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LAND T-35A BATTLESHIP

MODELLED BY JAMES BOND





The pre-war T-35 Soviet Heavy Tank is perhaps one of the most interesting of all Russian heavy tanks, if only for its sheer size and firepower. Even in Russia, the T-35 is a relatively unknown tank, overshadowed by the famous T-34. Despite its relative anonymity, the Russian medal for valor (Za Otvagu) bears the silhouette of the T-35 tank, the medal appearing nearly the same today as it did in the wartime Soviet Union. This is not simply coincidence, as the five-turreted giant, bristling with tank guns and machine guns, which thundered across Red Square during the times of the November Parades, became the symbol of combat might of the Red Army in the 1930's and played a significant part in the history of Russian tank development.

The T-35 was unique in the sense that it was the only five-turreted tank to enter serial production anywhere in the world. Its role was to penetrate and destroy enemy strong points. Two prototypes and sixty one tanks in several series were built between 1932 and 1939. The tank weighed 50 tons and had a crew of 11! Its top speed was around 30 km/h on road and 20 off. The engine was a gasoline 500 hp MT-17T, 12 cylinder engine. The main turret was armed with the KT-26 (76.2mm) gun, designed to devastate enemy strong points, and also two DT machine guns. The two medium turrets housed the anti-tank 45mm 20K gun and each contained a co-axial DT machine gun. The two smallest turrets each contained a single DT machine gun for use against infantry.

The T-35's were first assigned to the 5th Heavy Tank Regiment in 1935. All the way up to and including the early part of the Soviet involvement in the Second World War, the T-35's were around. They never worked very well and up until the time they were retired, their only real positive attribute was that they looked good in parades. Just before the war began, nearly all of the T-35's were transferred to the 67th and 68th Tank Regiments of the 34th

LAND BATTLESHIP



Tank Division in the Kiev area. According to available historical records it is apparent that the majority of the T-35's were lost to mechanical problems rather than to enemy fire.

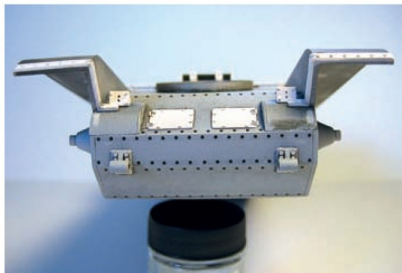
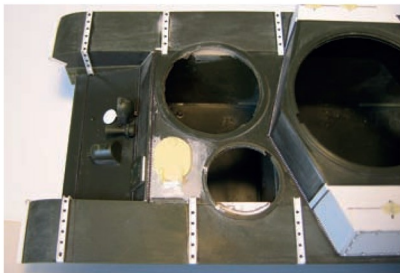
Modelling the T-35

I picked up the ICM kit of this beast back in 1998. After a bit of research I decided to build a late model with the conical turrets and buying the ADV conversion set made this a bit easier! Throw in some, Eduard PE, Friul tracks, Jordi Rubio barrels and Tank Models DT machine guns and I was on my way... or so I thought! After purchasing the Land Battleship T-35 book from Barbarossa Books I realized that I needed much more photo reference for this build. On to the shelf it went! Years later....2010.... I came across a great Russian website dedicated to the T-35! I was finally able to find enough information to push forward!

The Hull

The main piece of the hull bottom was a bit warped so I placed it on a ceramic tile taping it down on one side. I positioned the hull side

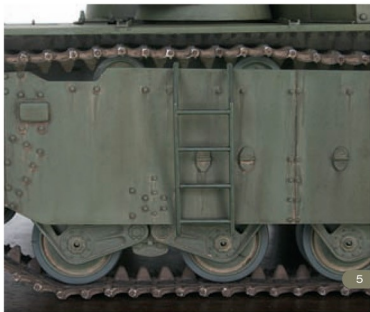




on the opposite side and glued with liquid cement. After a bit I removed the tape and glued the other side on. Provided in the kit are bulkheads that add support to the hull and help square it up. I glued these in. Next was the top of the hull. At this time I had to decide where I wanted it to line up best.....front or back. I chose the front. After the glue set I began to sand the rear hull plates till everything lined up and I scribed a few lines here and there. The fender support brackets attached to the kit fenders are incorrect for the late model T-35 so these were sanded smooth. Before doing this I filled all the tool locator holes with epoxy putty. Next I glued a rectangular piece of plastic where the drivers hatch would be. After filling that with Stucco putty and sanding smooth I moved on to the superstructure sides. The late models had angled sides. After viewing as many images as I could find I determined the shape and size of these and scratch built them with styrene sheet and added hex head bolt detail. There are

four oblong bolted plates (two on each side) that were mounted to the top of these areas. I made an RTV mold of the ones on the kit parts, cast them in resin and attached them. The turret areas were shaved down and widened in order to receive the new turrets. The large cooling fan and its housing were attached, painted and covered with low tack tape to protect it from further work to be done. The large louvered vent cover above the cooling fan needed a bit of work. I first made a mold of one of the small hatches on top and cast two out of resin. This must be done because these hatches are way too close to the front edge which needs to be sanded to more of a bevel. The rounded look is incorrect on this model. I then glued the new hatches on. I also glued two small attachment points to the hull which also acted as hinges for the real one. Square holes were cut in the back of each fender. New rectangular engine ventilation covers were built from styrene stock with PE and bolt detail added. Rear transmission

access hatches were made from styrene stock with PE and bolt detail added. Triangular block like mountings were added to the rear upper hull plate. Tow shackle mountings were added and detailed with bolt heads. The exhaust housing and pipes were made from scrap pieces and styrene stock. Fender brackets were made from styrene channel. These were detailed with hex head bolts and Archer surface detail decal rivets. The Driver's armoured visor was detailed with a hinge. The armoured headlight housings were cleaned up and attached. I added a lens and a protective lens cover to the upright housing. The horn was drilled out and bolt detail was added and the late model driver's oval hatch was made from styrene stock. I made a mold of it and cast four in resin. I sprayed clear finish and Mr. Surfacer 1200 over the areas that would receive the Archer Surface Detail weld beads and rivets (decal versions). After checking and rechecking my reference, I applied the weld beads and rivets to all the



necessary areas on the hull. Next I attached the bogey units without road wheels installed and mud chutes to the sides of the hull. PE tool brackets and tools were added to the fenders. Spare tracks and a PE and brass wire holder were attached to the rear right fender. The jacks were heavily reworked with aluminum tubing and PE detail and attached to the superstructure sides. The tow shackles were detailed with new bolt heads and nuts and attached.

Main Turret

The main turret supplied in the ADV kit was a disappointment at best. There was a big ripple in the middle of the turret that wrapped all the way around it. After several unsuccessful attempts to get a replacement turret from ADV I decided to try and work with what I had and by carefully sanding and filling I was able to restore the details. Next, to add a subtle texture, I brushed on Mr. Surfacer 1000

and stippled it with an old brush. When dry, I sanded these areas down slightly. When painted...this technique shows up well. The rectangular hatch next to the commander's hatch is incorrect for the late version T-35. This was filled with styrene sheet and stucco putty and sanded smooth. I then added one of the resin oval hatches I had cast earlier. Archer weld beads were applied to all the necessary areas. PE detail was added to the main gun area. The Commander's hatch, periscopes, antenna housing and ventilation covers were added using the ICM parts. The Jordi Rubio barrel was a decent fit and I also added the Tank DT machinegun barrels. The antenna and commander's DT machine gun and mount were added after the painting was complete.

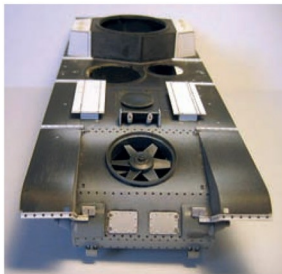
Medium Turrets

The medium turrets needed a bit of work also. The outer gun mantlets were

carefully carved out in order to receive the ICM part where the barrel fits into. Once in place, the mantlets need a bit of filling and sanding in order to look presentable. These turrets were textured the same as the main turret. The bolt detail was replaced at this time also. Archer weld beads were added next. Periscopes and ventilation covers were added using the ICM parts. The Jordi Rubio barrels fit a little tight so I opened up the holes in the ICM parts slightly. The Tank DT machinegun barrels fit well and I made lifting rings from copper wire and added three to the top of each turret.

Small Turrets

The hatch areas on the small turrets had to be filled in and the resin oval hatches were glued in place to replace the inaccurate ADV hatches. These turrets were textured the same as the rest. Archer weld beads were added and three lifting rings were attached to the top of



each turret. The Tank DT machinegun barrels were added last.

Wheels

There are 32 road wheels, 16 per side! These come with the hubs separate. I painted the rubber portion with a mix of Tamiya XF-63 German Grey and XF-52 Flat Earth. The hubs were painted the base colour and weathered separately. When dry they were pressed into place and fit so well they needed no gluing at all. The spoked idler wheels provided in the ICM kit are not correct for the late model T-35 and must be replaced with solid wheels. Finally, I was able to put to use some old Italeri Hetzer road wheels from my spares box! They are the perfect size and look the part when glued face to face with a small spacer added in between each pair. The drive sprockets and return rollers were assembled with no problems.

Armoured Side Skirts

The armoured skirts needed a bit of work to represent the late model T-35 also. I started by squaring off the back ends of the ICM sections and filling where needed. Next I took a small chisel and removed rivets here and there and added new ones where needed. I then made a master of one of the late model fasteners that are very recognizable on the late models out of styrene stock and cast up 28 and glued them in the correct areas.

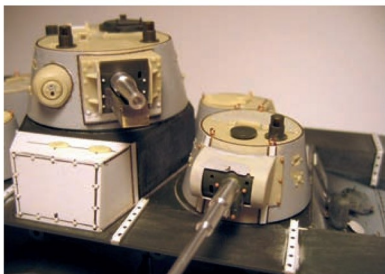
Tracks

The tracks are by Friul Modelisimo. They all had to be drilled out and cleaned up a bit before assembly. Each side measured in at over two feet in length! They were soaked in Blacken It and when dry I brushed them with a scrubbing motion with a thin mixture of Mig thinners and Mig Track Pigment. When dry, I brushed them with a thin mixture of Mig Thinner and Mig Europe Dust pigment. After this dried I took some

400 grit sand paper and lightly exposed the metal wear areas on the outer edges of the tracks. Lastly, I ran a lead pencil on the insides of the tracks where the road wheels would make contact.

Painting & Weathering

The turrets were painted separately from the hull as were all wheels and side skirts. I primed with Mr. Surfacer 1200 and base coated a mixture of Tamiya XF-13 J.A. Green and XF-60 Dark Yellow in a ratio of 3:1. I airbrushed this on with very light coats until a solid coat was achieved. I then airbrushed randomly a mixture of the same colours above but in a ratio of 2:1 in order to break up the one colour look that can detract from a model. Tamiya XF-52 Flat Earth and XF-57 Buff were airbrushed randomly on the lower half of the hull below the fenders to help with the weathering process to follow. I made some stencils out of low tack tape and applied the white triangular markings to the main



turret. According to my reference these markings represent the 34th Tank Division, 8th Mechanized Corps. Next, a wash of Mig 502 Abteiling ABT-080 Wash Brown oil paint was applied over the entire model. When dry, I sealed this with some clear flat Poly S. Care must be taken with this step. If applied heavily, it can dry a little milky on you. Next, I applied Mig's Dark Wash straight out of the bottle and moved it around a bit with the Mig Thinner. When this dried I sealed again with the clear flat. I made a mixture of Mig Thinner and Europe Dust pigment and brushed this onto all the lower areas including the side skirts. Next, the wheels were added and then the side skirts. The tracks were attached and pinned allowing for slight sag across the return rollers. The DT machine guns and metal on the tools were painted with testors flat gun metal and dry brushed with Xtracolor Duraluminum. All wooden handles on the tools and Commander's DT machine gun were painted with Vallejo 847 Dark Sand and then streaked with raw umber oils to simulate wood grain. The exhaust pipes were painted with Vallejo 984 Flat Brown. When dry they were dusted with Mig Pigments Light Rust and Standard Rust. A small amount of Mig Black Smoke was dusted into and onto the very tips of the exhaust.

At this stage I had to decide on whether to make a massive rolled up tarp or install the retaining system that held it in place. I went with the latter. Three tie down clips were added to the left fender behind the superstructure and Green Stuff putty was

used to make the tarp retaining straps along with PE buckles that drape down the side. I picked this trick up from one of Steve Zaloga's excellent books on modeling US Armour. These were painted with Poly S Khaki. I added some of Mig's Oil & Grease stains to the likely areas. The last stage of weathering was the addition of Mig's Rain Streaks coming down the sides of all vertical areas and when pleased with the look I mounted the turrets and called it done!

The base is a solid piece of walnut milled by a friend of mine. I had the plaque made at a local trophy shop and added an authentic WWII Russian Cap Badge.

WHAT A BEAST! Five turrets! Many rivets, bolt heads and weldbeads! Scratch building, mold making and resin casting! It was a challenging build but well worth it!

References

LAND BATTLESHIP THE RUSSIAN T-35
HEAVY TANK by Maxim Kolomiets and Jim Kinnear published by Barbarossa Books

ARMOUR BATTLES ON THE EASTERN FRONT by Robert Michulec published by Concord Books

<http://grayknight.narod.ru/T-35/T-35.htm>







The year is 1982, a decisive year in the history of Middle Eastern conflict. Having fought several wars of what could be deemed survival Israel is now in a position to launch an offensive into the heart of an Arab state in an attempt to decisively destroy the P.L.O. and its chairman Yasser Arafat, thereby extinguishing not only the guerilla presence in Lebanon but the aspirations of Palestinians in the West Bank and Gaza. Ariel Sharon and Menachem Begin also wish to set up a friendly Falangist state in the Levant and thus create a powerful ally on their northern border and also pressurise Assad's Syria with a new pro Israeli neighbour on its western border.

Operation 'Peace for Galilee' also referred to as 'Operation Snowball' by Middle East correspondent Robert Fisk which was initially announced as a bid to secure southern Lebanon would in fact snowball into a massive operation to change the political face of Lebanon culminating in horrific massacres at Sabra and Chatila refugee camps where Falangist allies slaughtered unarmed civilians left behind after the P.L.O. fighters had departed. While the P.L.O. were vanquished Israeli actions succeeded in creating the far greater menace in the form of the Shia resistance movement Hezbollah.

