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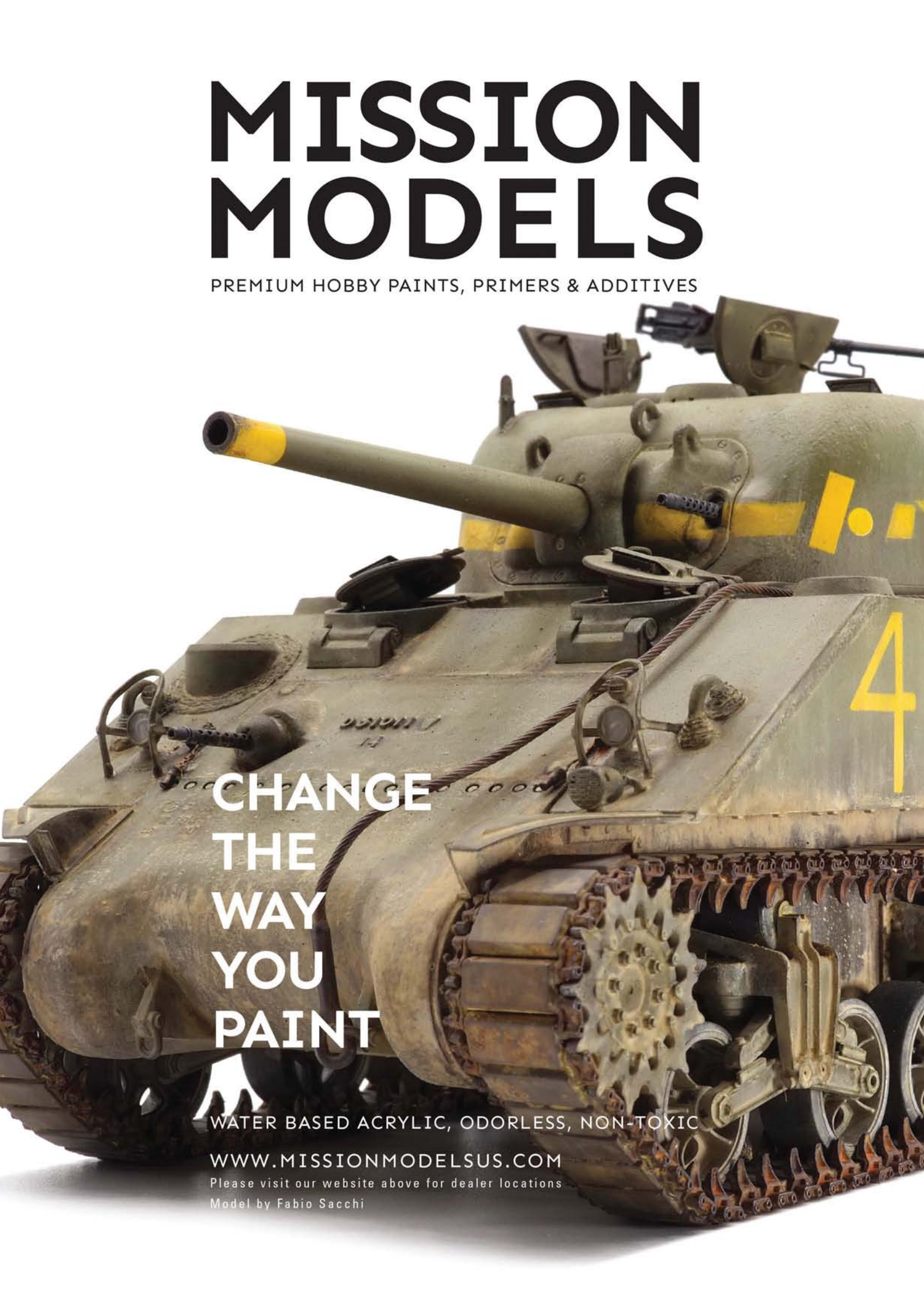


G-SPOTS

SAM DWYER'S DOT-PATTERN PANTHER G

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Model by Fabio Sacchi

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AFV Modeller Ltd
Old Stables
East Moor
Stannington
Northumberland
NE61 6ES
Tel: 01670 823648
Fax: 01670 820274

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

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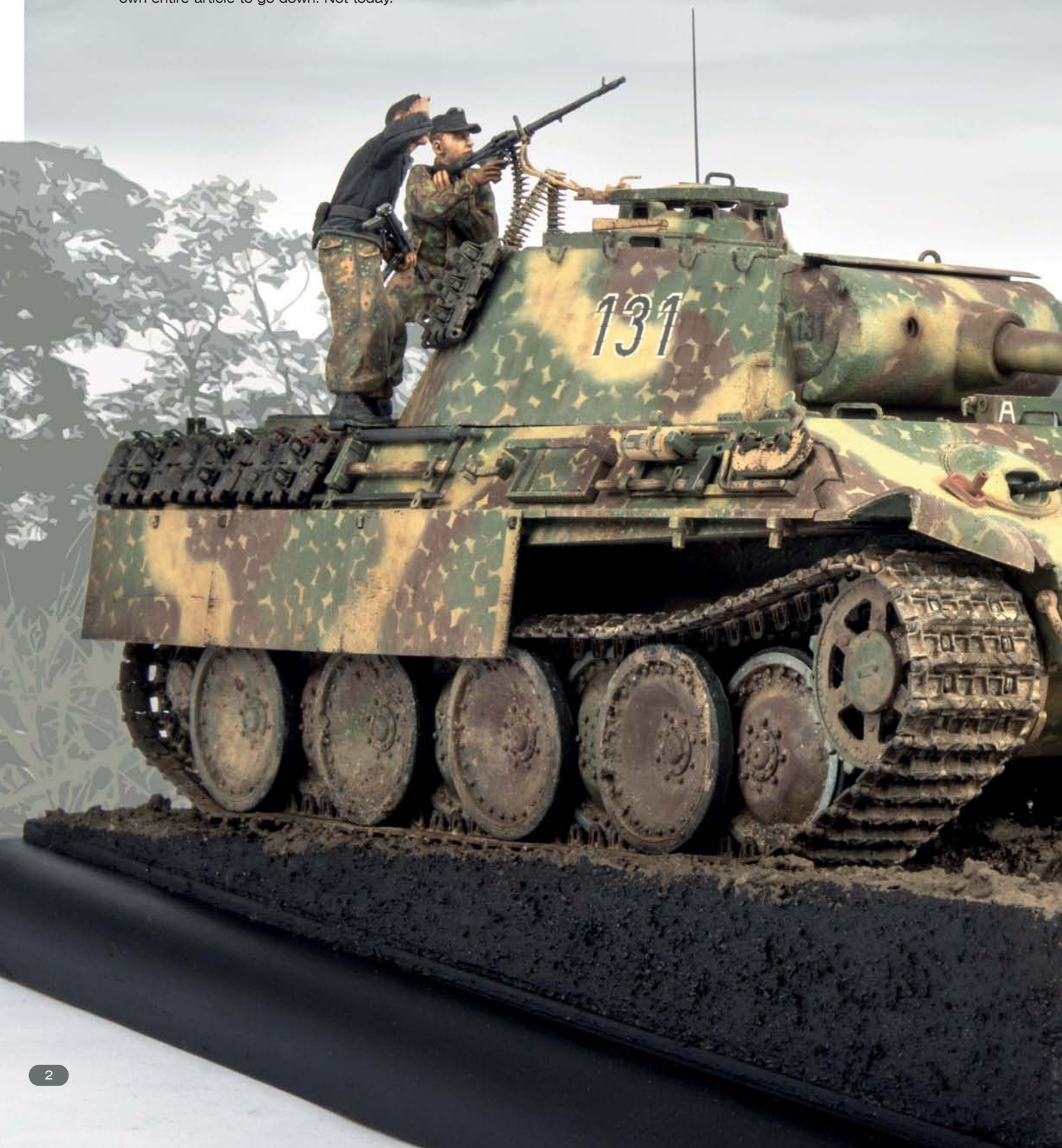


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Starting production in March 1944, the Panther Ausf.G would end up being assembled by three manufacturers (MAN, MNH and Daimler Benz), and would total nearly 3000 by War's end. It feels similar in 35 scale – with virtually every manufacturer releasing a Panther G at some stage. Seeing an already crowded marketplace, Meng sought a piece of that action, and have released a 'early' Ausf.G utilising many sprues from their Ausf.A kit and Jagdpanthers.

Panther G's can trick the unwary, with features that people assume were hallmarks of early or late production (idler wheels and mantlets being two). Smaller 'early' idlers and mantlets with no chin reinforcement were used right up until Wars' end, so these features being an identifier of an early vehicle isn't always the case. Many books have been written covering these design changes, this is a rabbit hole that would require its own entire article to go down. Not today.





LET'S FIND OUT IF SAM DWYER IS DOTTY
ABOUT MENG'S NEW PANTHER AUSF.G

ONE-THREE-ONE...GO!

Meng's G is moulded in their now customary light grey, which is fine, but I prefer their kits when moulded in tan coloured plastic, it shows detail better and looks better in photos. Construction starts with the running gear, Meng provide an option of smaller and larger self cleaning idler wheels. Almost immediately this necessitates the choice of what vehicle I want to model. Eyes roll and cries of 'not again!' when I chose a Panther that was used and lost in the Ardennes in December 1944. I've decided this tank will be Panther 131, commanded by Oscha. Thomas of 1./SS-Pz.Rgt.1. This tank was knocked out by US aircraft on 18th December just outside Cheneux in Brussels. This tank was assembled by MNH in September 1944.

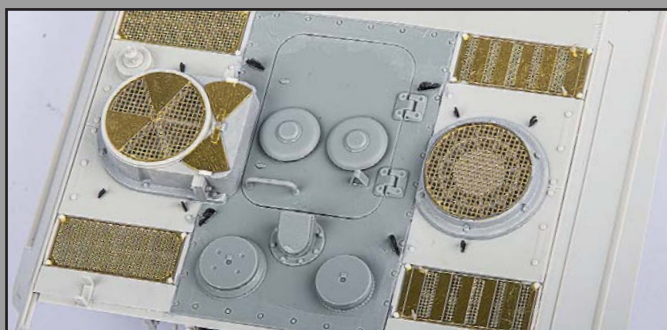
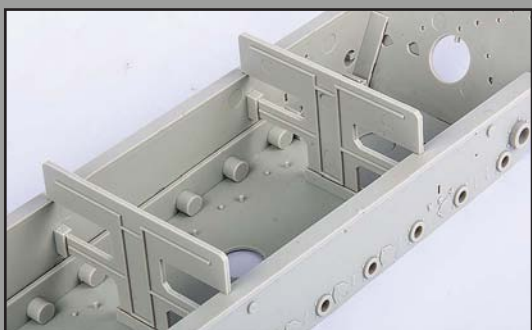
So back to the running gear – this tank had the smaller idlers, so these were built up along with the rest of the running gear. I left the poly caps out of the road wheel assemblies, as this makes

them easy to remove from the swing arms (more on this later). The hull parts are built up flat pack style, only with less swearing and the need for an allen key. All the parts fit perfectly, resulting in a strong perfectly square hull. I always build up the major components first, hull and turret, before embarking on all the detail bits. A thorough scan of the instructions is important to ensure all the correct holes are drilled for various assemblies – exhausts, inspection plates, antenna mounts and self defence weapon up on the turret. After the swing arms are attached, I slide the roadwheels on then pack the gaps between the roadwheels with Magic Sculpt epoxy putty. This effectively joins the road wheels into one big part, which will making painting easier later on.



To date, only one manufacturer has accurately captured the hull roof of the Panther G correctly. Sadly this isn't Meng. Above the driver and MG position on the hull roof should be a section of 40mm armour, this stands proud above the surrounding 25mm roof armour. To remedy this, I use some 5 thou styrene sheet to add the armour thickness, and some 10 thou styrene to rebuild the pivoting drivers' episcopes mount. The extra armour was blended into the surrounding hull with some Mr Surfacer to ensure it looks like it was always there. Whilst working on the upper hull –

the engine deck included in the Meng kit needs quite a bit of work. Meng included the deck parts from their G2 Jagdpanther, which is a very late production engine deck. This is typified by the fuel and water filler ports being the same size, and raised bolts to secure the deck where they should be flush. This can be relatively easily rectified with some elbow grease, but I chose to substitute a spare engine deck left over from a DML Panther G. It fit perfectly into the gap left after removing the incorrect engine deck.

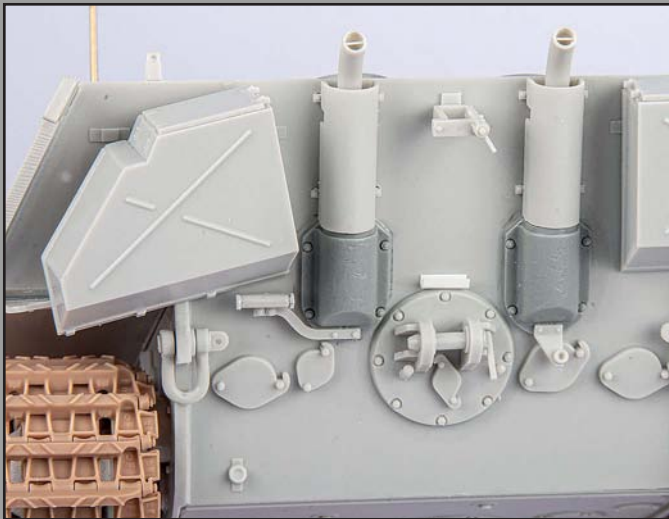


Referring to pictures of the real 131, it's quite easy to match the damage on the model. I chose to model 131 before it was knocked out, which allows for a little artistic license. Meng provide the vertical ribbed hull stowage boxes, as well as the regular X ribbed type, I chose the X type and mounted the left one at an angle, as per the real 131. The front left fender was removed with a razor saw, with the mounting bracket built up from some 10 thou styrene sheet. The front left side fender was also removed, the mounting brackets bent and some weld remnants added where a mounting bracket has been removed entirely. The remaining brass side fender was bent according to pics of 131. These little changes really add life to the model.

Meng provide several options for exhaust pipes, with a mix of pipes and welded or cast armoured exhaust guards. Sadly they didn't provide the type of cast guards that I needed for 131 (of course there was a third type of guard), I was able to source these from my spares box, as they come in the DML Panther G and are often left over. I drilled out the exhaust itself and added the strengthening rod in the tip with some 10 thou styrene rod. Thinking ahead to the painting process, I knew I'd need the hull sides as uncluttered as possible to get the disc camouflage looking good, so I built all the tool assemblies up on their brackets, and glued them to the hull temporarily using PVA glue. This allowed the base colours of the camouflage pattern to be applied

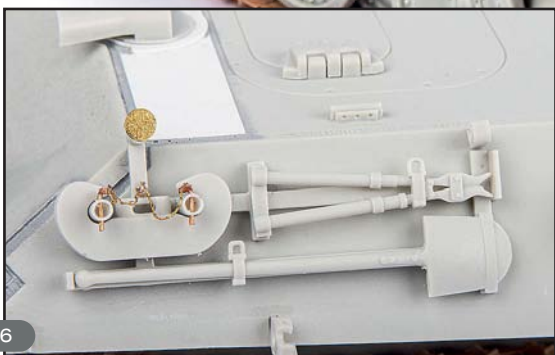
to everything, before removing the tools to paint the discs. More on this later too. Meng did a terrific job with the distinctive tools and brackets on the G, with really nice detail and fine tool clamps. I was going to replace them all with 3D printed clamps, but the kit parts are excellent. I did drill out the C clamp mounts and spare track brackets and added pins and chains. The pins were made from copper wire and the chains are from Passion Models in Japan.

131 had the raised crew heater on the engine deck, Meng supply both the raised heater or the regular earlier style flat circular vent, which is great. The etch mesh supplied in the kit is OK, but is a little heavy and lacks the woven look of the real thing. Several bolts were missing from the raised crew heater, these were added from Meng's own styrene bolt set. Meng also provide the sliding louvers for the right side rectangular vents on the engine deck. Usually these louvers were seen when the raised crew heater was also installed, but they weren't part of the same overall modification in production, so they could be seen separately. This is true in the case of 131, it has the raised crew heater installed, but not the louvers. Luckily Meng include regular mesh covers for these too. One of the final changes I made was to drill out the barrel rod and spare antenna tube on the left side. I drilled out one end carefully with a dental burr in my Dremel, then added the internal detail with some scrap styrene. The exposed tips of the





The turret also is built up from flat plates around a plastic 'skeleton' – and the fit is perfect. As 131 was built in Sept. 1944 I needed to add pilzen 2t crane mounts to the turret roof. These were sourced from a leftover DML turret shell. Interestingly there are several blind holes moulded in the Meng turret roof where these pilzen go, indicating that a later version Panther G will be released at some point. The cast texture on the kit mantlet was toned down somewhat with the application of some Gunze Mr Surfacer brushed over the surface, this was done on the cupola and front plate of the turret, which in reality was also a cast part. I replaced the kit gun barrel, purely because I had an Aber barrel handy. The kit barrel and muzzle brake is actually really nice and doesn't need to be replaced. The last thing to be added to the turret is spare track brackets.



These were very common to this unit, and were added from brass rod. Weld detail was added to these using Magic Sculp putty. Spare tracks were added to these brackets, following the pics of the real 131. Whilst we are talking about tracks, I replaced the kit track (which are fine) with T-Rex Productions 3D printed tracks. These tracks are the best thing I've ever seen. They're exquisitely moulded / printed and fit together with two tiny track pins that are a friction fit. Once assembled they're very strong and fit the Meng kit perfectly.



So, to painting. Disc camouflage has always seemed a bit daunting, so I've avoided it up till now. When they were released, I grabbed several sets of Uschi vinyl masks for this camouflage pattern. Much has been written about the manner in which this pattern was applied at the factory, with debate raging as to which colour was applied first. To my eye it looks like the pattern was Green > Brown > Sand coloured 'discs' then Sand overspray as a final coat. I used AK 3rd Gen colours to replicate the camouflage, RAL6003 Olive Green as a base, then 8017 Red Brown.

GOING DOTTY



Once these colours were sprayed, I removed the tool brackets and spare track brackets. The Uschi vinyl masks are then applied over these colours and the sand 'disc' pattern can be sprayed. I used AK 11318 RAL7028 for this. The Uschi masks have just enough adhesion to stick to the surface and mask effectively, but don't damage the underlying paint work. Nice! These masks were reused over the entire model, where possible I lined up the mask to match the pattern already applied. Where this wasn't possible, in reality it wouldn't have been possible in real life, if old Hans at the MNH factory couldn't get the template to sit flat, chances are I wouldn't be able to either. Once all the discs had been applied, a final random pattern overspray of the RAL7028 was applied. A quick coat of Tamiya gloss clear had the model ready for decals and weathering.





I used Archer waterslide decals for the markings, the real 131 only had turret numbers on the turret and mantlet sides, and a big white A on the gun cradle mount. 5 decals and I was done, and ready to weather.

