Diorama and Vignette Modelling

By

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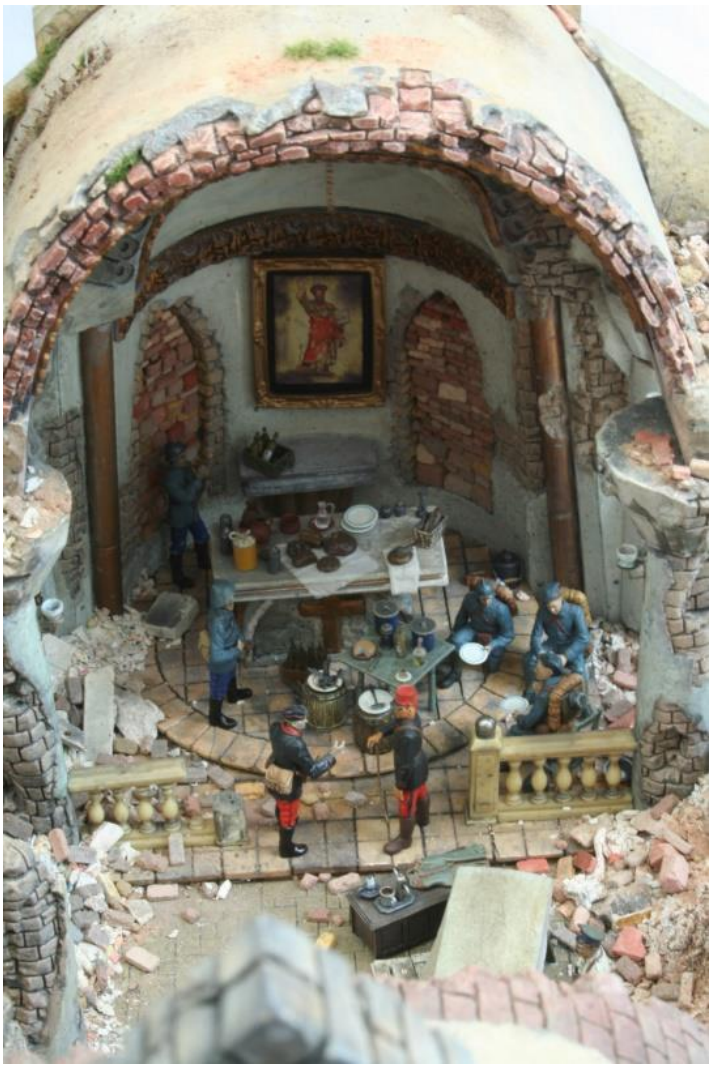
And James Schembri



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Supported by Gravesham Military Modelling Society
www.gmms.org.uk

First published 2016

Introduction

For the majority of modellers, there is a progression from building a kit straight from the box to looking for something extra in terms of presentation. This can be to place the model in a scenic representation or to use it in telling a story. It can also involve building the unusual versions of a model that is not available. Modellers will bring into play additional skill sets to build groundwork, convert models and scratch-build parts to enhance standard kits. From the stand-alone model on the shelf, the modeller will have moved towards building vignettes or dioramas to enhance presentation.

Deciding which category a model falls into is often confusing as there are no standard criteria. The definition of the term diorama in the Cambridge English dictionary is given as:

A model that shows a situation, such as a historical event or animals in their natural environment, in a way that looks real: *Dioramas* are three-dimensional.

A vignette is classed as a form of diorama, the difference being the size and complexity involved. A vignette being the smaller of the two classes usually involves a single “vehicle” or three or less figures interacting together. A diorama can involve any number of “vehicles” and or figures. Dioramas differ in that there is a greater expectation that they will tell a story.

The purpose of this book is to share the experience of building and presenting models in vignettes and dioramas. Converting and scratch building parts for models are also touched upon in order for the Reader to gain an insight into the techniques used.

The presentation of the Viking jet has been enhanced where the aeroplane has been set on a base representing it in its natural environment aboard a carrier deck. The setting tells no story which would require the addition of personnel and activity to do so. It is far simpler than the diorama “The Gates of Hougomount” representing an incident during the Battle of Waterloo. The French Army came close to forcing open the gates of the farmhouse and overrunning the strongpoint. A clear story of the desperate struggle is represented in the diorama.

Telling a Story

Normally, two or three characters are required for a vignette displayed on a compact base. A diorama extends beyond this with more characters or “vehicles” and no limit on its physical size. The example shown below, entitled ***“Mademoiselle”*** reflects the interest between the smiling soldier and young woman passing by. It follows the guidance given below.

To help in building dioramas and vignettes, there are a number of guidelines that can be followed:

- The scene should tell a story that is clear to the viewer.
- A title plaque should be added to reinforce with the telling of the story.
- The scene should be kept compact and use the minimum number of characters necessary for the story.
- The central characters should be obvious to draw in the viewer’s eye. If the scene is built too large or with too many characters, this will distract the viewer.
- Empty space will have the same effect with the viewer wondering what should fill the space. There are exceptions where the story dictates that an individual should be alone and distance from the main scene will emphasise this.
- Use height in the scene to add interest. Variation in height by adding trees or walls will imply a more complex build and is more likely to catch the initial attention of the viewer.
- Add height to the base but keep it in proportion to the size of the base. Height will help the model stand out from others and the closer to eye level the more likely the viewer will stop to look.
- Use place names such as road signs to help locate the scene in context.
- Place items such that they avoid being parallel with the base giving only a 2 dimensional view.

A Christmas Cracker (subtitled “A Watchful Eye”)

The Idea

While the focus of the article is on humour, it is very important to take the opportunity to acknowledge the significant contribution made by female members of the armed forces, something that is often overlooked.

The Hornet Models figure of an ATS female soldier was an attractive figure in an eye-catching pose. Posed adjusting her attire, the attention of any nearby male would certainly have been attracted and this formed the central theme. With this in mind the vignette model needed the right combination of figures to make it work and two male figures were used that seemed to provide the perfect accompaniment.

The balance of the figures can clearly be seen in the photograph.

The first figure was from Hornet Models of a Private soldier wearing M37 battledress and side cap. The figure is well sculpted with a relaxed pose, ideal for the role of onlooker. The other figure was of a Military Police Sergeant with arms on hips and a look of displeasure on his face and came from Sarum Soldiers. The idea was then refined with the ATS figure being observed by the soldier while the MP looked on with disapproval. The scene was set to give a Christmas theme by the addition of a parcel about to be delivered and some snow in the form of low sodium salt sprinkled on the base.

A small off-cut from a plaster section of roadway with pavement was used as a base. A metal lamppost from Phoenix Miniatures was added to the middle of the pavement to enhance the scene. Some time was then spent in placing the figures on the base to get the right balance between them.

The natural pose, level of detail and high quality of the ATS figure can be seen.

The ATS and MP figures were single castings whilst the Hornet figure in battledress came with separate arms and head and was posed to face forward. The MP was used without alteration while on the ATS figure a lanyard and Artillery badge (worn above the left breast pocket) were added from Milliput.

Rear view of the scene. The "look" from the MP sends a clear message that the soldier has yet to pick up on.

To get the correct pose on the figure of the Private soldier, the head had to be tilted to the left and downwards in order to observe the actions of the ATS figure. Having made the alteration, the figure was assembled.

To secure the figures to the base, wire rod from paper clips was attached through the legs of the figures. These had the added advantage that they could be held in a pin vice allowing the figures to be painted without being handled.

The service cap worn by the ATS figure was painted as a private purchase model with the standard issue being in plain khaki.

Painting

"The Armed Forces of World War II" by Andrew Mollo has good quality illustrations of British uniforms of the period including that of an ATS figure and Military Policeman. Using this as a guide the figures were painted using Humbrol enamel paints. A good illustration of the ATS side cap can be found in the "British Battle Insignia (2): 1939 – 1945": Osprey Men-at-Arms Series.

Despite coming from different sources the figures go well with each other.

The uniforms for all three were painted using Humbrol paints: Matt Khaki drill (72) as the base colour mixed with Matt Light Earth (119) and Matt Pale Stone (121) added to highlight and Matt Khaki (26) and black added to shade. Gaiters and belts were painted Matt khaki drill with Matt Desert Yellow added. Boots were painted matt

black and over-brushed with lamp black oil paint while the shoes on the ATS were painted Matt Leather (62) and over-brushed with burnt umber. Badges, buttons and buckles were painted Brass (54).

The parcel and the snow (low sodium salt) hopefully give a Christmas feel to the vignette.

A mixture of Humbrol Flesh (61) deepened with Natural Wood (110) was used as the base colour for skin tones with burnt umber oil paint added to the basecoat for shading and white added for highlighting. The stockings were added by mixing a tan colour from oils and dry brushing to leave the minimum paint. A seam was then added down each leg.

Posing the figures was important to get the desired effect.

A variety of greys and browns were used for the roadway and pavement with white progressively added and dry-brushed across the surface to provide highlights. The lamppost was painted Matt Black then given a thin coat of lamp black oil paint to finish. Snow was then added by lightly sprinkling low sodium salt which has a fine grain similar to powdered snow onto the base.

Use of the lamppost helps set the scene

Finishing

With painting complete a small wooden base from Just Bases was used to finish the model. The female figure made an unusual subject and was fun to paint. Along with the other two figures, hopefully the model tells a story albeit a somewhat frivolous one.

The watcher being watched – A Watchful Eye.

Out of Arnhem

Home before Christmas

Fighting in the Second World War had gone on for nearly 5 years, with no immediate end in sight. To the surprise of many, Field Marshall Bernard Montgomery, uncharacteristically put forward a bold plan to end the war by Christmas.

The plan, codenamed "Operation Market Garden" involved the capture of the bridges and 60 miles of road between Neerpelt on the Belgian border and Arnhem on the Rhine in order to allow the Allies to cross directly into Germany.

The bridges were to be taken by a mixed force of Allied paratroopers. The plan was to relieve the paratroopers with armoured elements of the 2nd British Army who would cover the 60 miles to the final objective at Arnhem in 2 days. Arnhem was to be taken and held by the British 1st Airborne supported by the 1st Polish Independent Parachute. Brigade.

In many ways, the operation failed to go to plan. One key element being that, Arnhem instead of being lightly defended by second rate troops, had the crack German 2nd SS Panzer Corps stationed in the Town's outskirts. Against this unexpectedly heavy opposition, the lightly armed Paratroopers fought on from the 17th to the 25th September while the armoured column struggled to reach them.

On the morning of the 25th, the command was given for the paratroopers to withdraw from the positions they had so valiantly defended. The only way out for the troops was a dangerous night crossing of the Rhine. Of the10, 005 men who had landed only 2,163 were to escape leaving over 1,500 of their comrades' dead.

The battle for Arnhem is a story of courage and determination. Having held the position for 9 days, many were despondent at having to give up a position that they had fought so hard to hold.

Operation Berlin" – Choosing the Figures

In building the diorama it was intended to show the determination the paratroopers had shown in the fighting and some of the despondency in having to make the withdrawal from Arnhem. The figures chosen were produced by Verlinden in the 120 mm "Super Scale" range, as the poses came together well. The vignette was to feature the paratroopers being directed towards the river by an officer standing in silence. What could he say?

The figures selected were:

519 "A Bridge Too Far" – Sergeant carrying wounded comrade

485 "British Paratrooper/Arnhem WWII – converted to an officer pointing

537 "British Para Sniper" – Sniper cocking bolt on rifle

Getting It Together

The resin figures come with mould blocks attached, which have to be removed. Having first removed the mould blocks using a fine hacksaw, the parts go together well with most types of superglue. As the dust generated when cutting is toxic, it is always essential to wear a dust mask and have a bowl of water at hand to keep the parts wet when cutting.

In planning the model, the layout of the figures was to have the sniper covering the rear of the sergeant carrying his wounded burden while being directed towards safety by an officer. As the withdrawal was to be made under the cover of darkness and in secrecy, the movement of men was done as far as possible in silence. The sniper and the pair in “A Bridge Too Far” could be used without alteration but the third figure was in a shouting pose.

This was easily altered by replacing the shouting head in the kit with a spare head with beret provided in the sniper kit. To indicate that the figure was an officer, the figures’ ammunition pouches were replaced with a pistol, holster and small ammunition pouch built from Milliputt (see opposite).

What to Wear

The Parachute regiment uniform was similar to the standard battledress differing only in some minor details. Khaki drill in colour, the blouse was standard, while the trouser map pocket on the leg thigh could be replaced with an expanding chamois pocket and a knife pocket on the opposite leg. The knife pocket was designed to hold the Fairbairn-Sykes fighting knife in its leather scabbard. An elastic loop held the scabbard in place while 2 hidden press-studs closed the pocket.

The most distinctive feature on the figures is the camouflaged Denison smock. The smock used material in a mid-green background with a streaked camouflage pattern in dark green and brown. The background colour tended to fade to a colour described to be between a greenish sand to a light green or faded yellow stone colour (see below).

The smock was designed to be pulled over the head fastening from the chest to the neck with a fly covered zip fastener. Lined with blanket material, which showed at the collar, the smock was fitted with a flap designed to pass between the legs to avoid the smock from riding up. Brass press-studs were used to fasten the flap in either position. To make the smock windproof a common practice was to sew the end of socks to the cuffs of the sleeves. Insignia was kept to a minimum with rank being displayed on the smock in the normal manner along with paratroopers "wings".

References and Painting Guide

The most difficult part of painting the figures is trying to simulate the camouflage pattern on the Denison smock. The key reference used for details on painting the smock was "The Paras – British Airborne Forces 1940-1984" from the Osprey Elite series ISBN 085045 5731. Two of the figures 519 and 537 appear to be based on two of the illustrations in the book giving very good references.

The painting of the figures followed the guide given in the following table. Colours on the smocks and uniforms were varied to indicate different ages and wear.

Item	Base colour	Highlighting	Shading
Skin tone	Humbrol flesh plus natural wood mixed (3:1)	Titanium white (oils) added to base colour progressively	Raw umber (oils) added to base colour progressively
Battledress	Humbrol Khaki drill and Khaki drab mixed (1:1)	Khaki drill mixed with raw umber and cadmium yellow oils progressively	Khaki drab mixed with raw umber and cadmium yellow oils progressively
Denison Smock base colour	Humbrol mid green with mid stone or desert yellow mixed (3:1)	None	None
Denison smock Camouflage	Streaked pattern using dark brown mixed 3:1 with red brown and black and mid green mixed 4:1 with black	None	None
Webbing equipment	Khaki drill mixed with desert yellow to vary tones	Ivory added to base colour progressively	Khaki drill added to base colour progressively
Boots	Humbrol red brown mixed 1:1 with black	None	Over brushed with coal black oils then progressively removed with a clean brush to leave residual paint
Beret	Humbrol crimson mixed 4:1 with scarlet	Base colour with scarlet added progressively	Crimson
Steelwork Guns	Humbrol black	Dry brushing with powdered graphite from a pencil	None
Buttons and closures	Humbrol brass	None	Black diluted 15:1 with thinner and run around fitting by touching brush tip to an edge
Woodwork Gunstock	Natural wood	None	Whole surface progressively dry brushed with burnt umber until desired effect reached

Close up of the wounded officer being carried by the Paratrooper sergeant. The sergeants' insignia was painted with ivory shaded with a small amount of khaki drill.

The photograph shows the main theme of the diorama. As the evening draws in, the party heads towards the river and safety.

The effect of using graphite to highlight the details on weapons can be seen. Also visible is the sock cuffs sewn on to the smock.