Ariel Sharon's bold and decisive invasion of Lebanon with its armoured thrust through the south and amphibious landings at Tyre ploughing on to Beirut to the inevitable confrontation with Syrian forces in the



BEKAA Breakdown

MODELLED BY ZACK SEX



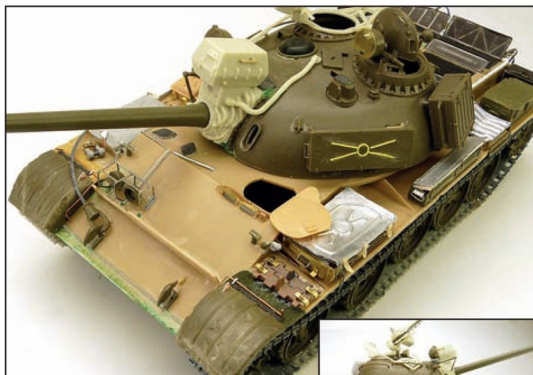
Bekaa valley. While the intention may not have been to attack the Syrians the air and ground units of the I.D.F. had planned and prepared for such an eventuality. Firstly by resoundingly decimating Syrian SAM sites and then achieving total air superiority in a series of short and swift dogfights which saw over 80 Syrian MiGs crash and burn over Lebanese soil. On the ground Syrian T-54s, T-55s, T-62s and apparently a small number of T-72s fared little better against updated and up-armoured Centurions, M-48s, M-60s and Israel's latest Merkava. Those Syrian units which were not caught in the open and destroyed by fighters, Helicopter gunships and M.B.T.s fought valiantly side by side with Syrian Commandos armed with Saggers, Milans

and R.P.G.s. Their actions in conjunction with Palestinian and Lebanese guerrillas slowed Israel's progress and led to them besieging Beirut. While the Israelis captured large amounts of Syrian equipment some Syrian units were able to withdraw in some semblance of order. Thus we have the inspiration for this diorama.

Setting the scene, T-54 first

The idea for this diorama had been floating around my head for some time and involved a Czech produced VT-55 in Syrian colours towing a broken down tank or APC during the '82 conflict. I had thought of using a T-62 or early T-72 however it was images of Syrian T-54s and 55s fitted with

North Korean laser range finders and in some cases KPV 14.5mm AA guns instead of the normal DSKH 12.7mm machine gun that proved the clincher. While I had a number of reference shots of these conversions it was images posted on military photos.com by a Lebanese expert Samir Kassis that allowed me accurately scratch build this conversion set. Further to this I approached Adam Wilder of MIG productions about casting this set. He thought it a good idea and was extremely helpful and patient with his time in the cleaning up and production of this my first foray into the world of commercial resin



casting, thanks again Adam.

While Adam chose to produce a Syrian T-55 derivative with this set, after some talk with Samir Kassir I opted for an updated or rebuilt Syrian T-54 on which I mounted the North Korean laser range finder at an elevated angle and KPV 14.5mm AA in a similar position to give it a more dynamic look. This alongside a number of the components offered in the Mig productions set such as the perforated recoil guard and a machine gun cover were added along with a Trumpeter mushroom fan to the Tamiya T-55 turret to produce the Syrian T-54 variant. As Syrian and some Lebanese versions of the late T-54 also utilise the rectangular and square zip boxes mounted on the left hand side of the turret I added these with one small alteration to change the embossed stamping on the rectangular zip box to an extruded pressing this was achieved by fitting narrow gauge telephone wire into the embossed shape. The lower hull consisted of an ESCI T-54 to which I added an Edward etch set as many updated Czech T-54s have such fittings. I also altered some of the suspension units to replicate the contoured effect of the rocky ground on which this T-54 was to sit. Other small variations to the T-54 included an embossed foil box and copper zip box on the front left hand side fender and a set of dremmelled and distorted Tamiya front mudguards sent to me in a box of T-55 parts and other goodies by Adam Wilder.





Tackling the tow tank

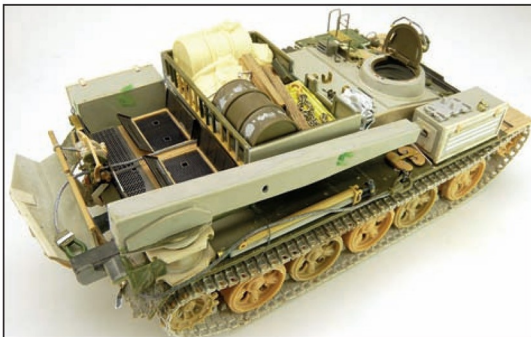
In comparison the next step in the project made assembling the T-54 look pretty simple. Producing the VT-55 would take some time and patience. This project had been commenced some time ago, and while it is the raison d'être of this article, I was waiting for a suitable vehicle to tow. Being based on the T-55 I started by adapting a T-55 hull, in this case a grossly inaccurate Trumpeter offering, I know this is sacrilege to T-55 aficionados but his project started of as a bit of fun and also as a way of proving a point that even the most dire kits can be chopped up and rehabilitated. The upper hull crew compartment casemate which consists of the crew compartment on this vehicle was built from off cuts of model plastic sheet, the commanders cupola was produced by trimming down and sanding an Italeri 1:48th scale F-16 jet nozzle! This area was further decorated with home made metal fittings, wire light guards and spare tow eyes from a series of Trumpeter kits. Behind this is positioned a large rectangular stowage platform with hinged sides, this unit covers the internal tow winch in the VT-55 and was suitably filled out with tinfoil tarpaulin, a large tool box and spare

road wheel. To the rear of the VT-55 is positioned a large earth anchor such as that found on the Stalin recovery vehicle and the BTS 3 ARV, having built one or two of these before all that was required was some stout plastic for the two arms with sheet plastic used to replicate the anchor unit itself and thin strips of yoghurt carton lid to form the reinforcing ribs. The fourth and final major construction was the three ton crane arm mounted to the hull above the rear right hand running board, this is a small project in itself but besides consisting of a series of interesting shapes is a fairly straightforward construction. Two large stowage boxes and a series of various fittings completed the construction of this Czech VT-55.

Building the base

Having assembled the majority of the two vehicles in question I spoke to Davy Coyne about a base, we decided that a straightforward section of rocky terrain such as the type found in the Bekaa valley would suffice. To this end I took a large chunk of dishwasher styrofoam packaging and cut it down to a rectangular block which I then contoured with a large knife and





stanley blade. After mounting the vehicles at a diagonal across this rectangle I gave Davy a ring and asked him to landscape this section of styrofoam terrain. The following week Davy returned rocky outcrop in hand unsurprisingly this typical Mr. Coyne landscape which included large lumps of railway modellers rock formation fitted the bill perfectly.

T-54 Syrian spray job

Now all that remained was to paint the Syrian duo and to this end I began with the Syrian T-54 producing a paint scheme heavily influenced by that produced by the maestro Adam Wilder in his take on a similar Syrian T-55. As a base coat I applied a coat of green primer from the Humbrol acrylic range this produced a bright luminescent green base which immediately appears a little loud but actually provides an ideal base for the colourful Syrian paint scheme applied to some of their T-54s and T-55s. At this point it is worth mentioning that the Syrians apply a number of different colour schemes to their vehicles from straightforward Soviet green to the application of purple greys, bright sand yellows and various hues of green normally coated with a fine coat of grunge, oil, sand and grit. With this in mind and having applied the green, grey and yellow camouflage scheme I had in mind I applied numerous coats of Mig pigments, terracotta washes, diluted Mig oil stains and various mappings of black and brown oil paint washes in some spots such as the





fuel cells and gun barrels this was then vigorously polished to produce the natural sheen normally found on these surfaces. Although I was tempted to dirty the entire vehicle I stopped at the upper deck of the hull allowing Syrian colours to remain clear on the turret.

Verifying the VT

The VT-55KS according to the Czech website Valka.cz was a particular version of the Vt-55 or BTS-2 ARV produced by the then Communist Czechoslovakian for 'Capitalistic' customers. These vehicles have a seem to have a slightly smaller stowage box on the rear deck and an example such as this one retains a standard T-55 commanders hatch rather than the NBC covered version found on later variants. A number of these ARV's were delivered to Arab armies in the early 1970's and I have seen at least one photo of a captured Syrian version on the Golan heights taken after the Yom Kippur war also when travelling in Israel recently with friend and model maker Alan Callan we managed to photograph a highly modified Israeli version of a former Arab VT-55KS. This in itself would be an interesting subject to model either in Israeli or SLA colours as Tom Gannon in his Israeli Sherman book mentions in passing having seen a blue/grey camouflage scheme on one indicating its service with the SLA.

Having had the VT 55 on the shelf for quite some time I had finally fixed on the colour scheme which I required for this project. It was a scheme based on a series of images of Syrian equipment being withdrawn from Lebanon in 2005. The images in question consisted of number of shots of a VT-55 on a low loader being pulled by a Mercedes Tractor unit. The colour scheme itself was fairly straightforward consisting of an overall mid green with sand yellow squiggles randomly sprayed throughout capped off with typical Syrian army markings. To start the ball rolling I sprayed the entire vehicle in Humbrol acrylic matt sand this dries fairly quickly and also can take numerous spirit washes without lifting. Having applied the Humbrol sand I then produced small masking sausages of 'blu tak' which were gently pushed down onto the surface, with these in position I sprayed the vehicle with a Humbrol acrylic dark green which took no time at all to dry and on peeling off the 'blu

tak' revealed a suitably blurred edge which was to be a fine basis for weathering and washes with Mig productions pigments, oil and grease washes and terracotta and oil paint washes. In conjunction with the highlighting of various elements such as the oil drums and other stowage box items and flecks of rust as found on tow fittings, earth anchor and exhaust outlet shroud, along with some light green highlighting on sharp edges, corners and rims had the effect of creating a fairly harmonious colour composition on this ARV which I wanted to depict a vehicle in the middle of its service life, neither new nor completely worn out and thus a subtle contrast to the old and haggard T-54 in tow. The addition of a number of crew figures with some appropriate weathering to blend the duo with Davy Coyne's finished diorama completed the project.

Conclusions

This project was a while in coming together, and while the *raison d'être* for the whole thing was to show the VT-55 in a working environment, the quest to produce an interesting vehicle in tow which ended with the development of the North Korean laser range-finder and KPV 14.5mm machine gun which resulted in a small conversion set for Mig productions was a great bit of fun and a real learning curve. To this end I must thank and heap praise on the head of Adam Wilder and Francois Verdier for their patience, forbearance and understanding. This project was given further impetus by a trip to Latrun in Israel with my friend and fellow modeller Alan Callan. Now all I've got to do is get started on this monstrous 1/16th scale T-55.....





Xtreme

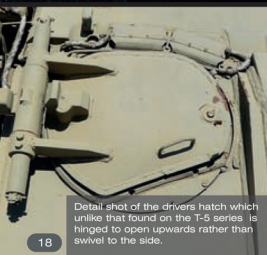
detail

VT-55

PHOTOS BY
ZACK SEX



Front three quarter shot of the ex-Syrian VT-55 with Israeli rubber mudguards.



Detail shot of the drivers hatch which unlike that found on the T-55 series is hinged to open upwards rather than swivel to the side.



Detail shot of the drivers hatch, of note are the retractable periscopes in the closed position.



Top shot of the commanders position on the VT showing the standard T-55 commanders hatch, this differs from most Czech made VT-55's in not having the NBC cladding.



Rear shot of the VT showing the lowered tow anchor similar to that found on a wide range of Warsaw Pact ARVs.



Details of the double roller bar feed system for the winch unit tow cable.



Standard zip box with IDF shovel holder attachment points.



Interesting photos of the storage box framework missing a number of floor sections below which we see the engine hatches and some of the winch box housing.



A top shot of the right hand side storage box innards and engine deck layout below.



Detail shot of the side storage basket, spare tracks fastened to its side above a worktable and below that can be seen the exhaust outlet.



Detail shot of the front right hand side of ote here is the IDF radio pot above an assortment of Israeli storage boxes.





Detail shot of the front left hand section of the VT showing the new IDF fittings, stowage boxes and flagpole holder.



View of the jib arm as mounted on the upper hull of note are the various IDF fittings added to the VT-55.



Detail shot of the rear inside of the jib arm which is attached to the upper hull at the rear right hand side of the VT.



Side view of the jib crane mounted on the upper hull of the VT, of note are the tow bars stowed on the side and empty brackets.



Detail shot of the formation lights and the horn on the VT



Detail shot of the IDF lights and machine gun mount positioned to the front of the vehicle.



Top view of the rear of the crew compartment and winch casemate showing to good effect the IDF radio mounting and front of the jib arm.



These empty brackets are for stowing oxy-acetylene welding bottles as associated with IDF recovery vehicles.

Beast of the Somme

38(t)

Ausf.B

MODELLED IN 1:16 BY **JOSÉ DUQUESNE**

1:16



As the German troops started to invade France in May 1940, the Panzerwaffe mobilized almost all its existing tanks, however they still remained in great need of more fighting vehicles. Among the Panzer Is and IIs and a few Panzer IIIs and IVs, we can find a great number of Czech tanks confiscated by the Germans to augment their forces after annexing Czechoslovakia in 1938. The most representative vehicle for this campaign is the Skoda Pz.Kpfw. 38(t).



Robust and reliable, the Czech tank chassis was to be used throughout the conflict and would be the basis of many variants like for example the Swiss G13, a modernised Hetzer, that would go on to remain in service with the Swiss army until 1977!

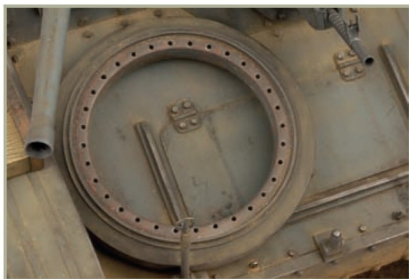
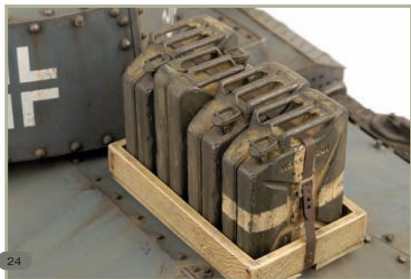
Sol Model - a big model of a little tank

1:16th scale also commonly known as 120mm is not really well represented by the number of available tank models. Verlinden released several different kits in

resin, but these were not always easy to put together. Let us not forget Tamiya and Trumpeter each of them listing in their catalogues some superb plastic kits in this scale. Some years ago, the little known Korean manufacturer Sol Model caused a surprise with the release of this kit, a 1:16th resin kit and a rather expensive model that had only a very limited release, despite the fact that this subject had never been produced in this scale before. Needless to say this 'small' 38(t) Ausf. B arrived to fill a big gap. The model is magnificently molded and engraved, with

no noticeable bubbles, in spite of the large size of some pieces. An etched brass fret and dry-transfer markings are included. A tank Commander figure wearing the characteristic beret from the beginning of the campaign is also in the box, but hasn't been used this time. My complaint would be with the resin gun barrel which is not very straight on this model. I chose to replace this with a turned metal version kindly manufactured by a friend of mine.

