



## Feature Article

Das Werk

Borgward IV PzJg. "Wanze"

1:35 scale

with

Bill Curtis

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During World War II, the German Army used three remotely operated demolition tanks one of which was the Borgward IV which was the largest of the vehicles types and the only one capable of releasing its explosives before detonating.

The B IV was originally designed as an ammunition carrier but it was found unsuitable for this role but after testing as a mine detonation vehicle which also proved impractical it was decided to use it as a radio controlled demolition vehicle, the first being delivered in 1942.

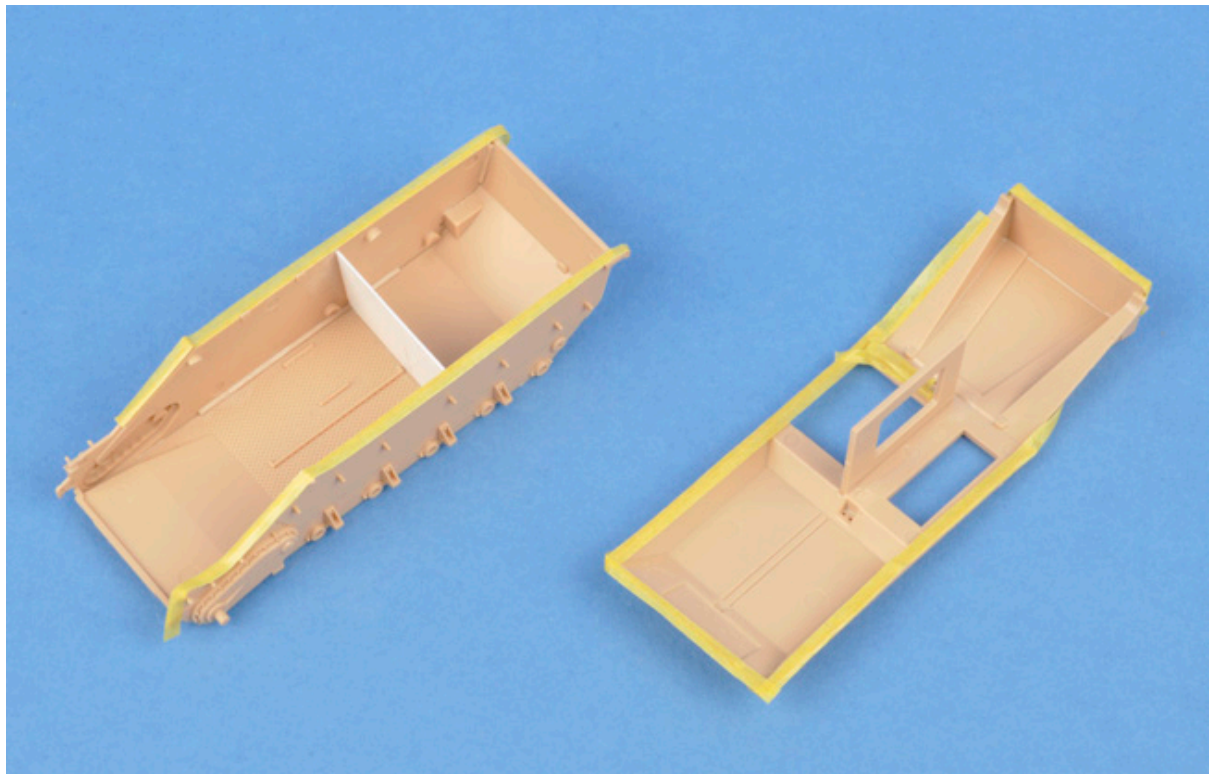
The Ausf A was the first model to enter production and was equipped with a 49-horsepower 4-cylinder water-cooled gasoline engine being the most produced model, with approximately 616 produced between May 1942 and June 1943. This was followed by production of the Ausf. B In June 1943 which weighed 400 kg more than the Ausf A, the radio antenna was moved and better radio equipment installed, 260 being produced. The Ausf C saw greater changes with the chassis being lengthened to 4.1 metres (13 ft 5 in) with a weight increase, thicker armour, new tracks, the driver's seat was moved to the left of the vehicle and a new 78 horsepower six-cylinder engine installed. 305 examples of this type were produced between December 1943 to September 1944.

Approximately 56 Ausf B and C were converted and armed with six anti-tank rockets designated Panzerjäger Wanze. In the last days of the war, these vehicles fought skirmishes against Soviet armour and seeing action in the final battles for Berlin.

