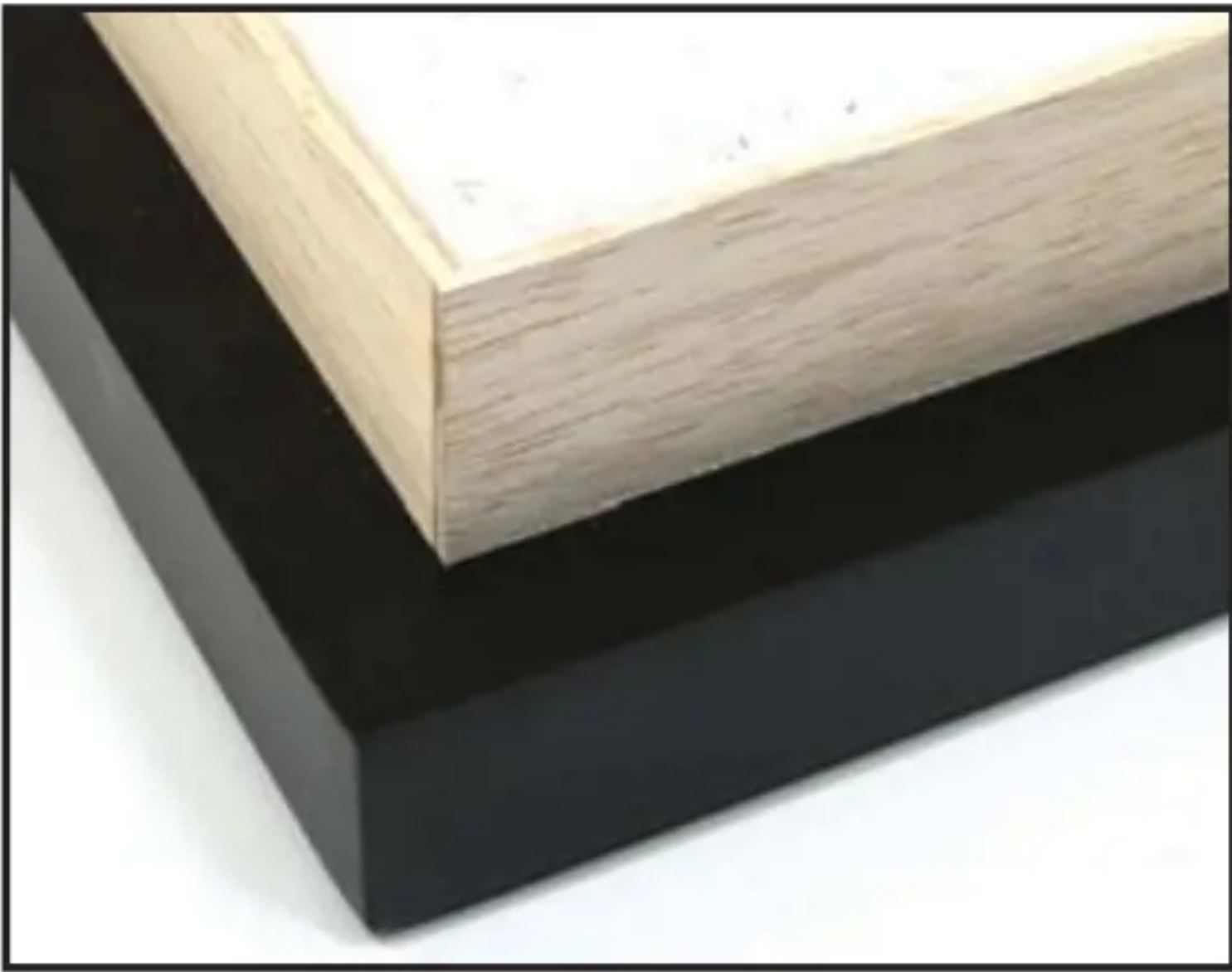
The rear basket on the turret has also been appropriately enriched with accessories. I also added a few oranges, which broke the dark color of the camo well. These are mustard seeds painted to imitate fruit.



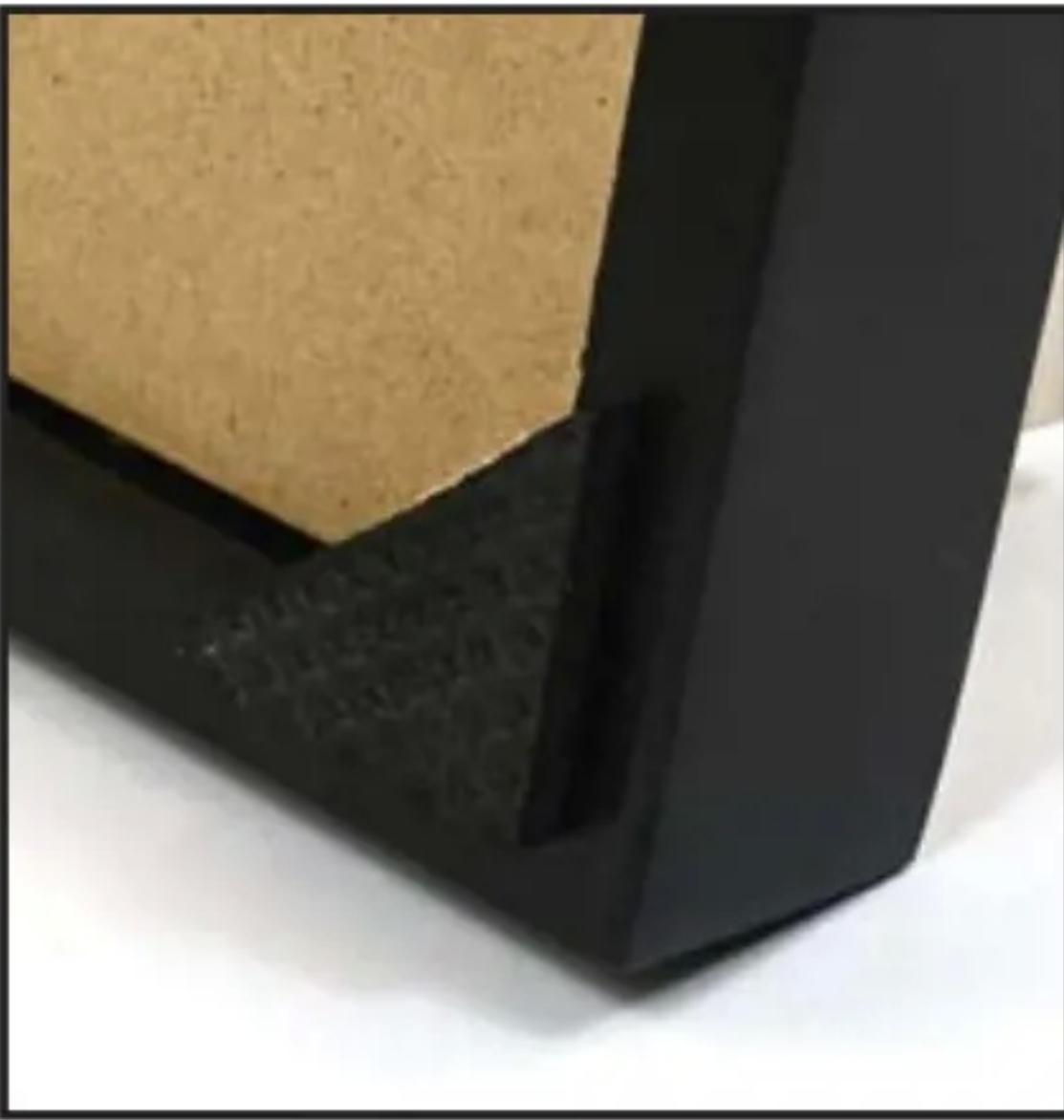
A bit of rust will perfectly complement the dirty look of the vehicle. Based on the photos, I added some traces of metal oxidation on the gun barrel. The traces are subtle but visible.