The sniper watches closely over his two comrades. The muted tones of the smock are clearly seen here.

The modified figure has had a new head fitted from the snipers' kit and pouches replaced with a pistol, holster and pistol ammunition pouch sculpted from Milliputt. Models often benefit when being photographed by the use of a background as it helps put the figure in context and bring it alive.

The sniper carries the old Lee Enfield Mk III rifle, which was rarely seen at this point in the war. Apart from this the figure is well detailed and gives a good representation of the uniform and equipment in use. The rifle sling was made out of thin plastic sheet.

A rear view of the model shows the detail of packs and water bottles as well as some of the larger areas of the Denison smock where the camouflage pattern is visible.

Building a Boxed Diorama
Defending the Gates at Hougoumont

Background

The battle of Waterloo in 1815 was closely fought between the Duke of Wellington and Napoleon. During the battle a number of critical engagements took place. On Wellington's right flank stood Hougoumont Farm. The farm was a key stronghold in the British defence. Loss of the farm would open Wellington's flank to attack and could have cost him the battle.

The position was defended by companies from the Guards regiments and would be heavily contested throughout the day. Disaster was narrowly avoided when the French forced the gates and were only repelled after a desperate struggle. This famous action was depicted in a painting by Robert Gibb.

The painting was used as the inspiration for a club project for Gravesham Military Modelling Society. The scene was depicted in a boxed diorama where irrespective of ability, members were invited to build and paint a figure(s.) for the diorama. The diorama was put together to give a sense of the painting using 43 figures in all. Figures used were from a variety of sources including Airfix Collectors Series, Stadden Miniatures and Historex.

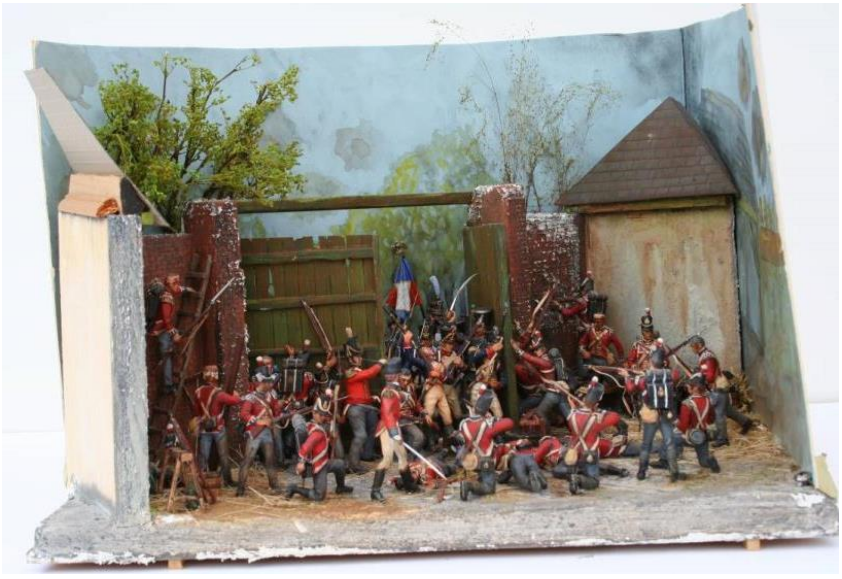
Closing the gates of Hougoumont – By Richard Gibb

Building the diorama

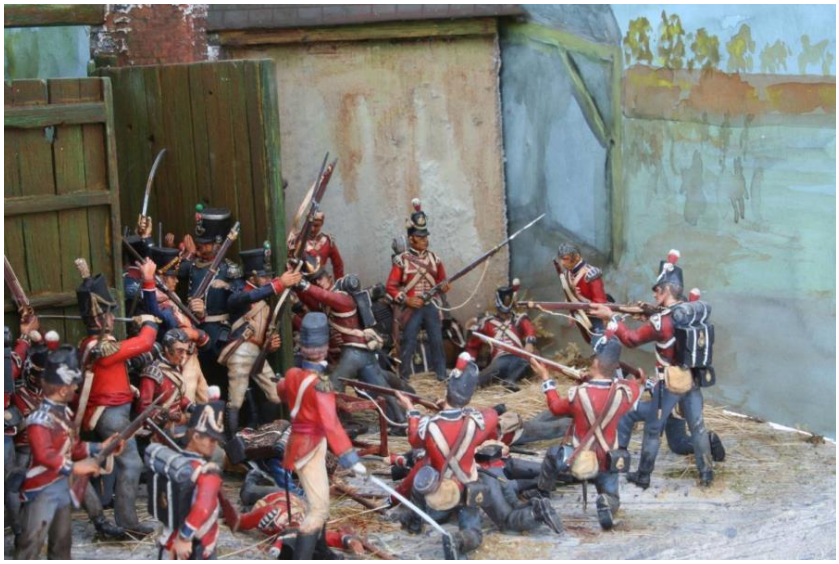
The painting depicted the mass of men involved in the action and the almost claustrophobic atmosphere at the gates. The use of a boxed diorama as a medium aided in both generating this atmosphere and also in mimicking the picture. The size of the base was kept as small as possible to aid this.

The view as seen through the diorama box

The gates and buildings were made from a mixture of wood, plastics and plaster with the trees in the background made of a wire frame covered in a Tetrion /PVC glue mix before painting and adding the foliage. As the rear and the sides of the diorama would not be seen once boxed, detail was kept to a minimum. Some of the construction detail can be seen below.



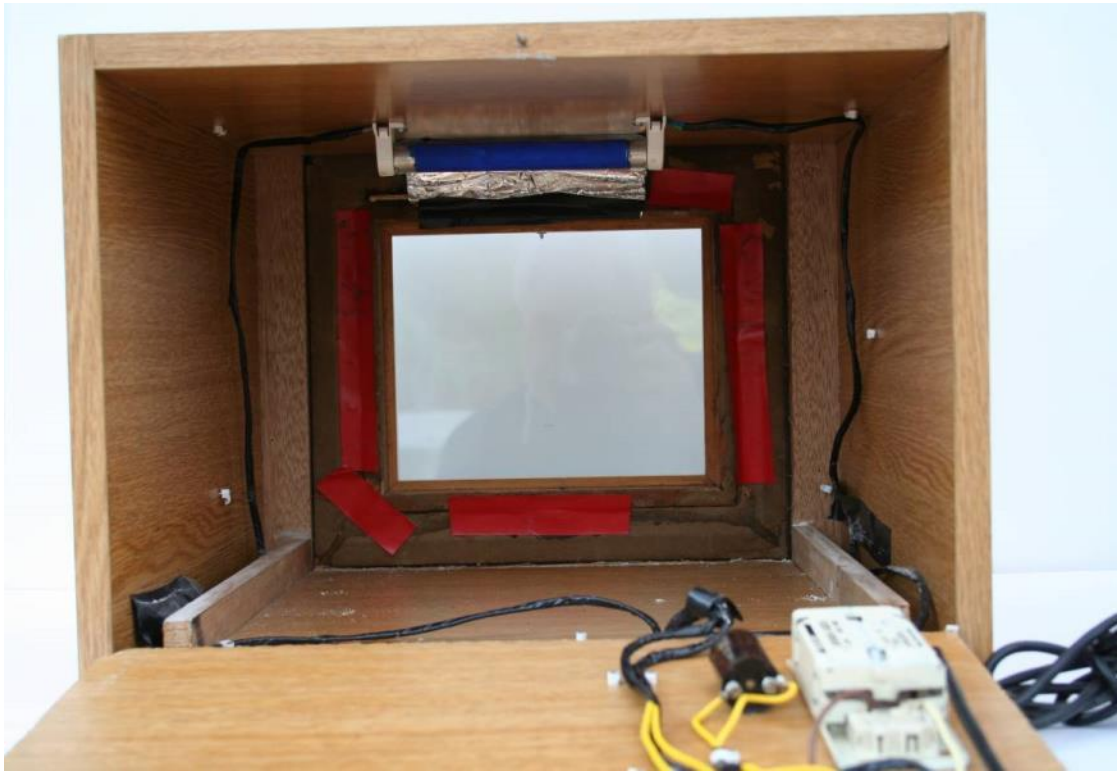
A simplified painted backdrop was used to add further depth to the scene. The details on the backdrop included smoke, trees and simplified representations of figures in the distance with the building being represented down the right hand side. The backdrop was curved to avoid any unsightly creases or joints that might detract from the panoramic view being sought. For anyone contemplating a boxed diorama, scenic calendars are a useful source of backdrops.



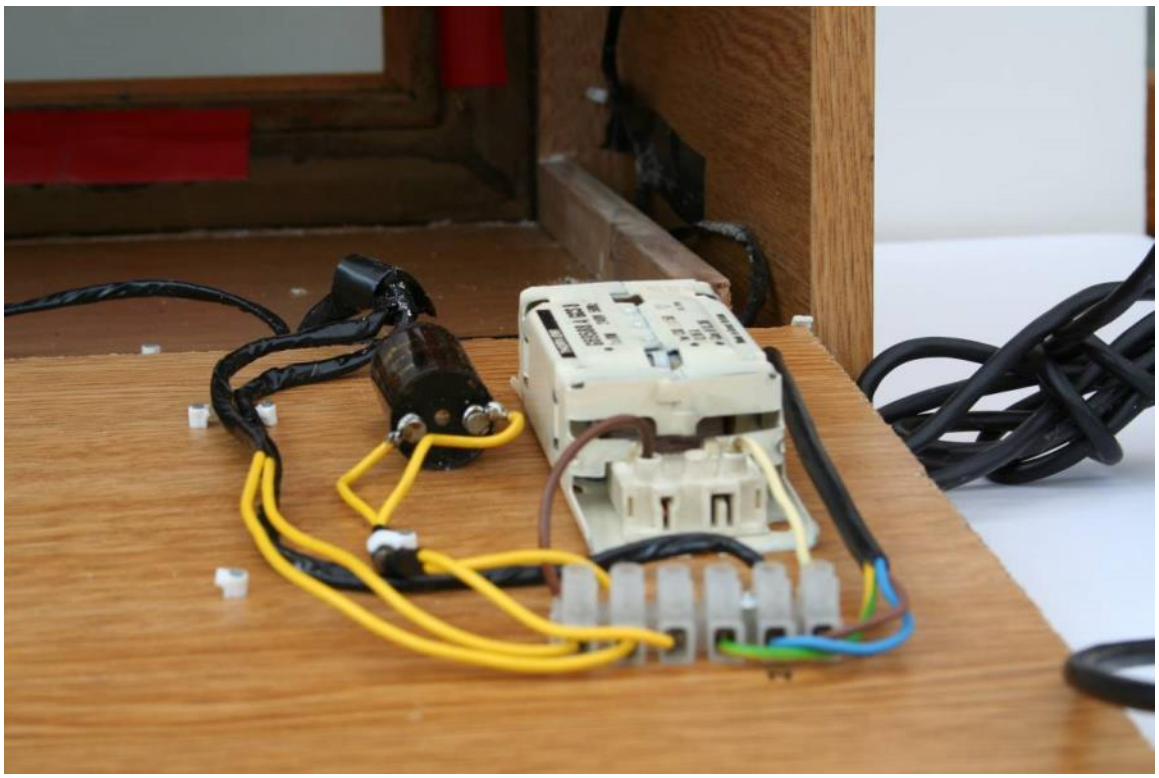
The simplicity of the backdrop can be seen on the right hand side of the photograph
Much of the diorama box construction can be seen in the photograph below. Having selected a suitable picture frame for the front of the box, a simple box structure screwed together was built behind it from laminated board to accommodate the size of the diorama base. The clearance between the base and the box needs to be kept to a minimum in order to avoid the diorama itself moving in the box and being damaged when transported.

A deep picture frame was chosen to focus the viewer's eye towards the centre of the scene and also to aid hiding the unfinished back and edges of the diorama. To get the diorama at the right height within the box and to help secure it within the box a pair of wooden runners were added to the box base. Two small wooden guide rails matching the runners were added to the diorama base itself.

With such a deep picture frame being used, it allowed only a limited amount of light to enter the box. Lighting was added in the form of a low voltage fluorescent tube along with transformer and controls being fixed to the rear of the box. The rear was fitted with hinges and catches to allow ease of access for maintenance. The system was designed for mains power but equally could be lit using LED lighting and batteries. Red and blue filters (coloured translucent paper) were added to the light to help cast the correct hew across the diorama.



Construction of the diorama box

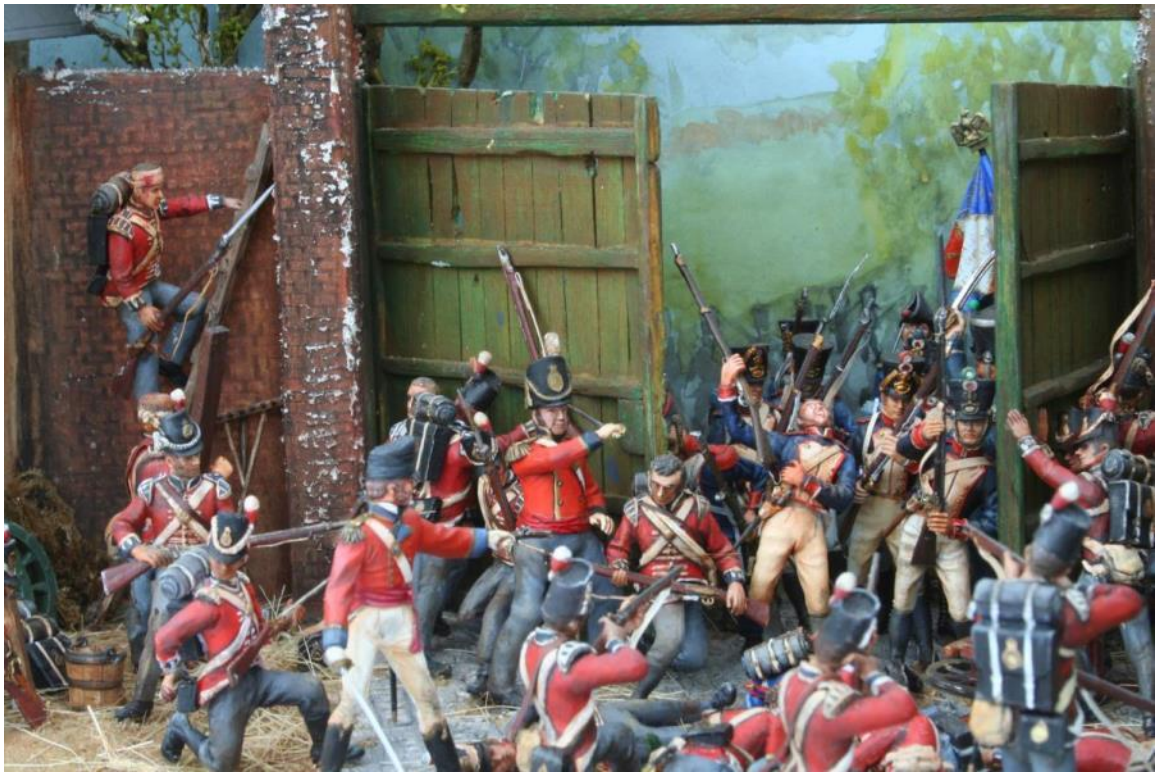


Rear of box showing electronics

The Scene in Detail

The British officers can be seen above with the kneeling rank being made from Airfix parts from the Coldstream Guardsman and Napoleonic Rifleman from their Collectors series