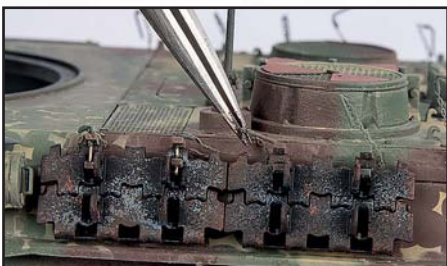
Ok all the boring stuff like tyres and tools and spare tracks were painted first. These all weather the same as the vehicle weathers, so why paint them last? Everything was painted with AK 3rd Gen acrylics, not for any special reason other than this is what I had handy, and they're easier to find in my paint drawer than the corresponding Vallejo colours (lazy, I know).

Mud and general filth was added to the running gear and lower hull using Scale75 acrylic earth goo. This is really great stuff, slap it on and blend it in with water and it dries to a very convincing dirt looking mess. By blending the goo with water, it helps somehow to not obscure too much detail on the running gear. Over the top of this was applied several acrylic washes using various browns and greys from Vallejo and Lifecolor. I also spattered some AK earth effects over the hull and running gear, to blend it all together. The hull and turret were also weathered almost exclusively with acrylic washes, I find this to be a quick and convenient (and less stinky) way of applying a realistic weathering look to the model.

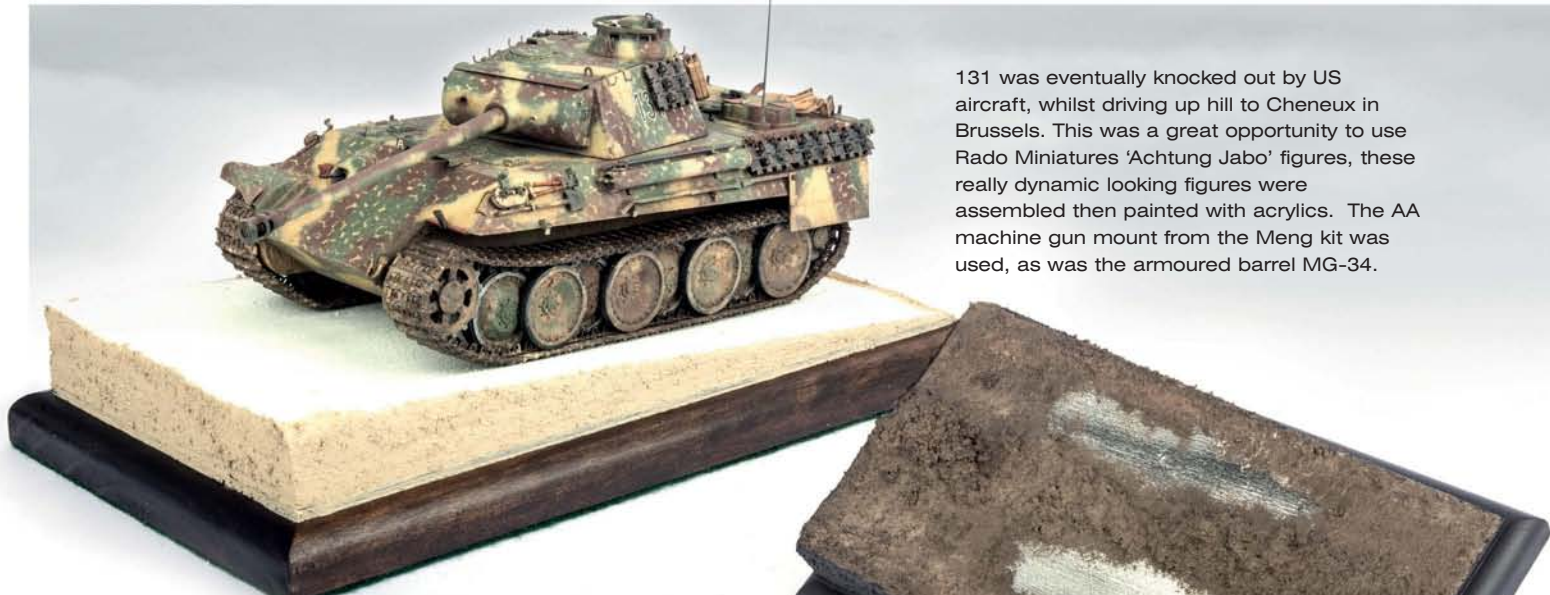




Oil paint was used to simulate rusty wear marks on the turret sides where the spare tracks had been sitting. Tiny lines were painted on using various rusty brown colours, these were blended with odorless thinners. The exhausts were painted with various shades of Lifecolor rust tones, then given some dark grey and black washes to tone it all down.



As this tank had about a 3 month life span from manufacture to loss, I needed to act with a little restraint when it came to weathering. Chipping was kept subtle and low key, using the kit base colours and some AK Grim Brown (a really nice black brown colour). Fuel stains were added sparingly to the engine deck using Tamiya panel lining paints – I somehow managed to flick some into my mouth when applying this, it does NOT taste nice at all. I couldn't bring myself to muddy the amazing T-Rex tracks too much, so over a coat of Tamiya XF-84 Dark Iron I applied some washes with AK earth effects, loose ground and wet earth, these were blended in using a damp brush, then a drafting pencil was used to add some



131 was eventually knocked out by US aircraft, whilst driving up hill to Cheneux in Brussels. This was a great opportunity to use Rado Miniatures 'Achtung Jabo' figures, these really dynamic looking figures were assembled then painted with acrylics. The AA machine gun mount from the Meng kit was used, as was the armoured barrel MG-34.



I added a belt of linked ammunition from Andrea Miniatures. The model was placed on a simple base with a raised up hill pointing road, which sort of matches the roadway on which 131 travelled before being knocked out. The figures were pinned and glued to the model and the model to the base, at which point im calling it done.



The Meng Panther Ausf G isn't a bad kit at all – and given it joins a crowded marketplace with almost every manufacturer in 35 scale having released at least 1 version of the G already, im sure it will find its place. The kit comes with a lot of optional parts which is great, and out of box could be built up into something very nice. It also can serve as a great base to add loads of extra detail.



I'd like to extend my thanks to Tony Sheedy and Don Campbell for their support with this project.



STZ EARLY T-34



The T-34 is surely the most famous Soviet tank, a model of brutality and pragmatism. T-34 is a roughly welded with traces of gas cutting and overall minimalism. However, there was a period in the history of T-34 when these tanks had not yet gained these characteristics. The pre-war vehicles and tanks at the beginning of the 'Great Patriotic War' were very different from their later equivalents. This contrast attracts modellers who want to build a more unique T-34. I succumbed to the charm of the early T-34s and decided I had to add one to my collection.

As a prototype style, I chose tanks produced by the Stalingrad Tractor Plant, released in July 1941. These tanks got unique features that allow them to be identified as STZ products. STZ was the second factory which produced T-34s until July 1941, their machines did not differ from the T-34 built at the Kharkov plant.

After the war started, the engineers at the factory 183 began to modify the construction of the T-34s to simplify production. STZ were authorised to make design changes and to modify the tank in their own way. Tanks in such a configuration were produced until August 1941 and were equipped with either welded or cast turrets. The number of such T-34s is unknown, but they can be seen in period photos until the summer of 1942.

My T-34 has insignia of the 18th Tank Brigade, which fought near Gzhatsk in October 1941 in front of the Mozhaish defence line. The brigade met the German units that broke through the front and fought heavy battles, covering the deployment of rifle divisions near Mozhaish. The unit was surrounded, but broke out of the encirclement. In the battle the brigade lost two thirds of their equipment. The 18th Tank Brigade operated as part of the Western Front until the beginning of the Soviet counter-offensive near Moscow.



NIKOLAY GRUENBERG
CREATES AN EARLY VERSION
OF THE SOVIET ICON

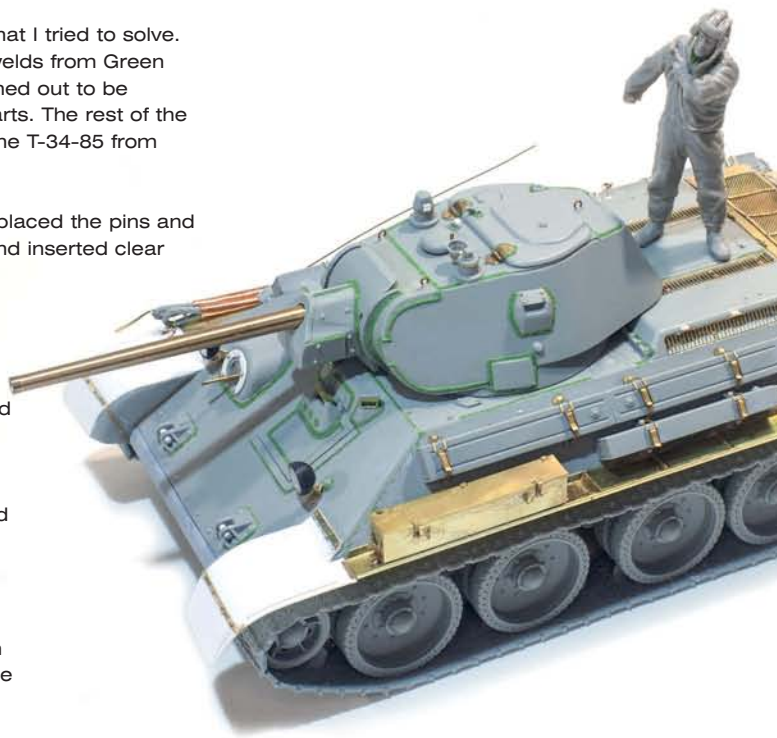


The basic kit for the project is Dragon 6205. It has a lot of problems that I tried to solve. The main difficulty is the unrealistic texture of the welds. I made the welds from Green Stuff Epoxy Putty. I bought a Voyager Model photo-etch set, but it turned out to be disappointing. I used boxes, fenders, mudguards, and a few small parts. The rest of the details I took from the remnants of the Microdesign PE designed for the T-34-85 from Dragon.

I added my own casting texture throughout. On the tow brackets, I replaced the pins and added grooves for the stoppers. I made welds on the driver's hatch and inserted clear lenses into the periscopes. The headlights were replaced with Elf aftermarket; there are no clear parts in the basic kit. The front mudguards in the kit are moulded together with the body. I left only the inner parts, and made the rest out of sheet plastic with the ribs made out of sheet brass and photoetched nuts.

The Elf headlights I found to have an incorrect shape, I had to fix it and made the wiring from 0.2 and 0.25 mm wire. I made the antenna myself and replaced the tow cables with aftermarket parts from Microdesign, the eyes / ferules were modified with wire. The Voyager track grousers are used unchanged and the joint between the hull and joining panels had various weld beads added. The jack in the kit is quite simplified and was detailed working from reference images.

The engine deck cover is the best detail from Voyager set with the convoy light was taken from the Elf set. Shovels are a nice touch from the Microdesign set and I made the brackets from suitable parts of the remains of the PE sets. I drilled the exhaust pipes for a more realistic look.



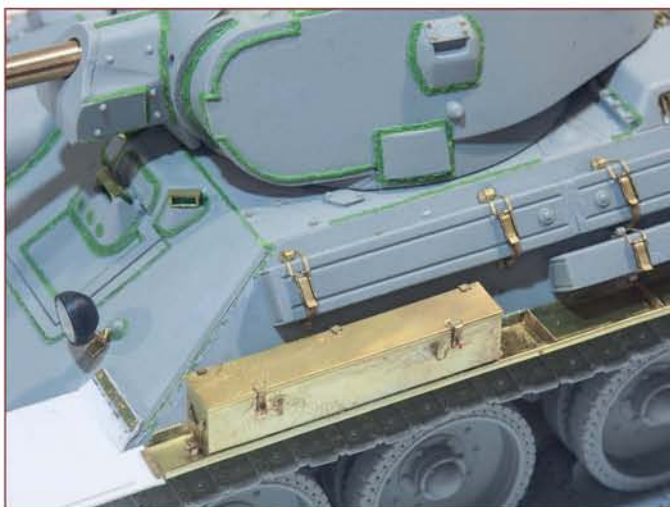
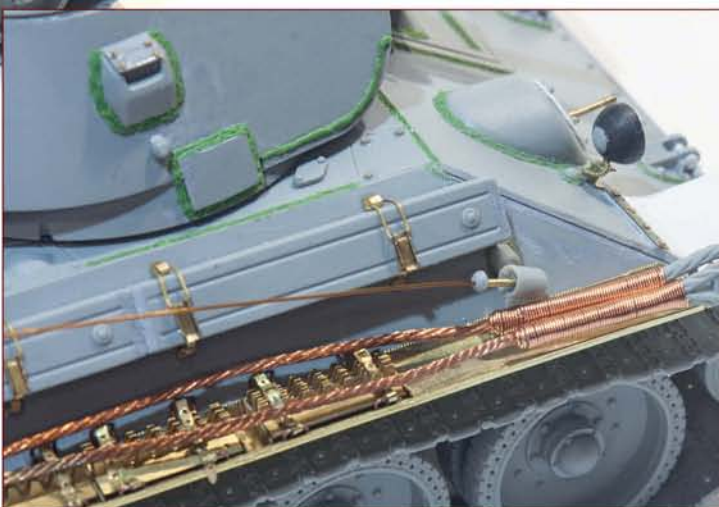
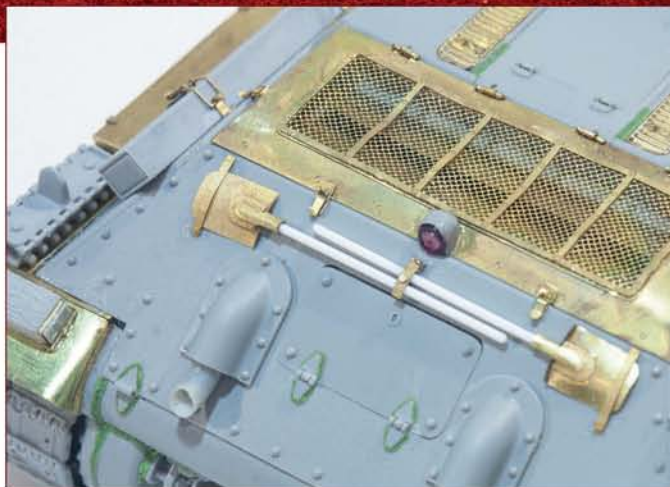
The additional fuel tank mounts are assembled from parts of different photoetch kits. The brackets were taken from a set of box brackets for T-64/T-80 from Aber and modified with brass parts. Fixing hooks are scratch built. The grousers on the left fender were abolished because they interfered with the installation of the fuel tank, but the stiffeners remained.

The turret hatch I took from Cyber Hobby kit 6449 as it is more accurate for the production time-line. The periscopes were modified with scratch built parts and the lifting hooks were made from shaped brass rod.



On the inside of the hatch, all the fittings had to be re-made. Radiator slats / grilles are photoetch from Microdesign. These are the simplified grilles of summer 1941 production without a cutout at the bottom. The bolt caps I had to replace with MasterClub details.

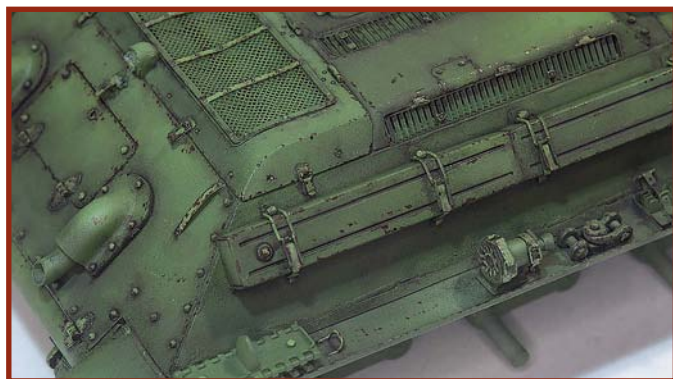
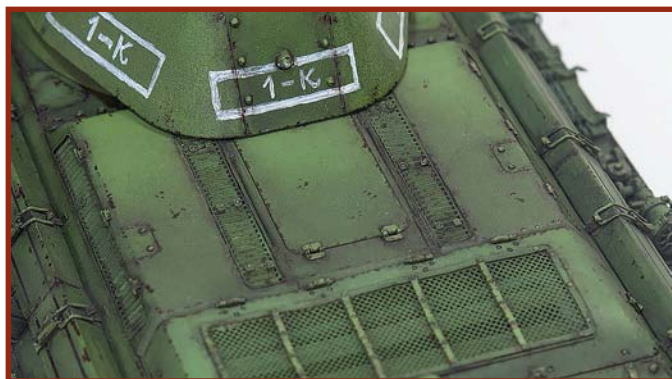




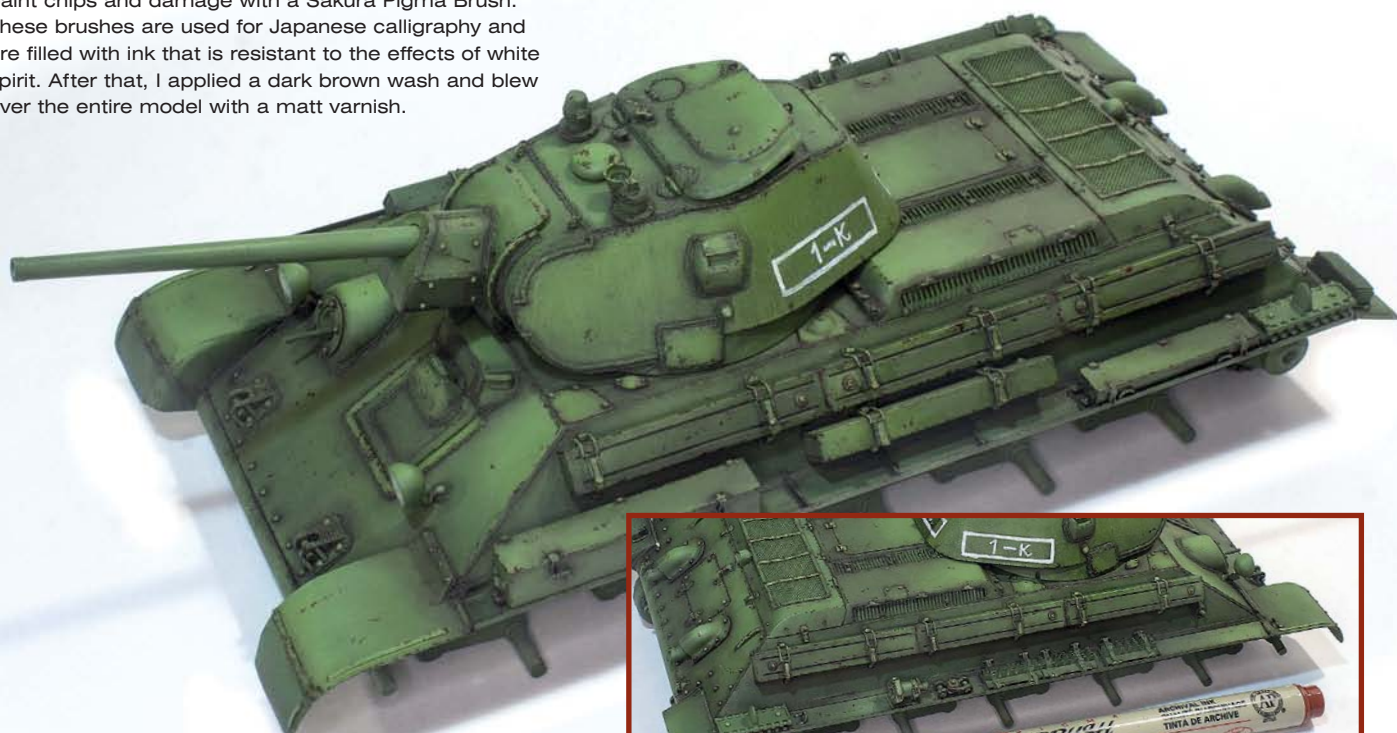
My first phase of painting a model is always primer. I use grey matt or semi-matt enamels from Revell. They provide a neutral substrate for the base paint and hold well on brass parts.