GROUNDING



I cut the model base walls from 2mm thick balsa strip. I glued them into a thick photo frame. I secured the bottom of the frame with soft pads.



The main terrain elements are rocks and a road. To build the rock face, I used a product from Modellers World glued with PVA glue.



I reinforced the entire rock element with universal Mud & Ground paste, filling all the empty spaces. The base colour of the rocks is dark grey, which was lightened with dark sea gray after drying.



I used a set of weathering paints and moldy green wash to add different shades. I applied them alternately, often using the "wet on wet method".



Although rocks are not an ideal environment for plants, I decided to add some dry grass to enrich the look. Additionally, I covered the top surface with fine gravel and pigment.



The inscription on the base is the simplest possible solution. I used a masking tape stencil to paint the white inscription with a sponge.



The asphalt consists of various products that are available in the Modellers World offer. I used the old and new variants, supplemented with milliput. I painted the entire section of the road with weathering paints, creating dust marks. Some of the previously used gravel appeared on the edges of the road.

I painted the stripes using the same method as the inscription on the frame. I enriched the final appearance of the road with 2 3D printed elements from Plus model, which introduce a bit of color to the dusty environment. I made individual dirt using pigments.

Cacti are from the Pimp My Miniatures range.

FINAL THOUGHTS

As I said in my YouTube videos building this kit it was one of the best I've worked with in 2024. Magic Factory did a really great job giving a great result out of the box. Working on it was pure modelling pleasure. If you're thinking about ordering, I hope that after reading my article you will no longer have any doubts. I recommend it, especially since the manufacturer has several versions giving plenty to choose from.

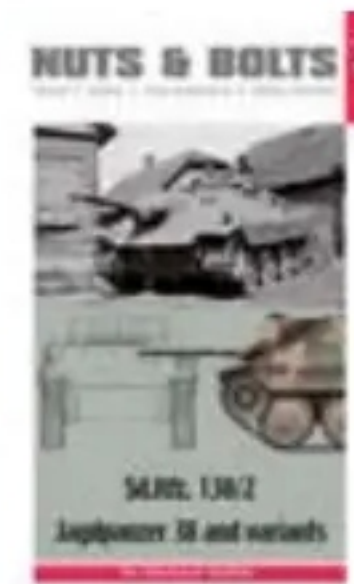






BOOKWORLD

wholesale



Nuts and Bolts 49. Sd.Kfz. 138/2 Jagdpanzer 38 and variants

335 contemporary photos, 230 photos of surviving vehicles in museums and private collections. 80 scale drawings in 1:35. 16 camouflage schemes. 46 tables with technical and historical details. **£39.99**



Europe at War 43. War in Ukraine Volume 7

Air and Missile Warfare, March-June 2022 is extensively illustrated throughout with original colour photographs, maps, diagrams. Specially commissioned colour artworks illustrating this military campaign in the air. **£19.95**



Britain's Cold War Heritage

Britain has a rich Cold War heritage and here its significant historical and cultural aspects are explored. **£15.99**



Tank Craft 44 Stug III & Stug IV Assault Gun

Technical details as well as modifications introduced during production and in the field are also examined, providing everything the modeller needs to recreate an accurate representation of these historic vehicles. **£14.99**



Slog or Swan

Where previous works have fixated on Normandy and Arnhem, and made broad judgements on leadership or morale, this book drills into the tactical realities that defined British fighting power. **£35.00**



Latin America at War 44. Araguaia War Volume 1

Araguaia War examines the military regime in Brazil between 1964 and 1985, and the subversive groups, both urban and rural that appeared in that country in the late 1960s and early 1970s. **£19.95**



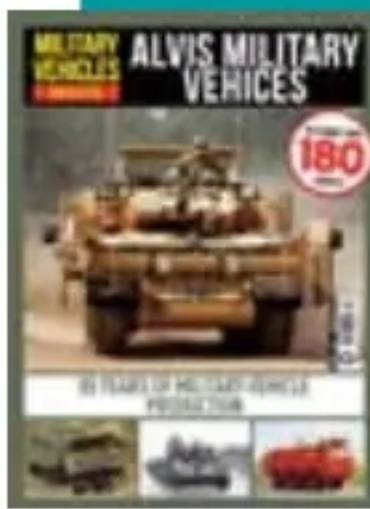
The Italian Army in the Balkans 1940-41

This book provides a detailed examination of the Italian campaigns in Greece and Yugoslavia, drawing on extensive archival sources, firsthand accounts, and striking visual materials, including rare photographs and artwork. **£35.00**



Einsatz Arnheim. German Armoured Units and Their Opponents at Arnhem and Oosterbeek

536 pages, over 500 photos, documents and illustrations, some never before published, and about 100 full-colour maps and diagrams to illustrate the text. **£84.99**



Military Vehicles Archive 9. Alvis Military Vehicles

A handful of still-born armoured vehicles were produced in the 'thirties, but it wasn't until the post-war years that Alvis began to produce military vehicles in quantity. **£9.99**



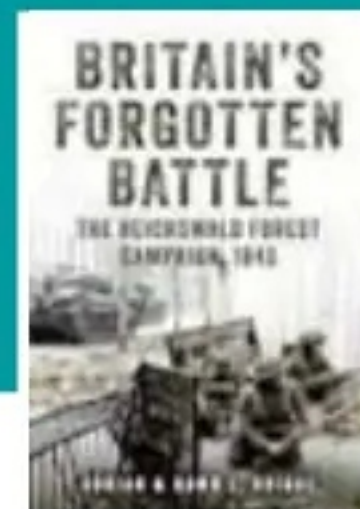
Green 071. T-72M4 CZ In Detail

Full Colour Walkaround Detail Interior and Exterior • Related Products **£25.99**



Japanese Type 16 Mobile Combat Vehicle

The Type 16 Mobile Combat Vehicle (16MCV) is a wheeled armoured vehicle of the Japanese Ground Self-Defense Force (JGSDF). **£15.50**



Britain's Forgotten Battle. The Reichswald Forest Campaign 1945

Drawing on a wealth of sources from British, Canadian and European museums and archives, the authors provide a new and timely account – on the 80th anniversary **£22.99**



Militarfahrzeug 89

fully illustrated Text – Language: German text only Number of Pages: 72+4 **£13.99**