I would have been pleased with metal tracks of the Friulmodel type, for their ease





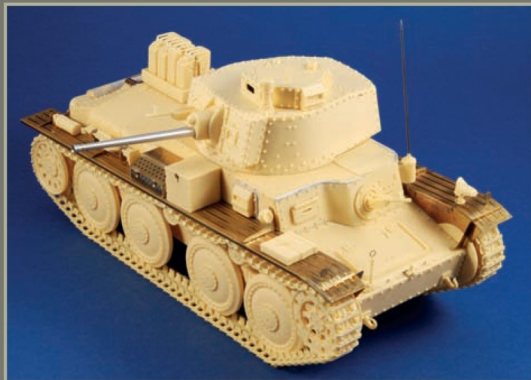
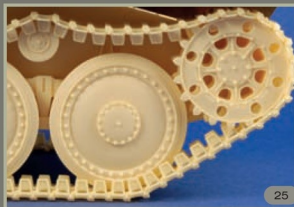
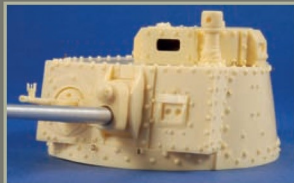
assembly and painting, but this would have made the kit far too expensive. Assembling the model is not a lot more difficult than with a resin 1:35th model. Once again I repeat, that this is a superb kit and a most accurate reproduction of the real vehicle. If by any chance you come across this collectors item during your web search don't hesitate to purchase this exceptional kit, even if it means breaking your piggy bank. The assembly is made very easy by the high quality of the kit. A preparation phase is needed as in all resin models, cleaning off the moulding plugs and sanding the pieces, but that soon gives way to the pleasure of assembling without needing any big adjustments. This was confined to a bit of plastic card and putty which was needed along the edges of the back and front of the fighting compartment roof, supporting the turret.

The tools and equipment of the crew are superbly moulded. They should all be painted separately, taking as much care as with the tank itself. The spare track links are detailed by a plastic strip and Verlinden

resin bolts representing the clamps used to fix these on the mudguard.

The antenna is made using a piece of piano wire. The tracks alone take a lot of work, each link having a plug to cut and sand, fitting them together is done with cyano glue, so it is not easy to reproduce the sagged effect along the top run. It is therefore crucial to fit the tracks properly around the sprockets. A good model can be ruined by loose fitting tracks around the sprocket or tracks that float over the return rollers.

The engine's ventilation grille is reproduced with thin metal mesh (supplied with the kit) that you will have to cut to the right size. The exhaust pipe was partly covered with Humbrol Maskol. The remaining areas were covered with Mr Surfacer to recreate the grainy texture of rusty metal.







Painting

- 1** The model receives a pre-shading of Tamiya black XF1, focussing on the numerous rivets and cavities.
- 2** The base colour is Panzer Grey XF 63 painted in very thin coats, to allow the pre-shading to show through.
- 3** The highlighting effect is done with Medium Blue XF 18 which gives a blue tone to the grey base. These different coats are focussed over the center of the panels.
- 4** The transfers are put on. They are held in place with tape, after having carefully contoured them around the rivets. The result is perfect, it is not even necessary to

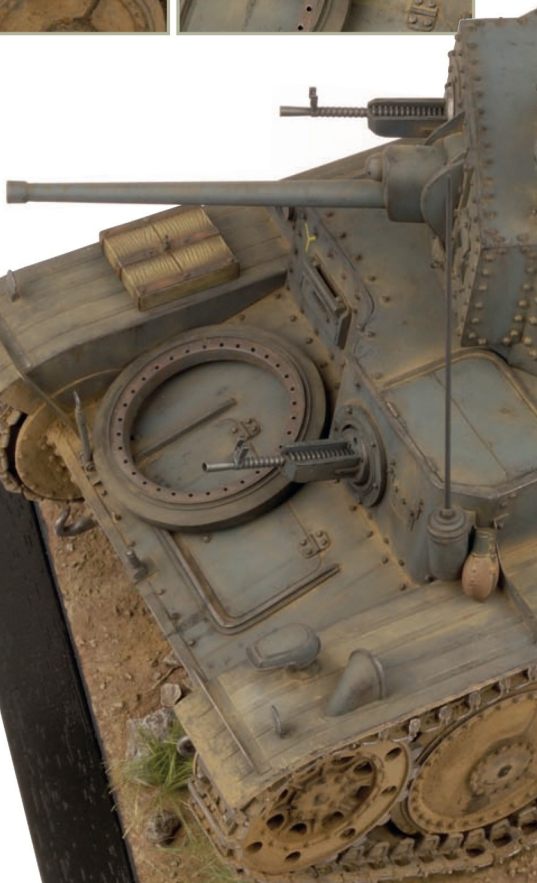
add varnish, the transfers being so thin. Their natural shine will fade as the weathering progresses.

- 5** A black oil paint wash is applied to highlight the details and deep lines in the model.
- 6** The wear and chipping is done with a thin brush. Colour varies from pure black to brown. Even at this scale, the effects must be subtle, remembering that these vehicles have a short operational life, so the wear must replicate this.

- 7** Different tonal variations are obtained by touches of Earth Natural Shadow oil paint, Burnt Sienna, Black, Yellow Ochre, Paynes Grey and White. These thin coats are

applied from the top running down with a flat paintbrush dipped in thinners.

- 8** The dustiness is done by using pigments purchased in a craft shop and fixed with thinners. It is important to keep the model realistic, putting the dust in logical defined zones, corners and gaps.
- 9** The rivets and raised edges are brushed over with white graphite powder. Once again, the wear is more pronounced on the parts that the crew used most.
- 10** The different tools and other accessories are glued in their designated spaces, paint adjustments are made. Grease stains are reproduced on the wheel hubs with black oil paint.



With the pigments on the wheels the grease stains are absorbed and matted just like on the real vehicle. On the grey base, the exhaust pipe is painted in Burnt Sienna, then different pigments, from brown to orange, were applied on the fresh paint.

Black pigment represents staining from the exhaust pipe. A matt varnish coat kills the remaining sheen finish from the oil colours.

A simple base was constructed to mount the tank and the same pigments that were used on the vehicle were used to finish the base, tying the two together.



Beast of the Somme

38(t)



JEAN-THOMAS REMBERT BUILDS TAMIYA'S LECLERC KFOR

1/35



History

During the 70's, France became conscious that its AMX 30 was aging and had reached its limits. So it was in 1977 that the Leclerc tanks long genesis started. After considering to buy foreign tanks (like the Abrams or Merkava) then trying to create a tank with Deutschland (as for the AMX30 in its time), France finally decided to conceive its own main battle tank, built to a very precise specification ensuring a low weight to increase mobility coupled with a very accurate fire control system.

In 1990 the main production of the Leclerc started with four models, that composed the first mark (T1), mainly for tests, thus leading to the second mark (T2) and third (T3), who were enhanced at the global design level, also enhancing the engine and suspension, the first models coming in active service just after the Gulf war in 1991.

The T3 quickly went out of service to give the place to the Mark 4 and 5 (T4 & T5) at the end of the 90's. Then all the Leclerc were updated and took the name RT5.

All this Mark were regrouped in the "Version 1" of the Tank.

The continued cycle of updates and other enhancements continued till the Mark 11, the version 2 including the Marks 6 to 9 and also the RT9, the next ones having the name of the version XXI.

It is simple to distinguish each version, on the other hand it became very hard to distinguish each mark that composed it as the modifications are minimal or on the interior.

Externally different, Mark 1 can be recognized by the absence of air conditioning on the top of the Turret. Mark 2 by the addition of this air-conditioning and XXI version par the addition of a box on the left of the main gun (that includes the electronic system) that is bigger.

Another version in progress is the addition of an urban survival kit named AZUR.

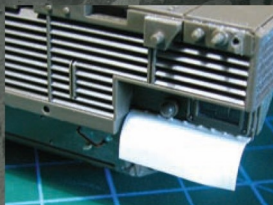
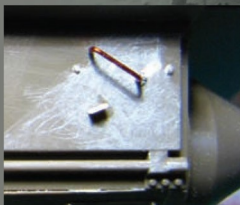
Only the United Arab Emirates also use the Leclerc, their versions of the tank being very different than the French one (new engines, and another kind of equipment) named Leclerc EAU.

Today the Leclerc is in active duty with the Version 2 and XXI. It was sent into Lebanon in 2006 and still in use today under the UNO colors.

For my diorama, the version I modelled is an RT-5 used by the 501-503th battle tank battalion of Moummelon. To make this version, I have to either use the Heller kit or convert the Tamiya kit, the second choice being (in my opinion) far easier.

Building

On first look, the Tamiya kit is very pretty and complete; the molding is at the standard level of the brand, being very good, with fine detail, a very complete decals sheet, only the price in France being a little prohibitive, but you have enough to make a nice kit. I love to quibble on my build (and its the build that most motivates me) and so I begin to compare the kit with the pictures that I have on the real tank. I discover that once again Tamiya give us a nice model in its globality but if you look close enough, a lot of detail is still missing. So Time to work!



I start loosely following the instructions sheet and removing the handles on the motor access hatch that are molded on the kit and replacing them with copper wire, also adding the dead stop in plasticard. Then the rubber mudguards are made from 0.25mm thick plasticard and deformed to simulate the mudguard weight, the fixation slide on the upper part made from aluminium.



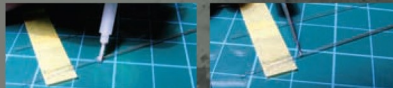
I upgraded the idler wheels with pieces from the Voyager Models set. The set is very complete with photoetch in several thicknesses, resin details and an aluminium barrel.



I begin by dry fitting the running gear level and then create the uneven groundwork. I've looked to get an original, rustic look to the scene using rough cork for the main shape to give the effect of the base being pulled from the ground. Air drying clay was used for the earth and the suspension set around this when dry.

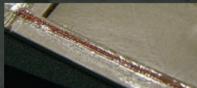
To give a realistic look the first and last wheels are glued in a level position and the others fixed in place without exceeding 30 degrees of clearance.

Before adding all the externals details of the tank's hull, I remade the anti-slip surfaces on the top of the hull with Mr. Surfacer 1500, firstly masking the area with tape. I found the original kit moulding to appear too fine and smooth.



A more difficult part of the build now, I remade the entire hull and turret welds mark, as they are inexistent or too smooth. To make welding marks in big quantity, I have a practical and simple method.

I use a clean plate of glass, extra fluid glue or trichloroethylene and a piece of stretch sprue at the desired diameters (less costly than plastic shapes).



Using adhesive tape, I put the stretched sprue on the glass, I tighten the plastic to have it in a straight line, then using a brush, I put a large quantity of trichloroethylene on the plastic and let it act, as he melt down and became soft. Then I reproduce the welding mark on it, using an old blade. If you want to reproduce a rough welding, you can alternate the way you put mark on it.

Then let the plastic became hard again and when it's done, just peel off your stretched sprues from the glass using a razor blade, and you have your "ready to use" welding marks.

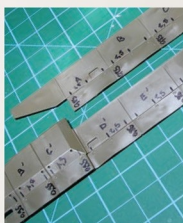


The next step will be the driver hatch that will be simply detailed using the Voyager Models photo-etched set and completed using small pieces of plasticard for the fixation mountings of periscope guards, the manual opening handle and the glass washer in front of the driver hatch. During this step I also glue the ventilation meshes (from Voyager Models) on the rear part of the hull.

I've also worked on the lateral armored skirt, the rubber flaps, the original ones being too thick (due to the molding process) and remove 'too' flat details.

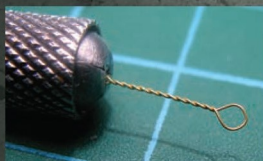
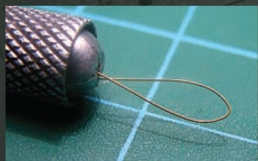
For this, I saw the bottom part of the skirts and add the holdings with plasticard (small rectangles a few millimetres thick) then plastic rod about 1.5mm thick has the fixing pins added.

Using the original mudguards as a template, I made new ones with a more realistic look with some damaged and bent areas. The fixing pins were made by winding fine wire.



On the front part of the hull I added headlamp wiring, a photoetch holder for the decontamination kit, bolt heads and fittings from plastic rod that hold the skirts when raised.

To detail the hatch on the front part, that is used as ventilation, I add a piece of metal on the top of it and made a small chain (made from thin wires that I twist and then flatten).

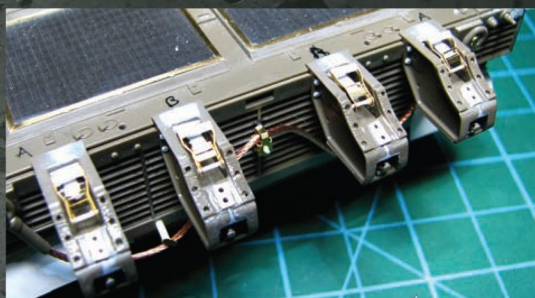


I have also remade the holdings of the front mudguard using plasticard, as well as the triangular lifting hooks found on the rear part of the hull.



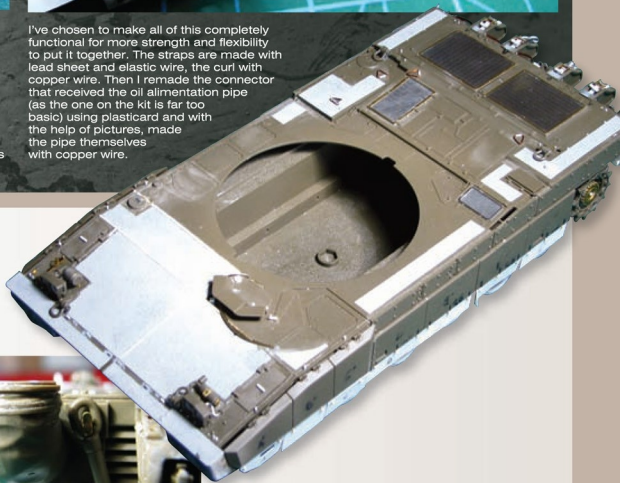


Regarding the dropping external tank holdings, I've added bolts on their bottom using hexagonal plastic shapes from Plastruct, as well as the stowing lever, on top of which I have textured the rubber pads using liquid glue and worked with a blade. The external tanks will not be used (being rarely used in reality) but, nevertheless I reproduced the straps and holding hooks, using a Voyager photo etched set. The arm of the tanks holding is made of plasticard and plastic rods.



I've chosen to make all of this completely functional for more strength and flexibility to put it together. The straps are made with lead sheet and elastic wire, the curl with copper wire. Then I remade the connector that received the oil alimentation pipe (as the one on the kit is far too basic) using plasticard and with the help of pictures, made the pipe themselves with copper wire.

The exhaust pipes are dented on the exterior and received two diffusion fins on the interior. On the exit of the pipe, I remade the tightening ring of the isolation protection, using metal sheet and plastic.