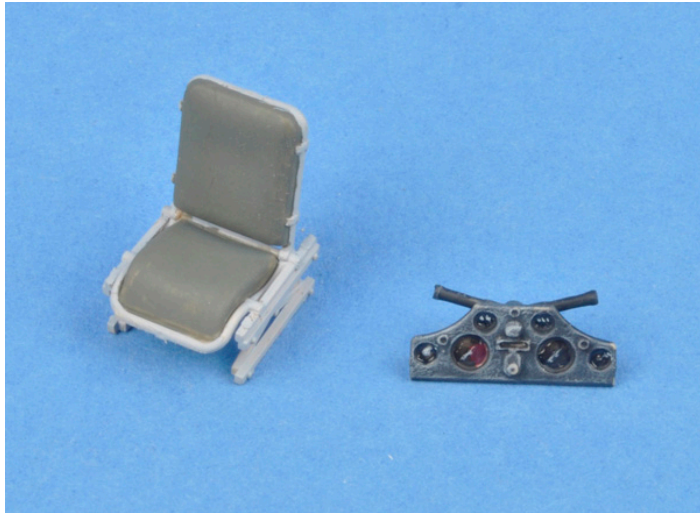


### The vehicle...

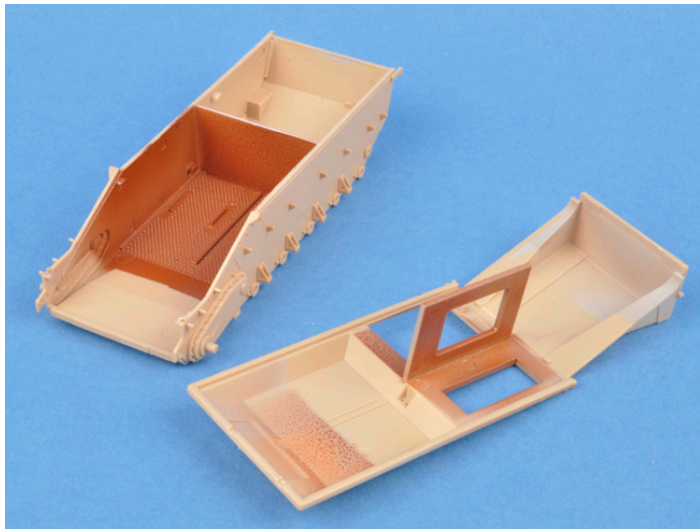
For Christmas I was given the book *Panzers in Berlin 1945* and in this had a section which had some great photos of the Wanze. I had not seen this vehicle before and it intrigued me to find out if there was a kit in 1:35th scale of this machine. A quick search of the internet and I found the Das Werk offering. So I ordered it and when it arrived construction began with assembling the lower hull and inserting a firewall made from a piece of plastic card cut to size and glued into place. The upper hull had a dividing plate between the two compartments and this was attached with Tamiya liquid cement. The edges of both these parts were then covered with thin strips of masking tape in readiness for painting.



The next items to be assembled were the driver's seat and the instrument panel and steering handlebar, these were then painted with Vallejo paints. The dials on the instrument panel were coloured black and detailed with red and white thinned paint with a three zero brush. The panel was dry-brushed with a lighter grey than the background and the glass was represented with a couple of layers of gloss varnish. The steering control was painted the same grey as the instrument panel with the hand grips painted black. Once dry this was attached to the rear of the instrument panel with liquid glue and allowed to dry.



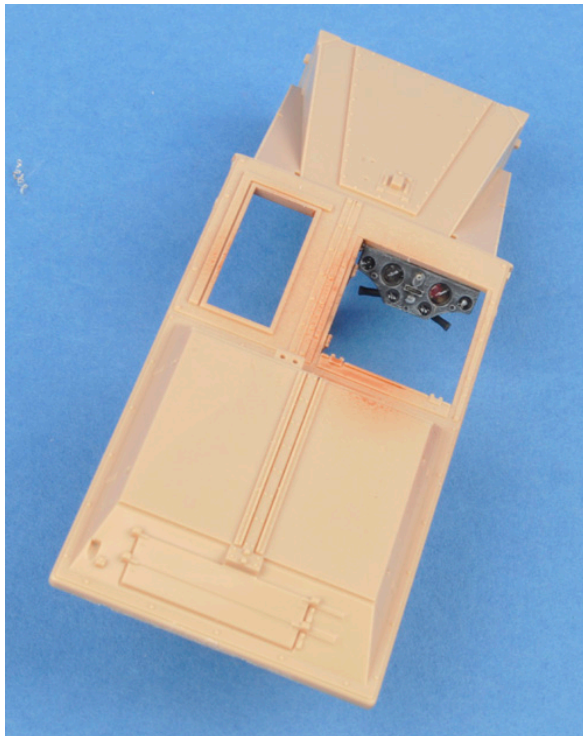
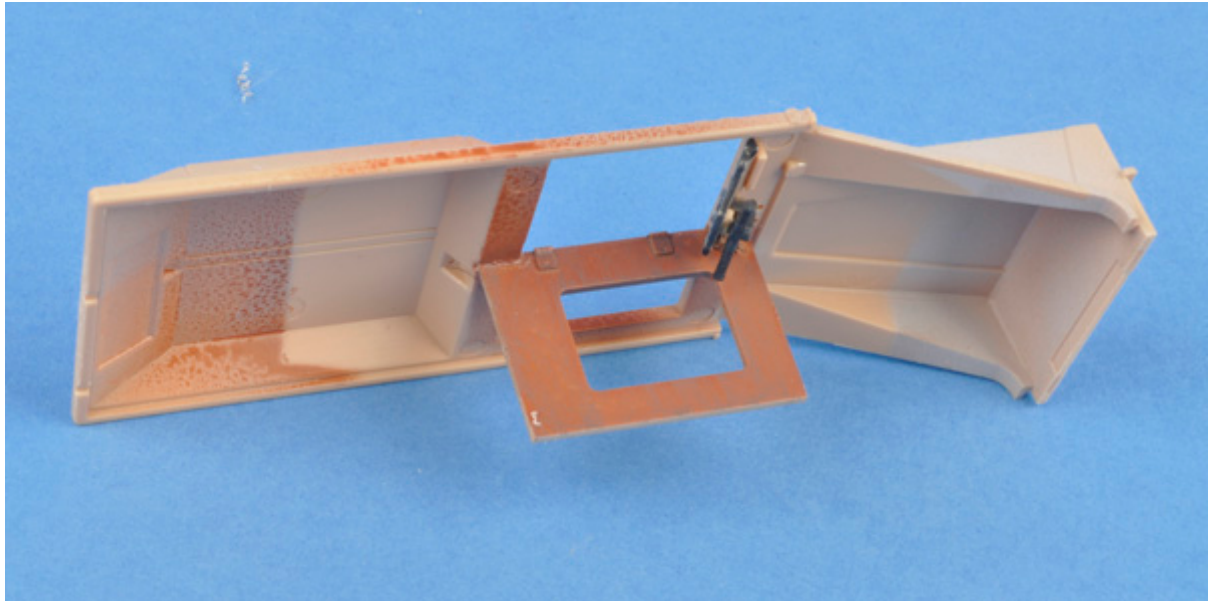
The top and bottom hull parts were next masked off and then sprayed with Mission Models MMP-13 Red Oxide RAL3009; this was done with several light coats to build up a solid colour. Once dry the masking tape was removed.



The seat was now glued in place and the floor was dry brushed with Vallejo oily steel colour 865 to show wear on the floor.