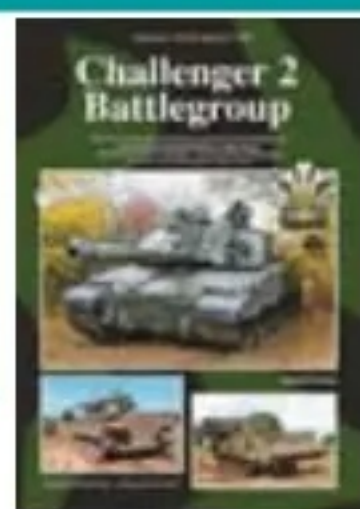
Tankograd 5099. Artillerie-Selbstfahrlafetten M107 to M110A2

This publication describes the development history of the US versions of the M107/M110 family, their use and details their technology. **£17.99**



Tankograd 3051. Armored Cav

This publication shows the vehicles of the two "Armored Cav" regiments in impressive and hitherto mostly unpublished photos taken during their mission and on exercises, 1948-94. **£17.99**



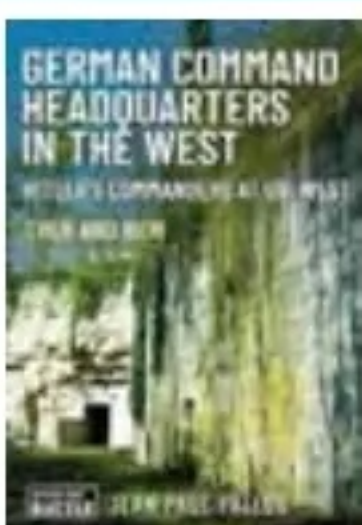
Tankograd 9041. Challenger 2 Battlegroup

The entire motor pool of this formation is illustrated based on outstanding in-action exercise photographs. **£17.99**



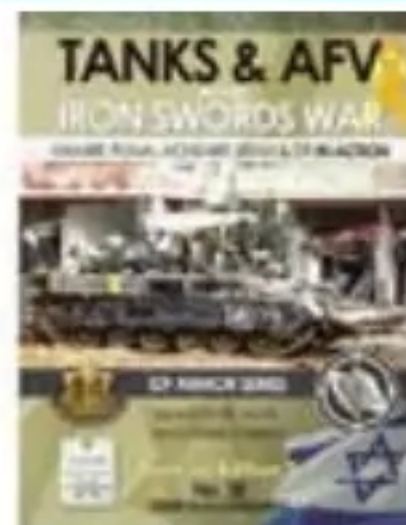
PAK. A photo study of German Anti-Tank Weapons

fascinating views of weapons, positions, and crews, from heavy rifles to the massive 128mm gun, and shows the full scope of anti-tank vehicles in action from 1939 to 1945. **£29.99**



German Command Headquarters in the West Then and Now

£20.00



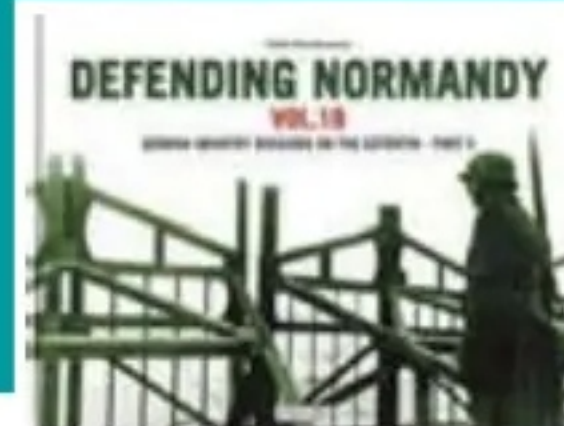
DEP 38 Tanks and AFV in the Iron Swords War

Through the camera lens of a Army Company Commander this book looks at the the Puma, Achzarit, Eitan, Namer, Humwee and D9 Doobi bulldozer in action during the war in Gaza. **£33.90**



Panzerwrecks 26. Bulge 2

Includes 174 rare and unpublished large-format photographs from around the world, six pages of specially commissioned artwork by Felipe Rodna, and Google Maps QR codes. **£24.99**



Defending Normandy. Vol. 1B

Combined with the two divisions covered in Vol.1A, these four infantry divisions are key to understanding the role of the LXXXIV. A.K. in the defence of Normandy, beginning in late 1942 and ending with its dramatic destruction in the Falaise Pocket in August 1944. **£39.99**



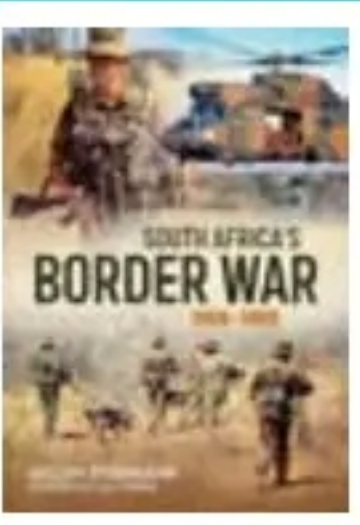
Red Army Self-Propelled Guns of the Second World War

Essential reading for anyone who has a special interest in Soviet armour and armoured warfare in general, and it will be a valuable source for modellers. **£29.99**



III. Germanic SS Panzer-Korps the History of Himmler's Favourite SS-Panzer-Korps, 1943-1945 Volume 2

A detailed account of the III. SS-Panzer-Korps' retreat from Estonia, battles in Courland, Pomerania, and Berlin, featuring rare photos and veteran accounts. **£59.95**



South Africa's Border War 1966-1989

The book is exceptionally well illustrated, with hundreds of colour as well as black-and-white photos; truly a valuable addition to recent African military history. **£39.95**



Scale It! 2-Field Repair Workshop

This edition includes a detailed walkaround of the original vehicle as well as an article about the German Army field workshops. All this along with many period photographs. **£19.99**



Main Battle Tanks. A guide to Painting and Weathering

This essential book is a must-have for any modeller passionate about modern combat tanks. Featuring ten stunning 1/35 scale models, it showcases detailed representations of some of the world's most iconic tanks. **£22.99**



Aircraft Scale Modelling Techniques

This book showcases and explains the company's evolution, with Juan Manuel Villalba responsible for some of the best work seen to date. The book explains, step-by-step, how to complete some of the brand's most iconic models. **£41.99**



Fantasy Colors

In this book you will find valuable lessons and a source of inspiration that will allow you to take your fantasy figure painting to the next level. Fantasy Colors is a must-have for any artist or fantasy miniature painting enthusiast. **£41.99**



Solution Book 26. How to Paint Nato and Bundeswehr Vehicles

The typical three-color NATO camouflage began to be used in the 1980s and is still widely used today. It became standard not only for the Bundeswehr and the U.S. Army, the scheme was also used for the military vehicles of many NATO members **£11.99**



AFV Modeller 141 Heroyam Slava!