The makeshift firing step and loophole in the wall can be seen along with the straw made from cutting down an old brush



Given that other ranks are based on only 3 models, the above demonstrates the variety of differing poses that converting figures can achieve

The French forcing the gate- the simplified figures painted into the backdrop add to the sense of numbers assaulting the farm

Close up of the French -the differences in painting styles and ability were masked by carefully mixing the figures to achieve a satisfactory balance

The British form a makeshift line to fire a volley with the diorama aiming to give feeling of the desperate struggle taking place

“To Arms” – An English Civil War Diorama using Vintage Airfix Figures

The Diorama

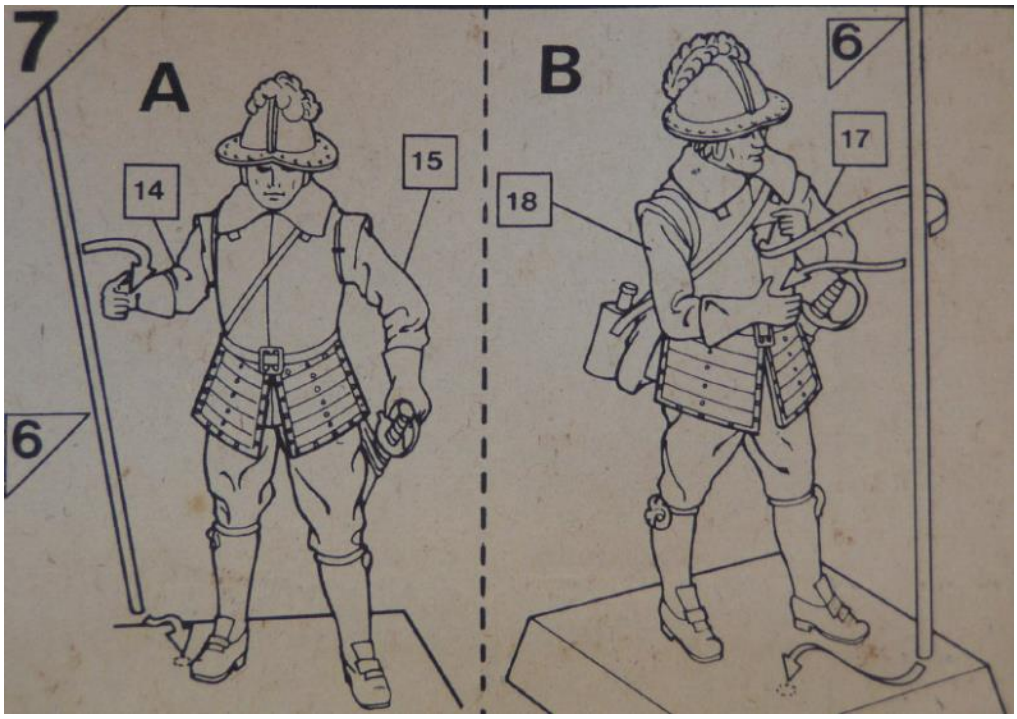
The diorama depicts an incident with the Parliamentary Westminster Trained Band in the field being called to arms prompted by the sighting of an approaching enemy. Rallied by the Ensign, using the company standard as a point of focus, the pike men begin to get into formation. To allow room to deploy weapons, men stood three feet apart.

The Figures

In the 1970’s and 1980’s Airfix was one of the leading manufacturers of plastic model kits in the UK. During this period they released their range of “Collectors Series” of 54mm figures. The range was made up of individual figures both foot and mounted and were for their time highly detailed kits. The range included English Civil War, American War of Independence, Napoleonic and French Foreign Legionnaire figures made of hard polystyrene. The figures were a favourite with modellers of the period lending themselves readily to conversion and additional detailing.

After a long absence, in addition to the individual figures, Airfix re-released its English Civil War figures as a boxed set. The set consisted of a musketeer, pike man and two mounted cavaliers/roundheads.

The instructions that come with all the kits are clear and easy to follow. The figures usually have a number of optional parts that allow for a number of different poses to be constructed with those for the pike man shown below.



Beginning Construction

The main attraction of the figures is the ease with which they can be converted. By combining parts from others in the range or the Airfix Multi-pose range it is possible to dramatically alter the pose of the figure.

The above figure was created by first separating the arms and legs at the elbow, knee and wrist joints. Using the kneeling left leg from the 95th Rifleman cut at below the knee, the lower half of the pike man's leg was then joined to the upper portion to create the "foot forward stance." This was then attached to the pike man's right leg, modified by turning the right foot outwards at a right angle. The arms were repositioned, joining parts with a section of a paper clip to allow the figure to be posed to receive a charge.

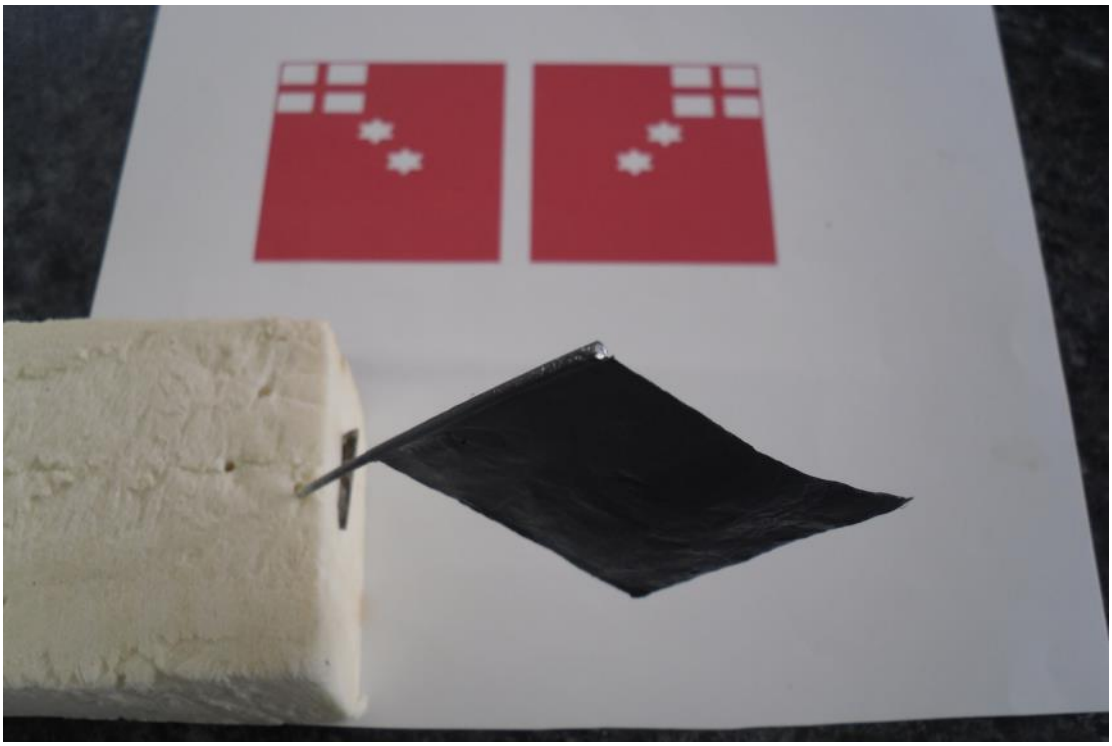
Using the same technique, to a greater or lesser degree, a number of different poses were chosen for the diorama, some shown below.


For the diorama to work, the impression of multiple ranks of men had to be created. To allow the figures to be viewed at their best and keep the figures needed to a minimum, the ranks were set at an angle to the edge of the base. Figures of similar poses were used in the same rank. To add to the variety, a Musketeer from the range was converted to a drummer while a harquebusier and Ensign waving the flag came from other manufacturers.

A close up of one of the pike man painted in acrylics. The figure wears the red tunic adopted by Parliamentary forces while the armour is painted black to prevent rusting. Shirts were predominately white while breeches stockings and hose tended to be whatever the individual could get hold of.

Officers wore clothes of their own choice and could be quite flamboyant. Drummers and other musicians were dressed by the Colonel usually in colourful uniforms.

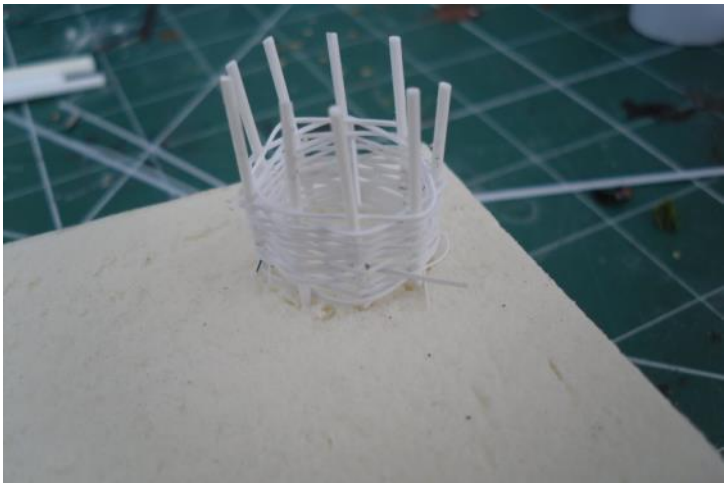
The flag was made from double thickness kitchen foil attached to a section of plastic rod. This was then covered with a printed decal pair designed on the computer. The flag was then weathered to show stains from musket smoke and dirt.



To add interest, a raised base was used with the groundwork set at different levels. The base was cut from a block of wall insulation foam cut with a bread knife.

A number of gabions (protective wicker baskets filled with rocks/earth) were to be added to enhance the scenery. The first gabion was a commercial item buried into the groundwork made from a coating of plaster painted with a tester pot of emulsion paint.

Two gabions were constructed by folding plastic/wire laths around a framework of rods then filled with Milliput. A barrel from Historex was also added as part of the scenery.



Dried earth passed through a sieve was scattered over the base and attached with PVA glue.

A diluted wash of matt black followed by dry brushing with buff was added to the base to emphasise the texture of the groundwork. The groundwork was dry brushed with a lighter shade by adding 25% white to the buff.

All of the elements were brought together but looked bare. The next stage was to add some vegetation to the lower portion of the base.

The base was veneered with basswood and painted. The title label was then attached.

The gabions were undercoated with matt black then repeatedly dry brushed with lightened shades of browns then tan.

With the figures completed, the model was photographed from a variety of angles and distances.

An Oasis in Battle, 1915

Introduction

The diorama was built intended to represent a moment in the early period of World War One. At a time when a sense of chivalry still existed, the parole of an enemy combatant would be accepted. In this spirit, it was not unusual to find captured unsupervised medical staff being allowed the freedom to carry out their duties treating wounded soldiers of all nations. Churches were considered sanctuaries and seen as a place of safety. For soldier and civilian alike, the church was an oasis where a brief period of rest could be taken. I have tried to incorporate all of these elements into the spirit of the diorama.

Overview of the church

The diorama contains, within the church, a paroled German surgeon and stretcher bearers about to take a rest period while an old lady tends to a wounded soldier. In the altar, a group of French soldiers are using the table to enjoy a much needed meal and drink. Content that their parolees will not try to escape, they are happy to let the medical team to carry out their work. Outside, two civilians stand in conversation. The accompanying photographs illustrate details of the diorama.

Originally intended as a backdrop to a Second World War scene, the church's use changed on seeing a poignant WW 1 photograph of wounded soldiers being treated in a damaged church. Elements in the photograph so closely resembled the model under construction that the diorama was born.

Construction

The main structure of the church seen above is scratch built and carved from solid sheets of plaster of Paris with wooden structures built of balsa wood and matchsticks. Construction followed the processes set out below:

- Flat walls were cast as flat sheets in a baking tray, cut to size and engraved detail added.
- Domes were created by filling the gap between two baking bowls (fitted with spacers) with plaster. The bowls were coated with WD 40 as a releasing agent and when separated the casting cut in half two provide the two half domes required.
- The curved walls under the domes were made using a similar technique but with two flower pots used as the mould.
- Arches and gravestones were carved from sheet plaster. The design of each gravestone was varied to add interest.
- Leaded light windows were made from plasterboard webbing tape, coated with PVA glue which filled the gaps. When dry, individual “panels of glass” were pushed out with a cocktail stick, leaving empty sections in the leaded light windows.
- The chandeliers were made from staples glued to air gun pellets and hung from chains.
- Rubble came from off cuts from the carving along with individual bricks cast in moulds.

Details of the gravestones and broken leaded windows.

Figures

The figures were drawn from a variety of sources. The French infantry are Heller figures, the stretcher party are Tamiya cooks with replacement Zveda arms and the stretcher is also from Zveda. The old woman is a Verlinden figure while her charge is a composite figure. The Surgeon is a Russian figure modified to represent a German equivalent. The two civilian men are from Sovereign 2000 and MK35.

The focal point of the diorama

The old lady and shell shocked soldier

The surgeon at the operating table

The stretcher party in close up

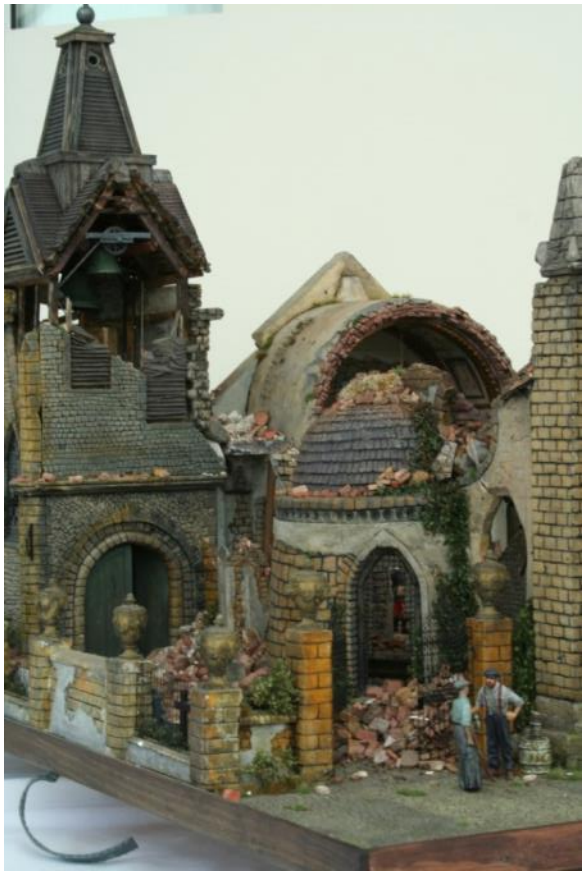
Accessories

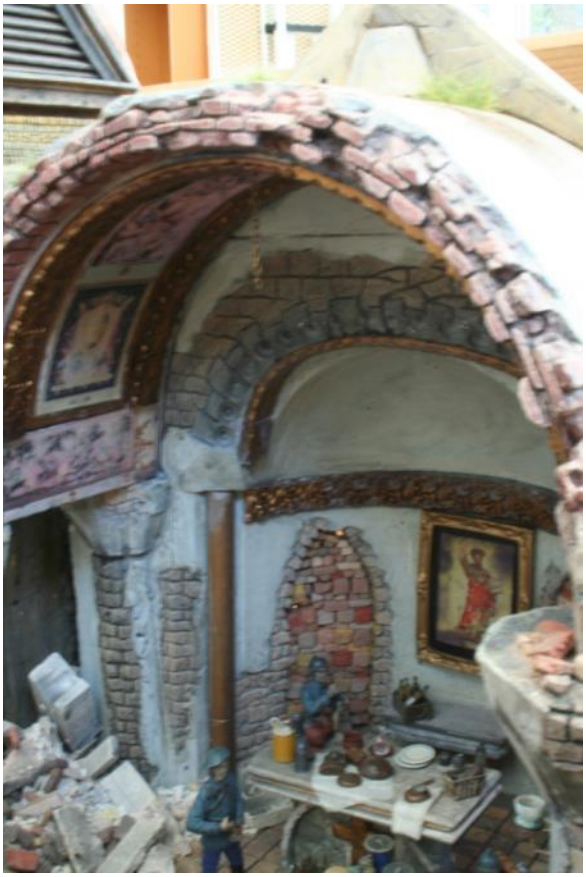
To detail the church the following accessories were used:

- Statues were figures taken from “Lord of the Rings” and souvenir religious figures from key rings.
- Pictures were Maltese stamps built into matchstick frames.
- Resin bed roles, bottles, crates of food etc. were taken from the spares box and sourced from different manufacturers.
- Painted ceilings employed photocopies cut and pasted on with white glue.
- Bells were robbed from the Christmas decorations.
- The central round, pierced window at the front of the church was formed from a pair of earrings.