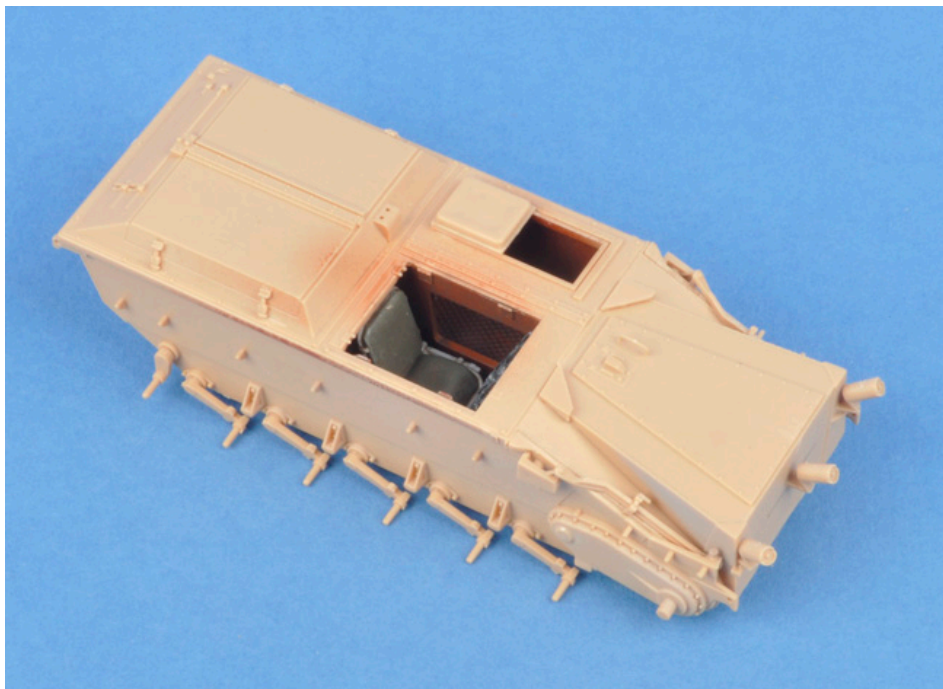
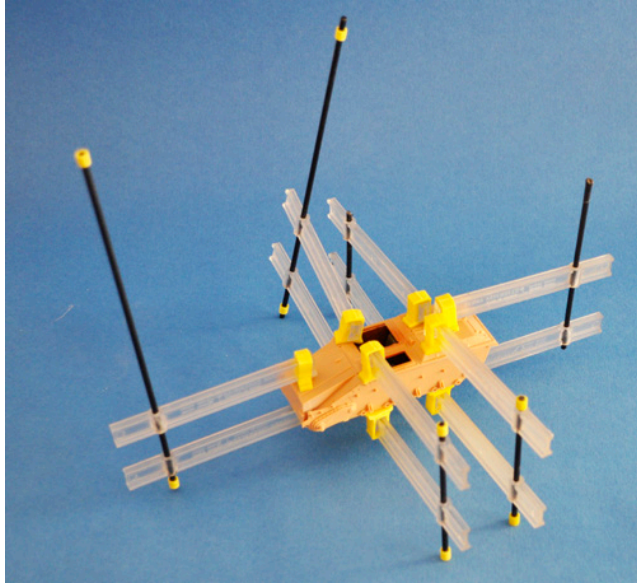


The dash board was next fixed in place ensuring it was at the right angle before putting aside to dry. I had not found any pictures of the interior but as very little could be seen once assembled was happy to go with the supplied items.

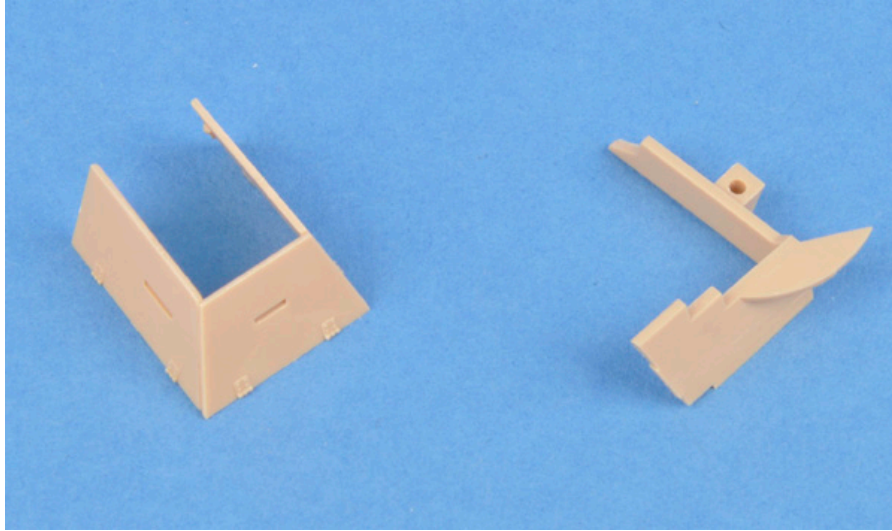


It was now time to fix the hull parts together and I found that the fit needed some assistance, so out came the clamps to hold them firmly in place while Tamiya Extra Thin was used to glue them together. This was left overnight to fully cure before removing the clamps.