£7.95



Scale Modeling for Beginners 2. Painting and Weathering

In this second volume, you will discover the essential tools and products used for painting and applying weathering effects to any model of any theme and scale. **£27.99**



Diorama Volume 17

You will find the best articles from the best modellers and authors in the world. Step-by-step articles, painting techniques, building techniques, showcases, news, reviews and much more. **£17.00**



www.bookworldws.co.uk



info@bookworldws.co.uk



01299 823330

Unit 10 Hodfar Road, Sandy Lane Industrial Estate, Stourport-On-Severn, DY13 9QB

UK Delivery £3.50 RM or £6.25 Next day

Overseas orders contact us or visit the website

1:16
EXCLUSIVELY FROM
NFV
modeller

**THE ULTIMATE UPGRADES IN DETAIL AND
ACCURACY TO TAKE YOUR LARGE-SCALE
PROJECTS TO THE NEXT LEVEL**

RESEARCHED AND DESIGNED BY DAVID PARKER

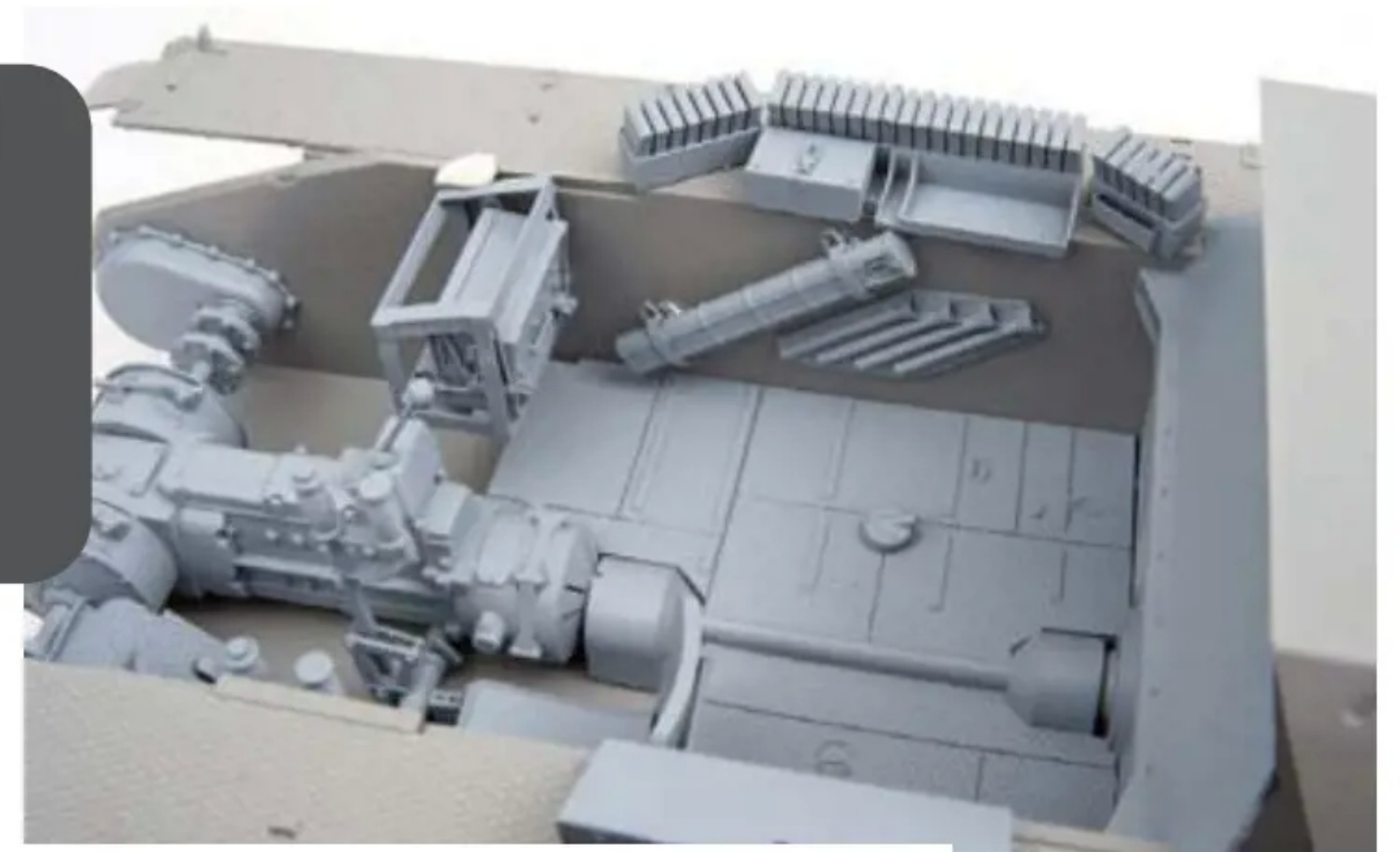
TRUMPETER PANZER IV

...OVER 60 SETS AVAILABLE!