The stretcher party seen through the front doors

Note the use of vegetation to add "age" and interest to the stonework





Detail of the bell tower and dome

Outer walls of the church

The old woman, wounded soldier and stretcher party

The makeshift meal in the alter

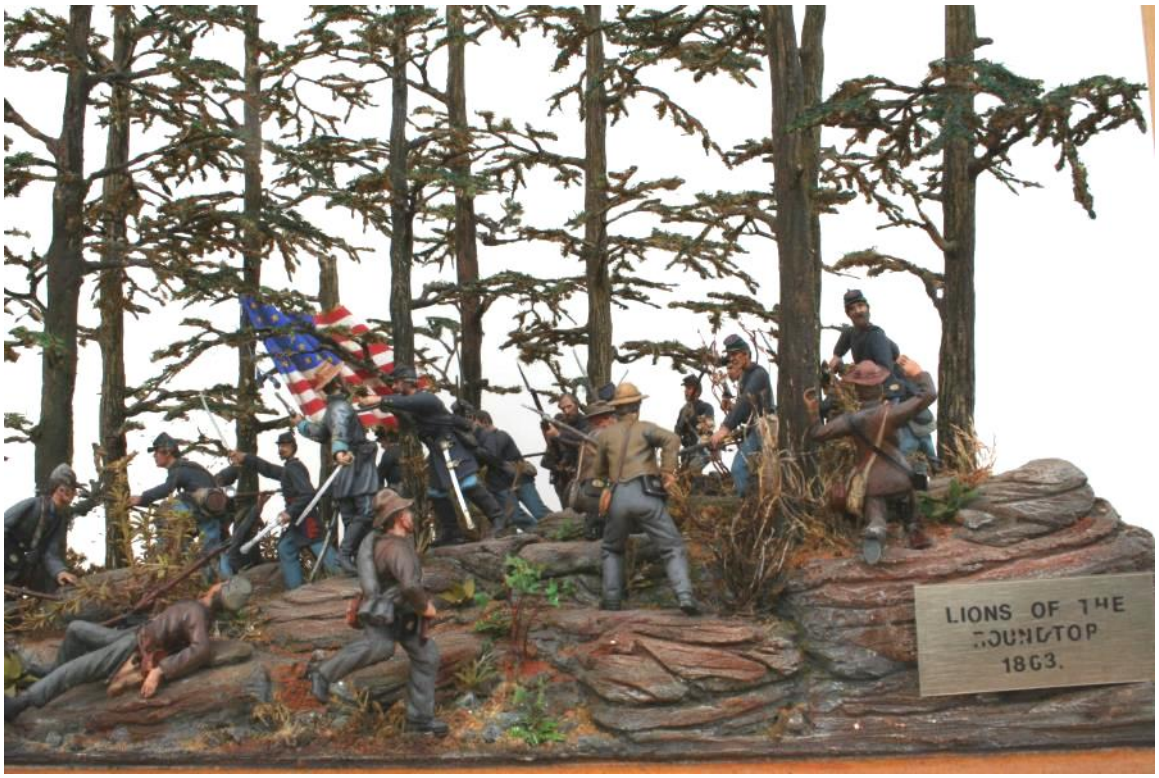
Lions of the Round Top

A Firm Favourite

Every now and then a model catches your imagination and you never tire of seeing it. One such diorama is “The Lions of the Round Top”. Closely copying a painting by Don Troiani, an American Historical Painter, the diorama represents an incident during the battle of Gettysburg in the American Civil War.

Using 40 figures (stock, converted and built from dollies) were used to creat a 3-D version of the painting re-creating the poses and actions of the figures in the painting. In addition, the groundwork gave a sense of the heavily wooded hill on which the engagement took place and leaves you with the feeling of being a bystander at the time.

The groundwork and figures when put together give the sense of the closeness and desperation of the engagement between the Unionist 20th Maine led by Colonel Joshua Chamberlain and the Confederate "Alabamans". The article will cover how Barry executed the groundwork and trees.



A Bit of History

On the extreme left of the Union line, the 20th Maine held the key position of a small hill known as Little Round Top at Gettysburg. If turned the battle was lost, and the orders were to "Hold the position at all costs". After fierce fighting and out of ammunition, Chamberlain ordered a bayonet charge and led his men to drive the assaulting Confederate forces from the hill. This is the action represented in the painting and diorama.

Starting from the Ground Up

The diorama base is only 35cm by 25cm but contains 40 figures and 9 conifer trees measuring up to 30cm in height. In constructing the model it was important to be able to represent an outcrop of the hill sloping downwards while providing a firm base into which the trees and figures could be anchored, often difficult with raised surfaces.

Suitable bits of a Cellite block (Breeze block) used in the construction of internal walls were used to provide the basic shape. Once chosen the shapes were refined by cutting the blocks with an old serrated edge bread knife along with a large rough file. Having arrived at the desired shape, a coating of Tetrion plaster mixed with PVA glue to decrease chipping and flaking was applied. In shaping the rock, the bread knife was used to cut striations as can be seen in the photograph below giving a realistic look to the groundwork.

Above Ground

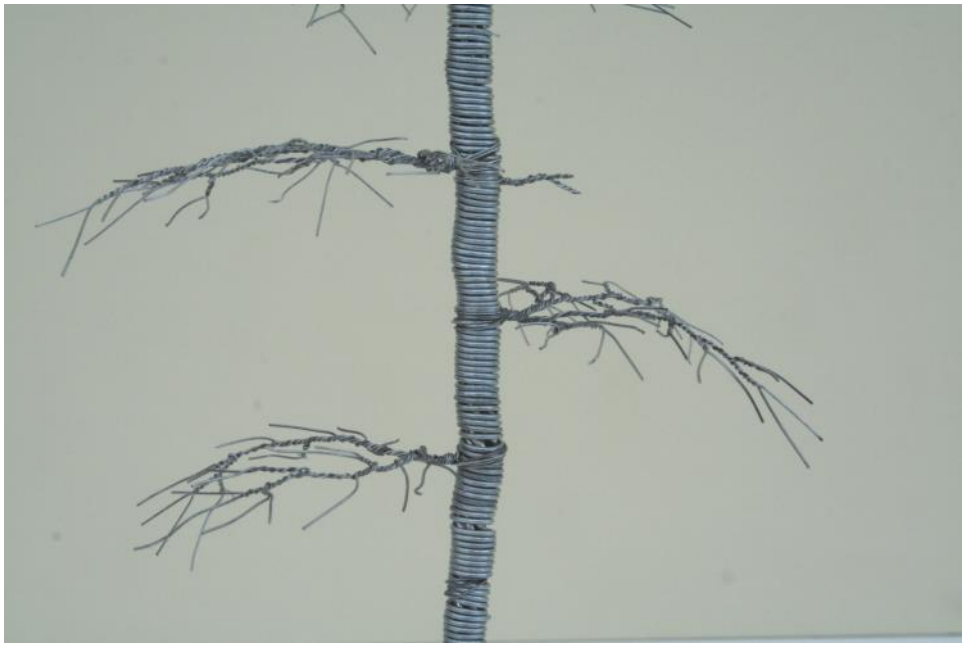
Another key feature of the diorama is the trees used to represent the heavily wooded hill through which the charge had to take place. Nine trees were used in the diorama and at 35cm high give an excellent impression of a heavily wooded area.

Construction of the trees was based around a wire framework, which was then coated with a Tetrion/PVA glue mix to represent the bark and leaves applied once painted. Strands of old electrical wire were used to provide the trunk of the tree. The length of the wire used needed to be varied in order that the trunk would taper towards the top. The aim was to end with only one or two strands at the tip of the tree.The wire bundle needs to be twisted to provide rigidity in the trunk. The tighter the bundle is twisted the more rigid the trunk will become.

As the bundle twists the height of the tree reduces. If a tree of specific height is required then additional length of wire must be allowed for when assembling the wire bundle. A number of strands were left longer at the base of the bundle of wire in order that they could be looped back upon themselves. These are used to form the root system and a base for the tree allowing it to stand.

Ideally three loops are used for the root system and are twisted part way along their length. The loops can then be cut and separated into individual roots as seen above. This then provides a base on which the tree will stand.

The trunk is then wound round with wire as shown below and branches added from finer gauge wire such as florist wire. These are formed in the same way as described for the root system from twisting loops together, cutting and subdividing and repeating until ending up with individual branches.



Having produced the skeleton of the tree, the bark is added by coating the tree with a Tetrion/PVA glue mix. The more glue added will increase the flexibility of the coating but increase the drying time. The coating is applied roughly then when while still slightly damp, an old toothbrush (or similar tool) is run down the trunk and along the branches to add the bark texture. When satisfied with the appearance of the surface, the tree is set aside to fully dry.

The tree is painted with a dilute mix of burnt umber oil paint and white spirit (10:90 mix) and brushed on roughly to the bark. Initially the appearance will look incorrect but as the plaster soaks up the paint the bark will dry to a matt finish and less of a stark brown colour. If desired a small amount of grey oil paint can be added to the mix to vary the colour. If needed, a second application can be applied.

The needles of the tree are added from hesian rope dyed green using paint, the strands separated and then shredded. These are attached by coating the branches with diluted PVA glue and dipping and sprinkling the branches into the needle mix. This may need to be repeated but care must be taken to avoid overdoing the effect.

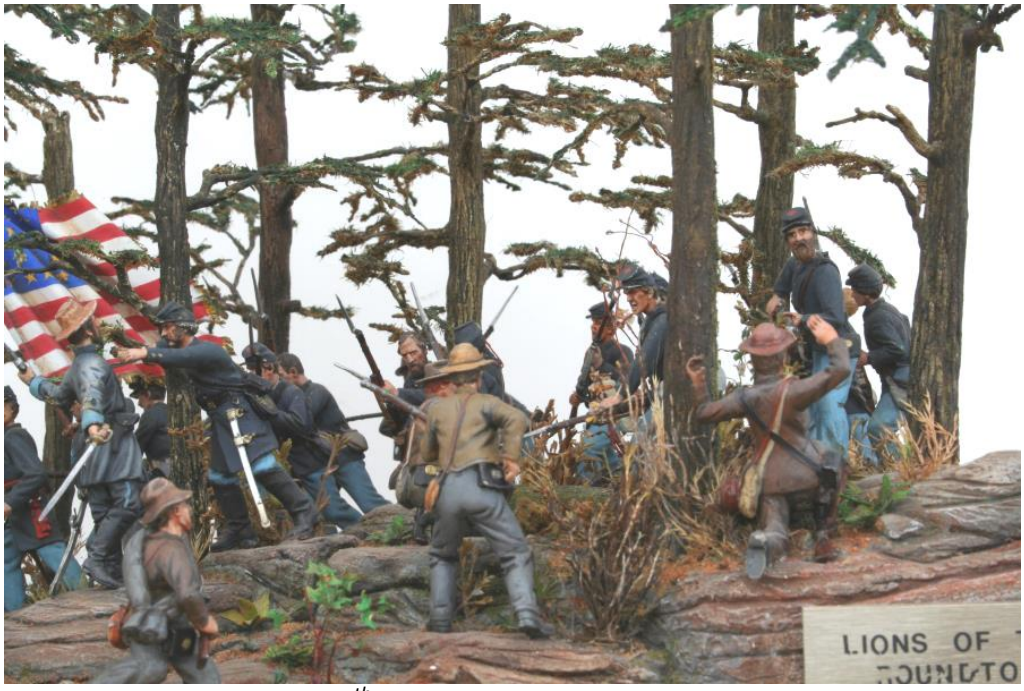
The trees can be attached to the base by drilling into the groundwork and using the roots system to pin the foot of the tree into the rocks. Additionally the root system can then be covered with additional Tetrion/PVA mix and blended into the groundwork. Fine earth is sprinkled onto the area whilst the mix is still wet to give a more realistic finish.

A variety of other materials were used to produce the bushes. These included dried grasses, heathers and ferns from florists along with some Scale Link ferns to help cover the slope and these blended in well with the trees. Small stones were also added to give the impression of small rocks and fine earth used to blend the whole together.

When dry the groundwork is painted with differing shades of browns and greys to represent earth shades and rock in a similar manner to the tree trunks with additional applications to get the required depth of colour.

The Figures

There are too many figures to describe in detail, other than to say that considerable work went into converting and modifying them to get the poses as close as possible to those in the painting. The figures are all based on models or parts from the extensive Civil War range of Shenendoah Miniatures based in Australia. The following photograhs show how effectively they have been used.



Left flank of the attack as the 20th Maine drive forward. Of the 40 figures used only 9 are stock items

The extent of the slope can be seen in this view of the right flank

The flag was made of draftsman's linen, washed to partially remove its starch. Once painted, the flag was reshaped with water then allowed to set when dry. All figures were painted in oils.

The rear of the charge can be seen including the foliage added from dried grasses and heathers. Seeds were used as fallen leaves.

Leading the charge, Chamberlain and a lieutenant go down the hill with the flag. Dried heathers can be seen in between the rocks to represent foliage

The Confederates defend the position but with little hope of stopping the charge

Desert Encounter

Introduction

The Crusader, which went into battle un-tested, had a chequered history due to poor mechanical reliability arising from sand ingestion in the harsh desert conditions where it served. Despite this, it fulfilled a key role filling the gap in tank numbers at a critical point in the desert war. Its usefulness ended with the arrival of the Lee/Grant and Sherman. The Crusader tank also represented a turning point in design that would lead on to the Cromwell and eventually the Comet, the first and only cruiser tank to get the correct balance of firepower, armour and mobility.

Filling the desperate need for tanks, without which the desert war could not have been fought, the Crusader was withdrawn from frontline service in mid-1943 before the invasion of Sicily. The arrival of the American designed Lee/Grant and Sherman tank with their high level of reliability, improved armour and firepower facilitated the withdrawal of the Crusader

Using the Italeri kit, Marl 1 it has a number of sink and ejector marks as can be expected from a kit of this age. These however are largely hidden on the finished model. Detail on the kit, while not matching the new cutting edge kits, is still of an good level with the exception of the rubber band tracks and gun barrel which are worth considering replacing. Internal detail is absent or where present it is naïve.

Building Commences

Easy improvements include replacing the pioneer tools as they show their age and using metal replacement guns to avoid the problem of seams along the length of the barrel. The kit is simple to assemble with well laid out instructions with the minimum of filler being required. When building the upper hull, the guards around the headlamps and the filling tube from the auxiliary fuel tank are delicate and easily broken. As the hull is handled

extensively whilst checking the turret fit these would be best left off until the turret has been mated to the hull.