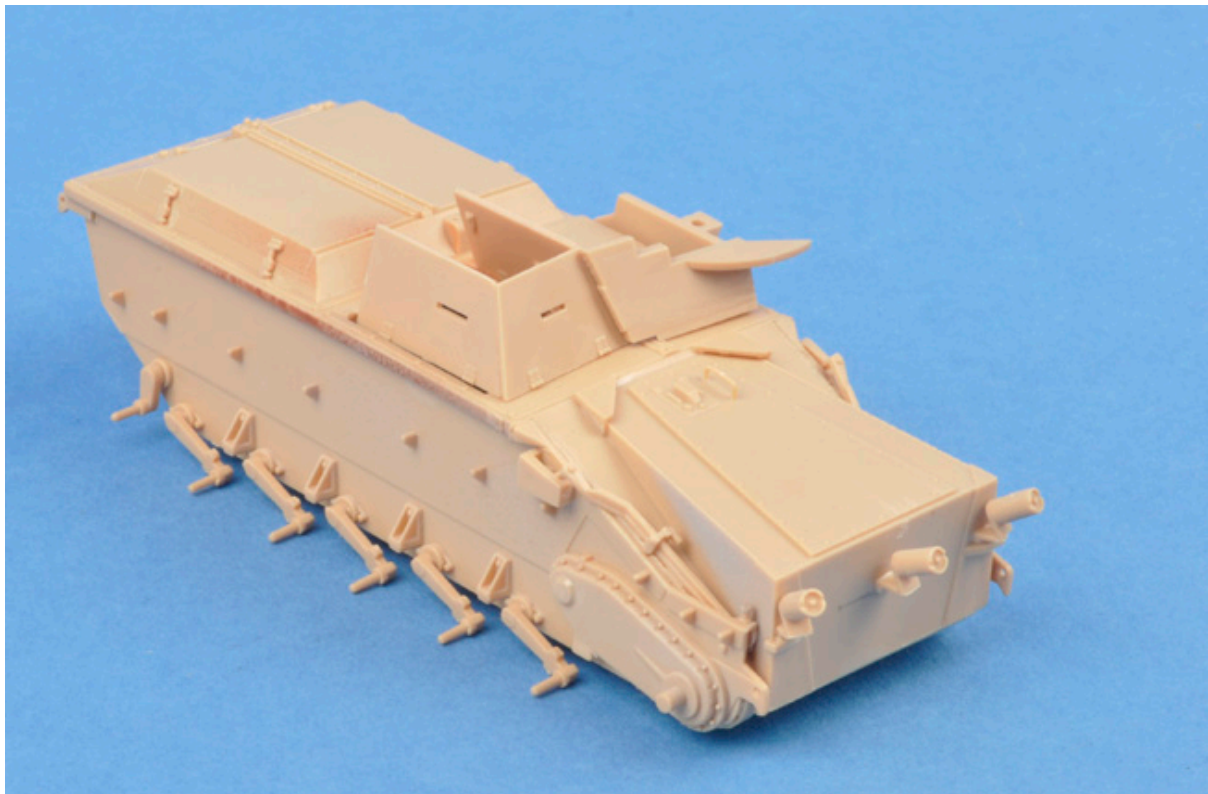




The upper deck armour protection plates were next to be assembled and care has to be taken when assembling the driver's as this is in three flat plate parts. I used some plastic card off cut to space the ends to the right width.



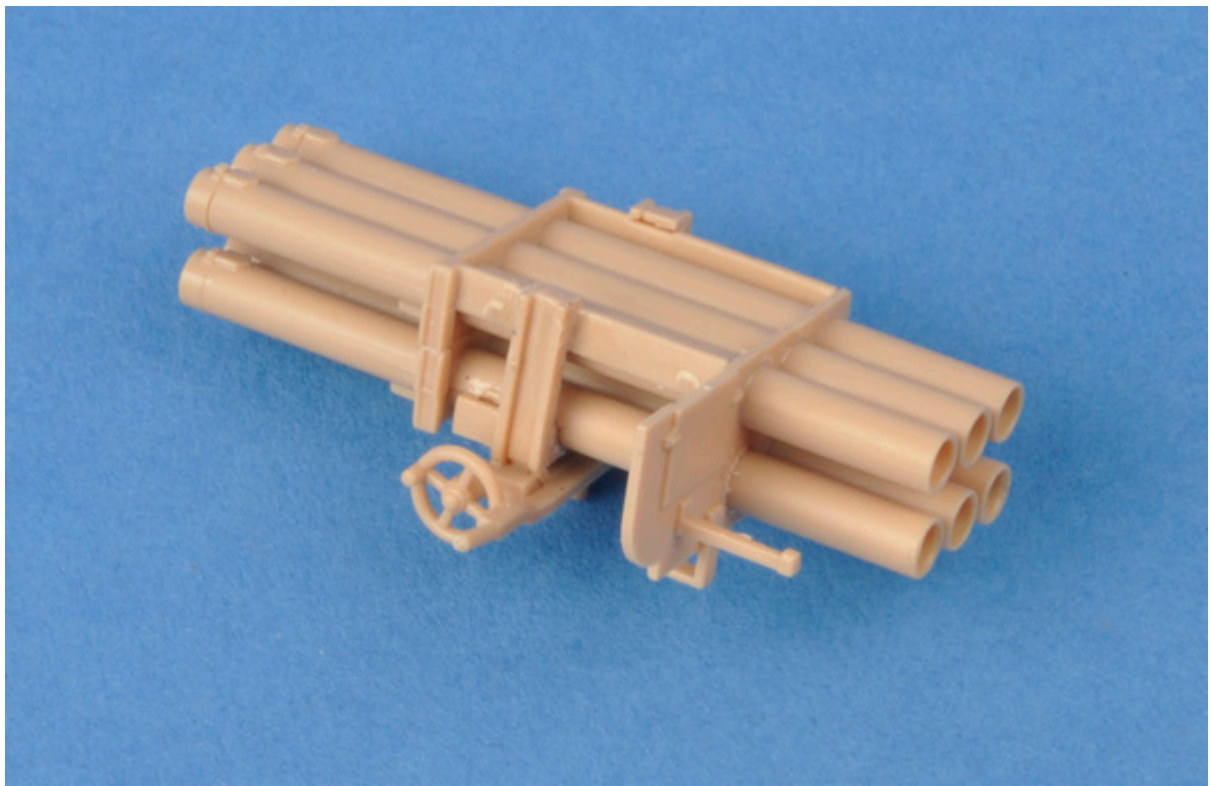
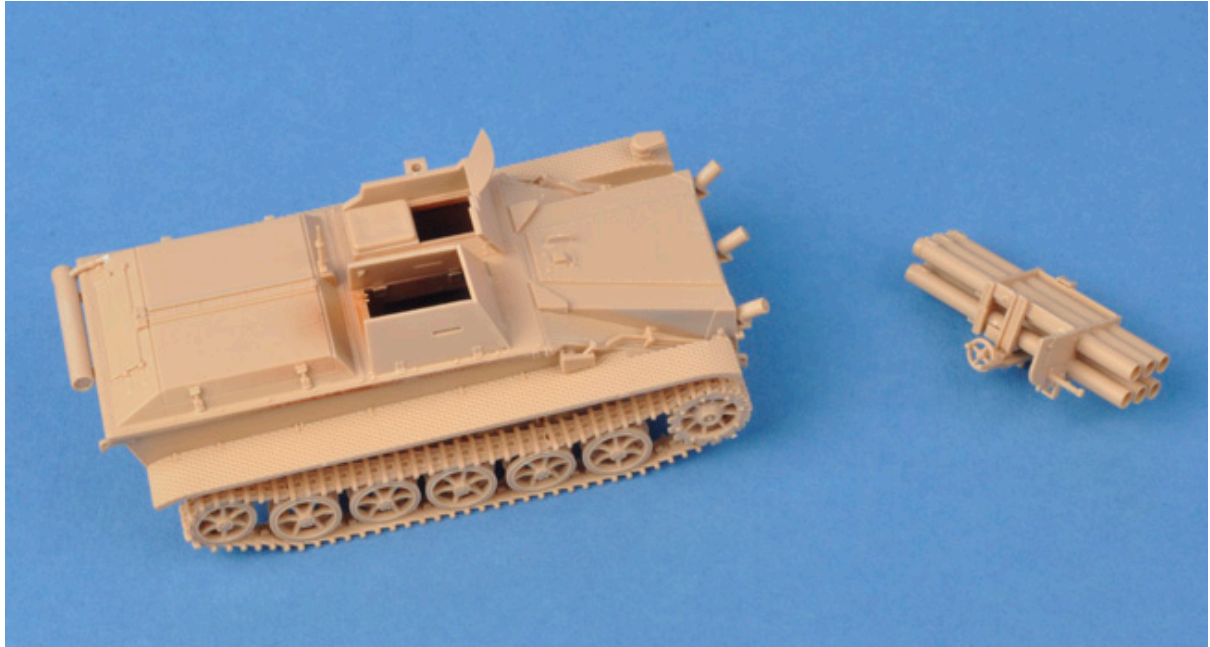
These were both fitted to the top hull in their respective places and at this time the release mechanism for the demolition charge were fitted as were the smoke dischargers to the front of the hull.