Now that the hull is finished, I have to take on the biggest part, and with some anxiety, I prepare to cut the top of the turret! The plastic being thick, I first have to scribe the precise delimitation of the future cutting. Then using a mini saw (from Hasegawa), I go through the plastic. The cutting was then easily and quickly completed (breathing a big sigh of relief).

Once the turret is cleaned, I put a 2mm thick plastic piece, cut with the good dimensions, and with the different structure lines scribe on it, representing the hatches and positioning the handles (still using copper wire). Then I turned my attention to the smoke launcher on the side of the turret.

The GALIX launcher were often armed on the Leclerc deployed in Kosovo and as Tamiya represented them empty, I make do with the Blast Models set which is finely molded and very affordable. Installing this on the model is simple and done quickly, I only added the string linking the smoke launcher to the cap using a hair from my companion.



At this stage, the turret received the anti-slip surface, applied with Mr Surfacer 1500, so that I can then reproduce the ventilations fins using thin plasticard.

I then decided to work on the anemometer on the rear of the Turret, as the original piece is poorly detailed, using plastic rods and parts from the Voyager photo etched set, you can quickly have something convincing.



Following that, here comes the tank's Sagem sight, I take the transparent piece included in the kit and sand the details on it, I then use the photo etched piece from the Voyager set to represent the front of it. The windscreen wiper is made from photo etched metal, cut to size, as the one in the Voyager set is far too flat, the arms made from the handles in the set and the wiper itself made from copper wire glued on a very thin piece of aluminum. Just under the sight is a raised pattern made with aluminum, and the screw is made from plastic.



Now is the turn of the rear chest on which, I've remade the closing hooks. They are remade using metal wire and aluminum sheet. The latch is also made from aluminum sheet on which I've added a small padlock made with plasticard and iron electric wire.

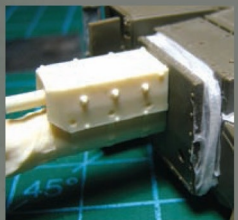
During this step, I put the basket on the rear of the turret. Unfortunately Tamiya do not include the meshes for the bottom of the basket and sell a set in photoetch separately costing 15 Euros! (which includes also the rear ventilation meshes). Fortunately Voyager proposed a beautiful piece for this, which is easily put in place.

Now, I look into the main gun and the last modifications before the painting stage. The gun bellows is remade using handkerchief soaked with white glue, then put in place making sure that it perfectly takes on the shape of the mantlet and stays in the limit of the fixations.

Waiting for this piece to dry before gluing the gun in place, I go back on the turret hatches.

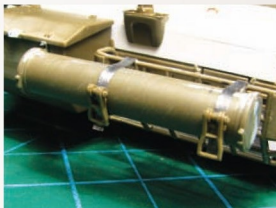
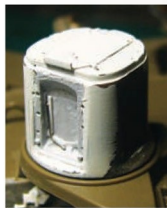
I use of course the aluminum cannon included in the Voyager set, this gun is really the strong point of it, including a resin piece (really finely molded) detailing the end of the canon and the gun distortion sensor, all this is really convincing. Nevertheless the heat evacuation holes on the underside of the gun were still missing.

I have counted 10 of them at irregular intervals, these holes then being made using a mini drill of 0.8 mm diameter.



I reproduce the interior protection foams with successive layers of acrylic paint and before that, I've made masks using blue talc so that the foam will seem already deteriorated.

Using plasticard, I've remade the exterior handles, and the interior ones made with photo etched piece from the Voyager set.

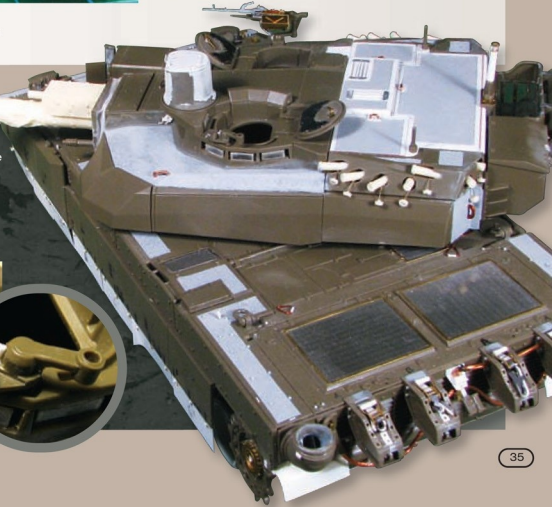


Once the gun is put in place, I take some time to detail the panoramic sight Sagem HL-70 which also received some modifications. First of all, with the help from the internet documentations, correcting the global shape of the sight, rounding off the top, flattening the sides and the front of it.

Then still on the front, I drill 3 holes on each border to reproduce screws. The latch used to close the protection cap of the sight is made from thin metal wire linked with a hair to a fixation block with plastic rod, the cap itself is in photo etched and put on the top of the sight; the windscreen wiper is made from thin metal wire and a piece of plastic. Just under the sight and at the level of the tank commander's episcopes, I add the coaxial machine gun evacuation.

The schnorkels are installed, there is little to say about this, aside from remaking the straps using lead sheet and correcting the tightening rings.

Last step: The loader machine gun, the ANF-1 moulded by Tamiya is nice but lacks finesse, so I take the one found in a Dragon modern armament set, then remade the machine gun mounting, Voyager Models include the munitions box and mounting, on most pictures found on the web, the machine gun was unloaded so un-useful to reproduce the munitions belt.



Painting

This is the important step that aims at emphasizing the work done. I take time to follow scrupulously the colors used by the country, but here, my objective is to have the same effect as a picture, and the scale of a picture affects colours (this creates never ending debate in the modelling world, as an example, I think about the famous Israeli Sinai gray which is finally a yellow). There's no exact measurement in my colors, the idea being to look at the pictures available and adjust by eye (it is at this level that your artistic license comes into play), if you want your work to have "your own touch". You should have an exact idea of your in-progress diorama and equally to know how to define the volume that composed it so that the colors will have a better impact, and as a consequence, will create a particular atmosphere to your diorama. Nevertheless, you must keep consistency in the colors used and here, nothing is better than to observe Mother Nature in all her glory.



I've focused myself on a green with a few drops of yellow and then darkened, so it will adapt to my future base but planning not to fade the tank in his environment, I've accentuated the yellow shade mixing XF-67 and XF-04. For the brown, I use XF-79 with few drops of XF-52, and to cool down this shade, added drops of Prince August dark blue. Then for the black, I use XF-69 with XF-59 to lighten it a little.

Once done, I let the paint dry for two days, taking advantage of this to paint the details, like the headlights, the straps and also tightening hooks and so on.

The rubber mudguards are painted in black with a touch of light blue, which gives a shade variation on each raised pattern.

The tightening hooks of the dropping tanks are painted with a yellow base then different washes of black, yellow-red and blue, and following that, successive lightening of yellow with light flesh.

This procedure can be surprising but rather than paint the hooks with a metallic shade like on the real tank, I prefer quite frankly the shades that we find on metal pieces. This avoids the use of a standard gold shade, that will stand out too much on the vehicle.

After that, followed two glossy varnish layers, which are in fact a varnish for the tiled floor called Klor in France (Future Floor). We can then place the decals; I bought the wonderful sheet by Echelon Fine Details, designed for the Leclerc. In this set, I choose the decoration of the "Tonnerre" as decal positions of the KFOR marks were original. Once the decals in place, I've applied several layers of Prince August Air's matt varnish.

The weathering on this kind of tank has to be moderated, we will mostly focus on the dirt (dust, mud, ...) caused by the movement of the vehicle. I put some paint chipping on the hatches and others places that the crew uses frequently. This chipped paint is subtle with shades of dark gray on a layer of green lighter than the base coat.

I put a matt black wash diluted at 90% with thinner on all the tank surfaces then a quick wash of dark brown and light brown (quickly done, letting accumulations in certain deep areas).

I then put some mud done with pigments (different shades of brown and yellow sand), plaster and water, on the bottom of the rubber flaps, the running gear receiving the same mixture more diluted.

For the dusting, I begin using MIG pigments

lightly diluted, that I apply on the deck of the tank, and also a few touches on the turret roof. Once dried, I quickly brush the pigments to fade the result.

Then with a light yellow sand color pastel and a dark brown one, I brush the less accessible areas, which will evoke the successive layers of dust that goes through the tank washings.

Then the final touch that uniforms the entire tank, a layer of light earth colored pastels applied more or less everywhere but not in a homogenous way, so creating interesting nuances.

After having put the antenna in place (with little white flags, to avoid that somebody hurts himself when bending to look the model), I paint the episcopes and other details. For the stowage, I do it simply, the crew being temperate about carrying personal effects; I've put two bags in the turret's basket and a raining cover made with aluminum sheet.

On the turret chest, I add a square piece of cloth, this equipment being regular and visible on most of the Leclerc

The Base

As explained before, the ground was made from a rough piece of cork recovered with air drying clay. Once dry, I use fine sand and soil on a layer of white glue, the dirt track being intentionally too narrow for the tank, as it surely used normally by a local farmer to go in his fields and not to be used by an international military force to keep the peace in this region. At the same moment, I glue piece of grass from railway modeling using gloss varnish. To create a more natural ambience, I add taller grass and flowers. The flowers are made from cigarette paper painted with bright colours and cut into small pieces and placed in the grass. The result is quite convincing, the goal being that the ground don't look like a battlefield but more to as pleasant countryside.

The tree is made with a branch of thyme on which I've sprinkled dry parsley and then airbrushed in different shades of green and yellow in the little pit, I pour some epoxy glue to simulate some water. Dead leaves put more or less everywhere, are real dead leaves ground in small pieces.



Figures

Today, the figures market is mostly dominated by the WWII subjects for which there is a high demand. It can be difficult for the modern vehicle modeller to find the right figures in the right poses.

Regarding French soldiers, Blast models have perfectly filled the gap. Blast produce a modern French Leclerc crew but I decided on a personal touch by sculpting my own commander. I create a skeleton using copper wire for a ¾ figures. The rough shape of the body is made using miliput, and then I sculpt the head using a mixture of Duro and A&B putty. I encounter some difficulties to make one without a too aggressive look. The hands are made with the same products. The helmet was created with Duro and the suit with A&B putty. The radio system on the helmet is reproduced using thin electric wire.



Following that, I add the small details as the collar or the stripe with duro, the zippers are created from thin plastic rod melted with liquid cement. For the other figures, they come from the Blast models ranges, the muzzle of the FAMAS replaced with brass rods.

The Figures are painted with Prince August acrylics, and I eliminated any gloss areas before positioning on the diorama. By creating a triangulation, you draw attention on other pieces of the diorama. Due to this, a figure is on each level of the diorama (ground, hull of the tank, turret of the tank) and the tree in the rear give height and terminate the observation cover of the diorama.

Conclusion

This project was a long drawn-out job but really interesting for me, as I've learned a lot about the Leclerc. The Tamiya kit is admittedly really nice but lacking some finer detail, so the job seems off-putting but the result worth it. I want to give thanks to Oliver CARNEAU and Philippe Manuel AUBERTIN, both of them in the French Army, for their help in the accomplishment of this Project. Thanks to them!



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SHERMAN

up close



As preparation were being made for the invasion of the continent, the need for an American assault tank was becoming critical. The planned T14 had become stillborn, and production of the T26 series of tanks were mired within the posturing of various army commands. Thus, in February 1944 the Army Ground Forces recommended adapting the standard medium tank for this role. The result was the M4A3E2 assault tank.

Popularly known among enthusiasts as "Jumbos," these tanks were built from modified M4A3 Medium Tanks. Armour protection was augmented by welding 1½ inch plates to the hull sides and glacis plate, increasing the thickness to a total of 4 inches at the front and 3" on the sides. A new final drive housing was cast with up to 5½ inches of armour, and final drive ratios were adjusted from 2.84:1 to 3.36:1 to deal with the additional 11,000 pounds of added weight. This resulted in the top speed of the tank being reduced to 22 miles per hour. To lessen the ground pressure all the M4A3E2s were equipped with the extended end connectors on the outside of the track.

The most noticeable difference between the E2 and the standard M4A3 was the new turret. A casting was developed with 6-inch thick walls and the roof plate was welded to the casting. The new gun mount was produced by welding additional armour to the outer rotor shield of the 76mm Sherman mount. Total thickness was up to a massive 7 inches.

A total of 254 tanks were built by Fisher tank Arsenal, a division of General Motors. Originally the M4A3E2 was armed with the M3 75mm gun that fired the preferred high explosive round. Many were rearmed in Europe with the 76mm gun to increase the performance of the armour penetration.

Chris "Toadman" Hughes has kindly provide photos of the M4A3E2 in the collection of the Military Vehicle Technology Foundation in Portola Valley, California. It was photographed near the end of a painstaking restoration and represents the finest existing example of the assault tank. A few fittings had yet to be installed when photographed, most notably the extended end connectors on the tracks. Special thanks to Chris Hughes, Rob Ervin, Joe DeMarco and Kurt Laughlin for their help with this item.



▲ The M4A3E2 examined in this article is owned and restored by the Military Vehicle Technology Foundation, Portola Valley, California. The foundation, established by the late Jacques Littlefield, houses one of the largest collections of military vehicles in the World.

▶ An M4A3E2 rushes along a snow-covered road in Europe, its crew protected by thick armour. These tanks, the heaviest armoured Shermans, were described in contemporary literature as "assault tanks" were devised not to combat the German counterparts (remember, at this time per US-army doctrine, combating German tanks was the purview of the Tank Destroyer), but rather to attack enemy fortifications. (Photo courtesy of the Patton Museum)





The front of the M4A3E2 is dominated by the differential/final drive cover. This piece was designed specifically for the tank and has armour in areas as thick as 5 1/2 inches. The contours are similar to the standard late Sherman differential cover.



The additional armour added to the glacis has a bell shaped cut out to allow movement of the bow machine gun. Some of the first M4A3E2s produced did not have the fixture for attaching the m.g. foul weather cover.



The left side front lift ring has heavy weld beads where it is attached to the glacis. In the background is the riser for the gun travel lock mounts. This changes the geometry of the travel lock necessary because of the additional armour on the hull.



The massive flow of weld of the front and side plates meet forming an angled edge to the front corners of the upper hull.

The M4A3E2 'JUMBO'



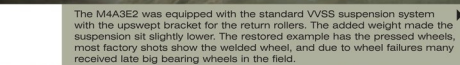
The foundry marks and casting numbers on the upper hull roof plate are found outboard of the driver's hatch opening.