The next stage was base colours using the colour modulation technique. I used it to create artificial shadows and illuminated areas simulating the light distribution as on a real vehicle. I used two Mr. Hobby colours. – H330 as the base and H340 for shadows.

The light shade and the highlight I made by mixing the base colour with white in different proportions.

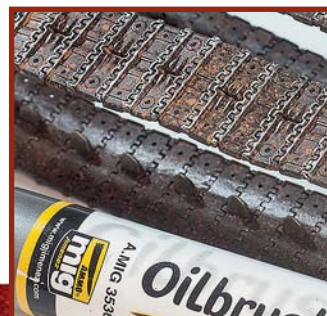


I painted the tactical marks by brush then imitated paint chips and damage with a Sakura Pigma Brush. These brushes are used for Japanese calligraphy and are filled with ink that is resistant to the effects of white spirit. After that, I applied a dark brown wash and blew over the entire model with a matt varnish.



I mixed the base colour for the tracks based on H84 and H301 from Mr. Hobby in a ratio of 1 to 3. I chose a colour close to the colour of cast, raw metal. After that, I made a wash with a black water-soluble acrylic paint, diluted with water. I avoid using spirit-based washes on plastic tracks as their solvent can dissolve the adhesive.

I next sprayed heavily watered-down acrylic paint in various shades of rust. This technique allowed me to simulate the build-up of corrosion on metal surfaces. The next stage is the imitation of polished metal on the raised pattern of the tracks and guides. I tried out some AMMO Oilbrusher instead of acrylic or enamel metallics, and I liked the effect. Using oil paints I imitated the accumulation of dirt and dust in the recesses of the tracks. I used the same technique that I used to simulate corrosion correcting the effects with a solvent dampened brush.



I also imitated streaks and accumulations of dirt with oil paints. To create the effects of stains and drips of fuel and oil, I used products from AMMO.



I start the weathering of the hull sides by simulating dirt streaks with oil paints. Dirt accumulations were next in the lower part of the sides, heavily diluting the paint in washes. To simulate volumetric mud I applied 'Dark Mud' effect from AMMO and added fibre threads from a cleaning cloth to it to show a mixture of mud and grass. After that, I simulated mud splashes using a loaded paintbrush and flicking the bristles.

As a final detail I added some maple leaves, airbrushed with bright autumn colours.





The figure is a classic from a Miniart Russian tank crew set with the personal weapons and equipment adding some extra touches of interest.

I enjoyed researching this early T-34 version which to many shows the icon in it's purest form.



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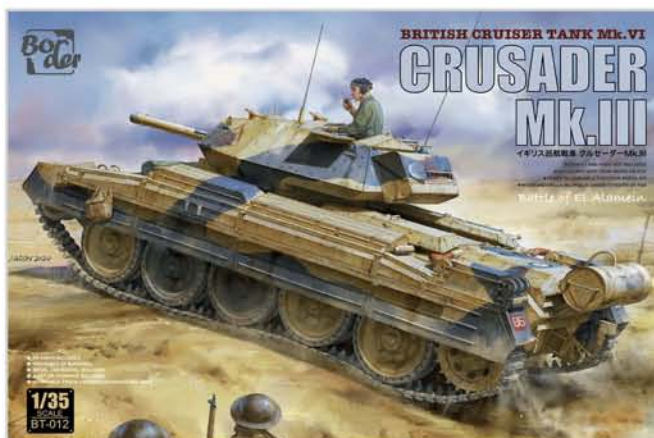


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When you spend your days surrounded by beautiful and exotic vehicles what do you do with your precious spare time?

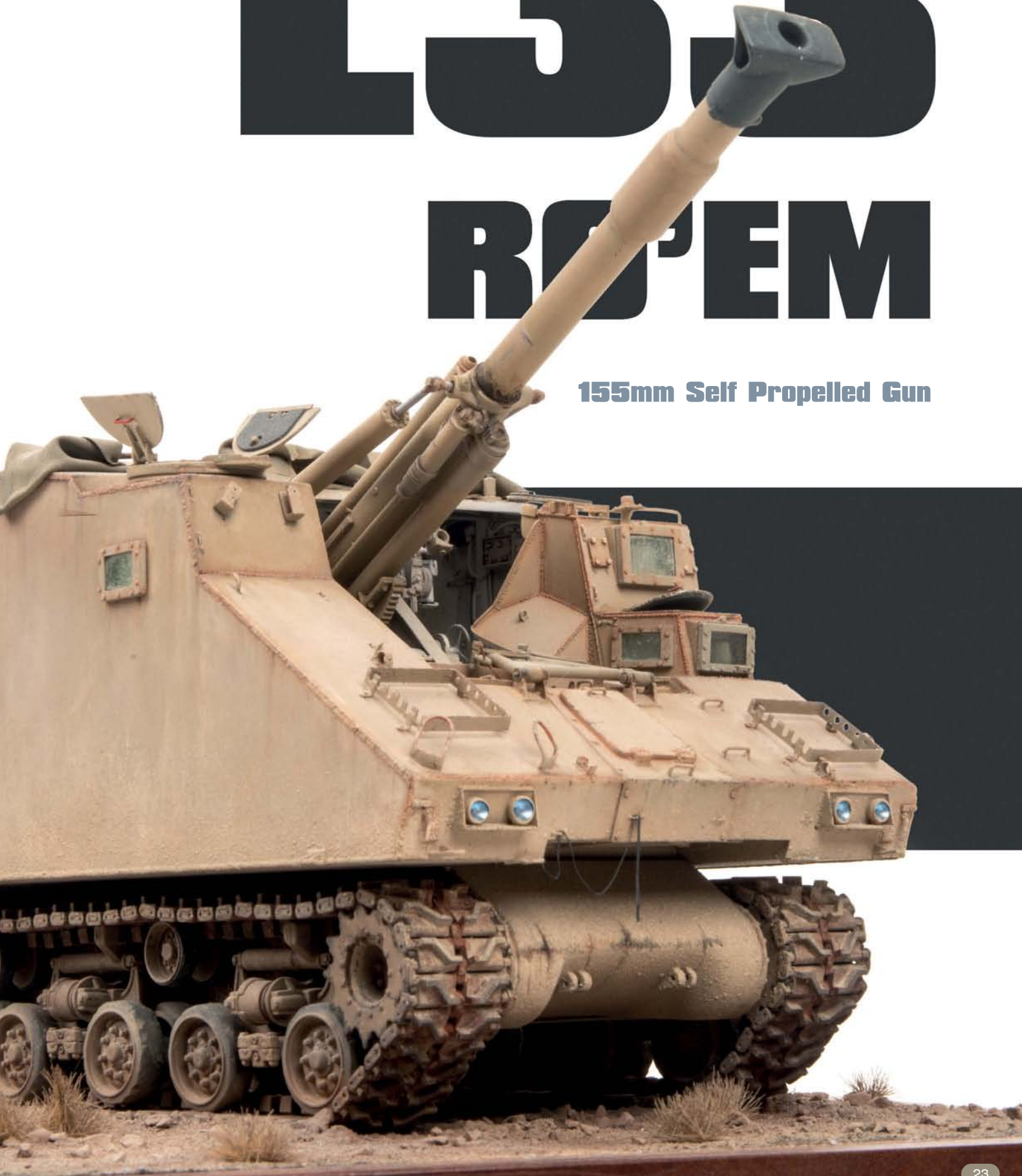
Well if you're Andy Canning you scratch build ugly armoured beasts, that's what.

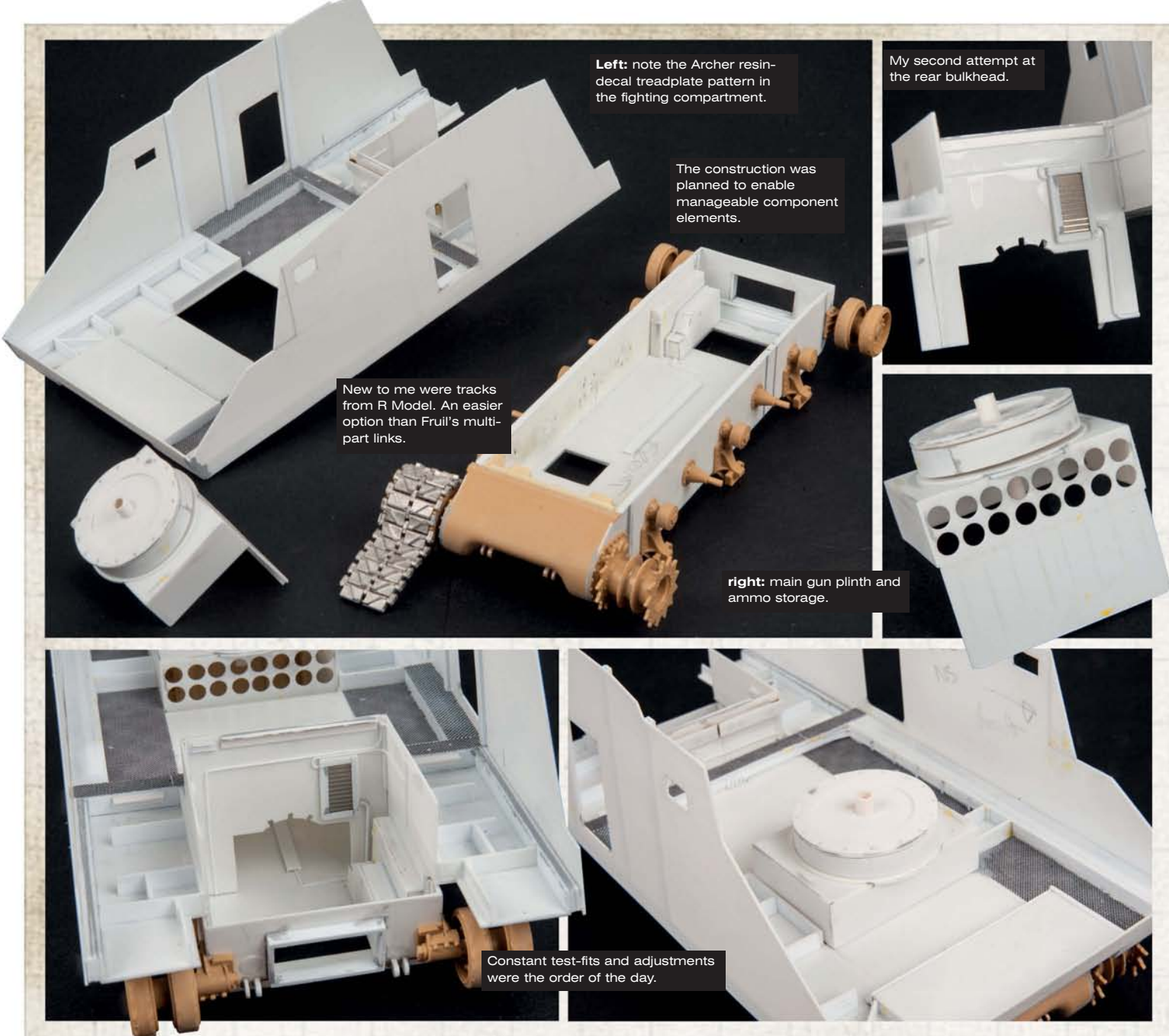
I have a thing for IDF armour. Invariably because in the past they modified or adapted everything they fielded to suit their purposes. Historically therefore I've never 'just' been able to build kits 'OOTB' (Out Of The Box).

This then leads to an unhealthy fondness of A4 sheets of white styrene, Evergreen styrene strip and rod, and scratch building...sometimes a lot of scratch building...

L33 ROSEM

155mm Self Propelled Gun





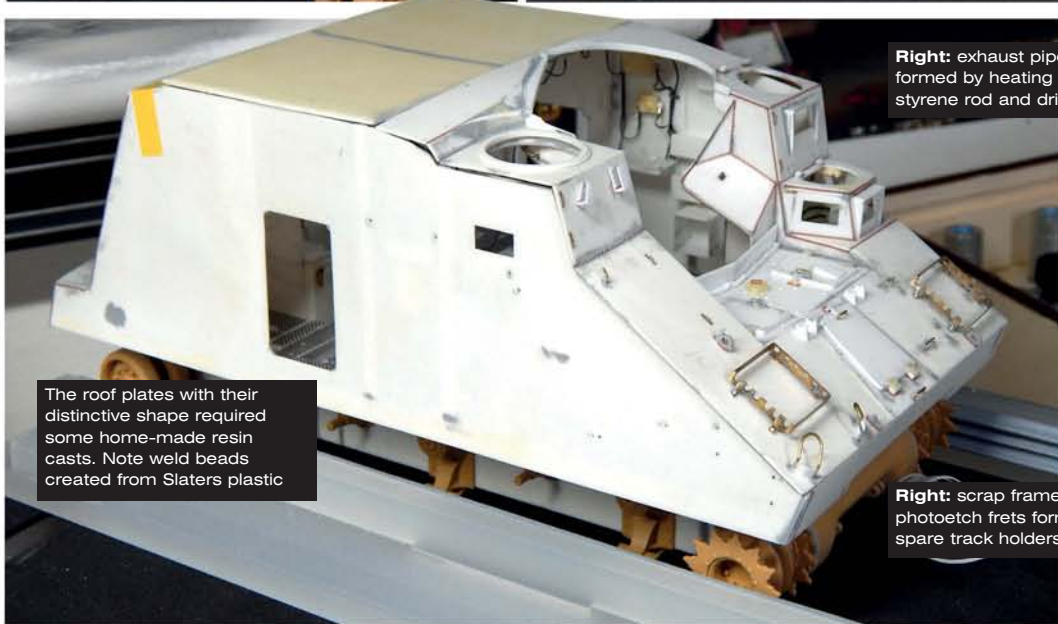
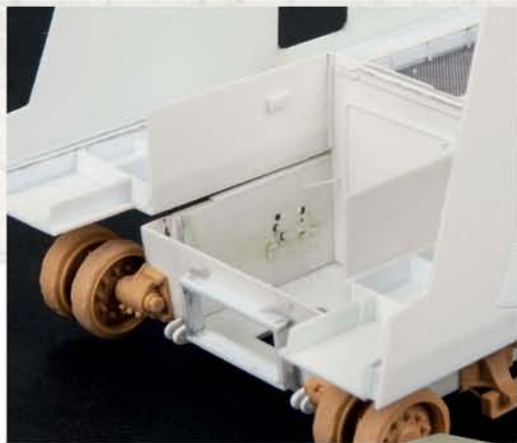
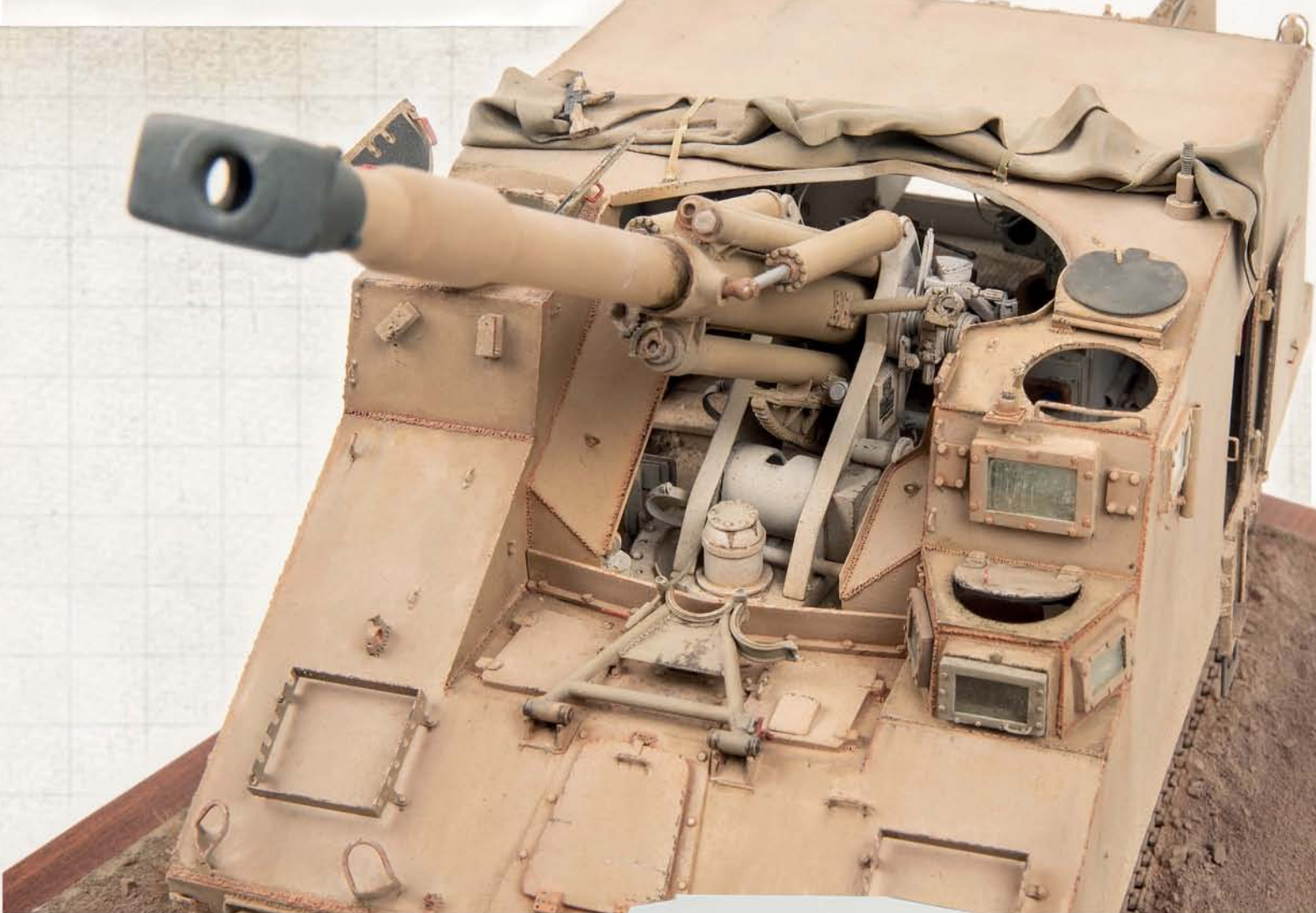
Scratch-building; I like the way it makes my mind work, trying to engineer solutions to build the components of the subject. And that, to be fair, is the key to it. I look at the part I want to build, say perhaps an interior ammo rack, and then break it down into small parts. I try to keep it simple, especially if I am replicating a lot of single elements, such as retainer brackets for 155mm projectiles. I like simple.