The soft polythene tracks lack the detail of modern link and length or individual links but still give a reasonable representation of the real thing. These are joined using a hot screwdriver blade on the two short “pins” on one end that fit through two holes in the other end of the track to effectively rivet the ends of the tracks together. This process is clearly indicated in the instructions and the joint should be located below a wheel. The track can then super-glued to the top of the road wheels to ensure they rested on the road-wheels. To help keep the shape while the glue set, damp kitchen tissue was pushed between the hull and the track.

Alternatively Model Klasten or Accurate Armour tracks can be used. The Accurate Armour tracks carry a better level of detail and are the link and length type with a set consisting of a number of individual links and ten straight sections. Conveniently five strips can be formed to make a full track by bending to shape after dipping in hot water causing the track to become malleable. In the kit builds, some were finished with the rubber band track while on others the Accurate Armour tracks were used.

Building the hull starts with fitting the suspension arms to the hull having cleaned any flash or off-cuts left from cutting it away from the sprue. As the suspension arms are hidden cleaning need only be minimal. As the front suspension arms differ from the rest, care must be taken to select the correct ones when fitting in place.

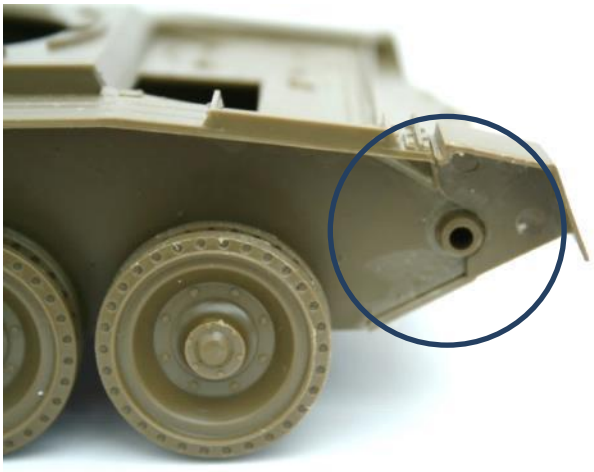
The suspension arms in position

The outer hull plating is attached to the suspension arms enclosing them.

The wheels, drive sprocket and idler wheel are the next stage of assembly. These are left off to be painted separately and added to the model in its final stages of assembly. Follow the instructions carefully and ensure the correct half of the wheel assembly faces outwards before attaching the hub. Test fit the upper hull, front and rear plates then secure in place to complete the basic hull shape.

The front track guard should run in line with the rest of the running board but on the kit it has an odd step. The track guard has a circular cut out designed to fit around the idler wheel location. To get a correct fit, the step on the track guard needs to be cut away and the cut out enlarged by gradually cutting away plastic at the top of the cut away until it aligns. This does not need to be too neat as once in place this is hidden by the idler wheel.

The corrected track guard is shown on the left. Its appearance can be improved by filing the edge of the track guard at a 45 degree angle to half its thickness at the outer edge. See below for the uncorrected fit followed by a photograph showing the correct fit.



Uncorrected track guard which steps up

Corrected track guard following a straight line with the profiled edge thinned with a file

After painting the wheels and other components, it is important that the track is fitted correctly. It is normal to see sufficient sag in the track that it sits on all of the five road wheels as this was necessary to allow the suspension to move freely without placing a strain on the track. As a minimum, the track should sit solidly on the second, third, and fourth wheels and only just be rising off the first and fifth wheels. An examination of the photographs and illustrations will demonstrate the variation in slack seen on tracks used with the Christie suspension.

After painting, to replicate the sag in the track when using the rubber band tracks supplied with the kit, place a drop of super glue on the top edge of the inner tyre and pack between the track guard and wheels with tissue until the track is held down with the desired degree of sag then allow the glue to set.

With resin track (Accurate Armour), soften the track in hot water and form the track around the drive sprocket and idler wheels whist dry fitting the straights sections to make joints without cutting the track. This process can be repeated until the desired fit is obtained (see next page).

Shaping and test fitting the Accurate Armour resin tracks

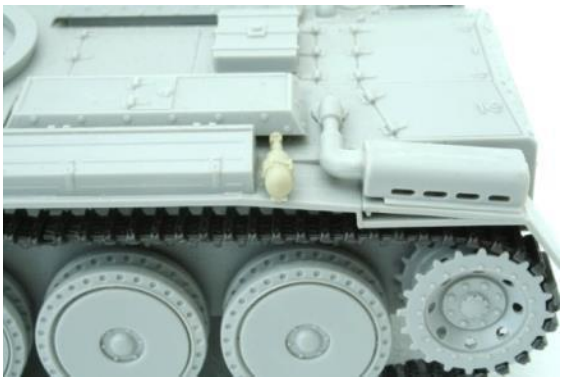
Dry fit of the tracks ensuring as many joints as possible are supported by a wheel

Building the Crusader Mark I Gun Tank

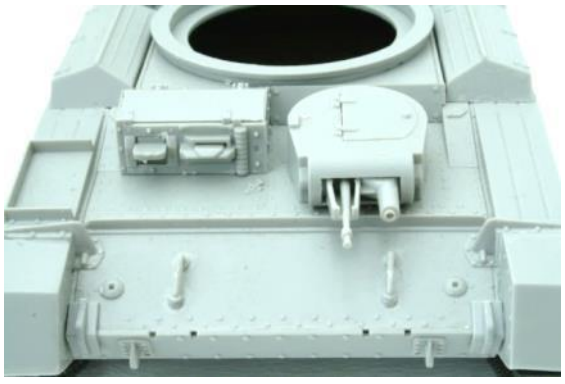
The beginning of the build largely followed the construction of the hull as described in the previous chapter. A number of differences in the build needed take account of the unique features seen on the Mark I version. These are illustrated in the photographs below and include:

- Covers for the road wheels
- Concertina air filters
- Jacking block between air intakes
- Additional machine gun turret
- Grab handles on the glacis plate
- Removal of attachment detail around towing hook

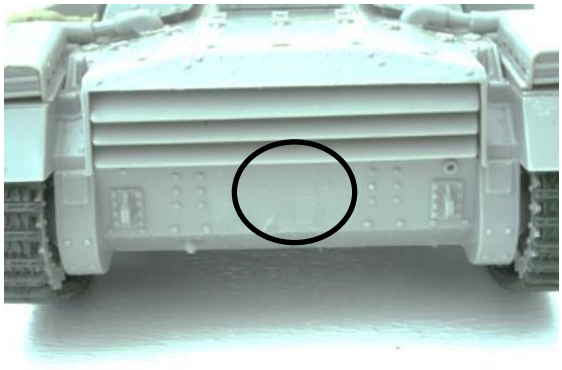
The headlight arrangement on the tank also differs but due to the vulnerability whilst handling were left off until the end of the build. Below can be seen the auxiliary machine gun turret on the nearside of the vehicle and the road wheel covers used on the Mark I tank only. The concertina air filter is noticeably different from the later oil filled filters used on the Marks II and III.

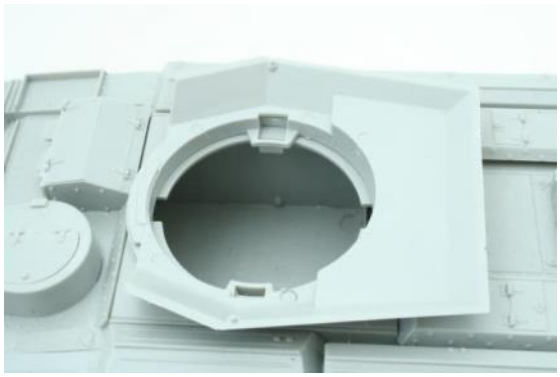


The Besa machine gun in the auxiliary turret had a reasonable level of allowing the turret to be built as per instructions. The kit provides a pair of grab handles as fitted and the early version of the headlamps not fitted until later. These represent differentiating points between the Mark I and II (some of which were still being fitted with the auxiliary turret).

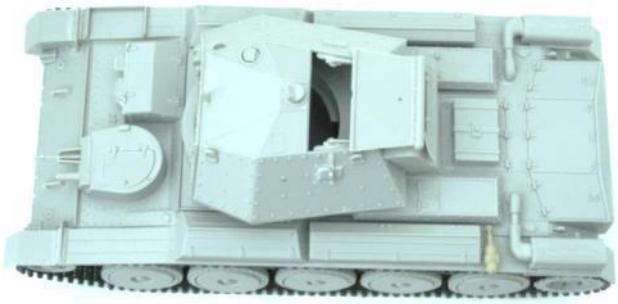


The rear hull plate carries the detail for the towing bracket on the Mark III and required removal, circled below. At this point of the build all other fine detail was left off the hull for ease of handling. All of the running gear was loose for ease of painting being held in place by the kit tracks due to be replaced later.





While the outer faces of the kit were largely free from sink holes or ejector marks, the latter were present on the inner faces of the turret. If closed up there are no issues. The model was to be built with the turret roof in the open position. By showing this key feature of the tank, consideration had to be given as to how much internal detail would be on view.



The layout had one of the crew seated in the turret. With the figure in place sufficient of the interior was visible that a rudimentary interior would be required, particularly in the turret bustle.

The key items that would be visible with the model complete would be the number 11 radio and signal satchels in the bustle and the commander and gunner's seat in the turret basket.

Having filled the ejector marks, two "Airfix" satchels were added from the spares box along with a radio from "Inside the Armour". The turret basket from a Crusader AA Mark II was taken from the spares box and two seats added using cut down sand bags for the cushions. A number of Besa ammunition boxes were built and added in places where they may be visible. Otherwise all other detail was ommitted on the basis of not being seen.

One key area that needed correction was the main gun barrel. It had to be replaced being oversized and closer in diameter and length to that of the 6 pounder gun. A very rudimentary breach block was present in the kit but was not used as it would not be visible.

The decision was therefore taken to replace the gun barrel with a replacement from Passion Models. The early (P35-042) and late (P35-043) versions are available with the early version used on the Mark I tank and the late version used on the Mark II version. The early version can be distinguished by a tapered central section with a slightly flared muzzle while the late version is stepped at both of these locations. In the case of the turret Besa machine gun, the detail is indistinct and was also replaced with a metal equivalent.

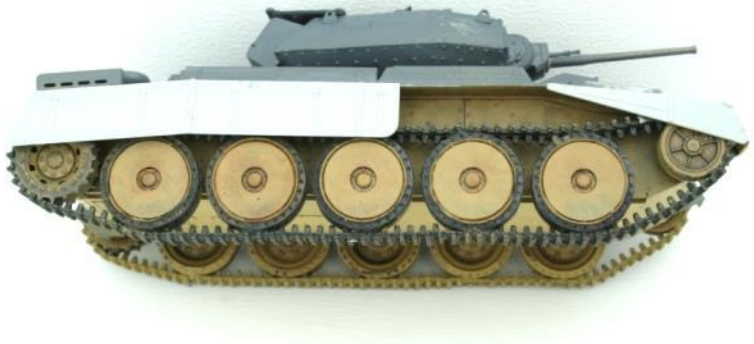
Because the kit barrel was oversized a shim of plastic had to be added to the gun mantle being just visible below as a white ring. The recessed “ring” on the right of the gun mantlet needed a small hole drilled in the middle for the gunner’s optics – see later.

With the interior in place, the inside of the turret was painted white although aluminium was specified but not always used. On completion very little of the turret basket was visible but sufficient of the radio could be seen to make the exercise worthwhile.

Having been given a coat of grey primer, work began on painting the running gear and lower hull. This needs to be completed before the addition of the track shields. A coat of Tamyia Dark Yellow acrylic paint was applied followed by Citadel Miniatures Deluvian Mud wash and weathered with ground yellow ochre pastel chalk to bring it all together. The wheels were painted in the same colours but as the wash had left too intense a contrast they were dry brushed with the Dark Yellow to balance the look.

The tyres were painted with Tamiya Rubber Black acrylic paint and the track with Dark Iron. When buffed the process leaves the tracks with a realistic metal sheen. Weathering of the tracks was left until the whole model could be done to ensure a uniformity of effects.

The photograph below shows the track shields in place. The extent to which access to the lower hull and running gear is obscured can be seen. At this stage the shields were tacked in place and the running gear and track was lose as painting the tyres was incomplete and some chipping of paint had to be added.



The colour scheme chosen for the tank was the Caunter three tone camouflage scheme. An IPMS article written by Mike Starmer provided the detail which is incomplete in the Italeri instruction sheet. The paints used were Xtra Color Light Stone, Slate and Silver Grey. The running gear was masked off and two thin layers of light stone applied.

Having masked off the protected area, the model was readied for the application of the second colour, silver grey. The masking exercise was repeated before the final application of slate. Some bleed through of colour was corrected by hand painting areas where the paint had run.

The decals were applied using Humbrol Decal Cote 1(set) and Decal Cote 2 (sol) and consisted of the tank registration number and divisional number only.

The vehicle was given two coats of a glaze using German Grey to soften the distinction between the colour contrasts followed by a pin wash around detailed parts such as rivets. The vehicle was then ready for weathering.

Note that the front sand shields had to be reshaped to match the corrected contour. The rivets on the front edges were lost in the process. Absorbent beads from a water filter cartridge were used to provide replacements.

The completed scene shows the tank crew speaking to an Arab sympathiser. The crew have halted the process of re-arming the 2-pounder ammunition.

Various views of the scene

The Arab is well mounted and carries an acquired Berretta sub-machine gun for personal protection.

The crew display the variety and informality of uniforms seen in the desert.

The weathering effects were kept reasonably light in order to ensure the Caunter paint scheme remained visible

France Falls, 1940 – Learning from your mistakes

The Mistakes
The following diorama is an example where failing to follow the guidelines resulted in the message to be conveyed being lost. The two areas where it went wrong were: being too big and too much space being left between elements of the diorama. It was later broken up and some of its elements used in a vignette that proved to get the message over more clearly.

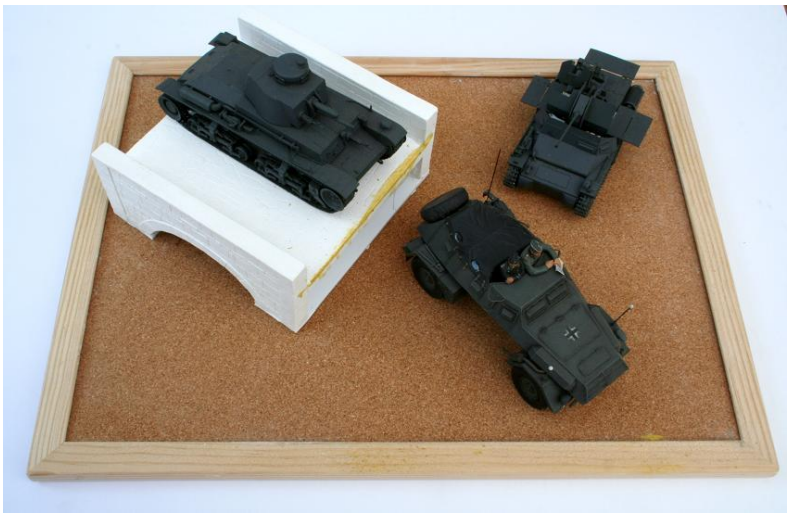
Blitzkrieg
The German victory in the Lowlands and France during 1940 stands out as one of the significant campaigns in military history in that it demonstrated the true potential of the tank as an offensive weapon. The combination of the Blitzkrieg tactic of lighting armoured thrusts behind the enemy and close air support, led to the collapse of the armies of Holland, Netherlands, France and the United Kingdom within 42 days.