Step 5 of the instruction sheet covers the assembly of the wheels and tracks. This is a very small vehicle and the wheels are small but with great detail. The drive and Idler wheels were built as per instructions as were the running gear. The decision was made to fit all the wheels and tracks to the vehicle which is not the normal way of doing this. The tracks come as link and length, are very fiddly and needed some clean up after removing from the plastic runners. Tamiya Thin was used to assemble the links and when partially dry they were fitted over the drive and return roller joining up with the top and bottom runs which were a single part.

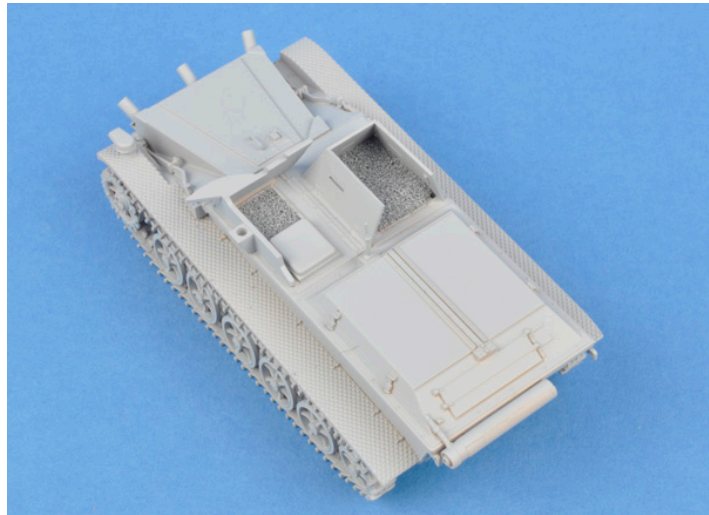


The mudguards were then fitted and all allowed to dry. The rocket assembly was next assembled and again a fit problem was found with the frame but a file made this better. The smaller lower hull bits and pieces we fitted. The aerial and the other item on the engine deck were not fitted as photos did not show these items.





Using Mr Surfacer primer from an aerosol can two light coats were sprayed onto the vehicle and the launcher assembly.



After allowing the primer 24 hours to dry a base coat of AK Gen 3 11033 Dark Sand was sprayed over both sub-assemblies. This is a new paint (at time of writing) and it was found to be very good, more like a Tamiya paint in its spray characteristics and very forgiving.





The camouflage colours from AK Gen 3, 11147 Olive Green & 11113 Chocolate were sprayed thinned down with AK thinner using the Iwata HP - CH airbrush. The layout of the shapes was followed from the instruction sheet





A preparation of gloss thinner and thinner was next sprayed all over the sub-assemblies. This was allowed to dry for 24 hrs and then the three selected decals were applied using the Micro Sol and Set solutions. The spigot would not fit into the hole so it was opened up with a drill which turned out to be too large, hence the crooked angle. More of this later!





Mixing up a medium brown oil wash, the panels were lined in with a small pointed brush, as well as bolt heads, recesses, plate angles, rocket sub-assembly and the mudguard cross hatch pattern. This is the first panel lining as others follow at different times in the weathering process. A pallet of oil paints was set up on a piece of cardboard and left for an hour to let the oils leech out of them. Small amounts were then put on one area at a time and with a brush dampened with a little thinner was spread / stumped to desaturate the colour giving a faded appearance.