AEF did a resin kit of the L33, I think I recall seeing one, at the Darlington 'Sword and Lance' show one year, tempting, but I'd been burnt by AEF quality before, so gave it a swift body swerve. When I decided I must build one, I had lots and lots of images, from a couple of sources, and Tom Gannon's new book released by Trackpad Publishing. No dimensions though or plans, so there was some educated guess work, and scaling from photos versus components of know size, to get a scale multiplication factor. Give or take, it worked.

I used my favourite donor kit, from Tamiya....the venerable M51. However, all I used was the running gear. The hull tub was scratch built, and literally everything else, too. I was initially going the whole hog, with an engine instal too, but then, after finding an old Verlinden V8 diesel, modifying it, building the mounts etc....I realised what you'd actually see.....ZERO. Full of good ideas I am.

Instead, I did everything else visible, including a fully scratch built main gun and interior. The only other kit item was the muzzle brake. Sizes I took from a Takom kit of the SADF Rhino 155mm SP gun. I used boiled water to help shape some rod and styrene strip elements keeping a constant visual check. The key again was breaking everything down to smaller component parts to construct. The floor was made from 20 thou plastic and various sizes of Archer's lovely resin anti-slip plate 3D resin decals. I find this easier to use, rather than etch sheets in brass, of the same. I discovered some braided line in my spares box that I thought replicated the

hydraulic lines along with some thicker elastic rigging thread which worked for cables and wiring. The drivers station, ammo racks to the rear and the charge bag bins were all constructed from sheet. The superstructure consists of plate steel with many angles etc to replicate. This was built from the hull floor up...everything. I had a pretty good idea of the hull sizes, as I seem to have an IDF Sherman fetish, and build a few of the variants giving me a good working knowledge of the vehicle. I used a laminate of 20 thou / 30 thou plasticard, and superglue, so nothing warped...too much. I needed to keep everything square so I wouldn't have any issues later in the build. Both the basic hull sides, and the front were measured and then cut. The tub was then left for 24 hours for the glues to fully cure, supported, to ensure everything was straight and true. The hull sides / superstructure, where then drawn out on 20 thou plasticard which I'd scaled from some side profile images I had on my I-Pad.



Right: exhaust pipe was formed by heating styrene rod and drilling.



Right: scrap frames from photoetch frets form the spare track holders.

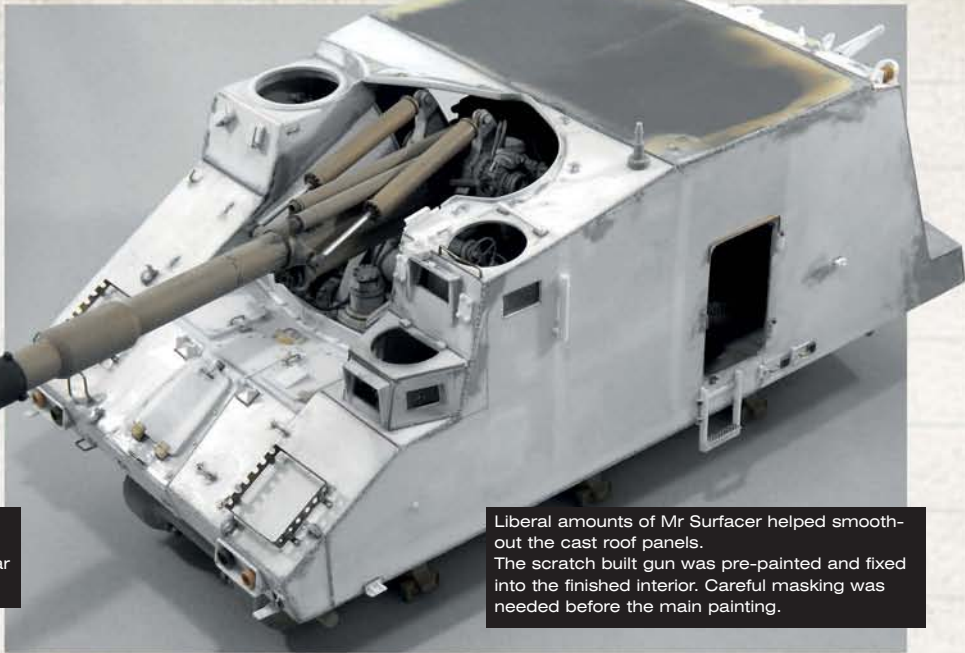
The roof plates with their distinctive shape required some home-made resin casts. Note weld beads created from Slaters plastic



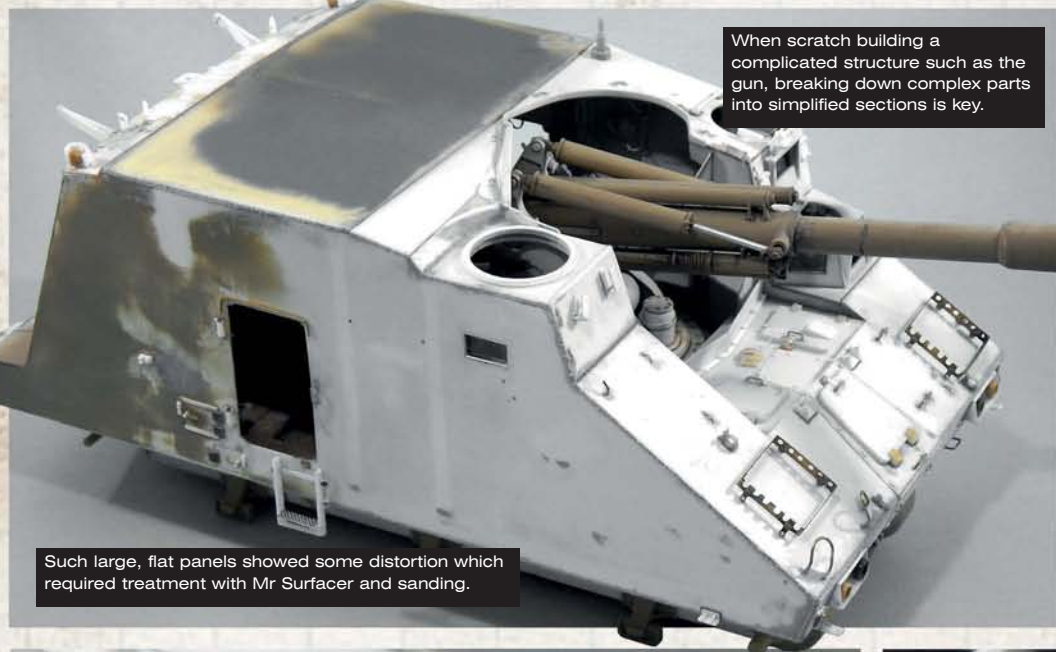




Archer's tread plate decals again put to good use on the rear step areas.



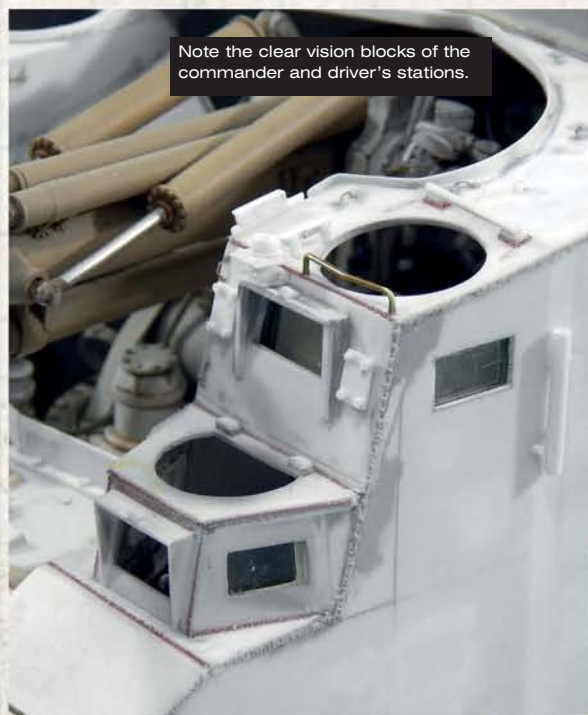
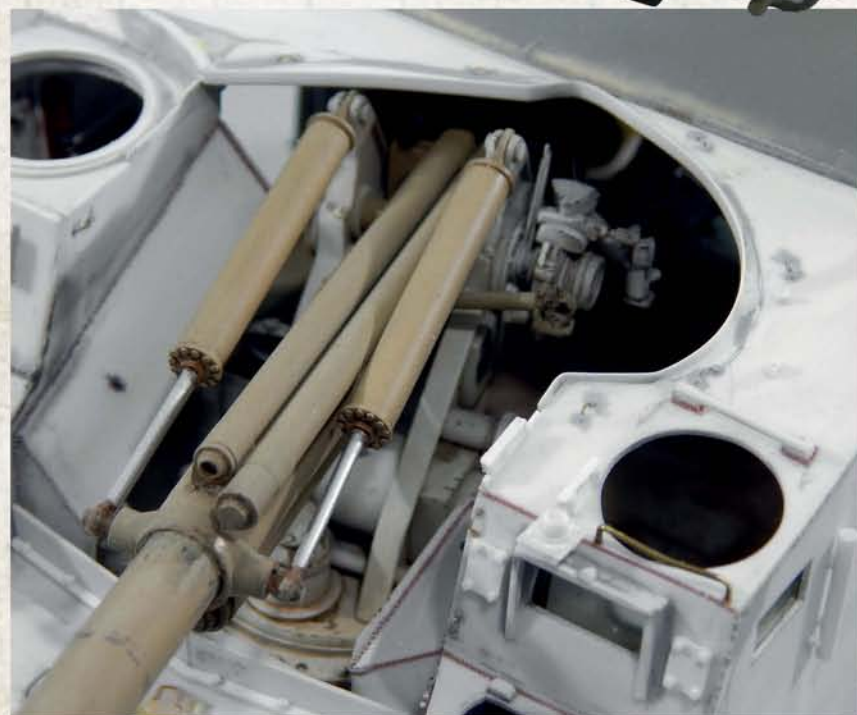
Liberal amounts of Mr Surfacer helped smooth-out the cast roof panels. The scratch built gun was pre-painted and fixed into the finished interior. Careful masking was needed before the main painting.



When scratch building a complicated structure such as the gun, breaking down complex parts into simplified sections is key.



Such large, flat panels showed some distortion which required treatment with Mr Surfacer and sanding.



Note the clear vision blocks of the commander and driver's stations.

I scaled the side profiles using one of the bogie wheels as an approximate baseline and guide, adding a little extra to allow for trimming back and sanding.

In the end, it took three attempts before I had the side profiles to a point where I was happy. I sized-out the top roof plate, fitted out the underside, with the interior fittings including bolts, cables etc, evident from reference images, and trimmed to fit before realising the exterior of the roof has a distinct 'bevel'...Who knew...not me until I discovered some other images, and a gentle nudge from a certain IDF aficionado, Mr. Peter Regan on the point!

Action was required. I made a simple mould, with a 2mm high centre point, and mixed up some casting resin, poured it into the mould with satisfactory success. Once attached, I filled the gaps with coloured superglue and Mr Surfacer, in layers, and sanded to suit. On top of this though, I boobed. Where the roof meets the front / top of the roof / hatch area should have been flush. Too far-in to junk all of the work done so far and start again, I pondered a solution, so hence the folded tarpaulin. A manageable mistake.

The various hinges come from resin cast in RTV moulds I had copied from some of my other projects. I wanted as many hatches open as possible, there was a

lot of work involved inside the fighting compartment, much of which would never be seen otherwise.

The Interior was then painted and weathered before being closed up. Off-white followed by oil washes and pigments for dust and dirt deposits. I little dry-brushing brought out the detail of the floor plating also. Markings and warning plaques came from some old decal sets and 1:32 aircraft sheets that I bought for this specific purpose. For painting the exterior I used Tamiya and AK real colours, 2 or 3 shades of each, lightening towards the upper surfaces.

Dust features on most IDF subjects; I started with layers using chipping fluid and airbrushed various shades of dust which was scrubbed to leave random dust-coloured deposits. Pigments mixed with a little plaster was then 'flicked' on the lower parts of the superstructure, to bring a little body to the earth deposits.

A little streaking with some AK enamel products, and I was pretty much done. The key here was layers and then some more layers on the layers. On such a big slab of a shape in a single colour, subtle shifts of colour was essential to give interest and realism. The customary IDF red-painted maintenance and access points were brush painted and some

'sensible' paint damage and chipping added around crew touch-points.

The tracks are metal links. Fond of Friul as I am, five parts per track link is not in any way appealing.

Instead, I found a manufacturer on eBay, R-Model, who's less-fussy tracks worked fine and are well detailed.

I used AMMO's blackening fluid scrubbed into the detail with an old brush followed by a good long soak in a slightly diluted solution to coat the tracks fully. A little dust wash and pigments helped to weather them suitably before being added to the running gear.

A simple elevated wooden base was coloured and varnished in a complimentary shade, with an indication of desert scrub-ground with the beast suitably set into it, giving the impression of weight, and we were done. The Ro'em would never win any beauty competitions, that's for sure, but it typifies the IDF's thinking of the period. Is it too ugly and niche to avoid attention from the mainstream kit manufacturers? I certainly hope so after all of that work.







L33

RO'EM

OPERATION EPSOM

**PART
FOUR**



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

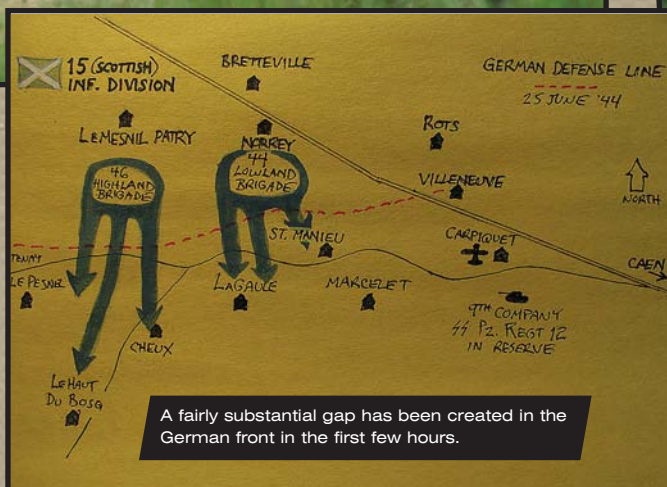
EPISODE EIGHT

By the beginning of the afternoon of the first day of the Operation, fairly good advances had been made, albeit behind schedule. Subsequently orders were given for the planned relief of the first wave to proceed.

The first waves' support troops, like the heavy MG squads of the Middlesex MG Regt., began to cross the Caen/Fonteney road for new positions. Normally moved by Bren Carriers they are on foot, the carrier having been commandeered to shuttle wounded to triage centres.



All the loads are taxing but the heaviest is the tripod so that poor sod begins to lag. Who can blame him?



The Scots have moved into LeHaut Du Bosque, Cheux, LaGaulle and St Manieu. The villages are all occupied except for St Manieu which has to be cleared by the relieving Bn. since the Royal Scots Fus. have been worn down. The advance continues...



The retreating German soldiers keep popping up everywhere and act to slow the advance down. In Cheux, the resistance is more organized under SS Untersturmführer Asmus from the Pionier Abt. and they bring quite a few anti-tank weapons into play like shaped charges and Panzerfausts.



But steady progress is made.
The bag of POWs increases as the day wears on.



Enemy positions are found...



...and reduced



As the tenaciously fighting HJ kids are pushed south.



Losing men all the way...

The huge machine that had been set in motion by Montgomery was building up behind the lead elements because of the delay. The Royal Engineers set to work widening the lanes through the German minefields to help with the expected increase in traffic.



Once swept, the lanes are marked with white engineers tape.





Clearing the way for the hundreds of tanks and vehicles of the follow on unit, the 11th Armoured Division. The tanks of the Division are still hesitating to enter the rubble choked and enemy infested roads going through Cheux and are stacking up north of the tree lined road.



They are still hesitant to enter the narrow rubble choked roads in Cheux because of the on-going considerable threat from Asmus and his ad-hoc group.



Just north of the entrance to town, one of the "eyes and ears" of the Brigade commander reports in. "Plenty of Jerrys mucking about in Cheux yet, all units are reporting". "Right! Thanks Sergeant Major."

This new information makes its way to the officer commanding 29 Armoured Bde, Brigadier Roscoe Harvey. His bespectacled face masking a hard charging, lead up-front style of leadership. His Aid taking careful notes, the CO considers the new intel...

The decision having been made, orders are passed down the chain. "Major Peel, take your squadron through Cheux and then deploy along both sides of the Grainville road south. Crack on to the Odon and see what is about down there."

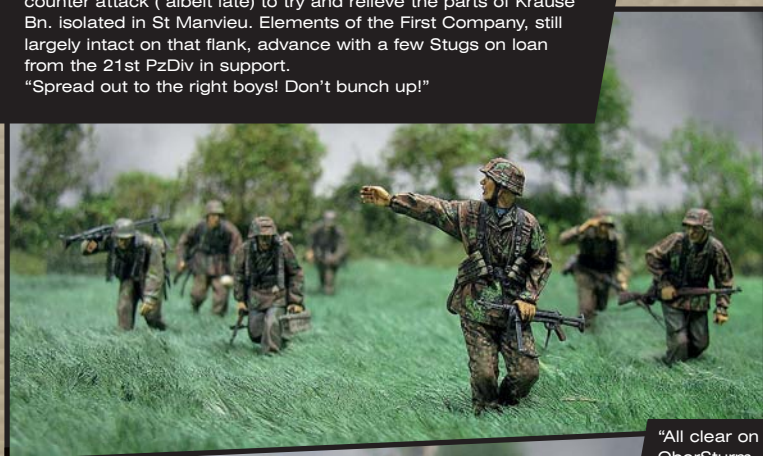




Peel's well drilled crew, anticipating the movement order, slam hatches shut and bring the engine to life. Nothing needs be said... the Squadron moves off...



On the Eastern flank of the breakthrough the HJ launch a classic counter attack (albeit late) to try and relieve the parts of Krause' Bn. isolated in St Manvieu. Elements of the First Company, still largely intact on that flank, advance with a few Stugs on loan from the 21st PzDiv in support.
"Spread out to the right boys! Don't bunch up!"



"All clear on the right, Herr OberSturm. !"