The Diorama
The diorama was built as a test piece in learning new skills by creating raised structures, including a bridge and representing water. In doing so, too much focus was put on the techniques and not enough on the intended story.

The diorama was built to give some sense of:

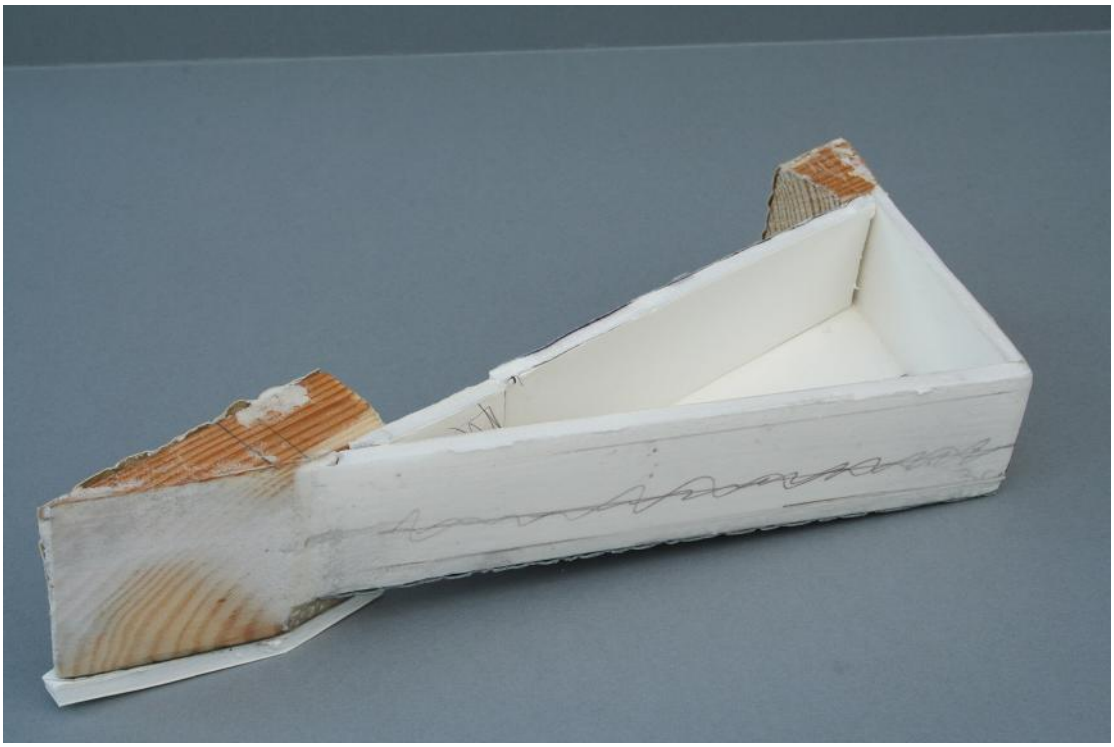
- The importance to the German strategy of speed ensuring the fast moving armoured columns could disrupt supply and reinforcement of the Allied forces.
- The differences in morale and attitude between the Germans and the French especially at command level.
- A contrast of the tactics and equipment used.

The German success was dependent on mobility with river and canal crossings being key objectives therefore the diorama was built around the capture of a bridge. The bridge is a Royal Models accessory, kit 347. A basic layout was set out on the base then ignored!

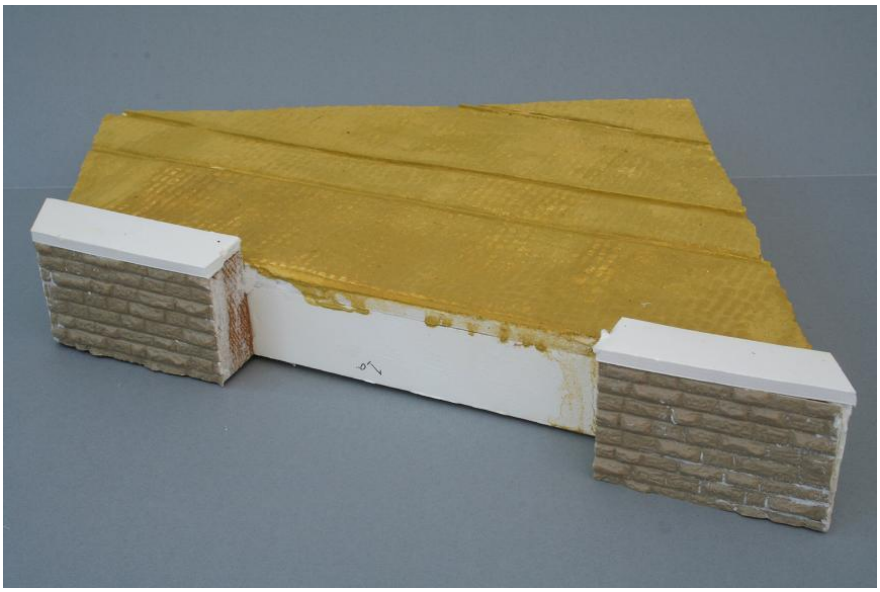


With the two German vehicles built and using a third vehicle similar in size to represent the Hotchkiss tank to be used, a number of different layouts were tried, finalised above.

Having selected the layout, it was possible to go onto building up the rest of the base structure. The canal sides and roadways had to be built to match the height of the bridge. Instead a different configuration was constructed.



The structure for supporting the roadway was made of foam board available from any good art shop. Consisting of a foam layer coated on both sides with plastic it is strong while easy to cut with a Stanley knife. A sheet of paper was cut to fit the base and the bridge placed in the desired location and marked on the sheet. The paper was then cut to provide templates for the roadways either side of the canal. Strips of foam board were then cut to match the height of the bridge and provide the supporting sides for the roadway. Using PVA glue the sides were glued into place to form a simple triangular shaped box.



The roadway for the opposite bank of the canal is another simple shape, this time using a plaster cast section of road. Using the same techniques, the road was built up to the height of the bridge supported on a foam board box. The canal walls were built from scrap wood faced with embossed plastic card available through Squires mail order catalogue. Strips of foam board were added to the canal walls to represent copingstones.

A thin sheet of plastic was placed under the structures to give a smooth surface for forming the surface of the canal water. Despite appearing complex, the structures are simple boxes relying only on good measurements aided by the use of paper templates to provide a finished article that fits together snugly.

Each of the road sections and bridge were painted separately using a base colour of dark grey followed by mixtures of dark earth, earth, sand and stone colours sprayed in thin layers working from darker lighter shades. To represent the water, the plastic card was painted in a cloud pattern using a variety of mixes of medium to dark greens before re-assembling the roadways and bridge and gluing them in place.

The surface of the water was created by pouring a tin of well-mixed gloss varnish onto the card. It is important that the varnish be allowed to stand to release as much air bubbles as possible before being poured. Once set, additional layers of varnish were built up to form a gentle wave effect on the surface.

The model was “tidied up” by facing the edges with black card cut to fit and glued on with PVA glue.

The Pz35t tank and marching infantry are unnecessary adding a second focal point, increased size and too much distance from the key figures in the centre of the diorama.

Figures and vehicles

The figures used were chosen to reflect the confidence of the Germans and the bewilderment of the French while the vehicles were to be typical of the period. The main characters in the diorama are the two Frenchmen in the process of surrendering. Of the other figures in the diorama, the Panzer officer and Military Policeman were selected for their casual and confident poses and positioned to look on in curiosity as the French give up. The Military Policeman was also included to represent the importance placed by the Germans in ensuring a good flow of traffic as the advance progressed.

The French soldiers surrendering form the focal point of the diorama. Had the diorama been limited to this view, it would have been successful.

The tanker is from the Dragon set *Blitzkrieg in France* while the seated French infantryman is Warriors figure (35172). Both were chosen for their look of dejection while the pose of the Dragon figure, full of confidence and authority, fitted the scene well.

A close up of the French tank Officer gives a good view of his uniform.

The *Sovereign 2000* German command vehicle (SdKfz 247) was included as it represented a typical command vehicle. The commander holding the map comes with the kit while the Panzer officer is a *Wolf* figure cut down to fit the vehicle.

Intended to convey the importance of capturing the bridge as part of the storyline, the idea is too nebulous to convey in the way it is represented above and merely acts to distract.

The Hotchkiss 40 was typical of French design. Manned by a crew of two, driver and commander, the commander had also to act as gunner and loader overburdening him. This significantly reduced the effectiveness of the fighting vehicle. The model was made from the *Bronco* kit having gone together well.

The abandoned Hotchkiss light tank looks isolated and forlorn as it is bypassed as so many were during the campaign.

The completed vignette retains the key focal point of the diorama with a clear storyline.

“This Way”

A more successful build but still having the potential to be distilled to improve the storyline is a diorama showing vehicles of the Guards Armoured Division moving towards the front in Operation Goodwood (the battle around Caen) during the Normandy invasion.

Fighting during this battle was both fierce and exhausting. The plan of attack went wrong at an early stage. The various Armoured Divisions needed for the attack arrived in the wrong positions. A scramble to rectify the situation then followed with large-scale tank movements being pushed towards the front. From this, the diorama gained its title “This Way”.

Elements of the Diorama

The diorama has a number of elements associated with it including to convey an image of the vehicles being pushed towards the front. To give a sense that the fighting was nearby the posture of the figures was carefully chosen.

To convey the movement of a column of vehicles, at least two vehicles needed to be placed into the diorama. Ideally three should be used. A file of infantry was added as the battle involved both tanks and infantry. The Military Policeman giving directions was added to give the key point of focus. Other elements within the diorama were the use of figures or equipment to help fill space and the use of scenic elements as a backdrop for the diorama.

The models used were a Verlinden conversion of the Tamyia Sherman to a Firefly 1C, ADV's Staghound armoured car and the Sovereign 2000 Daimler armoured car.

To make the diorama easy to view, the base was kept as small as possible. To give the sense of a column moving forward, the vehicles had to be going in the same direction. Of the options, two vehicles in file with one running parallel gave the smallest layout for the base.

Placing the vehicles on a diagonal path maximised the road surface for the vehicles while limiting the size of the base. It also avoided the models being placed parallel to the edges of the base and presented a better overall view of the models. The three Wolf and Hornet figures on the right of the diorama were used to represent a platoon of infantry moving forward. The figure on the right, head hung low with an expression of tiredness was added to increase the sense of exhaustion felt.

Fillers

Two figures (from Wolf and Cromwell) were added as a crew for The Daimler to balance the infantry and to give the vehicle a reason of being off the road. When viewed, a dead space arose just in front of the Military Policeman. This was filled with the Officer (Verlinden) and a wooden box. The box was used in preference to a figure to avoid distracting the eye away from the central figure.

Groundwork and the backdrop were kept simple to avoid distracting the viewer from the models set on a dirt road with verge and a substantial wall with railings to set the scene.

While the diorama was more successful than the previous effort, it was re-built as a vignette and still conveyed the same story. An important element in the vignette was the road sign that sets the action in its historical location.

Converting the Sherman Tank

Introduced in the first half of the war, the Sherman tank would undergo a continuous program of improvements to keep pace in the developments in protection and firepower of German tanks. By the Invasion of France in 1944 Sherman tankers were encountering superior German tanks and antitank guns.

With the expectation of the delivery a new and more suitable tank, The Pershing, plans for improving the armour of the Sherman tank were limited by the risk of disrupting supply while upgrading the tank production lines.

The need for an assault version of the Sherman to deal with strongpoint defences resulted in a limited number of Sherman tanks being up-armoured. These were the M4A3E2 version now referred to as the Jumbo. The upgrade specification included welding additional plates to the side and front plates doubling the thickness of armour. The transmission cover was redesigned and increased in thickness to 100mm with a more rounded profile. A new turret and gun mantlet was designed to provide the same level of protection.

With no high level organisational plans in place, local units chose a number of initiatives to supplement its armour. This included sandbags; logs; cementing over the hull and welding on additional steel plates and spare track links. While all offered some degree of protection against infantry antitank weapons they provided only limited protection against antitank shot. For the tankers, even a small gain was of value. Within the chapter, a number of conversions demonstrating the types of modifications made will be set out in the form of vignettes and dioramas.

Being readily available, it was a common practice to weld spare track links to vulnerable locations on the hull and or supplement this with the addition of sandbags. The following two models set in the dioramas “Sniper” and “Thank You” explains how this was replicated.

“Sniper”

For those wanting a simple build, Verlinden provides a conversions set with a sandbag set that can be used to protect the tanks glacis plate. Using the Tamyia M4A3 as the base model, spare track links were also added as armour on the kit.

The kit provides a large number of elements but only the sandbag section for the glacis plate was used. To allow this to be fitted, all of the fittings on the glacis plate of the model had to be removed to give a smooth surface to fit the sandbag section. This was done with a sharp craft knife.

In addition to the sandbag armour, the spares box was raided for extra track links. These were welded to the hull and turret on the real vehicle to add additional thickness to the armour and by leaving a gap between the track and hull a stand-off protection from HEAT projectiles fired from Panzefuast and similar weapons.

In both cases the items were painted sparately then added to the model. Superglue was used to attach them.

The sandbag section has additional elements including a roadwheel, tracklinks, ammunition boxes and crew stowage. When painted the section came to life.

Ground pastle chalks combined with washes were used to add to the dusty appearance of the vehicle and used to weather the add-on armour tracks.

The base was kept to a simple road section with a lamppost added to give the scene some height. The support infantry and tank commander were taken from the Tamiya infantry assault set and the Sherman kit respectively with Hornet heads added. The scene was set with the team taking what cover they could while trying to spot the sniper. The tank commander has the 75mm gun raised searching for a target while the infantry officer raises a hand in warning to following vehicles.

A close-up of the support infantry using the turret for cover

A rear view of the tank showing the weathered surfaces

Head-on shot

Using a commercial set provided a fast and easy method of replicating the additional protection provided by sandbags widely used throughout the latter stages of the war. Combined with the additional tracks, the look of the model was transformed. With the first build complete, the second build was started.

The first model showed the use of a commercial product but creating your own set of sand bags is a relatively simple process. The extent of sandbag protection on this model was more extensive covering the whole of the hull. The sandbags were applied to the glacis plate in a similar fashion to the Verlinden set while those protecting the side armour of the sponsons needed a frame to be built.

An “H” beam was used as the base of the frame to which plastic strip and rod cut to follow the contours of the hull was attached. Heat from a low flame was used to soften the ends of the horizontal rods allowing them to be bent round to touch the hull. At each stage the frame was test fitted to ensure there was enough space to add sand bags.

With the frames complete, sand bags made from Milliputt were used to fill them. A string of the modelling putty was rolled out to the diameter of a pencil then cut into lengths of 15mm to represent a bag. A section of fine plastic mesh was pushed down onto the bag to flatten it and to leave a texture on the bag. A blade was pushed into the sides of the bag to leave a line representing a seam. Finally a small ball of putty was placed at the neck of the bag and opened up by pushing a pencil point into it to form the tied end of the bag.

The putty rolled and cut to length

The bags flattened to shape

The neck and seam added

The bags textured and stacked together

The finished items placed on the model

While still soft, the sandbags were pressed into the frame to conform to its shape. When full, the assembly was pressed against the side of the tank then allowed to harden. When set, it was glued to the tank with super glue. A further layer of bags were used to cover the edge overlapping onto the upper hull.