The tracks and tyres were painted at this stage. Wheels painted by brush with well thinned paint which did not cover well but ran round the tyre easily. After three applications a solid colour was achieved, allowing each coat to dry before adding the next. Masks were cut from tape to shield the wheels and a post it note was cut to length bent and fed behind the track and wheels to protect the hull paintwork. A track colour was mixed tending to a dark brown, as German tracks had a high manganese content, sprayed in light coats using a Sotar 20/20 till a solid colour was achieved. After removing the masking tape the inside of the track was painted with a brush.

Now back to the oversized drilled hole to hold the rocket assembly, this was filled with Vallejo filler, left to dry and then drilled with the correct size.







The pin wash came out again and the second round of panel lining was carried out. Using a light shade of the base colour chips were painted in the engine deck and other places on the vehicle. Vallejo 822 German Camo Black Brown much thinned and used for some chips and also to fill in the centre of some of the light chips, this was kept subtle. The tracks had touch ups done and some steel brushed on the raised parts of each track.



Using the oil pallet, the light tan, yellow and white were used again to further desaturate the colours to give a dusty appearance, paying attention to the front and rear plates. Taking the rust set from Lifecolor the exhaust pipe was painted with the rust at either end made more

prominent. This was to show the internal





The next item was the dust and dirt on the lower hull under the mudguard. The vehicle was put on its side and a mix of pigments was picked up with an old brush



and this was then tapped dropping the pigment in a random manner. Tamiya thinner X20 was then applied with a brush then this was allowed to dry.

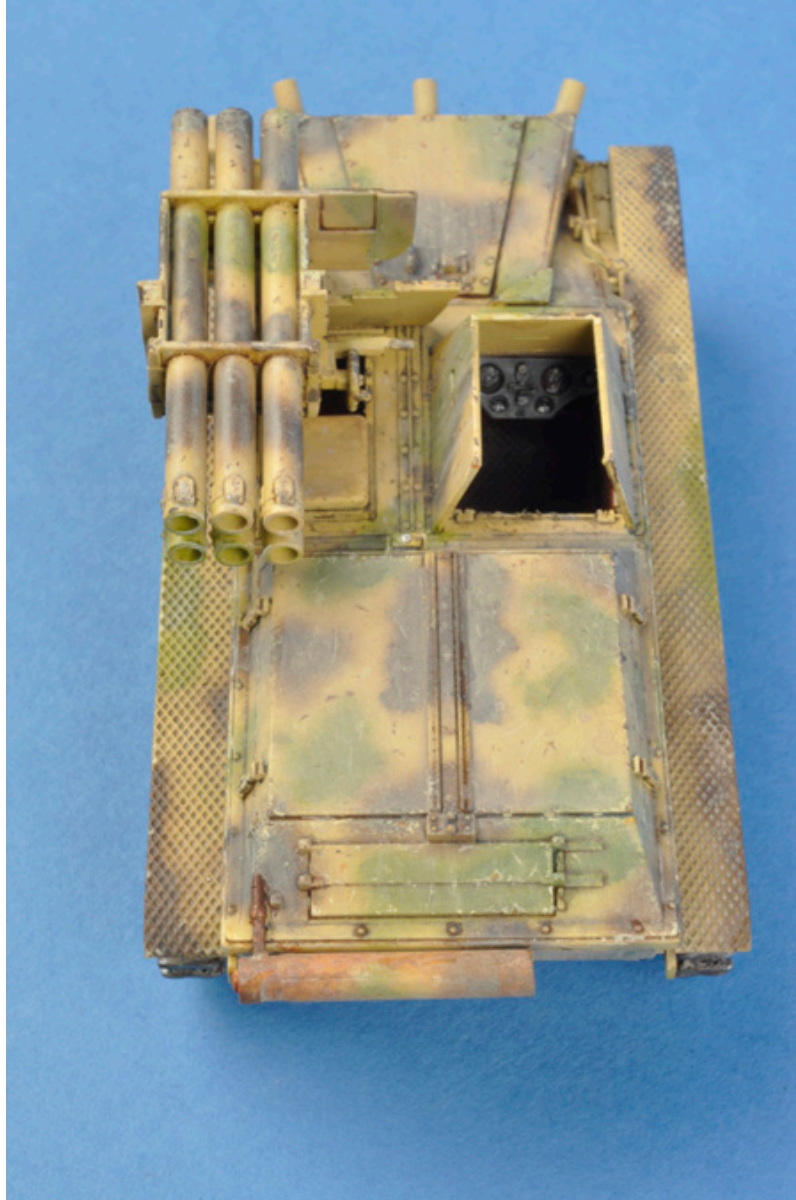




A final oil paint desaturation was carried out all over the vehicle less being done over the high parts of the superstructure. A final dark wash was done on the engine deck hinges. Dust was put onto the wheels with an old brush using a mix of different pigments. The exhaust pipe was painted black and finished with smoke pigment.