TAKOM PANZER I

AUSF. A AND AUSF. B
INTERIORS
AND FULL TURRET
INTERIOR SETS



1:16 PANZER I
D.A.K. CREW



1:16 ARDENNES
SCHWIMMWAGEN CREW

1:16 StuG III CREW

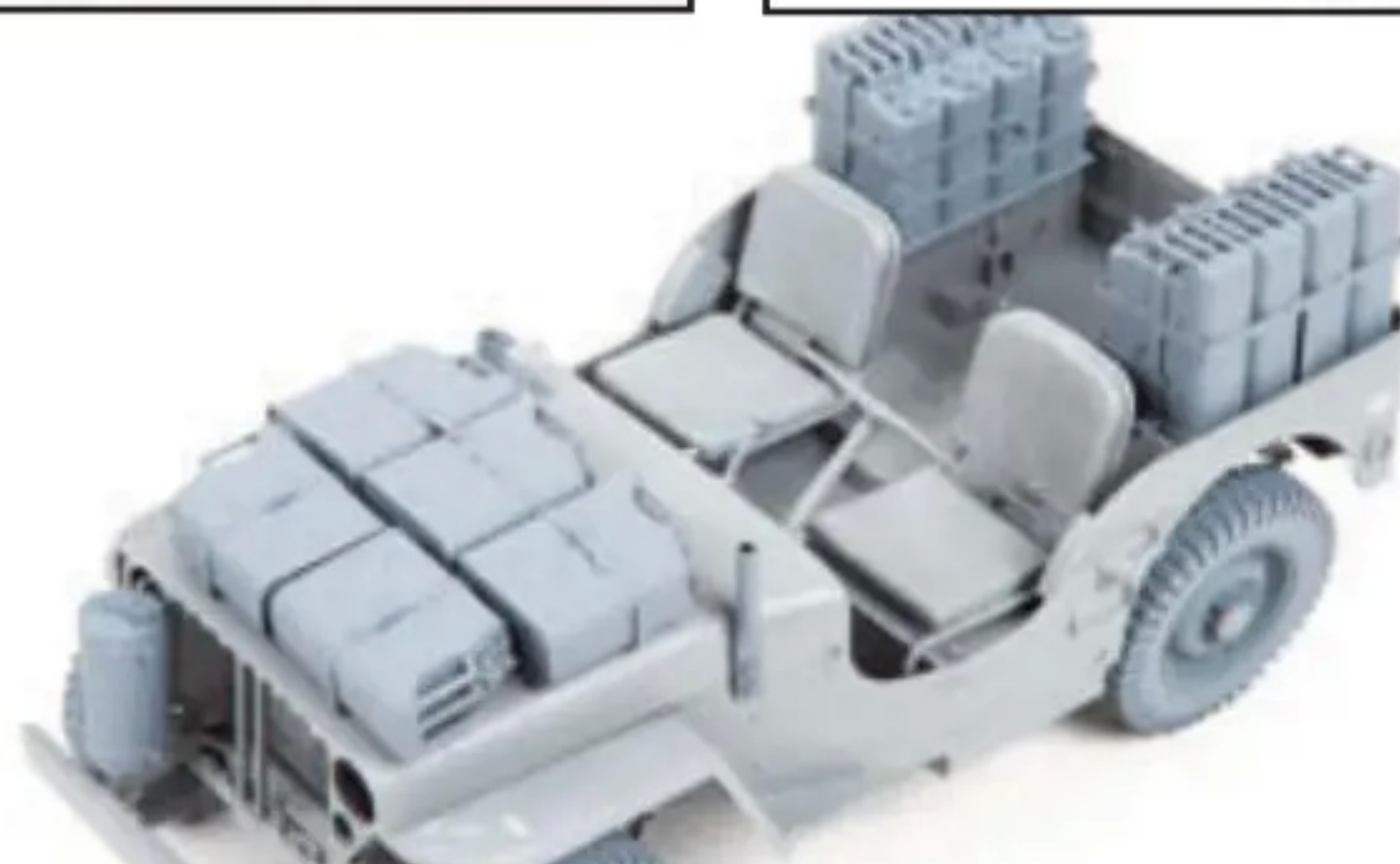


RESIN FIGURES

OVER A DOZEN SETS AND
SINGLE FIGURES TO
CHOOSE FROM

TRUMPETER KING TIGER

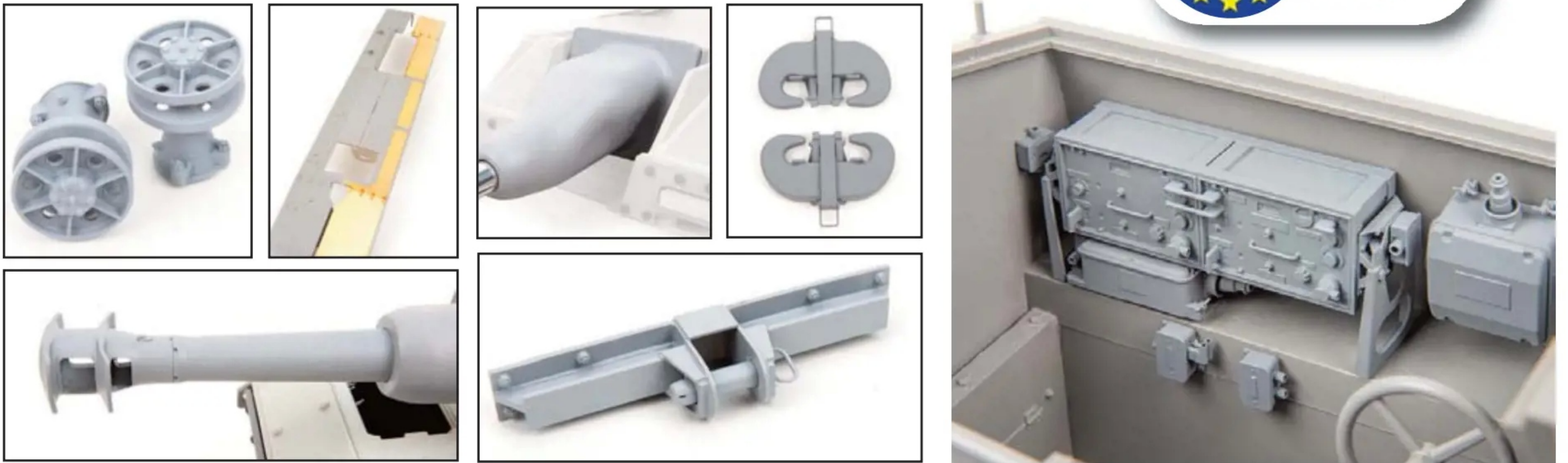
...OVER 25 SETS AVAILABLE!