The model used the Academy 50 calibre machine gun which offers both value and detail.

The sandbags on the glacis plate is supported by a wooden beam made from balsa wood

“Thank You”

The title was intended to carry a double meaning. The obvious meaning is the Tanker acknowledging the gift of spirits from the infantry Sergeant while other sentiment is the Sergeant thanking the tankers for their critical supporting role during engagements. To avoid visual distractions, the groundwork was kept to a minimum to focus on the two figures. The photos hopefully speak for themselves.

RUSH HOUR

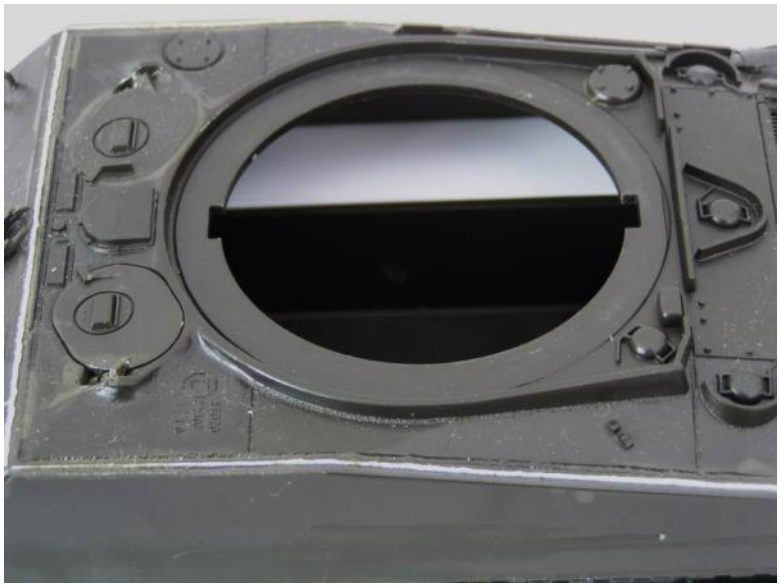
The Sherman "Jumbo"

As discussed, in order to provide a tank suitable for assaulting defensive emplacements, a new tank, the Pershing tank was due to be delivered prior to the invasion of Europe. Due to delays delivery of the tank failed to materialise. Out of necessity, it was decided that a limited number (103) of upgraded Sherman tanks were to be produced.

Tamiya were the first to release a kit of the Sherman M4A3E2 (Jumbo) and it was the only mainstream kit available for several decades. It suffered from fundamental dimensional problems associated with the shape and size of the turret, the distinctive feature of the tank. The dimensions of the turret were too small in height, width and length with its sides sloping at too great an angle.

With accurate representations of the tank now released from other manufacturers there would appear little to recommend the Tamiya kit. However many modellers still have the Tamiya kit sitting in their stack. It is worth looking at the kit again. Using a little work with Milliputt or suitable filler, the worst of the faults can be corrected. The sides of the turrets can be remodelled to correct the length, width and angle of the sides. The height is more difficult to correct.

Before starting on the turret there were a number of other corrections to be made. The first is to fill in the gaps in the sponson floor with plastic card. This is essential if adding crew figures to avoid seeing through the sponson floor. Weld seams on the model are recessed while on the actual vehicle they stood proud. This was simulated by adding a bead of stretched sprue and texturing it with plastic glue and a scalpel point.



The turret needs to be reshaped by building out the sides with modelling putty. The turret has a weld seam where the side armour begins. This needs to be removed and relocated at the edge of the turret. The corrected armour can then be built up and reshaped so that the walls are closer to being vertical as shown. A weld seam needs to be added at the lower joint of the turret.

Note the reshaped sides and mould numbers added from a Slater's number set.

While the turret height remains unaltered, the turret shape is significantly improved.

The kit tracks were replaced with a set if individual links from a Dragon set. The transmission cover was remodelled to reflect the additional thickness and rounded profile. A weld bead was added to the side plate along with attachment strips for dust shields.

Setting the scene

The diorama is titled “Rush Hour” based on the ironic view of the tank held up while waiting to pass a flock of sheep and goats. The dry stone walls came from Games Workshop being used directly with no more than dry brushing with a light grey paint to bring out the highlights in the walls. A fir tree was added to balance the bulk of the tank when in place.

The “flock” are from a mixture of Britain’s Farm Set along with some from a cheap box of toys purchased for £3 and can be seen below prior to painting.

The overall scene is shown below at eye level. The flock is largely hidden by the wall.

The shepherd can be seen directing the flock while the tank crew waits patiently. Note that because of the additional armour being too thick headlights are absent.

The shepherd is a Verlinden figure while the tank crew are a mixture including Dragon figures. The 50 calibre machine gun was replaced with an item from Academy.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On the Prowl

American Tank Commanders were soon calling for more Jumbo Shermans to be produced. Requests poured in but were refused as they would further delay the Pershing and interrupt the essential supply of Sherman tanks required to replace losses.

As a result tankers, using their own initiative, took to adding any form of additional protection to supplement its armour. This included sandbags; logs; cementing over the hull and welding on additional steel plates and spare track links. While all offered some degree of protection in dispersing the shaped charge and stopping/reducing penetration of the hull, only the addition of extra armour was effective in reducing the impact of antitank shot.

Viewing the alternatives as ineffective (with the additional weight increasing fuel consumption and damage to running gear and suspension) General George Patton ordered that for the American 3rd Army that 76mm Sherman tanks (M4A3(76)W and M4A3(76)W HVSS) *"not already equipped with heavy armoured plate similar to that on the M4A3E2 were to be carried out with the least practicable delay".*

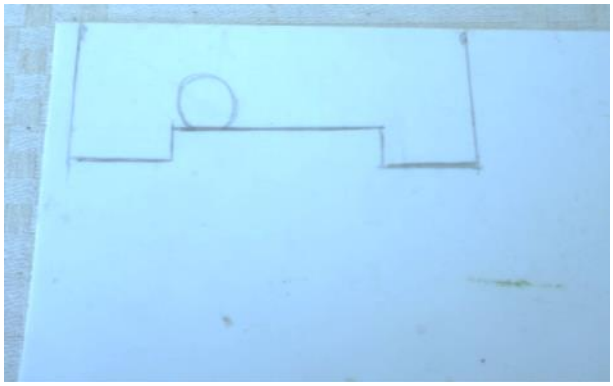
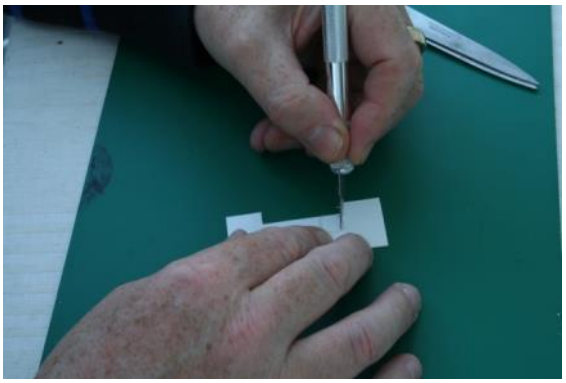
Scrap armour from German and Sherman wrecks was taken and fitted to produce what is now commonly known as the "Expedient Sherman". Using local civilian firms, a general pattern was followed but depending on what was available, the armour fitted was individual to each tank.

"Expedient" Sherman - M4A3(76) HVSS

The Kit

The kit below was used in the diorama with replacement Accurate Armour tracks (required to back date the vehicle to WW2). The additional armour needed was cut from plastic card with bolt heads being added from a Verlinden set as would have occurred on the real vehicle.

As there is nothing exceptionally complicated in the build of the kit or replacement of the tracks, the kit instructions were followed completing a standard build. The next step was to draw out the plan for the additional armour to be cut from plastic sheet. To avoid repetition in the article, only the process for the main glacis panel is shown. Having measured the size, the outline of the plate was drawn onto card. The shape is simple and was cut with scissors and a craft knife before dry fitting confirmed the fit was okay. The remainder of the pieces were prepared in the same manner prior to fitting.

To simulate a weld cut along the edge of the additional armour plates, the edge can be scored with a file. A faster alternative is to use a wire brush at right angles to the edge as shown below.

All additional armour was glued in place with Verlinden bolts added using reference photos to judge their position. With the model essentially complete a few additions were made. A common practice was to replace the 30 calibre coaxial gun with the more hard-hitting 50 calibre. Also a 30 calibre machine gun was added to the turret in front of the commander's hatch. This was replicated on the model with the longer 50 calibre protruding from the mantlet.

The next photograph shows the subtle effect of using the wire brush to produce a weld cut edge. The placement of extra armour is based on reference photos.

Setting the Scene – “On the Prowl”

The base was kept to a simple section of farm wall with water pump and some tools nearby. The wall was taken from the Verlinden Street set. The built-in plaster door was cut out and

replaced with a wooden one. An outlet pipe and support plate was added above the trough. The trough was filled with PVA glue to represent water. Allowed to set, having dried clear it was then re-filled. A tree in full leaf was put in place to give a “Spring” feel.

The crew was added taking figures from a variety of sources. The dismounted figures were from Dragon while the mounted crew were Alpine figures. “On the Prowl” for some fresh eggs or hen to supplement their next meal, the dismounted figures were positioned conducting their search. Despite having weapons at hand, the figures were positioned in such a way to imply a cautiously relaxed atmosphere.

Waiting for Orders

The lead up to D-Day saw the German High Command plagued by the lack of a clear command structure with no single person having control of the Atlantic Wall defences. With Hitler interfering in decisions Field Marshals Von-Runstead and Rommel each argued for differing strategies. Von-Runstead wanted to hold all the Panzer Divisions inland to be positioned when the Allied landings were identified. Rommel on the other hand wanted them close to the beaches to drive the landings back into the sea. Hitler then made perhaps his worst decision by splitting the force with half held inland and the rest dispersed in insufficient numbers along the costal defences.

As only the 21st Panzer Division was within a day's drive of the beaches while the Allies came ashore, this decision hugely benefited the landings. Even as it became apparent that the landings were occurring on a major scale, the division sat waiting for orders.

The diorama shows two members of the Panzer division and a Feldgermerie listening to the air and sea bombardment frustrated by the lack of orders. Next to them sits a Jagpanther from a tank destroyer regiment. The Jagpanther was picked up at a club show fully assembled and painted. Some further weathering of the vehicle took place using pastel chalks.

The groundwork consisting of Italeri gates and ruined building was augmented by a fir tree made following the “Barry Bowen” method.

All three figures were chosen for their poses, with hands either folded or on their hips and staring into the distance. Selecting figures from different manufacturers can add a slight height difference as would occur in real life adding to the look of the scene. The policeman and Panzer sergeant with the binoculars are Dragon figures with the Wolf figure with folded arms fitting nicely into the scene.

The house comes with hollow walls which were filled with plaster then sanded smooth before an upper and lower floor were added from wooden stirrers. The door frame and door were built from the same material. The gatepost was built as per kit instructions with the addition of some foliage to add interest.

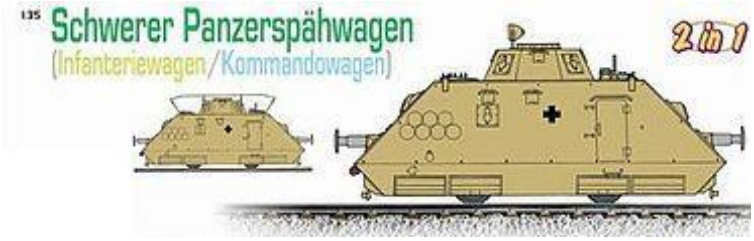
Window frames were added from bass wood strips with glass added from an overhead acetate sheet. Debris around the building was built up using a packet of brick rubble set into plaster and dusted with sand. This was then “brought together” using pastel chalks. Verlinden signs were added to enhance the ruin and locate as part of a headquarter area.

The final view of the scene shows the rear of the Jagpanther. Note the water downpipe on the building, a detail that is easy to add from a plastic tube but adds greatly to the appearance of any building.

The End of the Line, Karkov 1943

An unusual AFV

This diorama uses as its centrepiece Dragon Models kit of the motorised armoured rail wagon, the Schwerer Panzerspahwagen used to patrol railway track. With the railway being the essential supply route for German Armies in Russia, it was vital to protect the lines from sabotage.



The Diorama

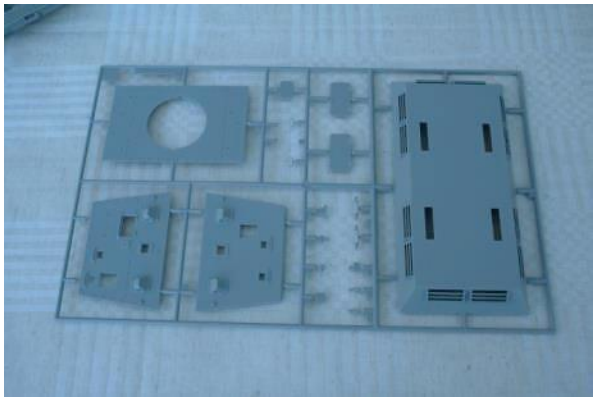
As the war changed in favour of the Russian armies in WW2, the Germans were forced to retreat in the harsh winter conditions. Supply shortages resulted in equipment having to be abandoned which at a later stage would be recovered or destroyed by the Russians.

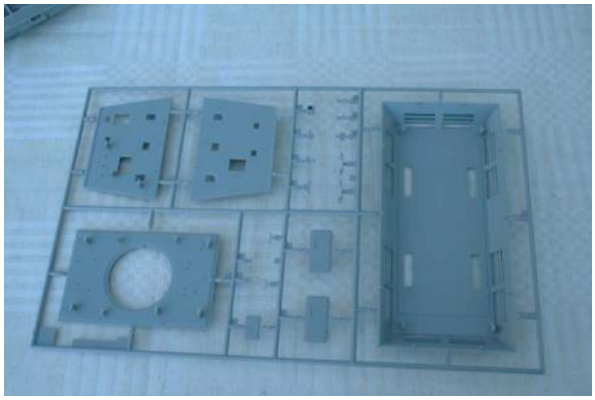
The diorama aims to depict an armoured wagon which having survived the ravages of war and winter has been brought to a railway siding in the Spring to be stripped of its parts for scrap. The wrecking crew have set up their work area near a light crane having swung their hand wagon and tools into the confines of the platform end to prevent “use without the owner’s permission”. Work has just begun with the armoured roof removed to allow access to the interior where one of the crew has started to strip out parts.

The Model

The model comes with no interior detail so it was necessary to scratch-build one. Despite an extensive search for details of the interior no information could be found so it was built using a “best guess”. After considering the potential options, it was decided to place the engine towards one side with the command equipment in the centre and weapons storage and ammunition racks near the machine gun stations. Driving positions were located forward and rear of the vehicle.

The chassis provided in the kit is no more than a basic tub while the hull consisting to two side walls and front and rear panels is a simple construction being made up from slabs as seen below.