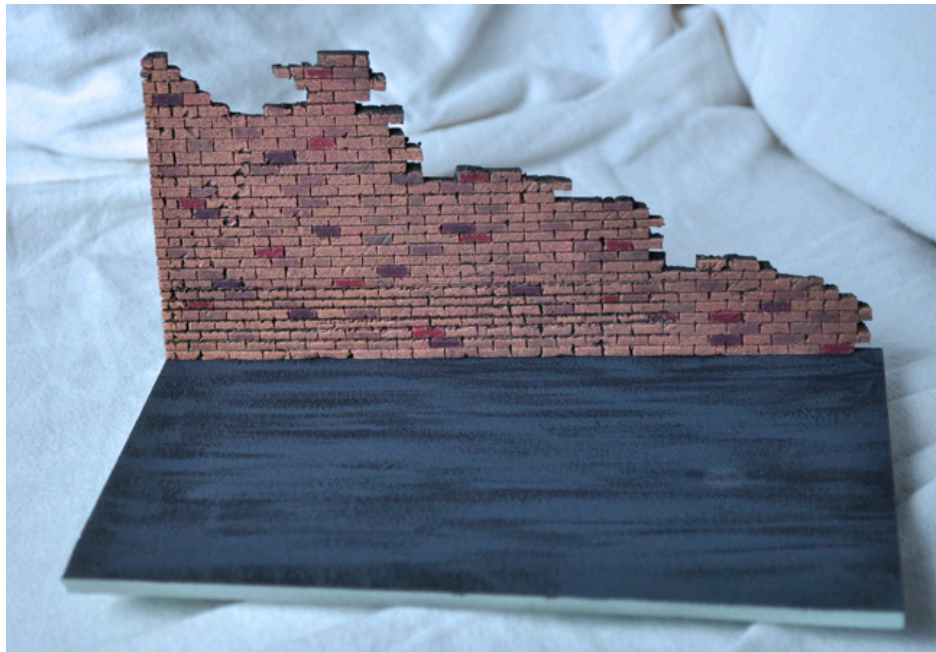


## THE BASE

Searching round for an idea for the display, as an armour vehicle without some scenic base is like a fish out of water, a picture was found of a different vehicle in a destroyed factory yard and this sparked an idea for a mini diorama. The size of the base was worked out using the vehicle and a couple of figures and once the general size was worked out a small picture frame was purchased from Wilco for about £1.00. The glass was removed and the backing board replaced which left a depth of approximately 8mm.

Having some 6mm foam board in stock, it was cut to the inner dimensions of the frame. Another piece was cut to act as a back drop which would be positioned at an angle to the frame. The next item was to find out what sizes German bricks were and this was found on a web site. The foam was score horizontally with the

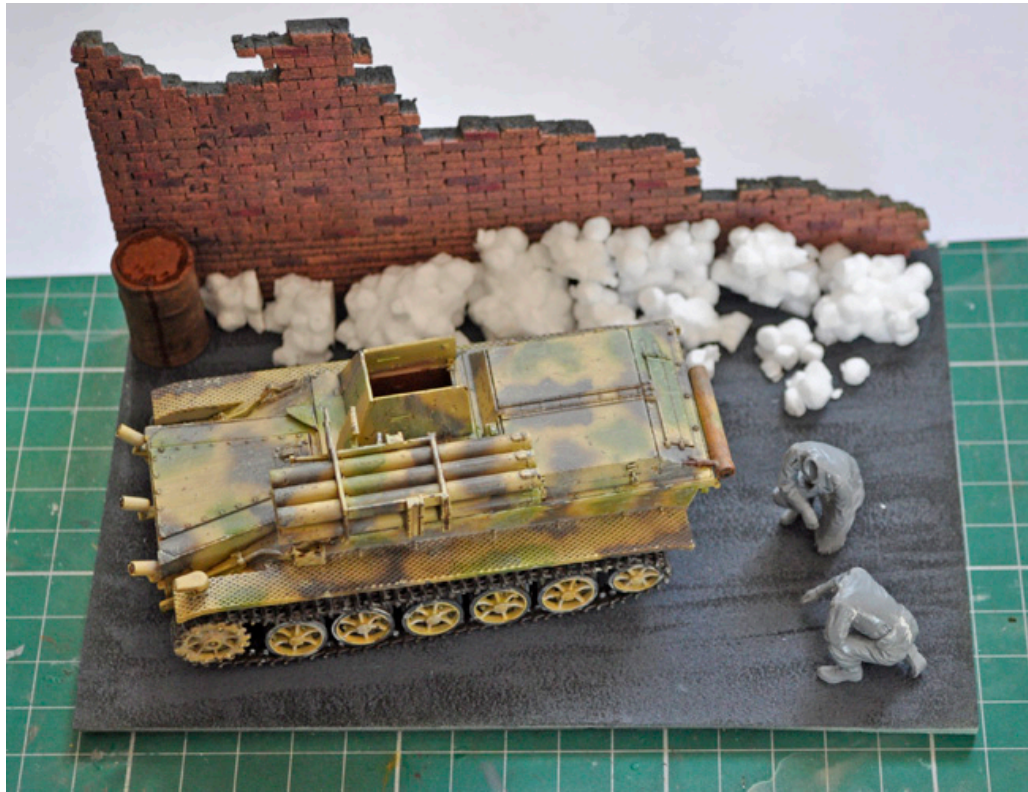
height of the brick and mortar and the vertical with length of brick and mortar off set alternate rows. Once the correct height had been reached the wall was cut out in an irregular shape. These off cuts can be used in the rubble. The yard was painted with a dark grey and a light grey was used to break up the flat colour this does not have to be neat. The brick wall was painted black and then dry brushed several time with a brick red. To break up the mono-tone colour various bricks were painted different colours, see pic. The two pieces were glued together with a support fixed to the back to back to hold the wall vertical.



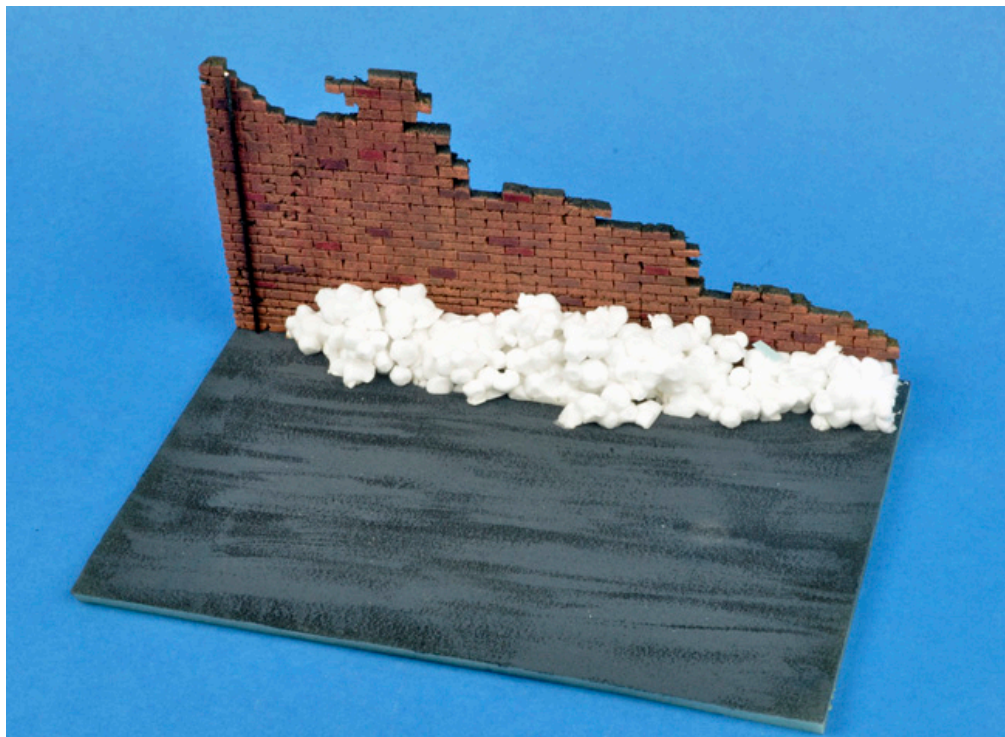
Next stage was the rubble pile and this was started with broken lumps of polystyrene packaging material which were fixed in place with wood glue. The vehicle and figures were put onto the base to check the story line.