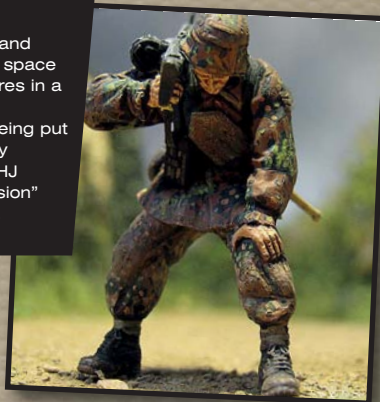


"Stay even with the Armour boys!"



A few PzIVs from the 9/SS PzRegt 12 also join in but the attack never gains ground. The curtain of steel put down by the 181st Field Arty Regt and others is impossible for man and machine to pierce.

Just short of One Thousand rounds were fired into a space roughly 500 by 500 metres in a very short time! Other measures were being put in place by the frantically responding Staff of the HJ Division. The "Baby Division" was down....but not out.



TO BE CONTINUED...

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Panzerkampfwagen

David Parker builds Trumpeter's 1:16 kit

W

Part Forty One

As I write this just before we go to print the Panzer IV is a whisker away from being build complete which is very exciting but after nearly seven years of work it would be foolish to rush its completion just to scrape into this issue. Having said that work has been just as intensive, focussed mainly on the turret exterior. The key part of this was installing the turret Schurzen skirt armour. Anyone who has modelled this in any scale will appreciate that its quite a handful in any scale and therefore even more daunting in 1:16. I had custom made schurzen produced for this kit and its

available as part of the AFV Modeller upgrades range for anyone else who wants a more accurate appearance. This brought with it concerns about the weight it imposed on the thinned down support frames but happily it all came together far more easily than I expected and my concerns proved to be unfounded. With the end of construction in sight the arrival of the newly released T-Rex Type 3B tracks was perfectly timed to allow me to test fit them to give the Panzer IV its proper shod appearance.



The turret bin from the kit captures the look of the real thing but there is still some enhancement needed. I also wanted to upgrade the mounting points with brass strip for more strength as it carries the weight of the schurzen.



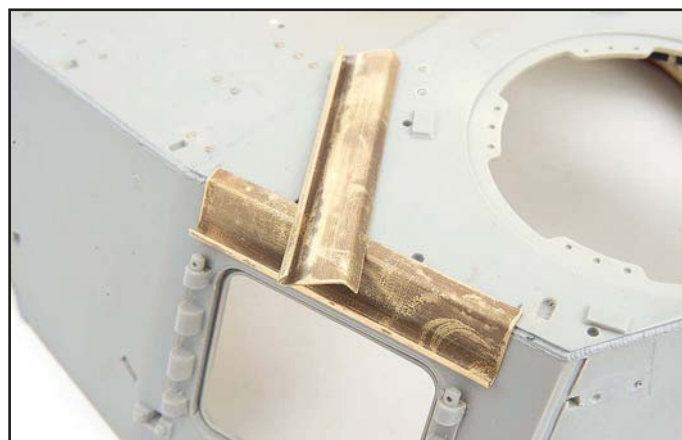
I replaced the hinges with pieces of brass tube and the new mounting brackets were glued in place using 5 minute epoxy, again for added strength.



Bending the top brackets was tricky as they bend in several directions at once to connect with the back of the turret and must also curve to follow the profile of the turret.



I used brass strip for the turret bin latches and my own 3D printed clasp parts to match with the other tool stowage clasps.



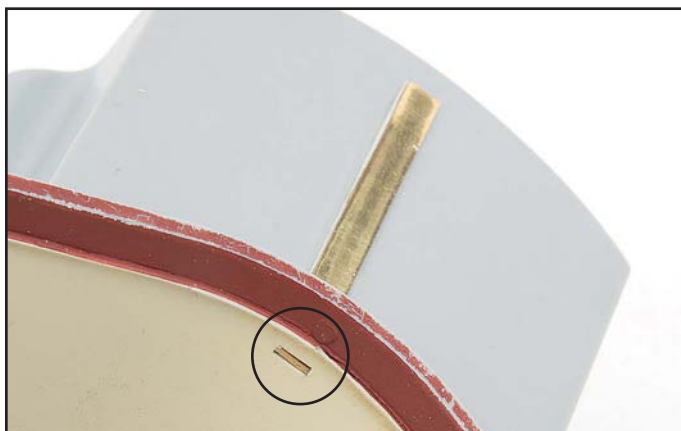
Scale thickness rain gutters for the turret side doors were made from annealed brass. Bending them to shape was not terribly easy and I discarded one failed attempt before I had two that I was happy with.



The side door sill has a different depth for the front segment so I glued a strip of plastic around the lip to recreate this.



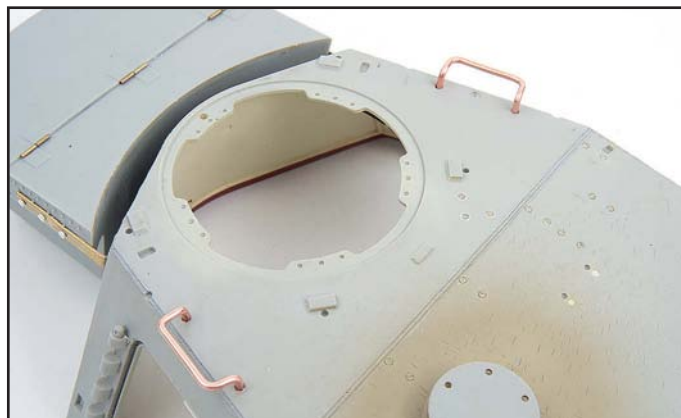
The turret bin was glued into place with 5 minute epoxy using blocks of foam under the bin to support it until the glue had set. Correct alignment of the bin is critical for the forthcoming turret skirts,



The base support of the bin fitted into the slot on the back wall of the turret for added strength and the interior wall was then filled.



I was pleased that I had managed to get a good snug fit against the turret wall. At this stage I had yet to add the lifting hooks that are bolted onto the bracket.



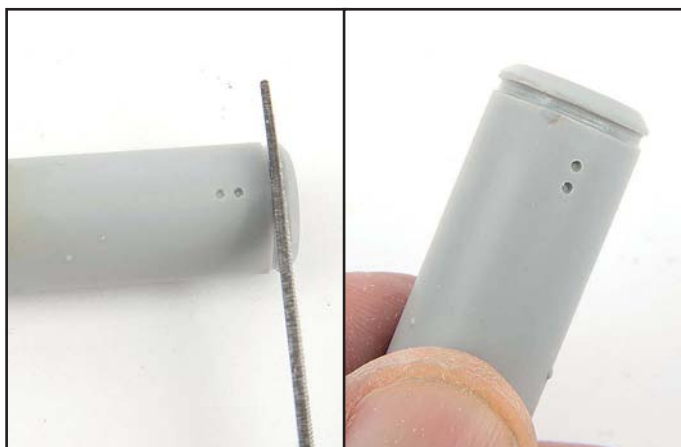
I discarded the kit hatch grab handles and made my own from 1mm copper wire.



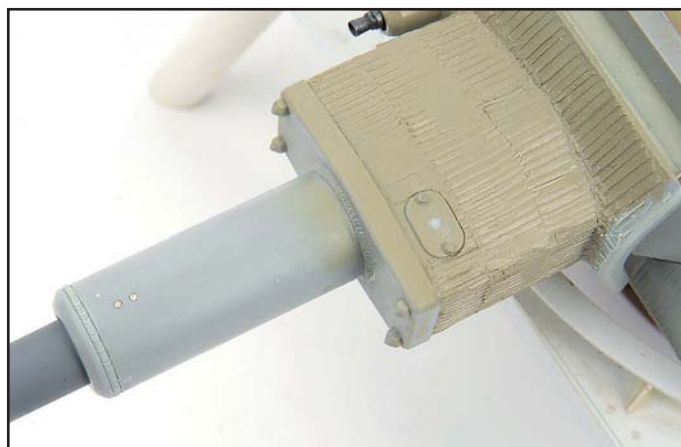
The rain gutters were primed and glued in place and the small photoetched bolts were glued in place. I also added welds where the handles are attached to the turret.



I needed to rework the bevelled edge of the mantlet which was too big so I filled the edge with Magic Sculpt and once dry sanded a new bevelled edge to the correct proportions.



On the gun sleeve the kit gives a big raised weld around the end cap whereas it should be recessed. I used a file to cut a groove around the line of the weld and I also drilled out the screw holes in the gun tube.



I then applied a new weld in the groove with Magic Sculpt and added ABER photoetched screw heads into the holes that I had drilled.



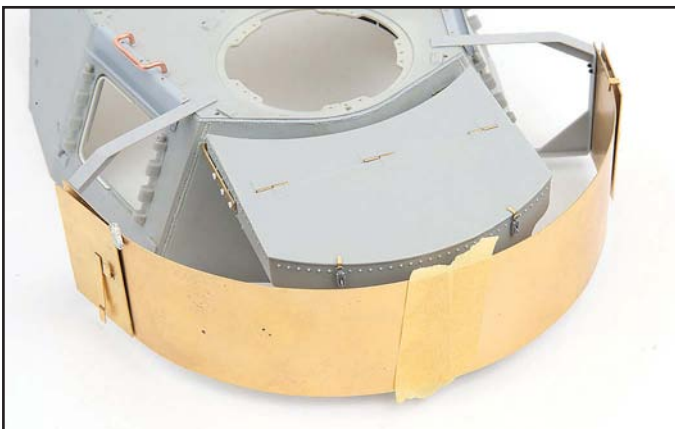
Moving onto the turret skirts my first task was to thin down the support frames to their scale thickness. Its a simple enough procedure but incredibly time-consuming to halve the thickness of six frames by careful sanding and scaping.



I removed all the poorly moulded bolt details from the frames and replaced it with my own printed bolts. Looking at the kit skirts they are far too thick and in reality the skirts were constructed from 3 different thicknesses of plate, ranging from 9mm at the front to 5mm at the back.



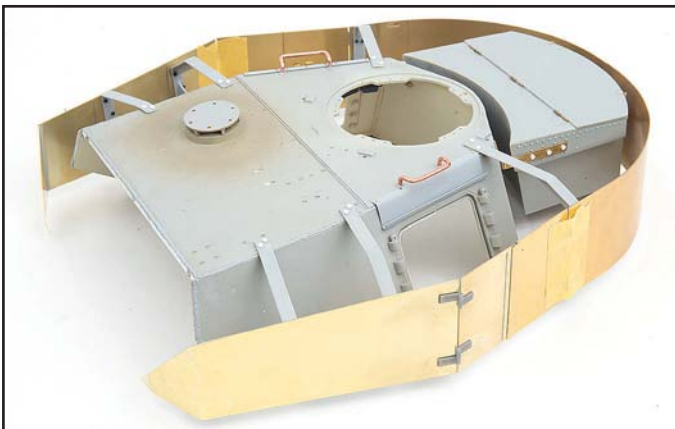
This seemed ideally replicated using photoetched brass of different thicknesses so I drew up artwork to have this manufactured. To start assembling the skirts I glued the centreline bracket onto the turret bin and the first of the support frames.



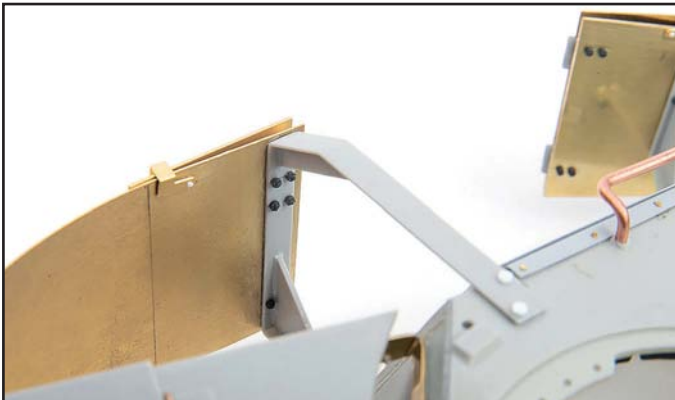
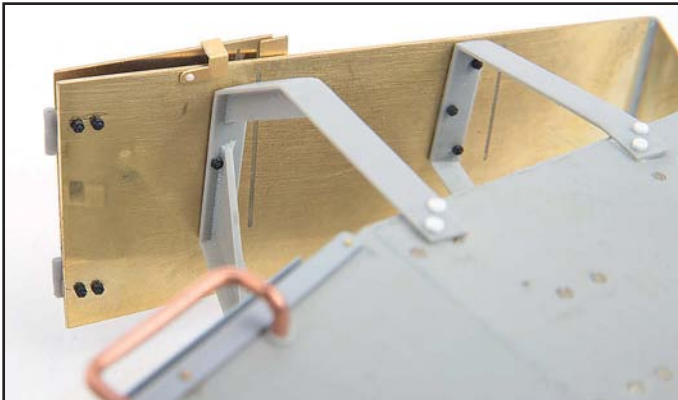
I began by fitting the rear sections gluing them to the support frames initially and then taping them together where they meet on the centreline of the bin. With the tape holding them in alignment they were glued to the centreline bracket



I added the mounting bolts for the frames as I glued the front ones in position using the kit location points. In my enthusiasm I forgot to add the pads welded to the turret roof onto which the frames bolt.

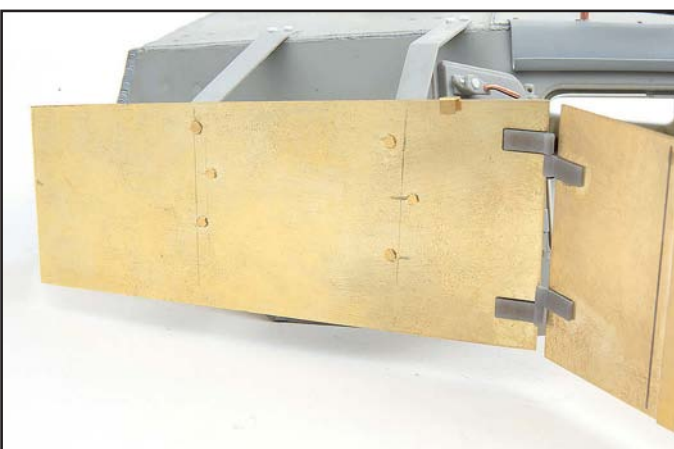


I designed working door hinges for the Schurzen which I taped in place to stop them swinging about as I aligned the front sections with the back. Somewhat stressful when fixing the schurzen with CA glue but actually not as bad as I had anticipated.

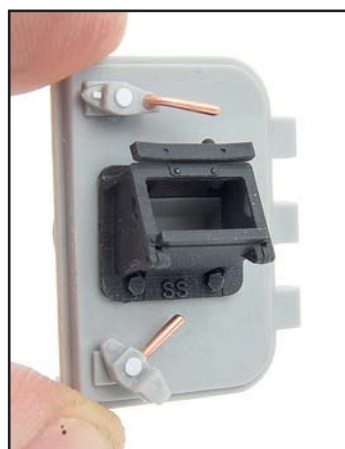
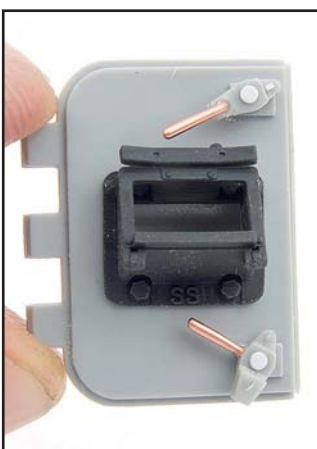
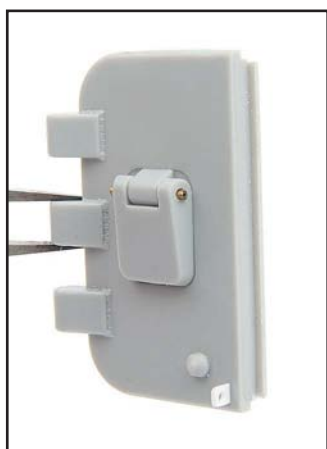
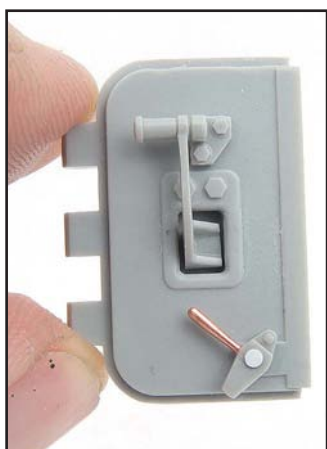




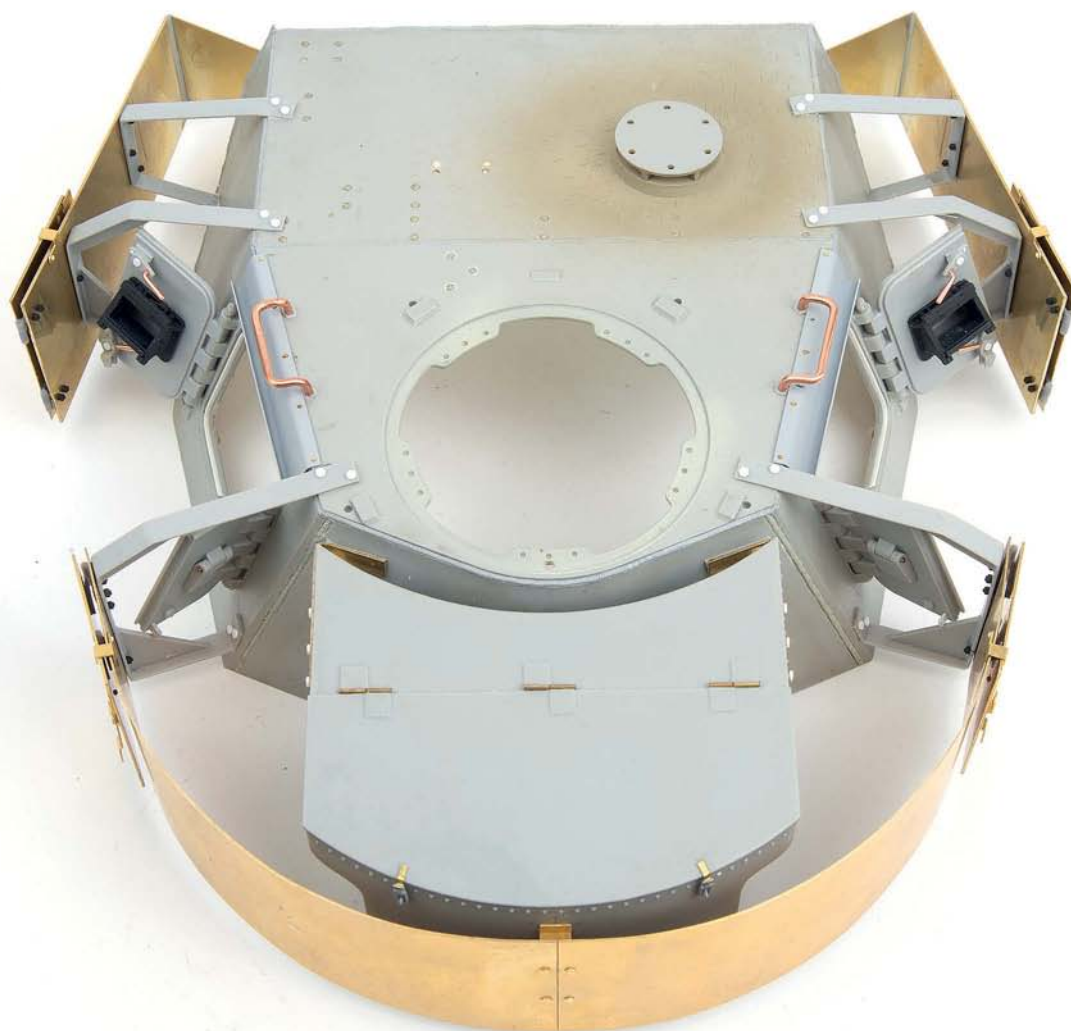
The simple latch system that holds the doors closed was added and detailed with plastic rivets made by pushing the blunt end of a drill bit into plastic card.