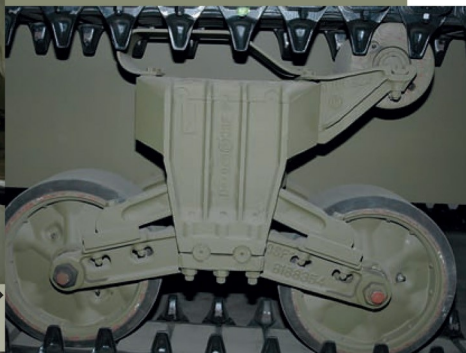
The additional armour plate on the glacis does not extend all the way to the edge of the upper hull.



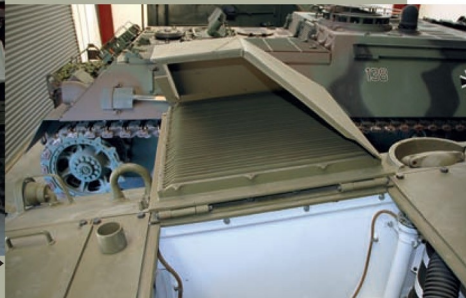
The driver's hatch mounts a swiveling M6 tank periscope and its guard. The fixture next to the handle is a pad lock hasp.



The M4A3E2 was equipped with the standard VVSS suspension system with the upswept bracket for the return rollers. The added weight made the suspension sit slightly lower. The restored example has the pressed wheels, most factory shots show the welded wheel, and due to wheel failures many received late big bearing wheels in the field.



The shape of the rear armour plate of the M4A3 is distinctive. The engine access door between the exhausts is open. At this point during the restoration the rear luggage rack, exhaust deflector, and clamps for the spare track racks have not been installed.



The M4A3E2 was powered by the Ford GAA gasoline engine. The upper coolant hoses pass between the cooling fans to the rear mounted radiators. The red lines and cones are the supply lines and nozzles for the fixed fire extinguishing system.



The vanes that direct air to the radiators are visible with the engine deck doors open. The bulge on the turret rear is an armoured housing for an exhaust ventilator.

The additional thickness of the rotor shield is evident in this left side view. The additional armour was welded to the front of a standard M62 76mm Sherman rotor shield.



The turret casting marks are on the front edge of the turret roof. Note the weld seams around the turret roof plate.

A rare opportunity to see the turret removed during restoration. The round plates at the front are the ends of the gun trunnion pins. Note the machining marks on the lower edge of the turret casting.



The M4A3E2 'JUMBO'

The right side of the turret casting is comparatively rough for a U.S. made part. There are quite a number of variations in details of the M4A3E2 turret castings considering how few were produced.



▲ The center of the hatch lid for the vision cupola rotates to allow 360 degree view from the commander's periscope. The periscope mounts into the opening covered by the rectangular plate. The azimuth ring helps determine the periscopes position relative to the turret allowing the commander to quickly guide the gunner toward a target.



▲ From left to right on the turret roof are the commander's vision cupola, antenna mount, M.G. pintle with .50 cal. Browning, m.g. travel lock, and loader's hatch. Some of the periscope parts had not been added at this point in the restoration.



44 The pad on the interior of the loader's oval hatch is a simple sheet of black rubber. The pad is shaped to fit around the latch mechanism.



The recoil area of the gun is protected by a large armored collar. The opening in the right of the picture is for the co-axial mounted .30 cal. M.G. The fact that the M4A3E2 gun mount was based on the 76mm mount made the rearming with the 76mm gun much simpler.

The SCR 508 radio in the bustle of the Jumbo turret incorporated a transmitter, and two receivers. A rack for two M3 sub-machine guns is below the radios.

The transmission is between the driver and co-driver's position. The gear selector lever is on the left side of the transmission. The device at top center of the picture is an exhaust ventilator.



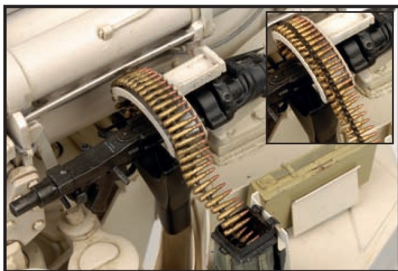
The handle on the right side of the co-axial mounted machine gun is an extension of the charging handle. The silver cylinder at the rear of the gun is the firing solenoid that is attached to the gunner's foot trigger.



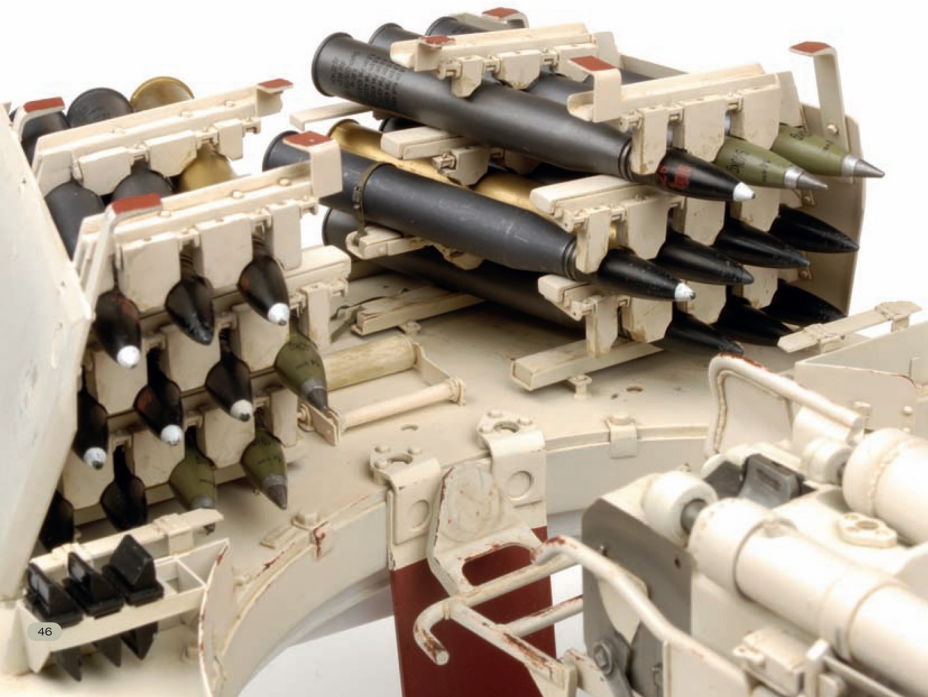
One Sixteenth SUPERKING

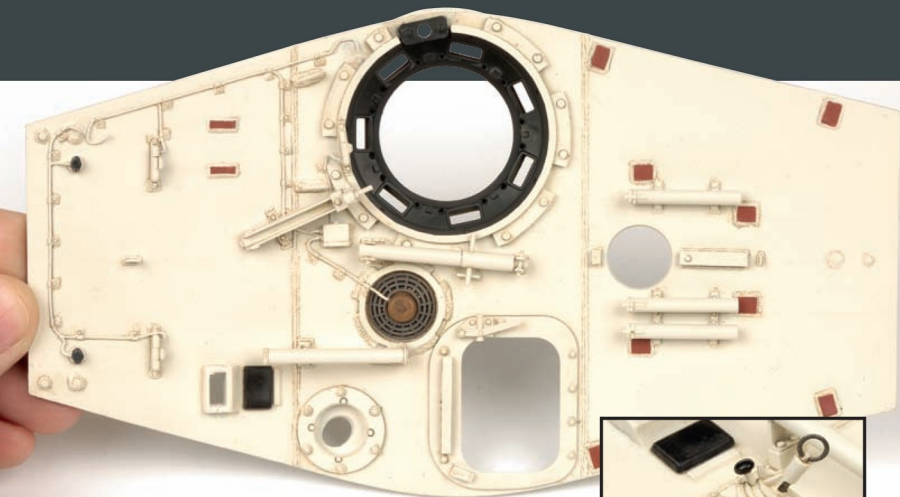
The Editor continues the multipart project building Trumpeter's astonishing 1:16th Scale King Tiger with full interior

In this stage of the project I tidied up some loose ends from the previous stage, painting the turret roof and it was time to take on the huge task of the main gun ammunition stowage which is split between the turret bustle and hull sponsons. In total the King Tiger carries seventy rounds of 88mm ammunition and the kit supplies these with a mix of the three/four different types of shell (the APC,B.C and A.P. Shot types of armour piercing rounds look identical.) with etched brass base plates. The mix of ammunition types does not conform to the typical load for the vehicle but I decided to run with the mix that was supplied. Simply cleaning up the shells and then painting them turned out to be a much bigger and more intensive part of project than I had expected. I already had the turret racks prepared but there was more work to do to the sponson racks which had to be assembled into their frames which the kit did not include. The width errors in the sponson racks had been tackled in Part 11 but I still had to modify the size of the middle 'rest' in each rack. Loading the completed racks marked another milestone in the project and I was careful to 'hide' any less presentable shells in the lower levels of the racks where they would be less visible.

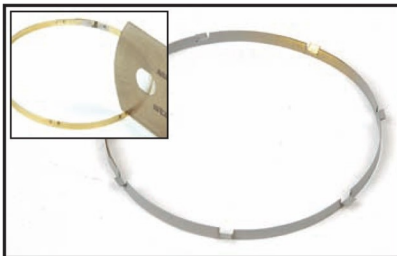


Following on from Part 12, I mentioned the incorrectly installed ammunition feed for the co-axial MG with the belt feeding into the gun upside down. It was a difficult and fragile installation but I removed the belt and reversed the bend. As the belt is cast in brass I heated it in a gas flame to prevent it from breaking when bent in the opposite direction before it was repainted and fitted back into position.





Following on from the previous installment the turret roof was painted and finished in the same way as the rest of the turret interior. The red primer patches are location points for components in the turret, those at the back are the locations for the bustle ammunition racks. Missing from the roof in this picture are the close defence weapon and the Commander's Kasten intercom box as both were painted separately.



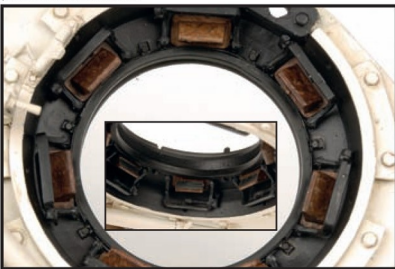
A padded ring sits around the inside of the cupola and the kit version is just too heavy. I made a new ring from brass strip which I soldered together. The fold down fixing points were carefully cut with a razor saw. A ring of plastic was then added for the padding.



The clips that hold the vision blocks were modified to include the small spring detail and the clear resin periscope blocks were primed in a silver before having a bakelite effect top coat applied. The rubber cushions were also painted around each block.



The vision blocks and clips could then be fitted into the cupola, to be followed by the padded ring.



Here the padded brow rest has been fitted inside the cupola and the mounting bolts for the rim were also added.

One Sixteenth SUPERKING

13



I thought this would be an easy job but there are 70 odd shells most attached to the sprue in five places. Just cutting them free and cleaning them up took ages. To improve the finish I spent a lot of time polishing the shell cases before painting. The top shell is as supplied the bottom has been polished.



So many shells! Just a selection of the never-ending 88mm shells that were rolling around my desk.



For the Parkerized steel cases I sprayed a base coat of Alclad Steel **A** followed by a coat of Mr Metal Color Iron **B** which recreates the grey shade well.



The kit supplies a decal sheet with the stencilled markings for the shells but no where near enough examples for all the ammunition required. Fortunately Peddinghaus Decals provide a range of 1:16 decals and set EP 1822 has markings for Tiger II ammunition. Regrettably layers of varnish required to apply the decals did little to enhance the metallic finishes!



Etched brass base plates are supplied but have a hole which must be blanked off as on the right.



Brass shell cases were being phased out when the King Tiger was in service but it seemed reasonable that stocks would still be in circulation. Mr Metal Color Brass was airbrushed for a perfect brass finish.



The top coat can be rubbed to expose the brighter steel. I used a cocktail stick to rub the case and create random scuffs. Period photos show the ammunition in less than pristine condition inside vehicles.



For the shell base plates the firing caps were picked out in Mr Metal Color Brass and the shell designations stained with either white or black oil paints.



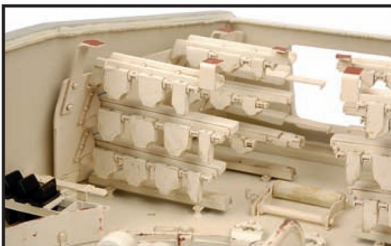
A.P. Shot

A.P.C.B.C

Hollow Charge

High Explosive

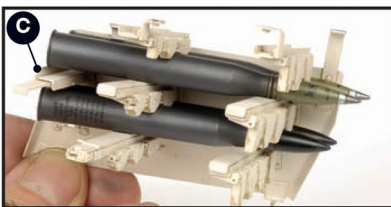
The high explosive projectile heads were masked and spray painted in olive drab and for the armour piercing I used Vallejo Air black as it dries with a superb satin finish and can be brush painted which is what I did here. I attempted to spray the white tips but found it quicker and easier to brush paint them with Vallejo white which is very opaque. A piece of sponge was used to apply worn areas to the tips of the AP shells using black and a mid grey. The driving bands were all finished in Mr Metal Color Stainless and the tip of the HE round was finished in Mr Metal Color Aluminium topped with a Stainless cap. The red markings on the AP grenade are supplied in black on the decal sheet so I painted over them with red - the result is not as neat as the black stencilling but better than trying to hand paint the entire thing. An oil wash was applied to all the grenades. The brass cases proved problematic throughout the process. Although the paint is extremely convincing and can also be polished up with a soft cloth to an even higher shine it proved very susceptible to the slightest touch of solvent with traces of white spirits on my fingers leaving finger prints as I handled the shells. In retrospect I should have probably sealed the cases immediately after painting them. On the other hand handling the cases also seemed to produce a realistic tarnish just like on a real brass case. To enhance the tarnishing is applied subtle transparent washes in small areas and tried to apply hand prints from where the shells would have been handled.



The turret ammunition racks had been painted but not yet fitted into the turret. These received a more worn finish than other areas as they are the focus of activity for the Loader. Pulling and pushing the heavy shells out of these racks at or above shoulder height would result in dirt and damage



I took time to apply worn areas of paint which expose the wooden runners where the shells rest and to dirty the area under the racks. Note the lines of drips where wet shells up into the vehicle have dripped onto the turret floor



Loading the shells into the turret racks is almost impossible because of the lip on the rearmost rails **C**. I had to break off these rails in order to load the shells from the back. A touch of Mr Cement S under each shell secures it without damaging the paint.



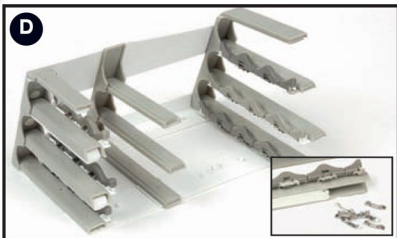
The two outer shells on the lowest racks are held in place by webbing straps with quick release catches. The straps were made from textured lead foil which was produced by rolling a file over the lead in two directions.