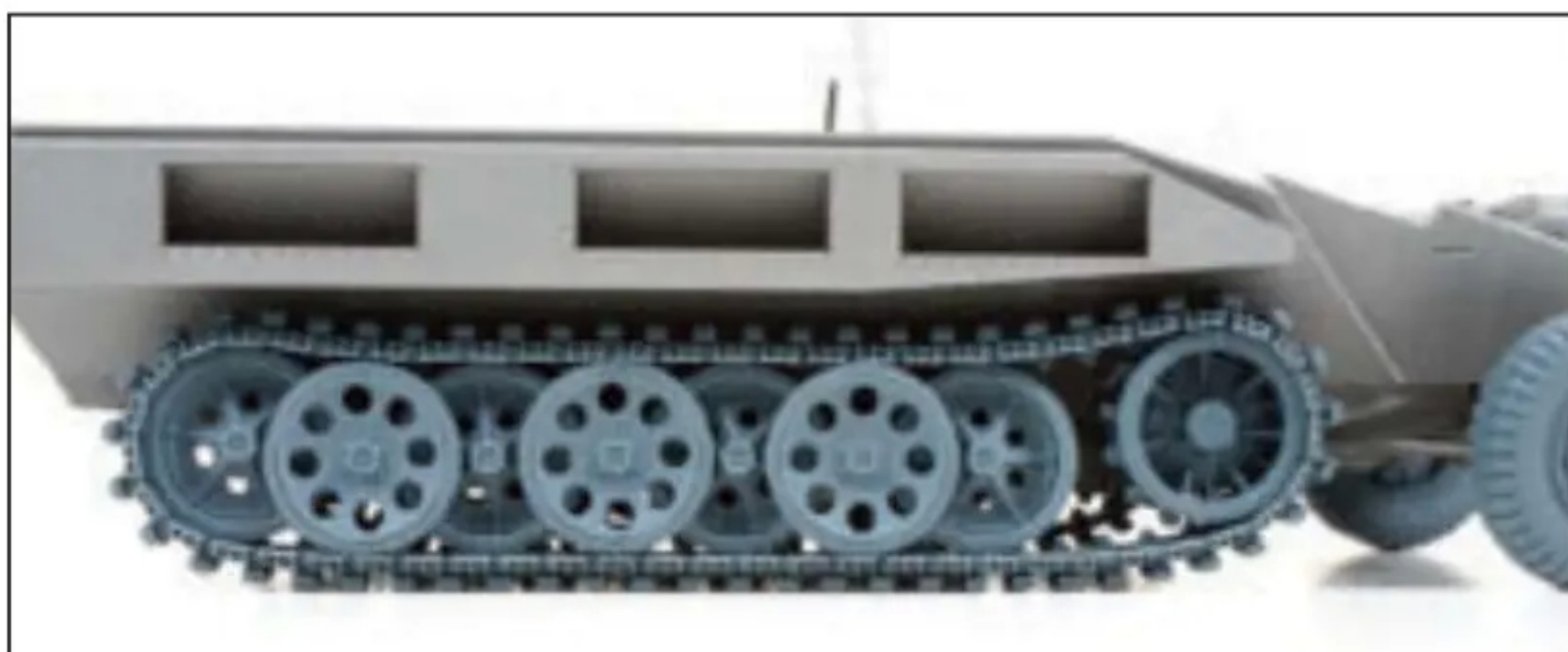
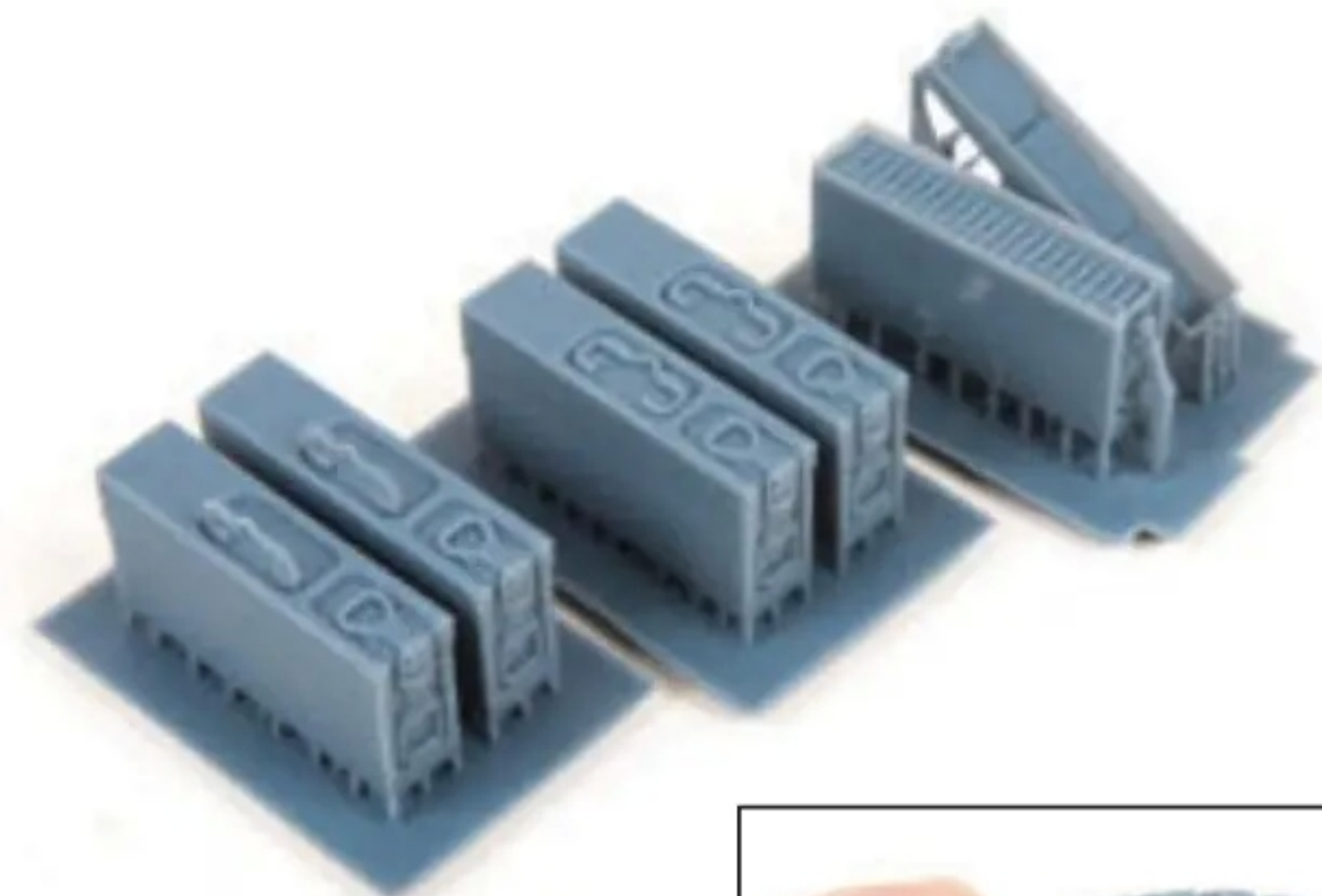
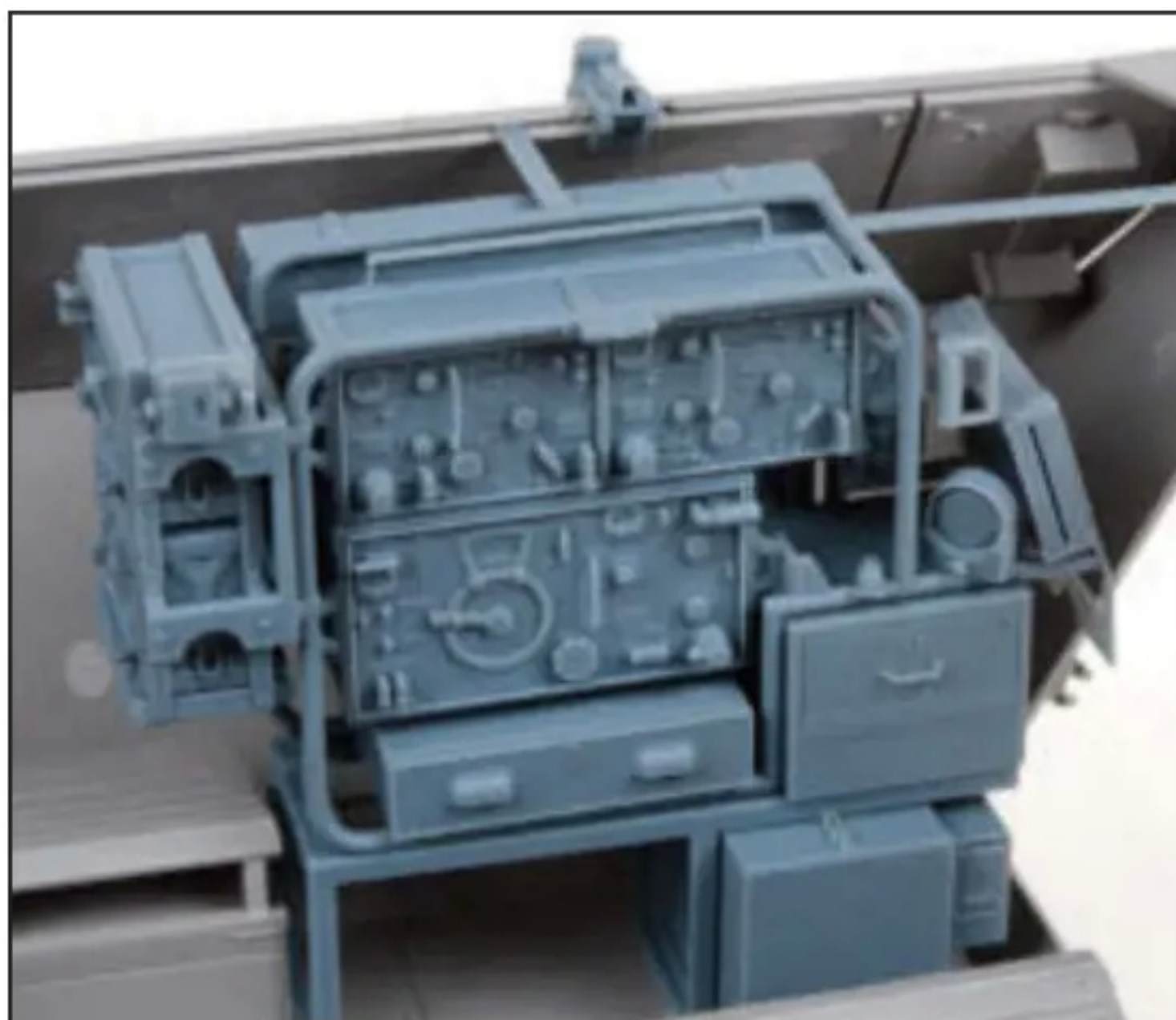
TAKOM 1/4 ton TRUCK