The photoetched bolts were applied to the outside face of the schurzen.



The turret side hatches needed a little refinement with new tapered handles for the locks made of copper wire that was sanded to shape in a drill. I used brass tube to add the hinge detail on the exterior flap. On the bigger hatch I scratchprinted a completely new vision block with separate clear vision block (not fitted in these photos, the kit version having only a parsing resemblance to the actual thing).

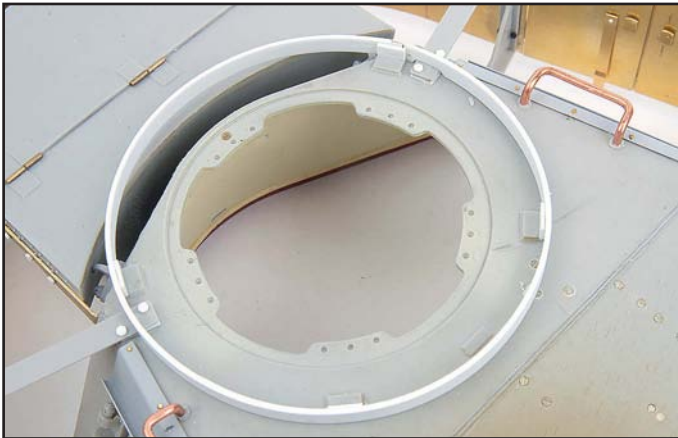




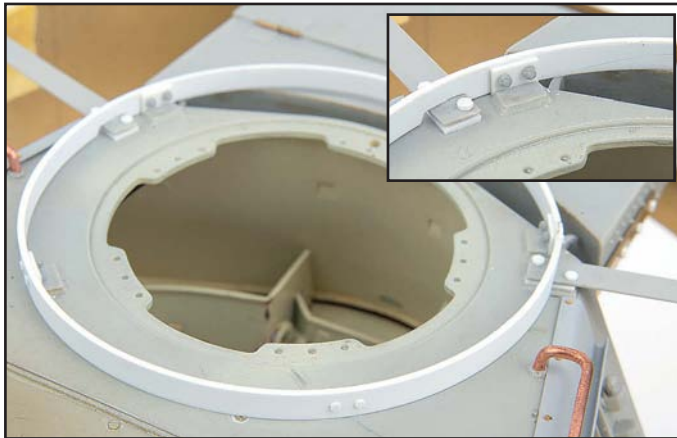
I was originally planning to use the ABER muzzle brake and had fitted the screw thread to the end of the kit barrel. Having designed a new family of



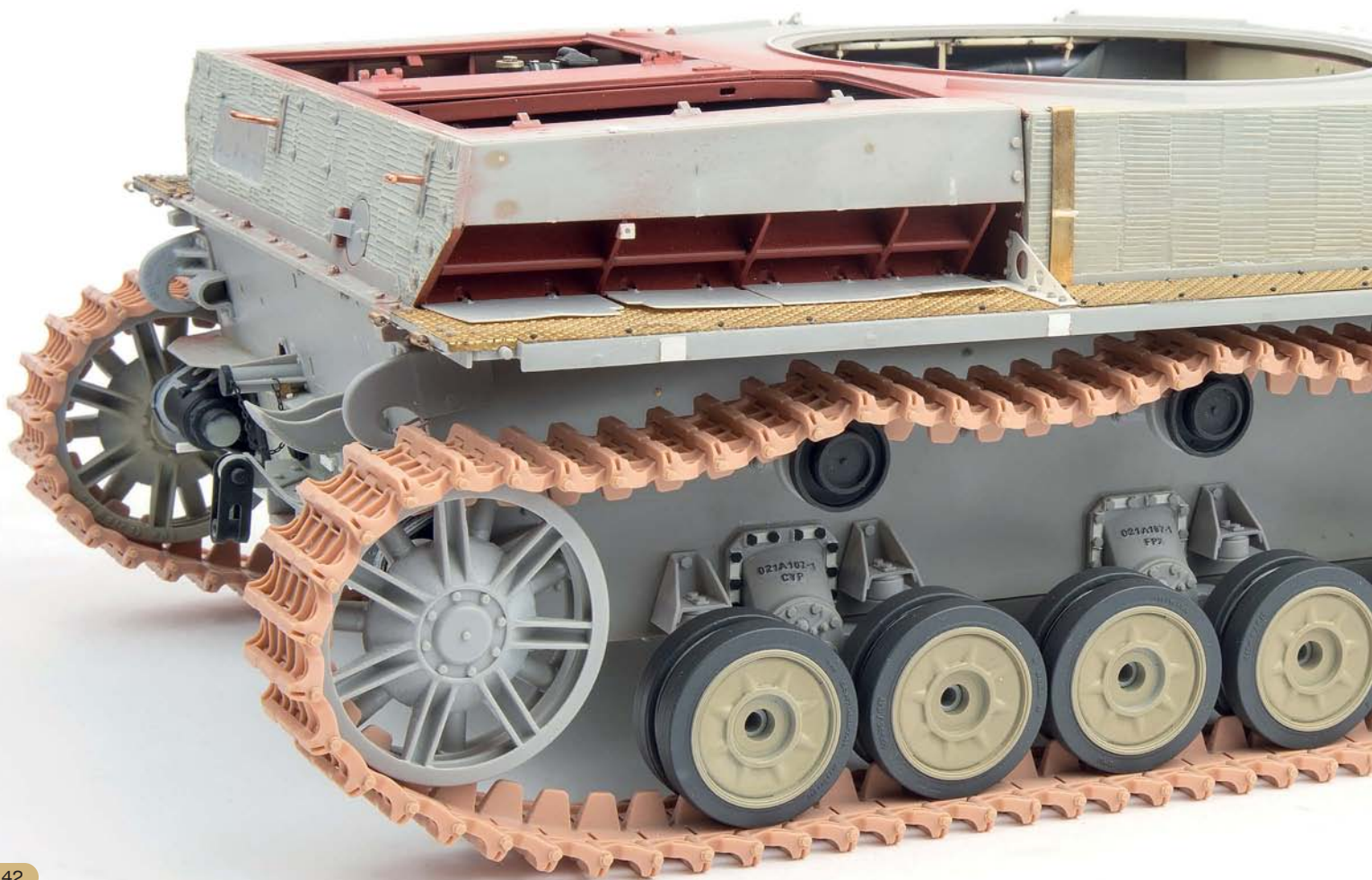
75mm muzzle brakes for the Stug III I decided to adapt one of these to fit the ABER adapter.

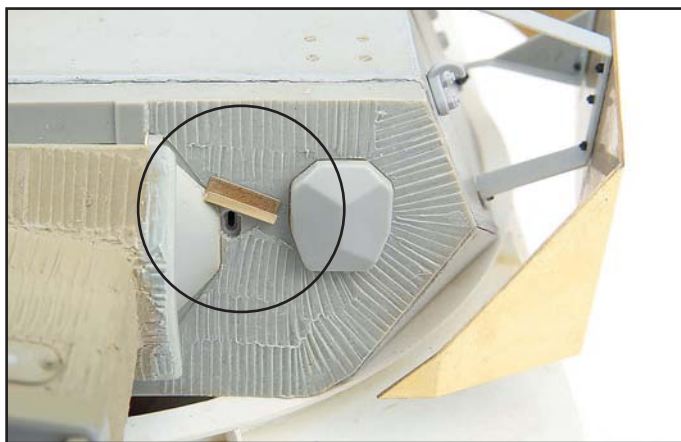


The ring that sits around the cupola was over scale height and too thick so I made a new one from plastic card, rolled around a former and dipped in boiling water to retain the curved shape.

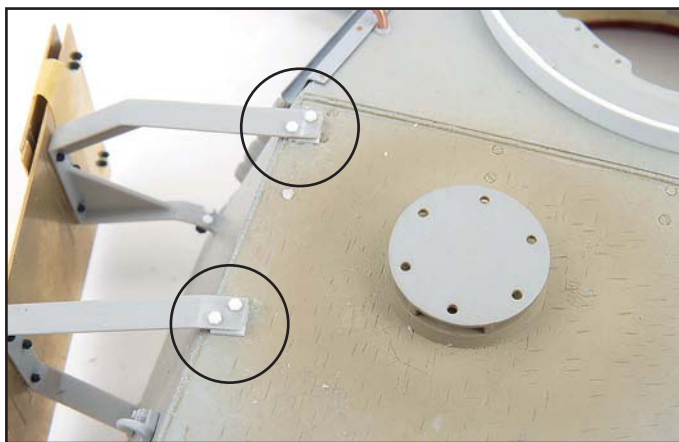


I then added the bolt details to the inside and outside of the fixing points for the ring using printed locking bolts on the inside and punch and die generated bolts on the outside.

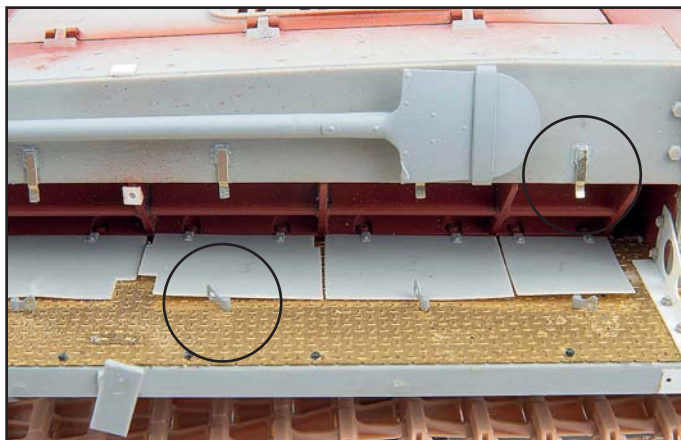




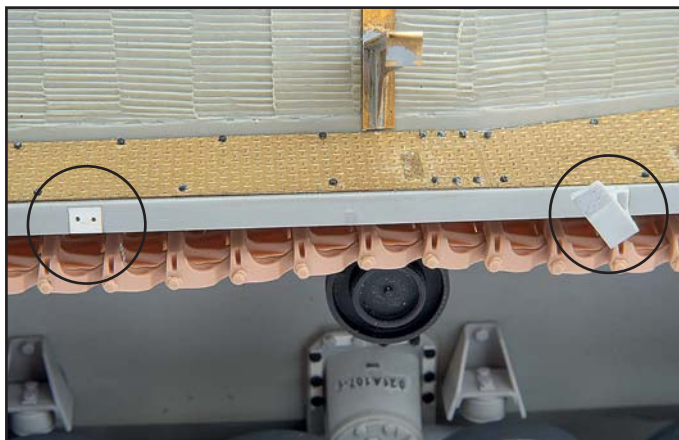
I used some scrap brass sheet to make the U shaped rain gutter above the gun sight.



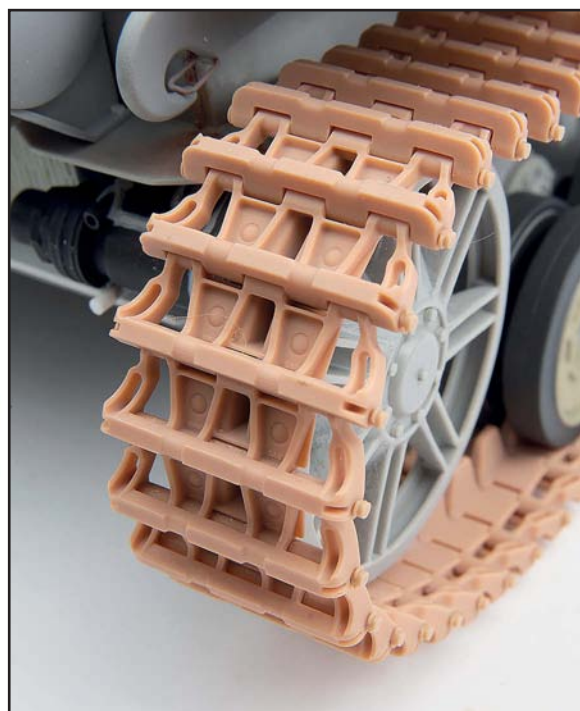
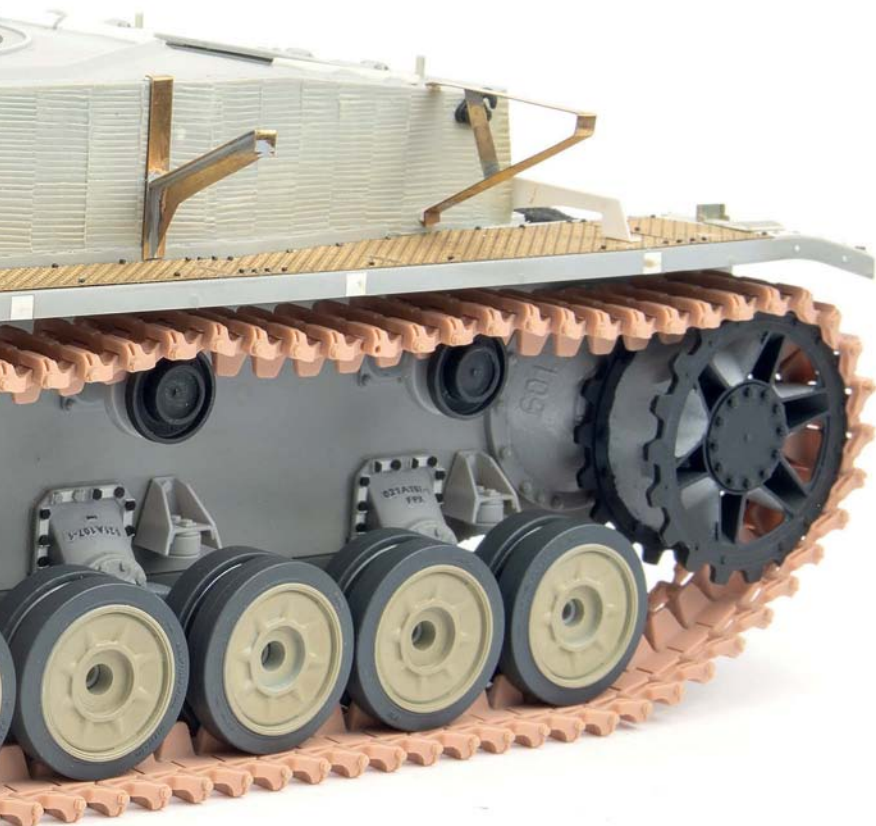
I deeply regretted gluing the schurzen frames to the roof with such enthusiasm (I was concerned about the loads they would be carrying) when I had to remove them in order to fit the square mounting pads.



The small clips that hold the vent covers closed were scavenged from an unreleased ABER set but brass strip would have done the same job the latches which secure the vents in to open position were scratchprinted.



On my vehicle most of the stays that hold the schurzen away from the track guards had been removed or badly damaged. I drilled mounting holes for the missing ones and used a hot air gun to bend the ones which were fitted.



What better way to finish off the running gear than with a set of the superb T-Rex tracks?. Not cheap but clearly the best detailed track in this scale. I couldn't resist test fitting them with everything dry fitted this was somewhat frustrating as individual roadwheels or return rollers dropped off and that's the reason one track is fitted backwards although for a prolonged period all Nibelungenwerk Panzer IVs were manufactured with tracks on backwards.

The project continues in the next Issue

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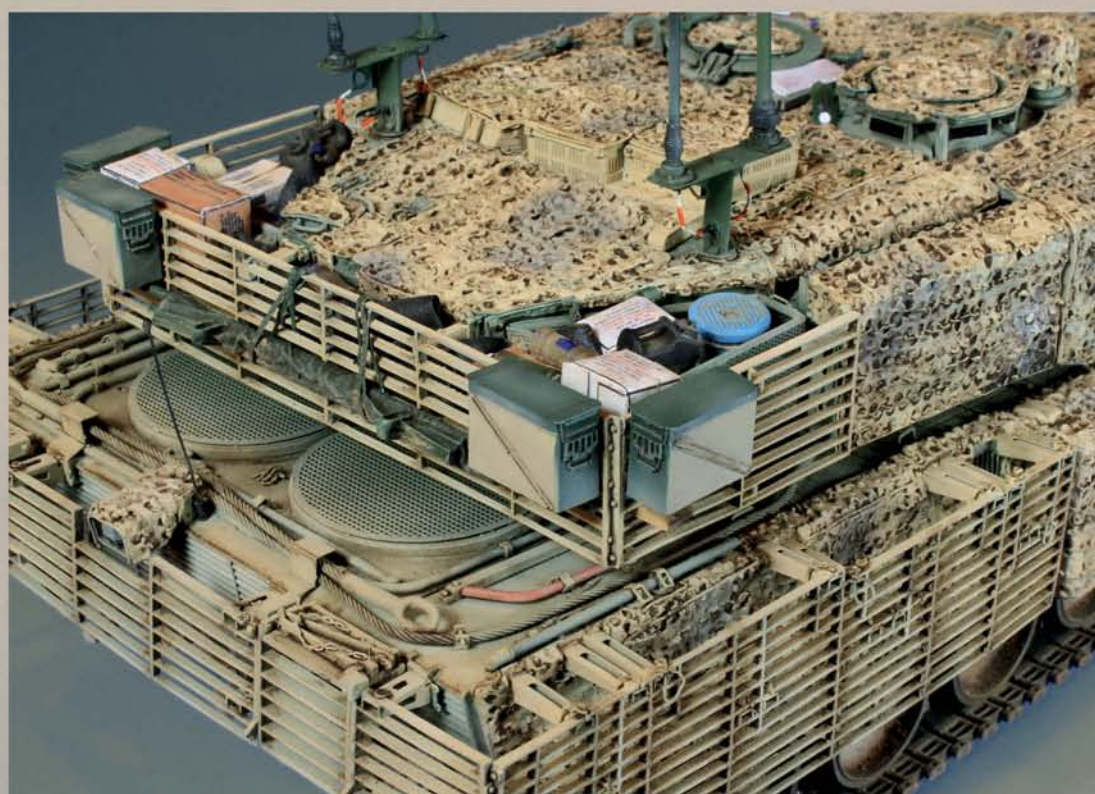
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2



modelled by Jason Bobrowich





The Leopard 2 Main Battle Tank has been produced in multiple versions over the years and the tank continues to evolve for use on the battlefield. The Canadian legacy of the Leopard 2 almost never came to fruition with the announced retirement of Canada's only remaining tank, the Leopard C2, in the late 1990s in favour of the eight wheeled M1128 Stryker Mobile Gun System. A combination of politics, budget, and military tunnel vision led to the planned extinction of tanks in the Canadian Army in the early 2000s. As the war in Afghanistan amplified, Canadian troops fought the Taliban in the Kandahar Province region with wheeled LAV III's armed with the Bushmaster 25mm cannon. The cannon firepower was insufficient to destroy the Taliban enemy forces who used the cover of concrete hard grape field rows and buildings to bring deadly fire down upon Canadian troops.