One Sixteenth SUPERKING

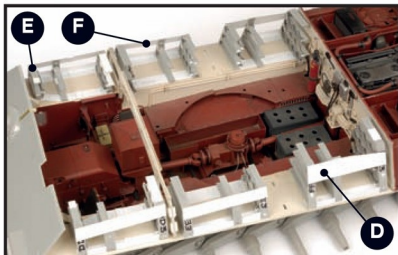
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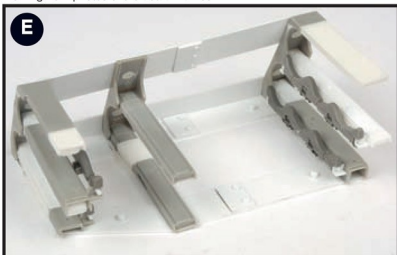
I chose to leave out the bottom shell from the left hand rack so here the straps were left lying on the turret floor.



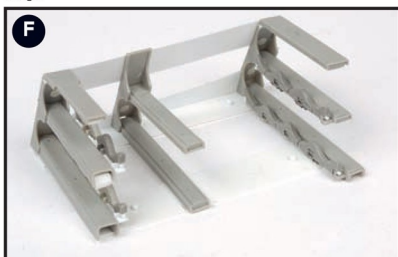
Returning to the hull ammunition racks I added the small springs that hold the wooden chocks in position. These were made by embossing strips of metal foil. It was then time to assemble the ammunition racks into their frames. The frames are not provided in the kit so these were cut from plastic sheet working from photos of the actual frames.



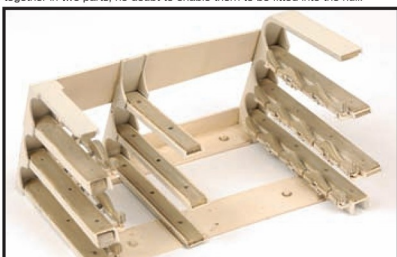
Here the frames are test fitted into the hull showing that each has a different design.



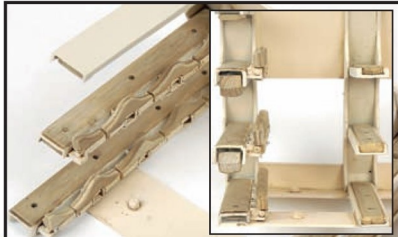
The smallest bow racks have an angled base plate and appear to be bolted together in two parts, no doubt to enable them to be fitted into the hull.



The middle frames have angled back plates which are different from the other ones. Because of the adjustments made to the racks it was also necessary to modify the central rests by shortening or extending as required.



The racks were sprayed in the now familiar ivory and the unfinished wooden parts were then brush painted.



The wooden chocks that hold the shells are made from plywood and unlike the turret bustle racks these were left unpainted. I painted in the different coloured strips on the chocks and added some grain to the ends of the rests.



As with so much detail on this project, once the racks are loaded with shells much of this detail is hidden.



With the chocks in the upright position it is only possible to load up the racks from the base plate end of each one. These ends are each protected by a cover plate only one pair of which is provided in the kit and this is too thick and the wrong shape. I made new end covers from plastic sheet judging the sizes from the sizes of the racks. Pewter sheet was used to add the cushion strips on each cover. Note that the rear right hand rack has a cut out section to allow the radio antenna cable to pass.

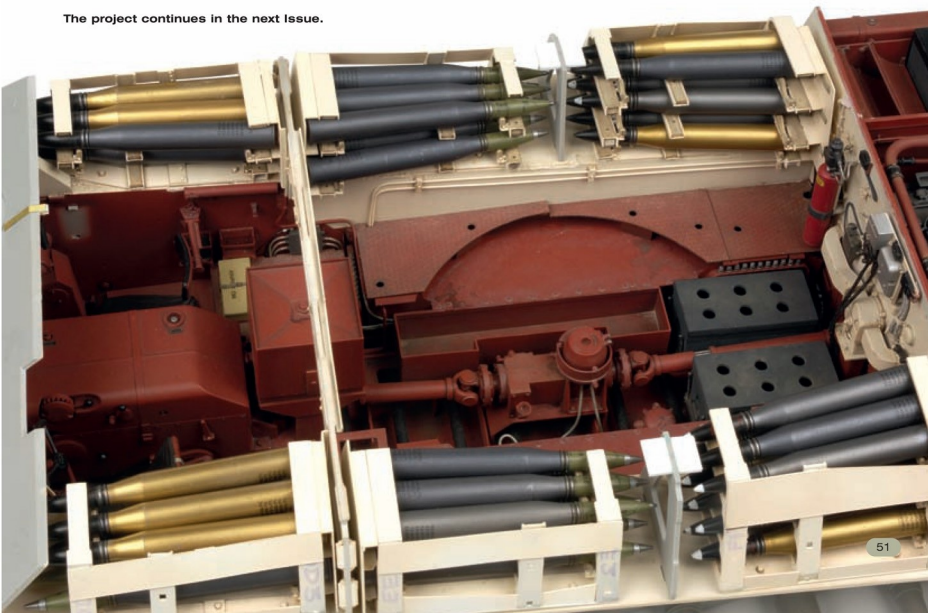


The completed racks with end plates fixed in position are test fitted into the hull. On this rack I decided to leave out two shells to show the details of the chocks that would otherwise be hidden.



The smallest racks which were heavily modified to carry six shells instead of four which the kit supplied. The end plates for these racks are a different design to the others with a lip on the outside edge. I found that the longer HE shells do not fit in the upper row of this rack.

The project continues in the next issue.





Tasca 1:35 U.S. Assault Tank M4A3E2 Sherman 'Jumbo'

With Tasca's reputation for producing the finest Sherman kits a Jumbo would be high on the wish list of many Sherman aficionados, so here it is! This is one of my favourite M4s and has long been overdue as a mainstream injection moulded kit for the masses replacing the Tamiya offering from the 'old days' which doesn't cut it with today's modellers for accuracy.

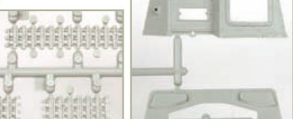
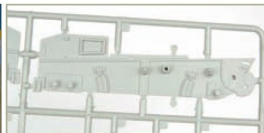
Tasca's box art is based on a wartime shot of a Jumbo heading up a column (as they did, utilising their majority increased armour giving them a better chance against the German Panthers and Tigers). The box contents are very familiar if you have any other Tasca Shermans, especially the M4A3 versions which many of the sprues are shared with. The sprues unique to the Jumbo are the turret and mantlet, side and front glacis armour along with smaller fittings. The new sprues are to the same superb standard as the rest with exquisite line detail and beautiful fit making these kits a real joy to assemble. Starting as usual with the running gear it's evident Tasca have done their homework offering a selection of roadwheels with solid spokes and big hubs allowing a particular Jumbo to be modelled should you wish as there seems to have been variation from vehicle to vehicle. Tasca's unique 'sprung' bogies allow a very important characteristic of the Jumbo to be easily created. Due to the increased weight of armour, these M4s have a distinctive 'nose down' stance and the instructions suggest less of the small rubber leaves to achieve this on the forward bogies.

Duck-bill tracks were also a characteristic of the Jumbo and these have been produced as glueable flexible "band" style, still, I think, the best was to

replicate this 'live' sprung type of track. The detail is sharp and the extensions themselves nice and thin, a god-send if you've ever tried to assemble the Modelkasten versions! These tracks are a little less flexible than Dragon's DS styrene and best practice would be to leave the idler adjustable to achieve correct track tension.

The hull armour is handled as the real thing with the additional plates as separate parts, superb weld detail and cast textures shown where appropriate. These are added to the M4A3 upper hull. The lower hull is made up from separate panels as opposed to a one piece tub, but the fit is spot on making it a delight to assemble, as is all of the kit - no frustrations with poor fit or misleading instructions make for some seriously satisfying modelling time! On to the turret, which again shows obvious signs of the depth of research by Tasca. The turret roof was from inch thick armour plate, joined and welded into the cast body. Tasca show this very accurately and also give a diagram to help with the position of the cupola which was fitted differently to other M4s and appears to have been unable to rotate? Gun barrels are provided 'old-school' in halves with the choice of the short 75mm or up-gunned 76mm. The cherry on top is the beautiful Tasca M2 50 Cal. MG which can be modelled stowed or mounted for action. A small etch fret provides light guards and smaller fine details, decals provide minimalistic markings for four vehicles with plans to make sure you use the correct gun tube and wheel options.

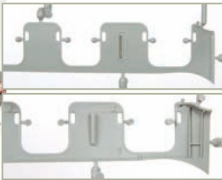
We love Tasca Sherman kits. All we can hope for is more! How about some USMC versions or some Israeli conversions please?



Italeri 1:35 Semovente L40 da 47/32

Another little gap in the range of subjects available in injection moulded kits is plugged by the release of this small Italian tank by Italeri. First impressions are generally very good here although the kit lacks some of the finesse of other mainstream plastic kits it is certainly a very good basis for those willing to add a little detail where required. The hull tub is comprised of flat panels and as an open topped vehicle it comes with a detailed interior from the firewall forward. The engine which might be visible through the big holes in the firewall is however not included. The running gear is very presentable and is supplied with some pretty good link and length tracks. A small photoetched fret is supplied with muffler guards, number plates and hinges for the visor and

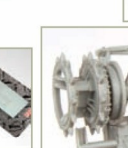
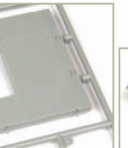
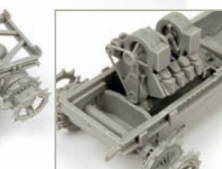
transmission cover. Inside the open topped fighting compartment there is a simplified gearbox with crew seats and ammunition stowage lockers and a reasonable looking gun breach. The barrel is however a bit soft and could ideally be replaced. A rather artificial-looking tarpaulin cover for the fighting compartment is provided in the stowed position but is another area that could use some revision. Three different sets of markings are provided, two Italian and a German set. Overall it is an attractive kit which could use a little additional detail here and there but it is good to see vehicles like this being released in plastic at last.



Dragon 1:35 Sd.Kfz.7 8t Half Track Early Production with Crew

Another fine Half track release here from Dragon but haven't we seen the early production Sd.Kfz.7 before? Well this is the early production and the previous kit was described as an initial production and as such the differences are at best subtle. This new kit has new side panels with cut out hand holds in contrast to the handrails of the last kit and there is an additional stowage rail at the back of the vehicle. The very well detailed chassis complete with engine and winch assembly with braided metal cable is carried over from the last kit as are the DS styrene tires and excellent Magic Tracks with their separate rubber blocks. The new hull sides are just as well moulded as the previous version with delicate rivet detail inside and out and as before all the rear ammunition storage lockers can be opened up should you wish with finely detailed interiors on the door panels and separate locks. Separate bonnet panels mean

that you can easily expose that detailed engine and photoetched tread plate steps are supplied for the front mudguard area. Still no folded tarpaulin included in the kit but this version does have a very welcome addition in the shape of a six man crew. These are all seated and are each supplied in different casual poses, in contrast to the rows of identically posed figures from Tamiya's old kit! To my mind a vehicle like this has to have a crew and at last we have one here that matches the high quality of the rest of the kit. There are nine different camouflage schemes to choose from when finishing your model and the kit also includes a set of pre-cut masks for the windscreen which is a nice touch. Overall this is another extremely impressive kit with little for even the most demanding modeller to quibble about and boosted by the inclusion of those figures.



Dragon 1:35 7.5cm Pak40 / 4 auf RSO

A modern tooling of the Raupenschlepper Ost has surely been one of the longest overdue releases, here come Dragon to the rescue. Maybe a clever move from them not to dive straight in with the steel cab cargo tractor (which I'm sure would be hugely popular) but release the chassis mounting the Pak40, of which only around sixty were produced up to 1944. The Pak 40 is of course the previous Dragon release so we'll concentrate on the 'new' parts of the kit. Dragon's usual light grey styrene is utilized along with the backing card of goodies we're accustomed to, providing the ready to assemble 'Magic track' a small etched fret, decals and some pre-formed wire for steps.

The typically busy instructions how you start with the engine and drive train.

The Steyr Air-cooled V8 engine is well detailed with around fifty parts but unfortunately is largely hidden on the finished model. I found the fit of some of the parts fiddly and vague, especially the fan housings for the oil coolers which have no obvious location points not helped by the instruction plans which typically have a few omissions and part number errors (no mention in the plans of the exhaust manifolds which have to be fitted before mounting the engine into the chassis).

Drive and idler sprocket assemblies are nicely detailed but note part B18 actually has two versions (back half of the sprockets) this isn't mentioned in the plans, luckily the glue hadn't set before I realized! Take extra care and do a few dry-fits. The road wheels appear correct in diameter but are let down by soft and unpronounced detail around the central hub and bolts, probably the kits biggest failing visually. The chassis is provided as a one piece tub with separate parts providing the inner surface detail- do make sure you fit the exhaust pipes to these first. Some adjustments were required to get the

differential assembled as fit is poor in assembly of the unit and fit to the chassis. The engine assembly proved a very tight fit (the cross brace mounting the fits between the chassis rails is too wide) This aside, the chassis once assembled looks excellent. Track links are finely detailed with the characteristic pins and pointed guide horns, you may feel the need to remove the ejector pin marks from the visible inner faces once complete.

The crew compartment is handled in style being moulded as a single piece and you're given the option of open hatches to display the interior. Should you wish to do this, the option of brass etched hatch parts is given, the plastic hatches if folded open would look too thick in my opinion. Pedal and steering rod detail is all there (handles of the steering rods have an unusual taper but easily replaced with some plastic rod) but the seats are surely an addition made to the reference vehicle restoration as they have a modern appearance? A quick look through the 'Nuts and Bolts' book on this vehicle (Vol.9) confirms this as walkaround shots of what surely is the restored vehicle Dragon have referred to with this kit, are captioned as being non original.

The gun cruciform is beautifully produced and the fighting platform also very nice with the option to drop the sides for an 'action' pose. The Pak 40 is a kit that's been around some time now and builds into a decent looking gun. No alternative turned metal barrel is given in this kit and the trails and wheels etc aren't included as they're not used. Ammunition and case are included along with markings on the decal sheet, but no gun crew. Great to see something really 'new' from Dragon and I'm sure the first of a new family of releases, can't wait for that steel cab tractor!

new releases



Italeri 1:35 Pz. Kpfw. 38 (t) Ausf. F

Italeri re-do and re-release their 38 (t) F, maybe we should ask why when the market is so well served with versions of the little Czech workhorse with super detailed and accurate kits from Tristar and also Dragon. The kit is a mix of sprues from Italeri's previous releases of the 38 (t) panzer and the more recent flakpanzer with (I think?) a new hull tub as opposed to the flat panels from the flakpanzer kit. The four light grey sprues are to a good standard but detail lacks some of finesse we've become used to these days. The kit does look like a simple and straightforward build, Italeri offer a small etched fret (air intake mesh

and jerry can brackets and aluminium main gun along with link and length tracks (which aren't the best detailed) in an effort to bring things in-line with more modern offerings. The kits weakest point in my opinion are the road wheels which although have the correct amount of bolts around the rim just don't have the correct profile and are a little small in diameter. A decent representation of the 38 (t) could be built from this kit and the price definitely falls into the 'budget' bracket, but the more demanding modeller will I'm sure avoid it in favour of the 38 (t)s offered by Tristar.