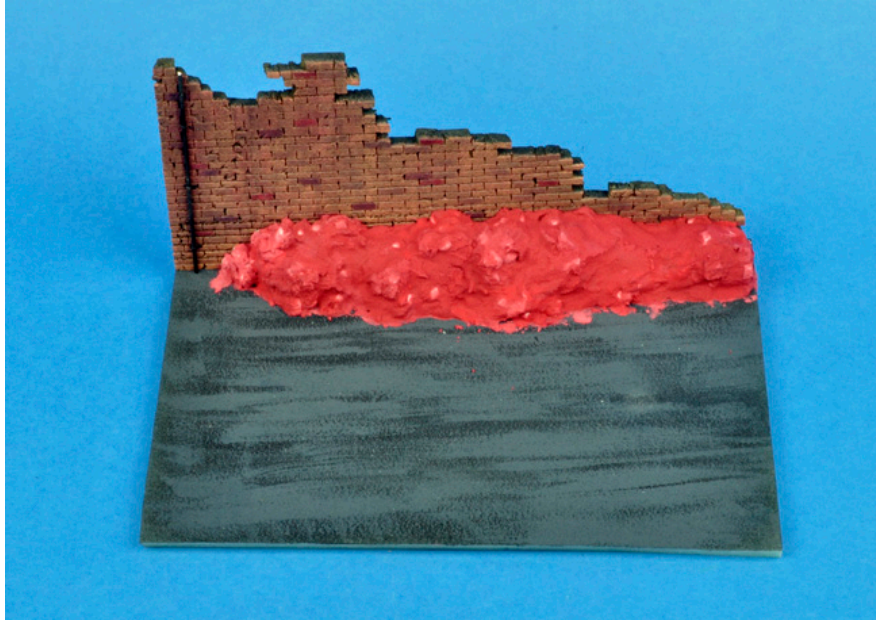






More of the polystyrene clumps were added to the pile and then a mix of poly-filler was used to cover the clumps in a random manner which was then put aside to dry overnight. A red colour was then mixing up which was painted onto the rubble heap, and shock, what an awful shade of red.





A new colour was mixed up which resembled brick colour more accurately and allowed to dry. German bricks in 1:35 scale were sourced from the internet from AB Military which are cast resin. These were placed on the rubble heap with the off cuts of wall being attached with wood glue. when dry

these were painted brick red. An old oil drum was picked from the spares box and after a coat of primer was finished with AK pencils. A piece of wire was glued to the wall to represent an electrical conduit and a wine bottle top foil was used to make the fixing brackets.





The next item to be added was the wood from the building, this was made from wood used in model aircraft construction cut to width and different lengths positioned at different angles and attached with the ubiquitous wood glue. Clear plastic sheet from some electrical packaging was cut with acute angles to represent broken glass and fix to the rubble.





Crushed house brick was sorted into different sizes and the small pieces were used around the base of the heap and on the road. Bricks were also stuck to the road at different places. The roadway was dry-brushed with sand / dust colours to add interest to the scene.





The Wanze was again positioned to check the viability of the scenario.



Pigments were used on the road way and fixed with Tamiya X20 thinner applied with an airbrush set at approx. 6 PSI and held 12" away and above the model so as not to blow away the pigment. Dust was sprayed on the rubble and the wall.



Pigments were used on the rubble and wall to emphasise the dusty appearance of the scene.

### Figures...

The figures came from the Tamiya Military Miniatures Wehrmacht Tank Crew Set MM354, the kneeling figures were

chosen which were looking at a map. The map was a photo copy of Berlin in 1945 and then reduced to the correct size and then printed using a high definition setting. The faces were painted using Andrea Face Painting set while the uniform was done with AK Panzer Crew Uniform set. The hat was painted with German uniform grey green with a black band which was out lined in pink. Insignia were decals supplied in the Tamiya kit and settled to the figure with Mr Mark setter and softener. This was a great help as these decal were very good.





### Finishing...

The kit came with two ammo boxes one of which was made closed while the other was open, painted in wood colours and washed with a dark wash. When dry they were positioned on the rubble heap as if discarded after loading the rockets. The figures were stuck into holes drilled in roadway around the map all being secured with wood glue. A final layer of dust was brushed onto the wheels and tracks to tie the vehicle to the base.





### Final touches...

The model base was glued into the frame and allowed to cure overnight.

The final touches were the name plates. The Title “The Forlorn Hope” described a group that was the vanguard in an attack with little hope of survival but in the case of this model it signified the hopelessness of the situation in Berlin in the final days of World War Two. These were done with the aid of Photoshop and a printer, the labels were then covered in Transpaseal (a clear plastic adhesive backed material used for book covering), and then double sided tape was attached to the back. The labels were then trimmed to size, the backing was removed and the labels attached to the frame.

Bill C.