Canadian Leopard C2s fitted with MEXAS were deployed to Afghanistan in late 2006 to significantly bolster the firepower of the troops on the ground. The C2s were already aged but fought exceptionally well. Deficiencies in adequate hull protection were present even with add-on belly armour and this resulted in casualties. The arrival of twenty Leopard 2A6M CANs in Afghanistan occurred in the fall of 2007. Modified with additional mine protection, slat armour, a 120mm main gun, and

much more horsepower than the C2s, the Leopard 2A6M CANs greatly aided in providing enhanced protection and increased mobility to their crews. The final evolution of Canadian Leopards in Afghanistan came in the form of five Leopard 2A4M CANs in late 2010. These Leopard 2s were converted from ex-Dutch Leopard 2A4NLs and brought to the new Canadian standard. Hard fought lessons learned from the use of the Leopard C2 and Leopard 2A6M CAN in combat were incorporated into the Leopard 2A4M CAN by KMW to maximize crew protection and mission capability on asymmetric battlefields. The five Leopard 2A4M CANs fought alongside the remaining Leopard C2s and Leopard 2A6M CANs until the cessation of Canadian combat operations in mid-2011.

Here Kitty, Kitty...

Perfect Scale Modellbau's (PSM) Canadian Leopard 2A4M CAN with Barracuda conversion, #35082, provides the details required to convert the Hobby Boss Leopard 2A4 kit into a very bad cat. The conversion includes a replacement resin upper hull and turret, a multitude of resin details, and full photo etch slat armour to build an accurate Canadian Leopard 2A4M CAN as deployed to Afghanistan between 2010 and 2011. Very little of the actually Hobby Boss Leopard 2A4 kit is used during the build with the exception of the lower

hull and suspension.

The Barracuda Mobile Camouflage System (MCS) continues to pose challenges for modellers desiring to replicate this unique feature on models. Far more intricate than regular camouflage netting, the Barracuda MCS consists of panels of heat reducing material topped with synthetic camouflage material designed for reducing visual and technological detection systems. The panels are attached to the vehicle with Velcro thus eliminating the requirement to re-paint the tanks for deployments. PSM has done an excellent job replicating both the panel patterns and the unevenness of the camouflage material on their conversion parts.

Slat and bar armour has been used in some form on AFVs during many conflicts. This simple and effective solution designed to defeat the shaped charges of rocket type weapons such as RPGs was incorporated on the Canadian Leopard 2A6M CANs and carried over to the Leopard 2A4M CANs. Consisting of supports arms and frames attached to welded mounting points on the hull and turret the slat armour provides standoff protection and makes for a very eye catching feature on a model build. PSM provides the slat armour in the conversions in the form of photo etch pieces, literally hundreds of them.

Hulking Hull

The assembly of the hull was actually very straight forward. I started with the kit lower hull and suspension components as this was straight forward and followed the kit instructions. The use of the PSM conversion takes off from here with resin parts provided for the rear hull and the complete upper hull with armour modules and side skirts. The fit of the kit lower hull with the PSM components was very straight forward and required literally no filling.

The hull build continued with detailing the back deck. I removed the moulded on clamps and mounting brackets from the pioneer tools and replaced them with photo etch versions. I also replaced the kit tow cables with much more robust Eureka XXL Leopard 1 & 2 tow cables.

The attachment of the 40 photo etched slat armour support arms was the next phase of the hull build. PSM provides visible attachment locations on the resin hull so there is no hunting for the correct locations. The key with attaching the support arms is to ensure they all align

properly on the hull sides and rear. This would be critical for attaching the slat armour sections later in the build. The hull front required a small amount of additional detailing. I noted that the Barracuda camouflage on the real tanks had a small overlapping lip on the edge of the glacis plate. This was not included in the cast resin hull so I used Apoxie Sculpt to create the lip and textured it to match the pattern of the Barracuda. As well, on the front hull behind the right headlight PSM did not include the angular armoured cable cover. Using my reference images I scratch built the cable cover and attached it to the hull. On the bottom of most rearward hull armour panel an angled bracket and bolt detail was added as this was missed on the resin hull. At this point I set the hull aside prior to attempting the slat armour to work on the turret.

Turret Triumph

The PSM conversion provides the vast majority of the turret component is resin. Very few parts from the Hobby Boss kit are used. The resin parts fit together very well

and the massive turret comes together quickly. PSM provides the rear open bins with delicate resin frames and photo etched mesh screens. I added retaining clips and chains to the bins as well as wire tie down loops for further detail. Several hand holds and the front turret lifting eye were replaced with brass wire. I also replaced the rubberized kit mantlet dust cover with a scratch built version using foil and stretched sprue attachments to provide a more realistic look.

The "T" shaped antenna mounts in the PSM conversion are provided in resin but I decided to replace them with better detailed versions from the Real Model Canadian "T" Antenna Mounts set. The Real Model mounts are excellent multi-piece photo etched components with well cast resin antenna bases. To further detail the mounts I added connector caps, retaining chains, and cabling to each mount. The Canadian Leopard 2A4M CANS used a total of three antennas and these would be mounted during final assembly.



Slat Solutions

The slat armour on the Leopard 2A4M CAN differed somewhat from the Leopard 2A6M CAN in that the slat sections were concentrated only around the hull engine compartment and the turret rear. The PSM conversion provides the slat armour as photo etched parts with some very intricate steps to create the sections and the unique integrated crew ladders on the hull rear. I

made several attempts at assembling the photo etch slat sections with very limited success clearly focused on my assembly technique and then opted for another solution. Using the Y-Modelle Canadian Leopard 2A4M CAN resin conversion I made use of the resin hull and turret slat sections included in the set. The resin slat sections include a great deal of resin flash but with some careful sanding the flash peels away quickly leaving great looking

sections. I used a combination of the PSM photo etched mounts and the Y-Modelle resin mounts to attach the turret and hull sections. I incorporated a small amount of bent and damaged slat on the hull to show a minor amount of wear and tear encountered on the tanks. PSM includes fine photo etched retaining pins for each slat mount. These add a great detail to show how the slat sections are actually secured to the mounts.



Paint Restraint

The Barracuda camouflage on the Leopard required some pre-planning for the painting with a phased approach to define the exposed NATO green of the actual tank surfaces, fill in the tan on the slat armour and mounts, and attack the unique colours on the Barracuda camouflage. Painting began with a primer coat of Tamiya XF-53 Neutral Grey over all surfaces. I then air brushed Tamiya NATO Green XF-67 on the areas of the tank that would not be covered by the Barracuda. Overspray was not a concern as the subsequent coats would cover over these areas.

Next was the tan base coat for the Barracuda and slat armour which I mixed with several Vallejo paints including Iraqi Sand, Dark Sand, and Tan Yellow.

To avoid taking steps back with overspray on the NATO Green sections I began the tan coat by brush painting the Barracuda edges around all of the NATO green components. While this was time consuming the Vallejo paints had excellent coverage and blocked out the NATO green extremely well. Once the brush painting was completed I airbrushed the tan paint to cover the larger open section of the Barracuda. This was accomplished in multiple layers to ensure the brush painting was blended in with the thinner air brushed coats. For the slat armour I found that airbrushing from the inside surfaces closest to the hull and turret to the outside was the key to reduce overspray. The slat was challenging to paint as you have inside surfaces, outside surfaces, and the underside of the vertical slats all needing to have equal coverage. The Barracuda on the Leopards is not solid tan even though it can look that way in images. The omnipresent dust the tanks crews were exposed to in Afghanistan created a solid look to the colour but in fact the Barracuda used on Canadian Leopards has a tan base and a mottled pattern of dark brown in random patterns. I used a mixture of Tamiya paints consisting of XF-79 Dark Brown, XF-68 NATO Brown, and a touch of XF-69 NATO Black to airbrush on the dark brown swatches. I used a very light dry brushing of the tan paint to blend the brown slightly into the tan base.



Weathering Wonders

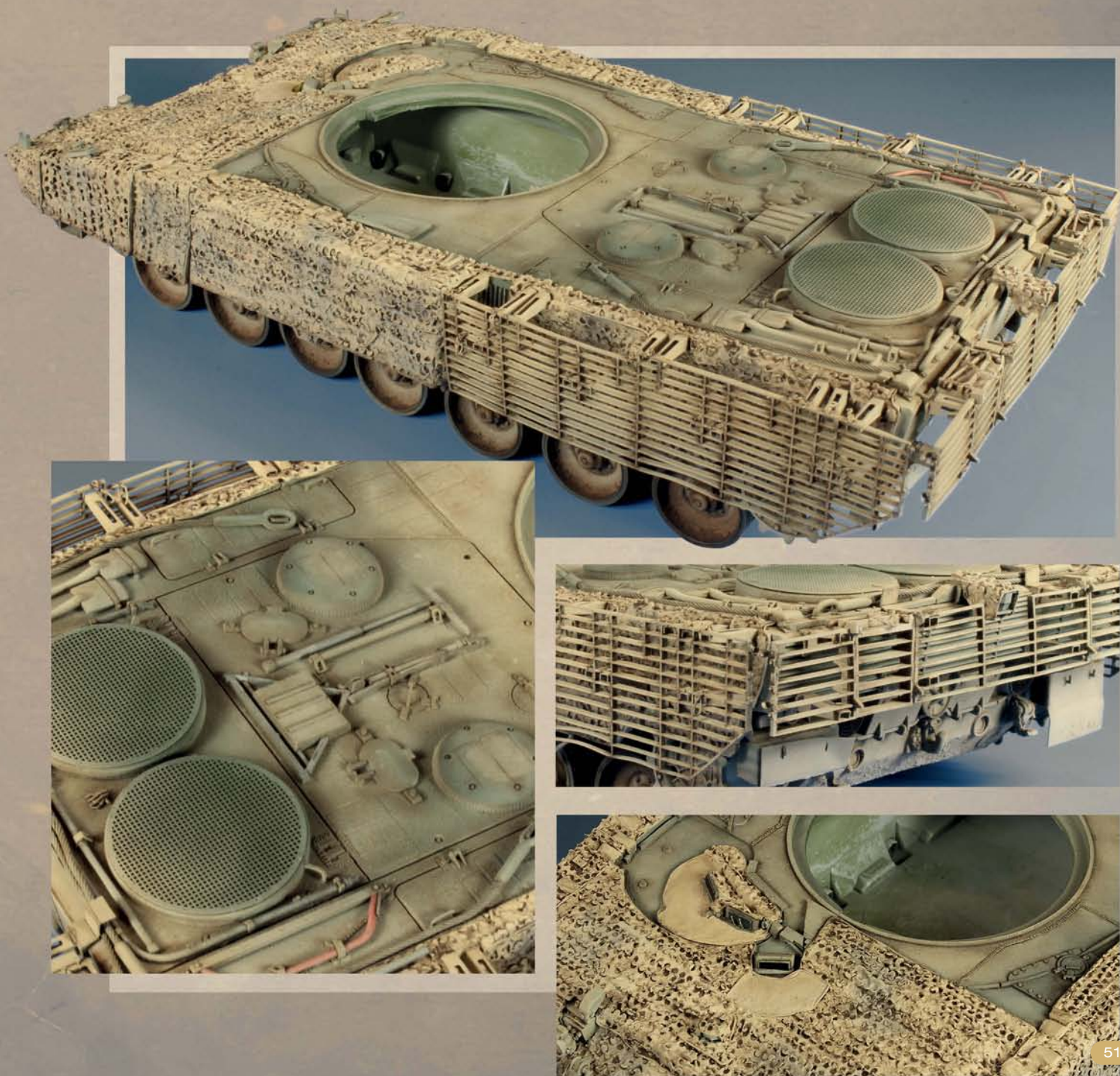
I was intrigued with images of the Canadian Leopard 2A4M CANs from the 12e Régiment Blindé du Canada (12eRBC) in February 2011 as they conducted patrols and security over watch missions on Route Hyena in the Horn of Panjwa'i. The weather and road conditions lent to a combination of dust accumulation, mud build up, and darkened Barracuda as opposed to the C2s and 2A6Ms covered in layers of fine dust.

The variations in depressions and highpoints of the Barracuda provided many options for weathering. I applied several liberal applications of Raw Umber oil paint washes to the Barracuda to create depth over all the surfaces. The resulting effect provides a sense of dirt build up and shadows in the depths of the material. The washes also assisted with further blending in the dark brown camouflage patches.

The slat armour sections also received Raw Umber washes to make the slat sections and mounts stand out from the hull and turret.

The NATO green surfaces were airbrushed with highly thinned Tamiya XF-57 Buff to create a built up dust effect. Pin washes of Raw Umber were applied in the recesses and along the raised details to provide contrast against the faded out surfaces. The lower hull and suspension were given a treatment of wet and dry pigments to show a buildup of wet and dry mud. This effect is particularly evident on the road wheels where the separation between older dried mud and fresher wet mud can be seen. Thinned Tamiya Buff XF-57 was tracked along the lower hull to further accumulate dust along the entire rear hull, lower front hull, and along the bottom edges of the Barracuda covered side hull armour modules.

The turret weathering followed the same process but with a lesser degree of dust discoloration. Dust accumulations were focused around lower hatch rings, antenna bases, the gun barrel, and stowage bins. The Bronco Leopard 2 tracks were painted with Tamiya XF-69 NATO Black and then weathered with a variety of layered dark and rust oil washed and pigments. The inner surfaces of the tracks were masked off and re-sprayed with a light application of Tamiya XF-69 NATO Black to show the road wheel travel and wear areas. The final touches were to apply silver to the centre guides and a small amount of surface rust with pigments on the end connectors. Detail painting was easy as the majority of the surfaces are covered with the Barracuda. Pops of colour were added to the antenna mount cables, the back deck mounted saw handle, and the tape covered muzzle.





Track Padding

I replaced the Hobby Boss vinyl one piece tracks with Bronco Leopard 2 tracks. The Bronco individual link workable tracks are a fantastic aftermarket option and even with paint and weathering they remained very workable. The tracks wrapped around the drive sprockets perfectly and were a huge improvement over the kit tracks. As the upper run of the tracks would be hidden by the hull add-on armour and side skirt section I opted to only build enough of the track to wrap around the drive sprockets and idlers wheels. The tracks would be attached to the suspension during the final stages of weathering.

Phat Cat

The Canadian Leopards 2A4M CANs were not overflowing with kit but the crews in creating additional storage solutions.

25mm ammunition boxes were attached to the turret slat armour for each crew member. Wood 2"x4" boards were cut to the width of the turret slat to create an ad hoc shelf for storing ration boxes and other kit. I loaded up the turret stowage baskets and additional turret storage areas with a variety of Real Model Canadian ration boxes, resin water cans, rubberized tarps, a water cooler, and discarded water bottles. Closer to the turret hatches an assortment of water bottles, binoculars, a map, a resin C8A2 Carbine, and the loader's C6 GPMG created a lived in look to the turret. The rear turret slat also received a folded up medical stretcher secured with straps made from Tamiya tape. Applications of pigments on the stowage items assisted in blending them in with the rest of the turret weathering. The final detail to complete was tackling

the turret and hull periscopes. I used individual cut out pieces of 35mm negative film. I find this material easy to cut and fit over existing kit periscopes. The result is a dark armoured glass look to the optics with a slight multi-colour look.

Mission Complete

The Canadian Leopard 2A4M CANs cut their teeth in the sand, dust, and mud of Afghanistan ensuring that the crews were kept safe while completing combat missions. The Canadian Leopard 2A4M CANs finished their first and only tour of duty in Afghanistan in July 2011 when the Canadian Army ceased combat operations. The ability to use simple kit parts combined with a detailed aftermarket conversion provided me an opportunity to build this great looking Canadian Main Battle Tank.

Canadian Leopard



The Barracuda camouflage provides a distinct look to the Leopard that creates a very aggressive animalistic look. The Leopard 2A4M CANs were returned to Canada in late 2011 with distribution to the Lord Strathcona's Horse (Royal Canadians) beginning in February 2012. The Leopard 2A4M CANs are also stationed at CFB Gagetown in support of the Royal

Canadian Armoured Corps School. The slat armour is not mounted on the Leopards in Canada and the ECM boxes have also been removed. Since deploying back to the Canada the Leopard 2A4M CANs have been upgraded by replacing the PERI R17 Commander's Periscope with the PERI R17A4 equipped with third generation thermal imaging technology, the addition of

front hull modifications to mount new Canadian Leopard 2 specific mine plows, dozers, and mine rollers, and providing the ability to remove and re-attached the lower side hull add-on armour sections. The Leopard 2A4M CANs will continue to be a premier tank in the Canadian Army for many years to come and it is well prepared for any conflict region where it may deploy.

**M4DV PSC production
(Pressed Steel Car)
H Company, 3rd Battalion,
1st Armored Regiment,
knocked out in Tunisia, February
1943**



FABIO SACCHI certainly suffers from 'SHERMANITIS'

The M4 'Sherman' is probably one of the most iconic Allied tank in WWII together with the ubiquitous T34. With more than 49,000 built, it's service life spans from 1942 to, possibly, the early '80s. What it is intriguing for most modellers with the "Shermanitis" syndrome is the variety of official variants and even more "unofficial" sub-variants which originate by having a multitude of different production factories with different part contractors. If you add that most of the improvements were applied while the production line was running and US factories were using LIFO parts management (Last In First Out), it's easy to understand the wide range of differences.

Some time ago I was able to get a copy of "Under the Gun 2, First Blood, US 1st Armored Division in Tunisia" book. This book, being mainly made from a German propaganda film, is literally packed of photos with a lot of them of Shermans used by US 1st AD.

These Shermans are mainly M4 and M4A1, but once

you start looking at photos closely, it is incredible how many subtle differences each vehicle sported.

The M4s in these photos are mostly produced at the Pressed Steel Car factory. They were the first factory to produce M4 welded hull tanks, even if they produced far more M4A1 (cast hull) vehicles, they sported lots of subtle differences due to some part modifications introduced during the production run. All of these photos were a great inspiration and sparked the desire to model one of these tanks. Don't know why, but the fourth tank of H company named "HANG ON" took my attention.