AK Interactive

New from AK Interactive is this DVD guide to winter finish techniques. Renowned modeller Mig Jimenez takes you step by step through two projects demonstrating the use of materials and his methods to achieve a heavily weathered finish on a German dark yellow and Russian green vehicle. Topics covered in an easy to follow format include effects using hairspray, mud effects, chips and scratches and rusted surfaces. An introduction explaining the background of the actual vehicles in relation to subjects for modellers is backed by archive film footage. Narration to the sixty minutes duration is in English with subtitles in Spanish. Production and presentation is of a high quality with the box containing a leaflet

of photographs of the finished models for reference. A great guide to the more novice modeller wanting to improve on their finishing techniques and see exactly how it's done.

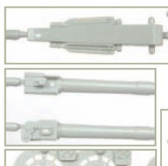
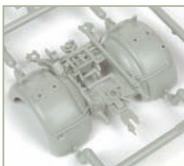
Also from AK Interactive are some new products in their range of finishing products. All in 35ml screw cap plastic tubs are these enamel colours: AK022 Africa Dust effect wash, AK 023 Dark Mud wash, AK 025 fuel stains wash, AK 026 Slimy Grime Dark wash and finally AK 027 Slimy Grime Light all suitable for vehicles, figures and scenics.

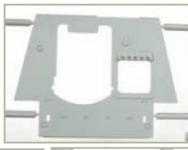


Italeri 1:48 8.8cm Flak 37

Another addition to Italeri's growing 1:48 range and their choice of the iconic 88mm Flak 37 will no doubt be welcomed by fans of this scale. The kit has been designed with a more simplified approach than their 1:35 scale subjects with many smaller parts moulded in position like for example the ground spikes used to secure the gun crutchform which are moulded in the stowed position on the fold down crutchform arms. Some surgery will therefore be required to model the gun in the firing position. The kit is a strange mix of crisp well detailed parts like the wheel hubs and cable spools and other softer details like the gun breech area. A pair of well detailed towing bogies is supplied although again

some of the separately moulded detail parts lack finesse. The gun can be modelled mounted on its bogies in transport mode or in firing mode with the bogies removed but those ground spikes will need to be cut off. This is one of those kits that leaves you disappointed. In so many ways it could be a really nice kit - a little more moulding finesse here and there would have lifted it to a higher level. As it is the good bits are dragged down by the poor parts and that is a shame. No crew or ammunition are supplied although there is a length of fine chord included for the cable reels and the small decal sheet provides a choice of markings for three different finishes.

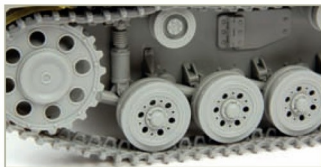




Dragon 1:35th Soviet SU-85M Tank Destroyer

Dragon turn on the Premium edition treatment for their SU-85M, a kit which shows no sign of ageing. The main hull moulding still looks ultra-crisp with separately moulded hatches and there are nice touches like pre-dented front fenders in early or late patterns. You also have the option of dented fuel tanks with moulded on straps or pristine versions to which you can add photoetched straps. Which brings us neatly to the large photoetched fret provided for this Premium Edition. This provides a full set of engine grilles which are always welcome, and the pair of vanes that sit under the big rear mesh cover. Some very nice etched tow hook latches are also provided along with tie down loops, grouser straps, and headlamp mount bracket. Hinges and latches are provided for the tool boxes Hatch locks and vision slot rims are also provided and there is even an etched escape hatch for the underside of the hull. The kit provides a

choice of mantlet design with cast texture which will allow you the option of building an early model SU-100 as well as the 85, with a plastic 100mm barrel included for this purpose. For those building the 85 a new turned aluminium barrel is included. Late pattern solid road wheels are supplied and it might be nice to mix these with some early pattern wheels from the spares box for a more individual look. A set of individual link Magic Tracks are supplied and there is a length of braided metal tow rope and clear moulded periscopes and headlamp lens. It is a great package with just about all you could possibly want in the one box and the fact that it is a two in one kit (although this is not mentioned on the box) makes it even more attractive, well worth picking up if you missed the SU's the first time around.



Dragon 1:35th Panzer III Ausf. F

Working backwards through the versions (not unlike their series of StuGs) the early-war Panzer III E is the latest version. We built the F version a couple of issues back which is largely the same as the E visually but Dragon have taken care to include accurately the E features including the narrower roadwheels. Standard Dragon procedure inside the box which is brim-packed with sprues, don't be put off cracking open the cement by the number of parts as there must be sprues from half a dozen previous kits, many of the parts are unused. These aren't quick building kits but superbly detailed models from the box are the result of some extra time and care. Detail is incredible, Dragon really at their best here with options to open pretty much every hatch and port with superb interior detail to them, (and enough gun breech and cupola interior detail present) Watch out for the flap for the twin MG mount, the instructions for this area are vague at best - dry fitting is essential. Options with etched brass parts

and even pre-formed brass rod for the headlamp conduit all add to the quality finish. Also as you'd expect, the excellent 'Magic Tracks' is in there in it's two shades of grey defining left and right.

As our previous build of the F version there's some challenging assembly with the mantlet and location into the turret and a little correction to the shape of the turret floor when joining. As with all Panzer IIIs and IVs there's a lot of fiddly work on the mud guard fittings (the jack assembly containing eleven parts!) but the time invested is rewarded with exquisite detail.

Markings for five vehicles in France, 1940, Poland 1939 and Greece 1940 are included with the nice option of the two colour grey / brown paint scheme seen early in the war as depicted on Ron Volstad's box artwork, which incidentally has a Somua S35 in the background...

new releases



MIG Productions

We start this look at MIG Productions latest releases with this very striking T-62 M1 conversion MP 35-372 designed for the recent Trumpeter kit. The set comprises a completely new turret with additional cheek armour and laser range finder upgrades. The new turret is very cleanly cast but is not hollow although the hatch rebates are nice and deep. The applique armour panels on the turret roof are nicely handled and the kit includes a full set of replacement hatches. Also included are the additional armour panels for the bow and glacis as well as the plumbing connections for the track guard fuel tanks. Overall its a pleasing conversion with the relatively simple assembly leaving you free to concentrate on the painting with these Taliban operated vehicles offering some interesting battered finishes as shown on the box art. There is also a new

addition to the 1:35th scale figure range in the shape of a Blackwater security man with a casual standing pose that makes him ideal to pose alongside a vehicle. Details like the body armour and ammunition pouches are well handled and items like the holstered side arm are moulded separately. The MIG range of pigments has three new colours, Ochre Rust P042 which is a muted orange/brown shade, Khaki Russian Faded P043, which is a faded yellow ochre shade and Burnt Steel Blue P044 which looks like a black but has a strong dark blue hue. There are also two new colours in the Sin Filter range of pre-mixed enamel filter washes. These are P419 Orange for desert camouflage schemes and P418 Warm Grey for Panzer grey vehicles.



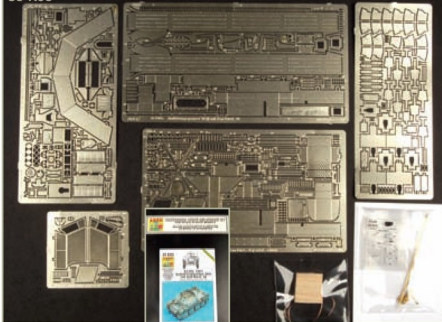
Nuts and Bolts Volume 26 15cm sIG33/1 (Sf) auf GW 38(t) 'Grille' (Sd.Kfz.138/1) Part 2 Ausf.H By Martin Block, Jari Lievonon, Detlev Terlisten

This second volume on the 'Grille' covers the prototype and production model of the Ausf.H. This dual language series is squarely aimed at the modeller and is a real 'one stop shop' for reference if you plan to model the subject. This vehicle was produced in kit form many years ago by Kirin and this book would have been infinitely more use in comparison to the latest DML/Cyberhobby production which is far superior. The book follows the established format of history and development, production (including some excellent factory production shots) photographs of the vehicles in service (majority of which are new to me) some nice quality colour profiles and detailed working drawings and plans. Considering around only 200 of this version were built the wealth and depth of

Soft back portrait format 144 pages
Published by Nuts & bolts
Email:hfd.duske@t-online.de

the information is excellent and the pages dedicated to the recovery of an early production vehicle from the river Enns in Austria are invaluable as reference. Certain details on the photographs in this presentation are difficult to distinguish due to the corroded surfaces, but considering the Grille has languished there for over fifty years this is unique reference including engine components and smaller internal details. The modelling content covers some quality projects to inspire us to get started with our own Grille H, and all the information you could need is here to help along the way. This series always impresses as a concise reference which is researched in depth with the modeller in mind

35 K05



72 L-51

35 L-99

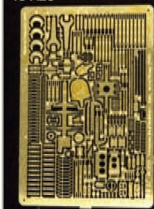


25 L-02

35 L-100



48 A23



48 A22



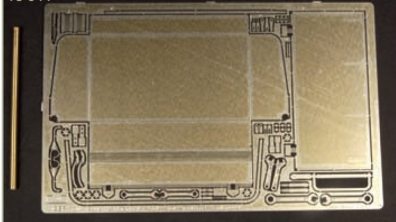
72 L-49



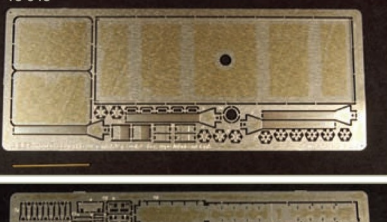
R-31



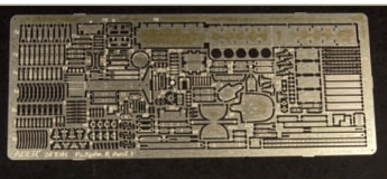
16 044



16 046



24 T02



24 T01

ABER

Aber continue to push the boundaries of detail with a new, diverse batch of releases. First up is one of their very comprehensive Exclusive Edition box sets No.6294 for the Dragon Sd.Kfz. 140/1 Aufklärungspanzer 38 (I). No less than five etched frets combine to offer detail inside and out including radio equipment, ammo clips and racks, complete turret structure including the distinctive mesh hatches (which are superbly fine and have the look of the correct 'weave'). Externally full mudguards and all toolboxes are supplied along with the star antennae and a myriad of smaller fittings. Turned brass is utilised for the antennae mast and both gun barrels including the muzzle of the 2cm complete with all perforations. Also in 1/35 scale are 35L-100, a pair of barrels for the 5.5cm Rheinmetall Geraet 58 to suit Trumpeter's E-50 kit, the huge flared muzzles looking particularly impressive. Barrels on the smaller side, but still in 1/35 is set 35L-99 providing seven tips for Soviet DT and DP machine guns. Staying with gun barrels is set 35 L-87 for any 1/35 Flak 38 providing four L/65 barrels in three machined brass parts each which would look most impressive in place- superb! Needing to clean all these barrels? set R-31 gives you the cleaning rods and all brackets and fittings for your Tiger I or Tiger II, two sets are included. Jumping up to 1/16 scale are a couple of sets to enhance the Tamiya KVs. 16

044 is an early toolbox set. This will require a careful bit of rolling to achieve the distinctive curved lid, included on the fret are a selection of tools and some brass tube is supplied to create the hinge. Set 16 046 gives you a super-detailed box type lubricant tank for the KV1, both these sets will add some fine finesse to the big scale Russian beasts.

Back down to Braille-scale with a couple of sets in 1/72: 72 L-51 is a nice update for the super-heavy Maus with both gun barrels, MG barrel and a pair of aerials. 72L-49 is a superb little Pak 39 L/48 barrel for the Hetzer.

Two excellent sets in 1/48 here for modellers of German armour: 48 A22 covers early tool holders and fittings and 48 A23 is the post 1943 'late' set. A good mix of clamps, jack holders etc, you also get tail lights thrown in for good measure. Two sets are now available to improve on Tascas already lovely Panzer II F in 1/24 scale (as featured in our issue 50). 24 T01 is an update etched fret and turned brass aerial, lots of worthwhile additions here which will really be noticed at this larger scale, hinges, tool clamps and the smoke candle rack are all included. A equally nice companion set is 24 T02 which provides barrels for the Panzer II, both the 2cm and MG in multi parts look excellent. Lastly 25 L-02, an MG 34 barrel in 1/25 scale which includes fittings and ring sight, perfect for the vintage Tamiya kits in this scale.

new releases

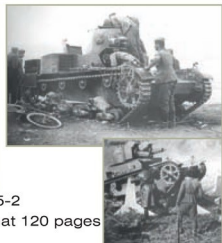
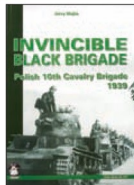


**Revell 1:35 Wieszel 2
LeFlaSys OzeLOT**



Revell have released this bang up to date Light Anti Aircraft System version of their Wieszel. The longer Wieszel2 is still minute in 1/35 with the finished kit measuring in at around 130mm, more akin to building in 1/72 scale. The four dark green sprues carry some excellent delicate detail and are sharp and free from flash. A couple of sink marks to fill on the thick frame of the turret mount are the only obvious flaws on what is an impressive looking kit. Revell's no-frills instructions start, as you'd expect, with the multi-plate hull. The upper hull has nice anti-slip texture and good detail on the hinges although the big mesh hatch would look so much better if replaced by photoetch. Lower hull detail is again very good and utilises separate trailing arms so the wheels could

be easily articulated over rough ground with a little surgery to the shock absorbers. Wheels are very nice, as are the tracks which are very small 'rubber band' style with the benefit of being joined by regular plastic cement. The construction of the missile system forms a large percentage of the build and has the option to show everything stowed or in action which I'm sure will look the most impressive. Due to the delicate nature of the components on these tiny vehicles you could go mad (literally!) with photoetched detail additions should they be produced, but a very pleasing finish could be achieved from the box. Another recommended value for money release from Revell to please the modern military guys.

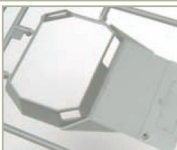


**Invincible Black Brigade - Polish 10th Cavalry
Brigade 1939 By Jerzy Majka**
Published by Mushroom Model Publications

This book charts the formation and history of the elite Polish 10th Cavalry Brigade and their fighting retreat into Hungary in 1939, never overwhelmed by the Germans the 'Black Brigade' (the name derived from their black uniforms) reached Hungary with it's vehicles and subsequently moved to France and then onto Britain to form the core of the British 1st Armoured Division, fighting with distinction in Western Europe in the later years of the War. The book begins outlining the formation, training and early operations of the brigade and then the operations of 1939 against the German invaders in detail.