DETAIL SETS AND
SAS / LRDG
CONVERSIONS & FIGURES

SHOP 24/7 AT OUR SECURE WEBSITE www.afvmodeller.com
WORLDWIDE SHIPPING WITH CHOICE OF DELIVERY SERVICES



DAS WERK AND HELLER STUG III *...OVER 50 SETS AVAILABLE!*

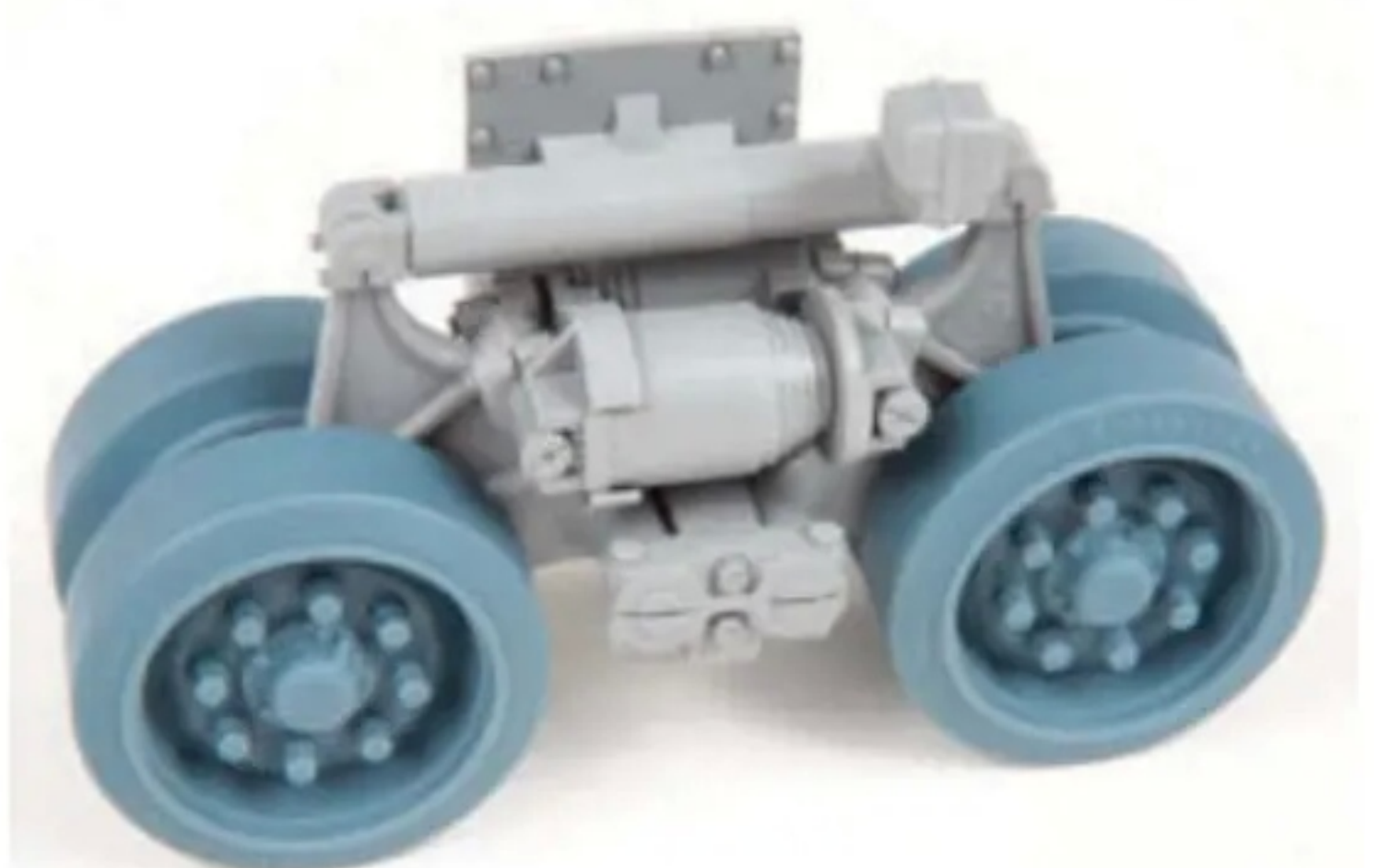
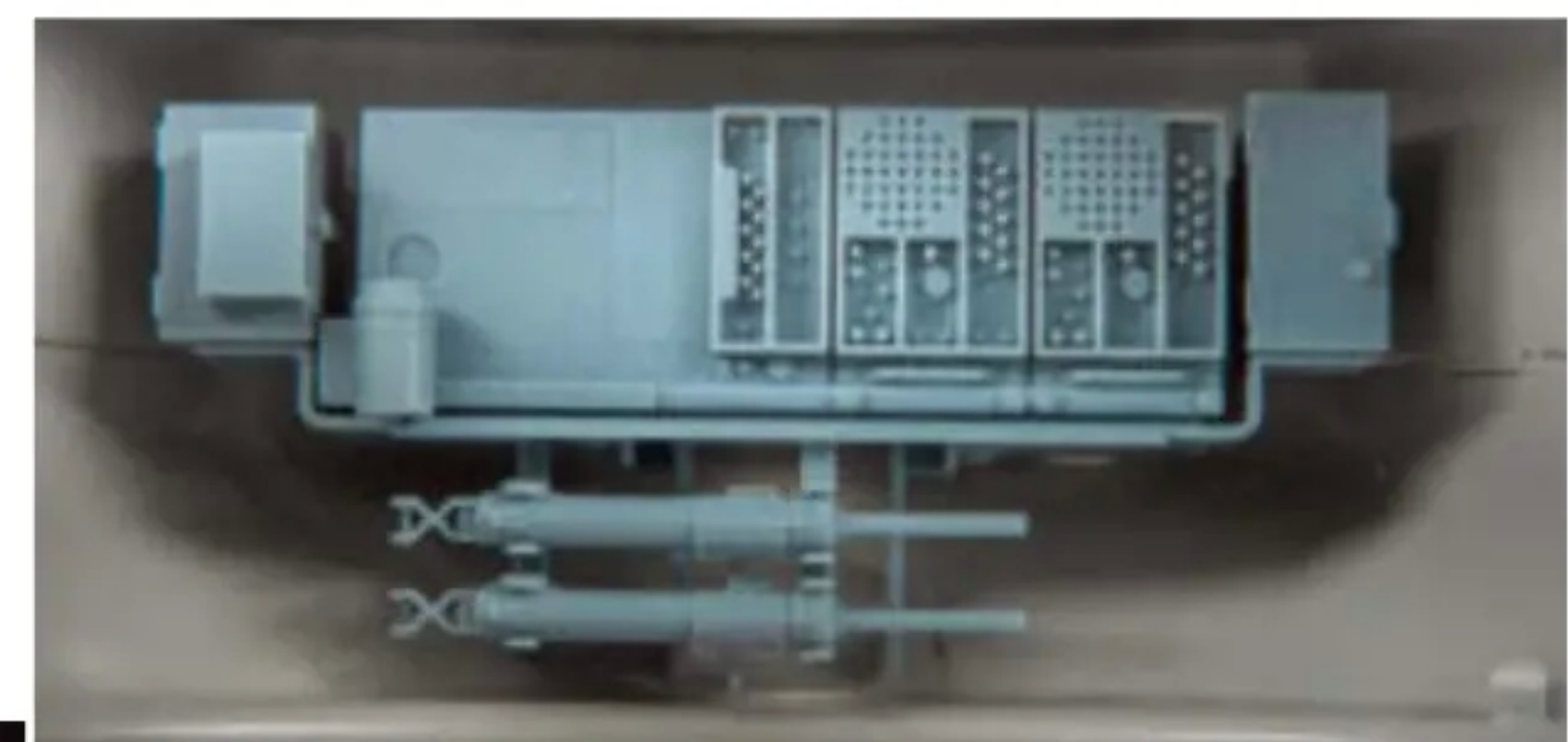
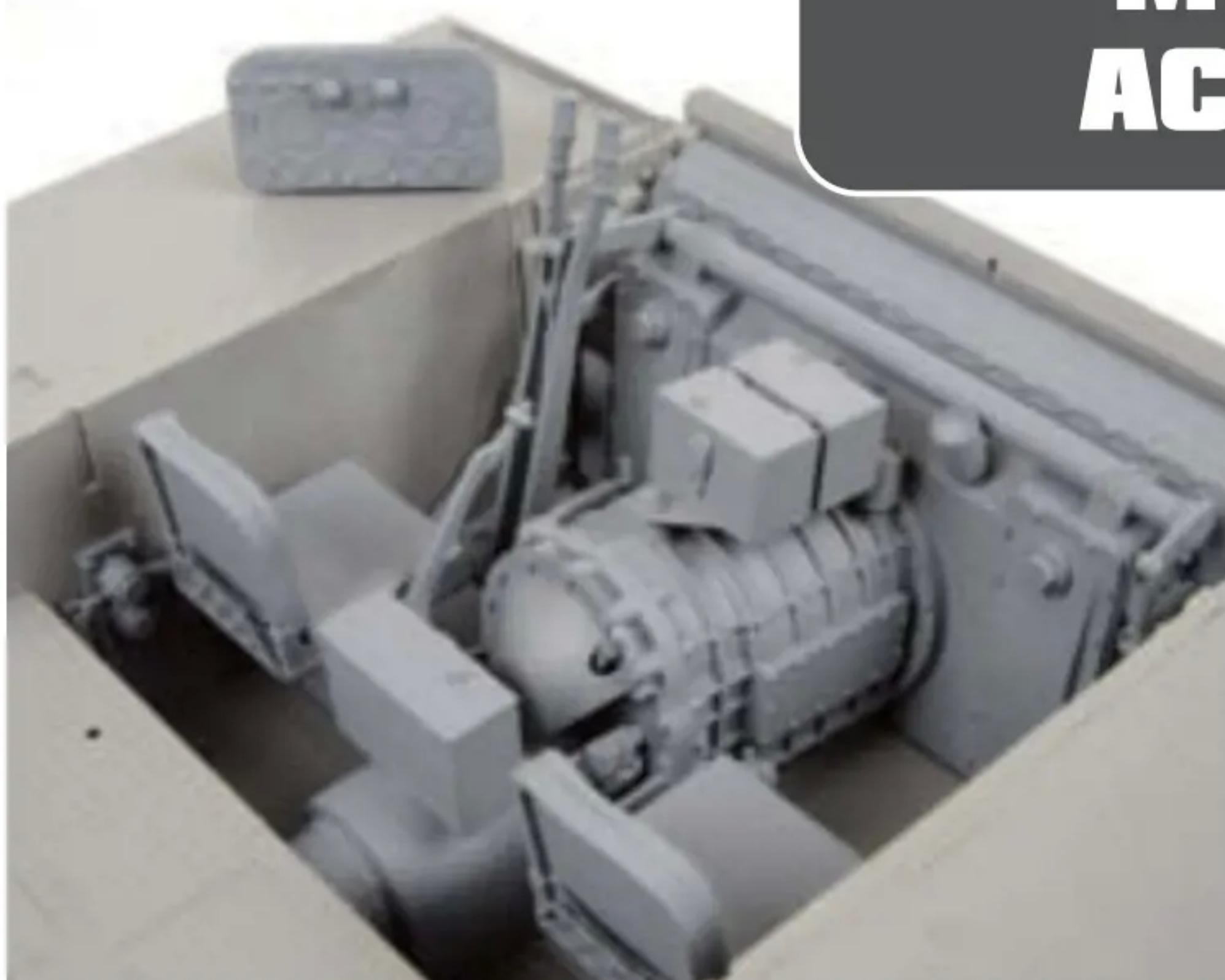


**DAS WERK & TRUMPETER
SdKfz 251**

...OVER 25 SETS AVAILABLE!



**AHHQ SHERMAN,
M10 and
ACHILLES**



WE'RE YOUR ONE-SIXTEENTH SUPERSTORE!

CHECK DAILY FOR STOCK UPDATES AND NEW RELEASES www.afvmodeller.com

Have you ever wanted
to take your projects
to a new level?
Earth, Mud, Water
and Ground Textures...

DIORAMA FX

The diorama is the scene you want to recreate, the stage your model deserves. You breathe life into it, set the atmosphere, and, above all, provide a historical or fantasy context that immerses it in a realistic experience. Muddy terrains of a battle, desert dunes, dense jungle, waves of a beach landing, or the asphalt of a city in ruins—all these become the settings for your stories with Diorama FX, a range that elevates your creations to the next level.



Scan for more
information:



Follow us at @VallejoColors



acrylicosvallejo.com

Vallejo

Always read and follow the information on the product label. Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.