It is a great subject; riveted lower hull, direct vision slots, very early cast transmission cover and early M3 style bogies but with later cast lever arms... In addition these tanks are pretty colourful as they had a full set of bright yellow markings which would make the subject pretty interesting.



H★ANG ON

Sourcing the model.

Tasca, or more precisely Asuka (to be pronounced Aska) during the past ten years has delighted modelers with a complete series of Sherman kits. Most importantly, you can mix and match parts to obtain a fair amount of variants. While not a true “shake and bake” operation, it is possible and fun to make.

To obtain a fair representation of “HANG ON” you need to source :

- M4A1 early lower hull parts. These are almost perfect as they have the riveted details
- Early style cast transmission
- M4A2dv upper hull
- M4A4 upper hull (to sacrifice)
- M4 rear hull
- M4 early engine deck
- M3 style early bogies
- M4 bogie cast lever arms
- M4 75mm Early turret
- DRAGON M4A1 Early welded grouser covers

With these parts you can achieve a decent tank reproduction, with some additional scratch work you can achieve a pretty accurate subject, guess which way have I chosen.



LOWER HULL

Trying to be as accurate as possible...

Well yes, I am a rivet counter and I can't do anything about it but live with it, and this subject is no exception...Let's therefore start with lower hull...

Asuka's early type lower hull is good, still it was the first hull they produced when they were still TASCA. Hull bottom parts retain late M4 bogie "lips", the M3 bogie had a different shaped lip (actually it is included in their M3 bogie sprue. So with a scalpel I scrapped away these six lips and glued on the correct M3 style lips. Another improvement was substituting return roller support bolt heads with rivets sourced from a Meng rivet set. The rear engine wall is missing engine hatch lower fixing bolts and also the hatch lip is cut. Later models had this bolt and hatch lip deleted, as it was interfering with towing pintle and the Asuka part depicts one of the modified parts but on such an early M4 it has to be there, a small piece of ministrip and a bolt will do the trick... Last improvement was the addition of some bolts on hull side, part of the engine fixation system, which are not present on the Asuka parts. It was time to tackle the transmission

cover. "HANG ON" sported a very early one piece transmission cover. Unfortunately no kit offers such an early transmission cover as the earliest version available has the splash guard lip protecting the fixing bolts, while very early types did not have the strip and bolts were partially sunk in milled holes.

This detail has to be scratch built. First of all I sanded away the moulded lip on Asuka's transmission cover then, I rebuilt with ministrip a copy of Asuka bolt strip. The challenge was to accurately recreate 17 "milled" holes in which the fixing bolts would be added. I thought to use a punch & die tool which can deliver consistent, all equal holes but on Sherman transmission covers these holes are not evenly placed, instead they have a 4-1-7-1-4 grouping. To achieve it I, marked the position of bolts using Asuka's piece as template, on a 0.5 x 2mm styrene ministrip.

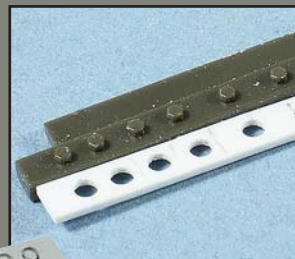
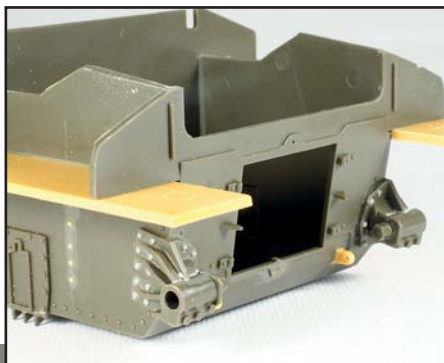
With the help of a piece of plasticard of same thickness as guide, I ensured that the holes were all in line. At this point it was enough to align each mark with the tool edge to be sure to have a correctly aligned hole. Once slightly sanded and cut to length, it

was glued flush on transmission. The whole piece was then textured with Mr Dissolved putty and casting marks (Archer Transfers) were added as per photo of the real tank. Once hexagonal bolts were glued in situ, a coat of grey primer was applied to the piece to check the finish.

After these works, we have finally a pretty correct early summer 1942 PSC M4 PSC lower hull.

Running gear, though it required some changes, is rather straightforward. I changed wheel pin nuts with a hexagonal bolt. This is the only real issue with this Asuka parts.

As already mentioned M4 factories introduced modified parts during production and by looking at photos in the book, it becomes evident that M3 style bogies had forged lever arms, but during the production newer M4 style cast lever arms were introduced well before the new M4 bogie was adopted by PSC. It ended up in a mix of these parts and in some of these vehicles some bogies had original forged lever arm, others the new cast ones. "HANG ON" had on all bogies the newer cast lever arms, these pieces were sourced from an Asuka M4 bogies kit.



UPPER HULL

And now it is time to give attention to the upper hull. Let's start with the bad news, Asuka do not supply a ready to use hull. Tiger Model Designs does a resin one, not 100% accurate but good enough if you want to go that route. I preferred to make my own.

Base part is the Asuka M4A2dv which depicts (pretty well) a Fisher built upper hull but it requires some attentions and care to be transformed into a PSC hull.

Major changes are:

- Antenna Pot, cylindrical in PSC versus "U"

shaped in Fisher

- Cast bow plate in PSC versus rolled bow plate in Fisher which make the bow MG socket different

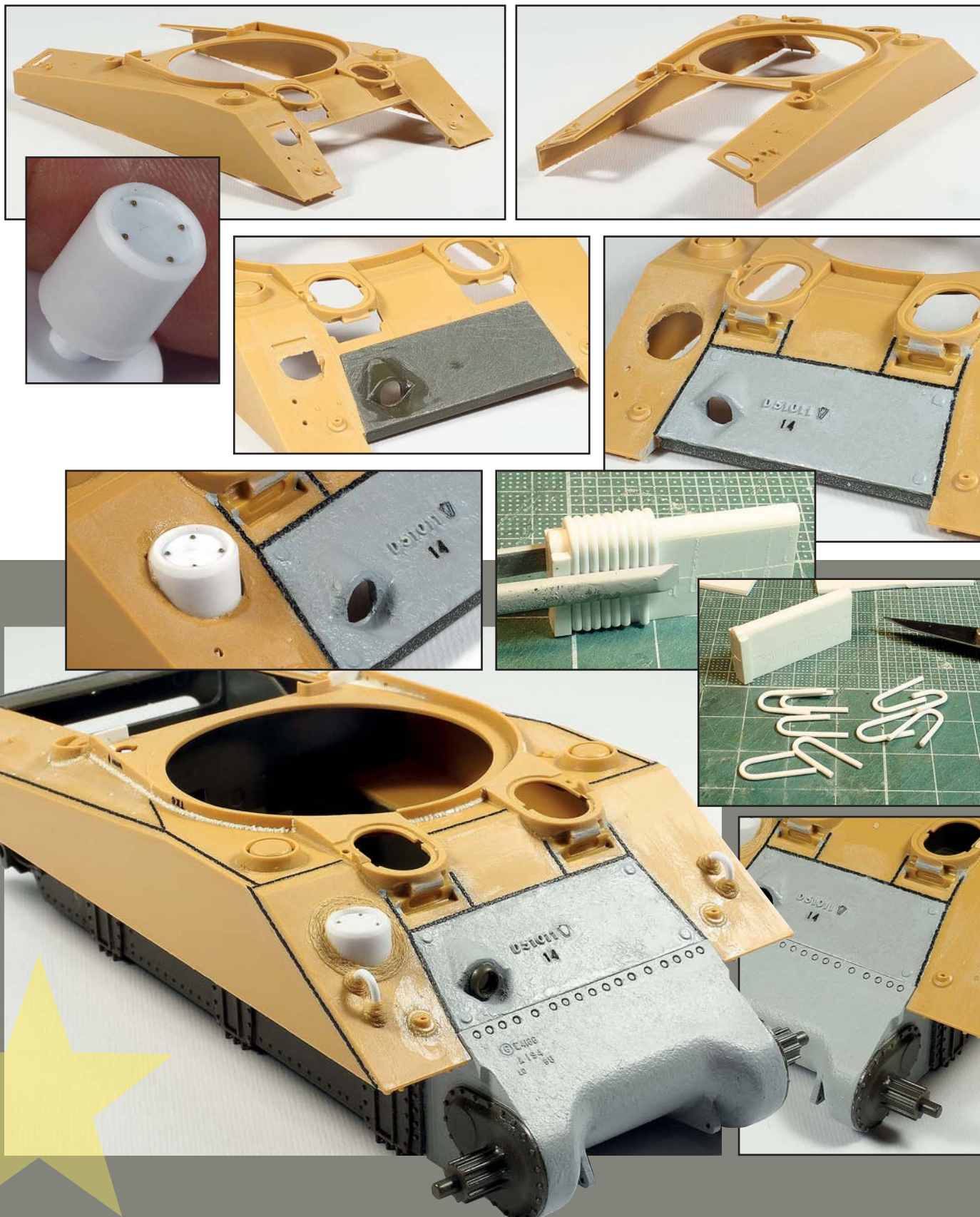
- Vertical rear hull in PSC vs angled rear hull in Fisher production.

First thing to do was to eliminate non correct elements, sawing off the antenna pot, cut the vertical rear hull sponsons and with a new blade cut away the rolled bow plate.

As I was in "destructive mode" I shaved off the weld line running from rear turret

splash guard and I filled the two inner angles at the rear of turret splash guard (the latter is unique to PSC hull only!)

After destruction phase, reconstruction started. The cast bow plate was cut away from an Asuka M4A4 hull and glued in place, cylindrical antenna pot had to be scratch built: a laminated styrene block was lathed to shape and glued in place. A rear M4 style wall was sourced from another Asuka kit. Good thing about Asuka is that they sell single sprues, in this way you are not obliged to butcher full kits!



INTO THE DETAILS

Time now for details, with four small disks of 1.5mm diameter I reproduced four cast "buttons" which were present on the edges of the cast bow plates and the part number "D51011", Foundry trademark of Union Steel and the sequence number "14" (this may mean that "Hang On" had the 14th cast bow). These number/symbols are a combination of Slaters styrene Numbers and Archer Transfers 3D printed cast symbols.

Once the glue was cured, it was time for weld beads. In this case I used 3 different techniques as each of them has pros and cons.

PSC antenna pot was surrounded by a quite prominent and large weld as well as lifting hooks. For this I used Tamiya Epoxy putty. Weld texture is obtained by randomly

scribing the putty with a cutter blade tip, best result are obtained by applying multiple passes. Lifting hooks were made out a 1.2mm styrene rod, kept in shape with a solid template and formed by heat from boiling water.

Straight welds on hull were made out of Archer transfers 3d decals. Once cut to length they are positioned on the model. Archer suggest to fix them with a coat of clear varnish, I found that Tamiya green cap cement works much better. It dissolves its carrier film and helps to keep the decal in position, not a strong bond, but enough to handle it. Last part were welds around turret splash guards. In this case I used a styrene rod glued in place, softened with Tamiya green cap cement and worked with a new cutter blade.

The final detail touch was to add foundry marks on the turret splash guard, again with help from Archer Transfers 3D decals set.

I was so happy after all these steps as I thought that the hull conversion was completed until I coupled lower and upper hull together...

The rear upper hull wall cut-out looked too wide and it left open free lower hull vertical sponsons.

Actually Asuka made this part cut-out 1mm too wide on each side (they recently offered a corrected part) so I had to narrow the cut-out by applying, on each side, a piece of 1 x 1 mm ministrip shaped with a round file when the adhesive had hardened.



TURRET

Turret is an Asuka low bustle type and actually it was built as it comes, just some cast texture was added by stippling with a stiff short hair brush with some Mr Dissolved putty and some foundry marks as per original photos were added.



Overall model was finally ready. Time therefore of tiny details, photo etched brush guards, styrene built footman loops and tools holders. On front light brush guards there are two small cylinders attach to them, they are lamp holes protector plugs, they were meant to protect electric lamp connectors once they were stowed inside the tank. In these early tanks these cylinders were fixed flush to front bow surfaces. Vibrations and bumps made often plugs to jump off and laying loose on front bow being hold by a retaining chain. I tried lathe a separate holder and plug and

luckily it came out ok. Just a piece of photo etched chain and a very unusual touch was added!

I then added the handles on front hatches. These oval shaped handles were again formed by bending a 0,30mm styrene rod around a template and being heat formed in boiling water.

On turret hatches I then added two photoetched small ring to replicate hatch stops releases.

Tracks are Bronco T51 offer and built as per instruction, while the fabricated triangular grouser cover are from Dragon M4A1dv kit.



ON WITH THE COLOUR



A light layer of Mission Models Black primer was followed by Mission Model MMP 026 Olive Drab 33070. Some selective areas received layers of MMP 021 and MMP 022 (two variation of Olive Drab faded) These two tones help to give "volume" to an otherwise pretty flat finish.

I let these layers dry completely because markings involved an extensive use of hand made stencils.



Tunisian US Shermans were pretty colourful and sported very evident bright yellow markings, including gun tip and lower part of the rear air filters.

Stencils were cut from Frisket sheet and complemented by Tamiya masking tape.



"HANG ON" and serial numbers are dry transfers by Archer Fine Transfers. It was pretty tedious job to make all stencils but with a little bit of extra care in positioning all went well at first shot. I actually used Mission "Highway Yellow". It was sprayed without thinning. It helped to avoid colour runs which could ruin final definition and actually tough they look pretty "thick" out of the bottle, it went through airbrush nozzle pretty well without any clogging!

A coat of Mission Gloss Clear was sprayed to prepare for washes and weathering.





First washes were with Abteilung "Industrial Earth" and "Sepia", these were let into recessed detail. These latter became the base for weathering stains.

Lower hull behind running gear was treated with MIG Splashes "Dry Earth" and some contrasts were added with AK "Earth Effect".

Upper weathering was made with AK Deposits (Light Dust and Earth). These products are not an usual paint but actually

they look like pigments dissolved in a very thinned paint base. This helps to achieve different effects and control how "intense" the dust layer appears. It's important to use a very small amount at a time, building the final result in multiple layers. You can mix different tones to add some variation and increase contrast.

Being heavily pigment loaded, they may tend to make surfaces to look very flat. For this reason a very restrained wash with

earth tone colours is finally applied. I used again Abteilung Industrial Earth heavily diluted in thinner.

Last step was to apply in the areas subject to crew passage a light dry brush mix of Olive green and Kassel Earth oil colours. This mix, if applied very lightly by the aid of a stiff brush, simulates quite effectively scuffed paint.

FIGURES AND BASE

The Commander is an Alpine figure slightly modified to make it fit the turret hatch, while Driver and MG gunner are torsos made with Tamiya epoxy putty and Nimrod Heads. All are masterfully painted by my friend Giuseppe Ortolani.

The base is a piece of extruded styrene laminated with balsa wood while terrain was obtained with AK diorama terrain and some cat litter. AK diorama terrain products delivers very convincing texture, colours are a little bit too stark. For that I

airbrushed randomly two different earth tones and final touch was to use same AMMO MIG Splashes tones I used for the running gear to uniform the vignette.



Overall this was a fun project on which I experimented some techniques I don't use so frequently. It was a nice improvement in terms of painting and for this I wish to thank Jon Tamkin of Mission Model Paints for the help and advice.





H★ANG ON

**M4DV PSC production
H Company, 3rd Battalion,
1st Armored Regiment**





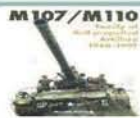


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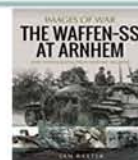
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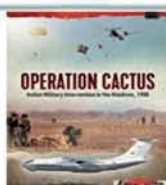
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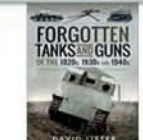
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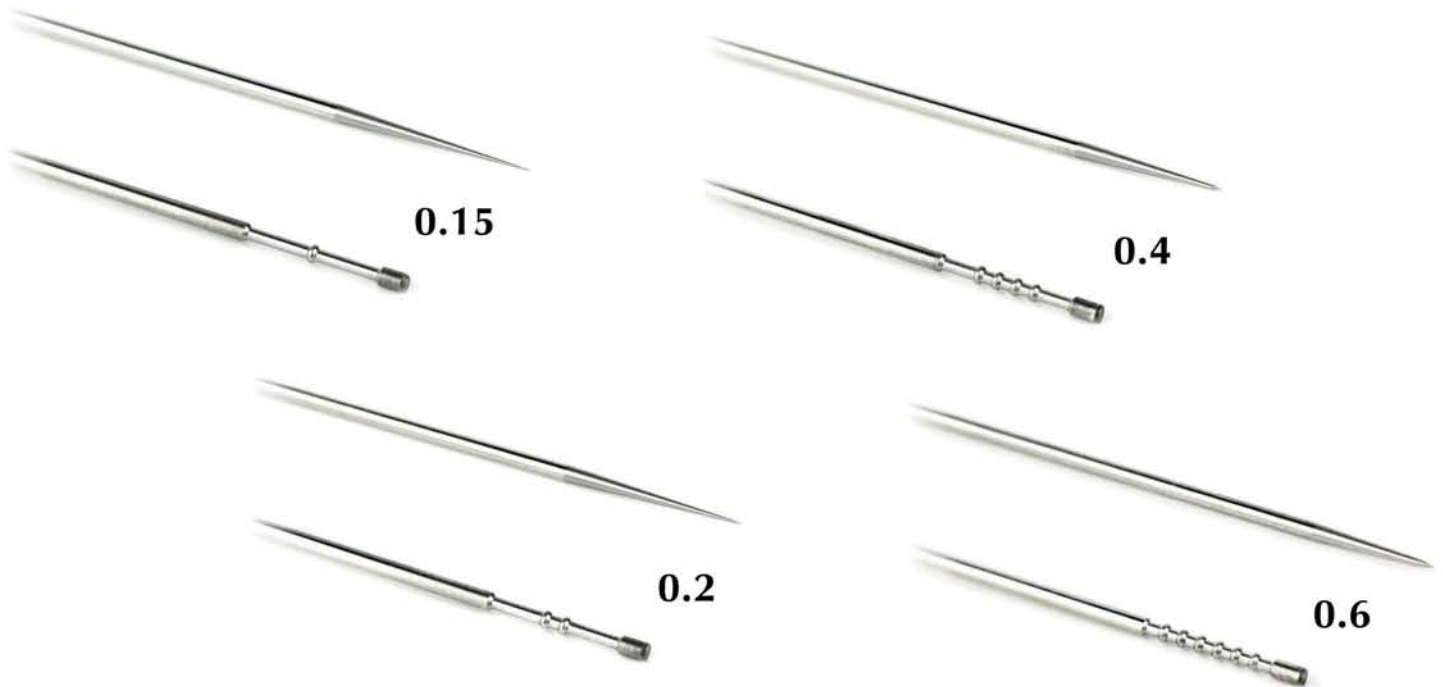
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