ISBN 978-83-61421-25-2
Soft back Portrait format 120 pages
www.mmpbooks.biz

The format of the book is excellent modelling reference with the majority of pages consisting of large format photographs with detailed captions. Explanatory maps are illustrated and some beautiful large format colour profiles of vehicles to inspire your next early war project. Photographs are varied and plentiful of vehicles not so often seen, Polish FIAT light cars and trucks, Vickers light tanks and TK5 variants. A very interesting production from MMP and a worthy addition to any reference library of the early war enthusiast.



**Dragon 1/35 Sd.Kfz.265
kleiner Pz.Bef.Wg.I (initial
production)**

Dragon's third version of the diminutive panzerbefehlswagen is this release of the initial version on the 'B' running gear. The kits includes parts to produce the initial and also an early vehicle with the retro-fit cupola and minor updates. The usual format Dragon follow with these kits is adhered to, beautifully sharp moulding across the grey sprues, delicately detailed 'Magic Track' (bagged ready to assemble) a small photoetched fret, clear parts for vision blocks etc and a very nice, pre-formed rahmenantenne (frame antenna) in brass rod with it's own protective packaging. The parts Dragon kindly upgraded from their original Panzer I releases are all present including brass wheel rims and corrected springs etc. The only thing at a glance that for some reason isn't in the box is the improved exhaust muffler, although the instructions have the

parts numbered wrong, the original parts are present to use. Some of the very early kits on the market were supplied with only eight roadwheels (as per the 'A' version of the Pz.I) but this has been addressed now with an extra sprue included leaving you with spares. More than a hint at a future release of the Aust.A version is the inclusion of a sprue containing specific 'A' parts, as with many Dragon kits there are many parts on the sprues not used, this can often lead to some frustration coupled with the odd instruction mistake. This aside, the kit will produce a beautifully detailed panzerbefehlswagen from the box which would look stunning in the pre-war three tone Bunzlärbenstrich camouflage scheme, six choices of markings are supplied.



Tiger I in Action

By David Doyle

www.SquadronSignalPublications.com

This all new production of the 'In Action' series from Squadron Signal on the ever popular Tiger I follows the well established format of a concise and cost effective modelling reference. If you're an established fan of the Tiger and already have references, the majority of the photographs here will be familiar. What this book does offer is an excellent 'potted history' of the Tiger I with the chapters presented as chronological use by each of the units starting with schwere Panzer Abteilung 501 in Tunisia. Detailed captions to each of the photographs along with developments in production notes with the help of line



Soft back Landscape format 72 pages

Published by Squadron Signal Publications

ISBN: 978-0-89747-624-9

drawings to illustrate the points and the Tiger's combat history through Russia and Europe. Of particular note are the factory photographs showing Tigers on the assembly lines and the well known shots of the field maintenance and turret removal with the Fries gantry crane.

Colour profiles and colour unit marking reference round up what is a very useful and nicely presented book should you be wanting of Tiger information at a value for money price.



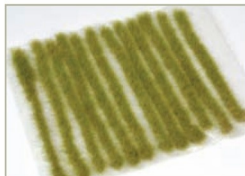
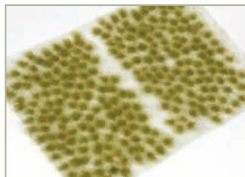
Tamiya 1:35 Russian Assault Infantry (1941-42)

Tamiya release these five figures at an ideal time to charge along side their new BT-7. All sporting early war Rubashka uniforms the moulding is very crisp and sculpting is a step up from some of Tamiya's previous figure sets. Two of the figures (riflemen) are a little toy-like in pose but the officer, NCO and machine gunner work really well together with good facial expressions and poise. The equipment sprue is from a mid '90s Tamiya release but is still decent by today's standards leaving plenty spare weapons and equipment. Decals are included for insignia which will add a touch of colour. Good figures with great action diorama potential, but to me have a little too much of a propaganda photo feel to them.



Dragon 1:35 Ghost Division Tank Crew, Blitzkrieg 1940

Four new figures here from Dragon that will complement any of their recent early war armour releases. Rommel's 7th Panzer Division's rapid movement into France is depicted with what really are two pairs of very nice figures. One pair consists of a panzer crewman and infantryman in a relaxed pose enjoying a cigarette break, the other pair in more of an urgent situation looking to be escaping their mount with one sporting an injured arm. Both sculpting and moulding is very sharp across all four and poses are natural looking, the crewman stood in the relaxed pose looks especially good with earphone over one ear clutching the cables. Etched brass is included for the earphones and one of the excellent 'gen2' sprues is included of weapons and equipment. Another nice set from Dragon that are really worth a look.



JoeFix Studios Diorama accessories

Not ones to let the grass grow under their feet (!) JoeFix have released more of their ready to use diorama products. '148 Winter grass strips' have a convincing frosty look to them, the long strips ideal for edging a country track or road, as is '150 Spring coloured grass strips'. Equally realistic in appearance and colour is '149 Spring coloured grass tufts'. I'd imagine these products are aimed at the 1/35 scale modeller but due to the finesse I think they'd be suitable in smaller scales also. More new products in 720, 721 and 722 which

are three tones of camouflage netting which look suitable for 1/35 scale and larger, all come as a 56x55cm piece in realistic tones. Three grades of miniature chain is next, all in 50cm lengths: 966 is the finest with ten links per cm, 967 has eight links per cm and 968 at six links per cm. These would probably benefit from treatment with a product like 'Blacken it' to help at the painting stage. Finally 409 is a pair of soft plastic clamps to hold smaller components or sheet material while gluing. www.joefix-studio.be



The first prototypes were built in 1925; the artillery tractor version entered service in 1935, followed by the tank transporters and tank recovery versions. The tank recovery version Scammell Pioneer, initially named as SV1V, was modified in SV2V after just 45 units built, with the addition of a 3 ton crane and some modifications to the body.

Built around the very powerful winch located under the body, the Scammell was able to tug every British vehicle of its time. It was powered by a Gardner 6 cylinder, 8400 cc diesel engine, with a power output of 102 HP; those are small numbers by today's standards, but at its time, they were great ratings.

According to different sources, the number of vehicles produced vary from 2000 to 3500 units, ranging from artillery tractors to tank transporters. Its good performance allowed the Scammell to remain in production until 1955, being widely used also in the civilian environment, especially as an oversize loads transporter.

The Scammell perfectly personifies the British style: It's a powerful and ungainly truck and for those reasons is one of the most fascinating WWII vehicles.



WESPE MODEL'S 1/72

SCAMMELL

PIONEER SV2V

ANDREA VIGNOCCHI

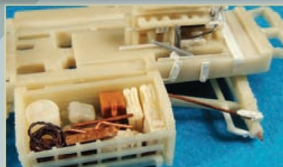
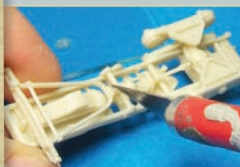
Assembly :

Let's start by separating the parts from their casting blocks with a Tiger razor saw. Using a board, I eliminated all the signs left in the junction areas. The bigger parts were first refined with a file.

The chassis was improved by emptying all the accessible zones with files and milling cutters. The chassis parts were assembled with cyano glue.

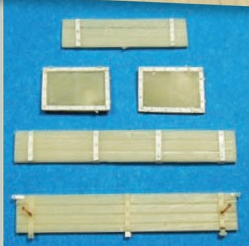
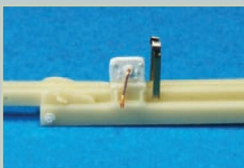
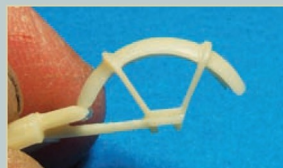
Using a rounded milling cutter, I engraved the interior part of every tyre's groove; it's a very boring but necessary job, since the resin casting is quite poor and the tyre's tread is the weak area of the kit.

Many accessories were added to the basket; also the engine was detailed with plasticard and metallic wires of different section.



Some rows of missing rivets were made with sections of stretched sprue.

Many details were made as sub-assemblies.

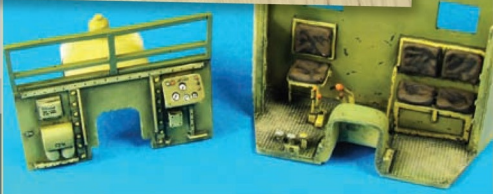


The kit gave me the chance to leave open the Scammel's boxes, so I reproduced the wide variety of accessories available on the real truck; I used tank towing cables, tanks, oil drums, resin boxes, tarpaulins and a great number of tools. Most of them were scratchbuilt with plasticard and copper wire.

The body's load was coloured in a very contrasted manner with Vallejo acrylics, in order to highlight all the details.

The cabin interior was detailed and painted the same way, but with a higher contrast, due to the cabin's small size that will not allow much light inside.

The cabin's windows were made with acetate and the area around the windshield wipers was painted with the help of a mask.



Painting.

Due to the complexity of the model, I decided to paint separately the Scammel's parts, in order to work easily on every detail.

According to my documentation, the British Olive Drab is similar to the Humbrol Matt Enamel 159; I added few drops of matt white and matt yellow 154 to lighten the base colour, since the following oil washes will darken the Olive Drab.

I started by colouring the chassis, the wheels and the detail such as the crane and the counterbalance, etc.

In order to facilitate the cabin and body painting process, I glued a piece of sprue on its lower part.

The chassis was finished with oil washes, profiling and some highlights.

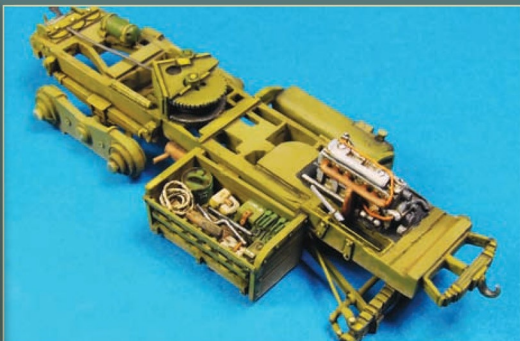
When the base colour was thoroughly dried (you better wait 6 to 7 days) I traced the "Mickey Mouse" camouflage edges using a pencil. There are many ways to apply this kind of camouflage, starting from the classic way of making perfect semi-circles and black the vehicle's upper parts, up to the technique of making well separated spots of different size; looking at some pictures, I decided to reproduce another style of camouflage, with irregular spots and black vehicle upper surfaces.

Taking into consideration the small scale and the oil washes, I used Gray Matt 67 instead of black. The camouflage was brush painted, making my job easier.

The details were painted separately. The big star on the roof was made uniform with the camouflage with a very thin layer of grey, applied with my airbrush.

The first phase of weathering consists of an oil wash made with some Van Dyke brown: its purpose is to tone down the base colour.

Now we can glue the painted and weathered wheels to the chassis; the engine has been painted with my "high-contrast" technique.





I started weathering by profiling the recesses with Cassel Earth and a very small brush; the colour should be diluted in order to trace some very thin lines around the rivets and crevices. Then, using a yellow oil pastel and applying a technique similar to the drybrush, I made the highlights, concentrating the colour on the central parts of the green spots. Using a black pastel and a flat brush, I enhanced the edges.

My job ended with some highlights on the rivets and the handles, using light tints (yellow on the green and light grey on the black). Don't forget that in 1/72 scale, the higher the contrast, the more visible the details. With the painting process complete, I glued the body on the chassis.

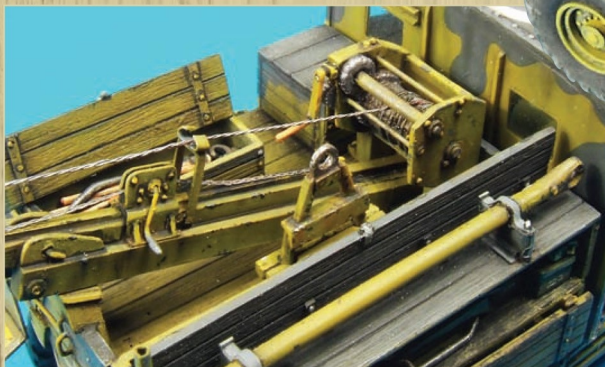
The Scammell's cabin was treated with the method described above, then I added some leakages on the roof and I made some shadows on the engine's hood; with the painting process complete, I glued the cabin to the chassis. Finally the model starts to take shape!



Let's continue the assembly by gluing the accessories, like the tow bar, the winch, the front counterbalance, etc.

The crane's arm was painted and weathered with great care and precision. To create the crane's cable I used three 0,1mm copper wires which were locked in a chuck: the drill was then spun very slowly.

I glued the front and rear mudguards, adding the diagonal reinforcements to the latter. The work was completed by gluing the doors, the body's edges, the crane's cable, the lifting hook, the rear-view mirrors and the windshield wipers, made with stretched sprue.



The base:

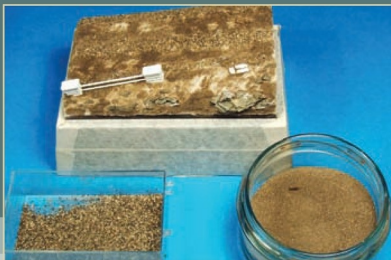
I decided to fix the Scammel on small size base, in order to highlight the model.

I thought about making a slope on the edge of a road, with the typical stone columns and the iron railings that connect them; the traces of a vehicle going down the slope and the twisted railings give some meaning to the presence of the recovery vehicle. The stone column was made with plasticard, while the wires are just some electric wires.

The overall scene was checked before painting; the road and the soil were made with dusts of different grain.

I chose the colours by looking at a real road after a rainy day; the puddles were made with a transparent enamel paint, mixed with some Humbrol Matt 72. With such a small space available, I just used some dark green Noch synthetic grass.

The base is now completed; even if the scene is pretty simple, the overall effect is quite good.



Figures:

I used just two figures, in order not to have a too crowded scene and to let the Scammel take the centre of attention.

The figures were made with parts coming from different sources: MiG British tanker's heads; Presier arms, CMK bodies. The typical British uniforms details like the big pocket on the trousers and the pockets on the shirt of the second figure were all made with self-adhesive aluminium foil.

Even if quite small, the scene is really evocative: the traces of the vehicle going down the slope and the figure which looks down, will give the spectator the immediate perception of what's happened and what this powerful vehicle could be used for.

The second figure justifies the opening of the boxes with all of the Scammel's equipments, creating another point of interest for the observer; in other words, sometimes it's not necessary to make a super diorama to draw the attention on our models.







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