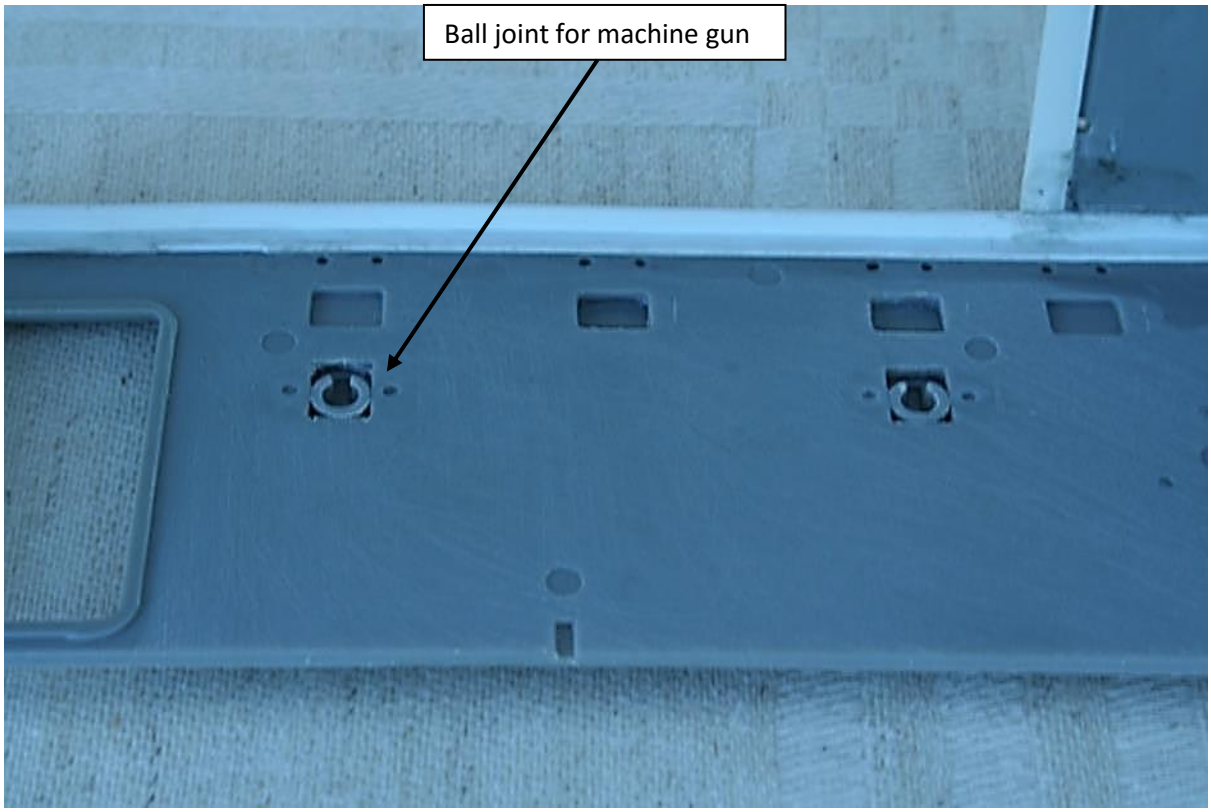




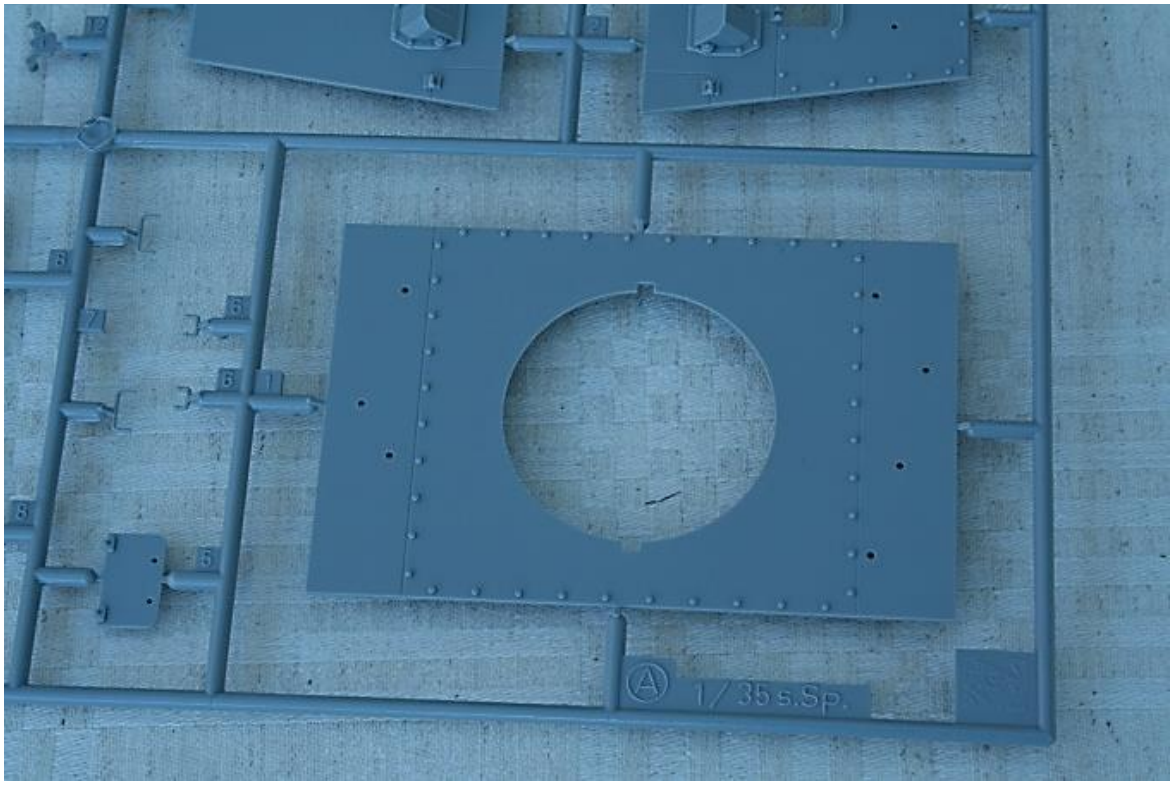
The first photograph shows the bottom of the chassis with the second showing the very basic tub which is only suitable for use with the vehicle fully closed down.

The roof panel comes as a single piece and is designed to support the turret in the centre of the roof. The vehicle side wall can be seen above. The first stage began with the side walls. These were sanded to remove ejection marks and other details not intended to be seen. In

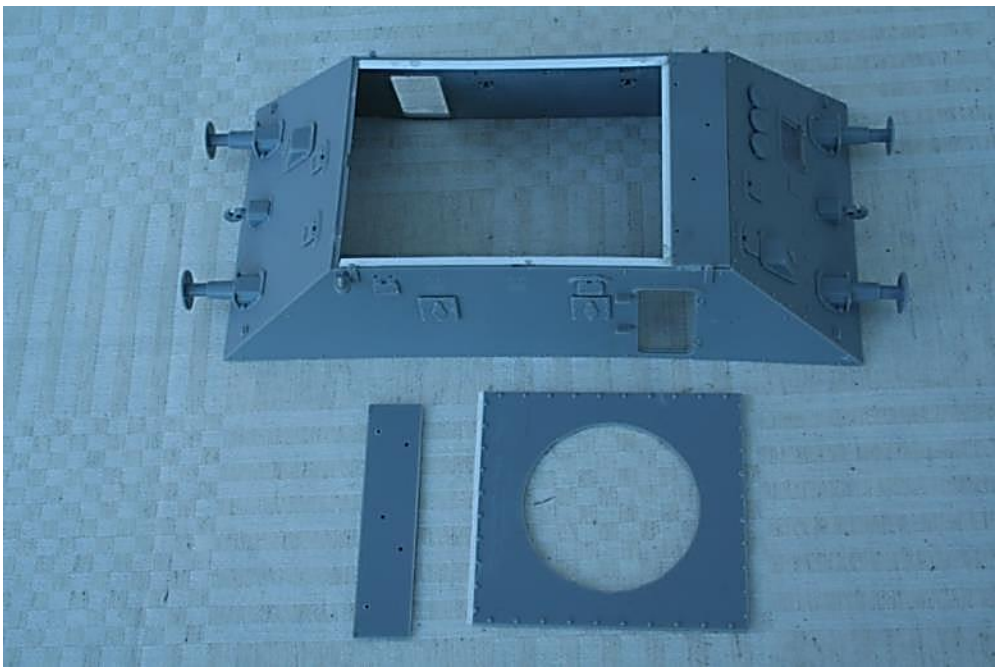
the side walls ball joints were added in positions for the machine guns. Ejection marks requiring filling can also be seen in the photograph.



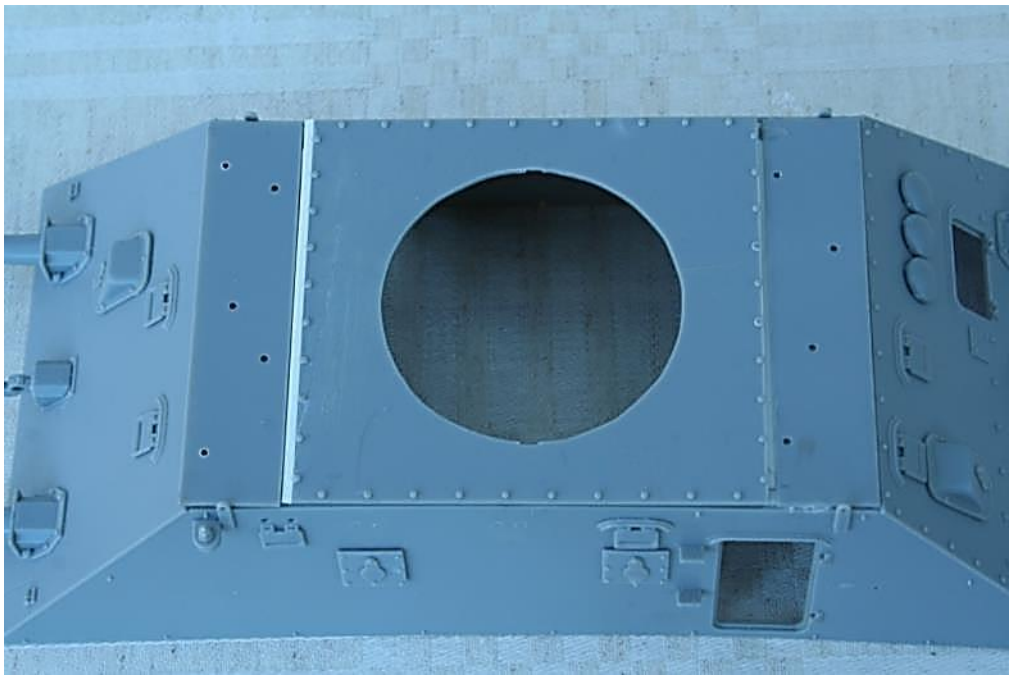
The next stage continued with the roof. This had two riveted joints which needed to be cut to allow the centre panel supporting the turret to be removed.



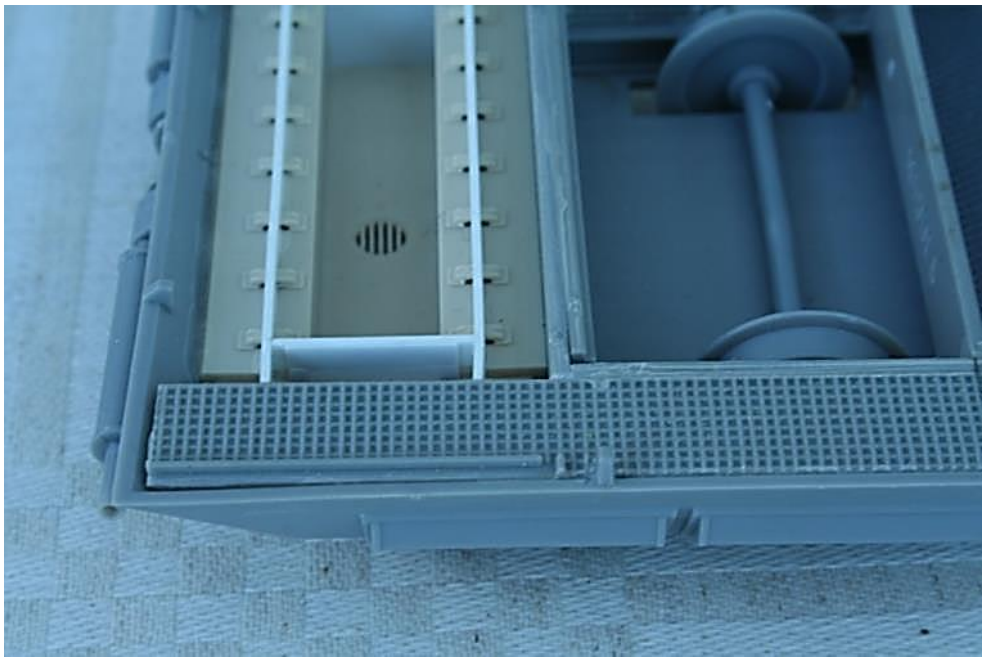
Additional reinforcement was added in the form of plastic strips/beams to help support the panel now cut into its three individual panels. The first panel can be seen fixed in place. The second panel can be seen on the left with the centre panel next to it. The supports and centre panel had the rivets drilled out along with matching locations in the support beams as would have happened with the removal of the turret.



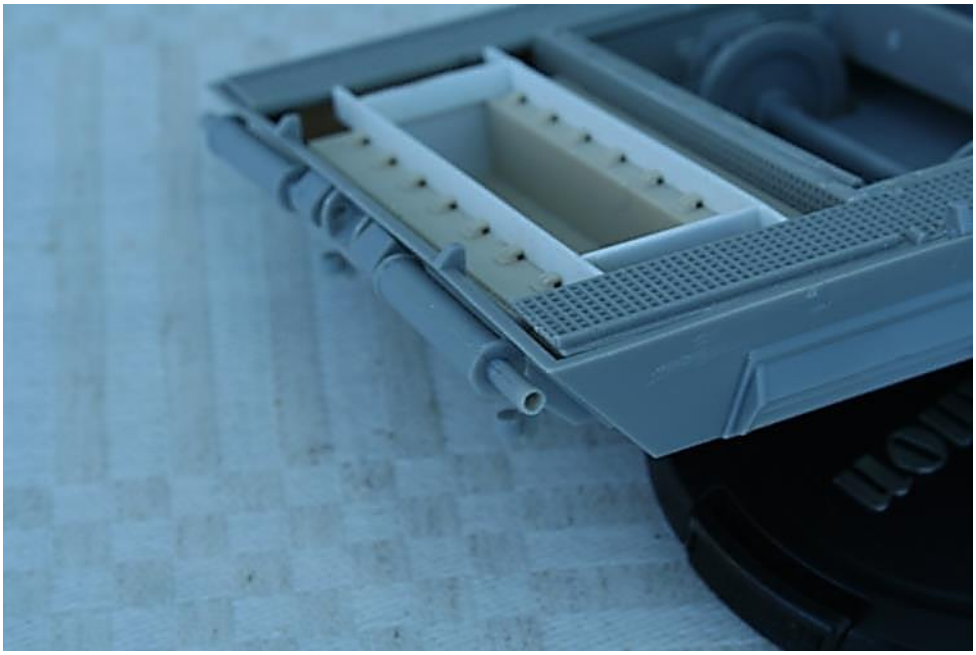
The makeup of the three panels can be seen below showing their relationship to each other. The remainder of the upper hull construction followed the kit instructions excluding the fitting of the machine guns.



The next stage was to detail the chassis. Originally it was intended to fit transmission drives at the front and rear near the axles and wheels as seen below. Given the limited view of this location in the end it was simply covered with chequer plate and covered over. Supporting beams for the floor were put in place along with a floor edging strip as seen.

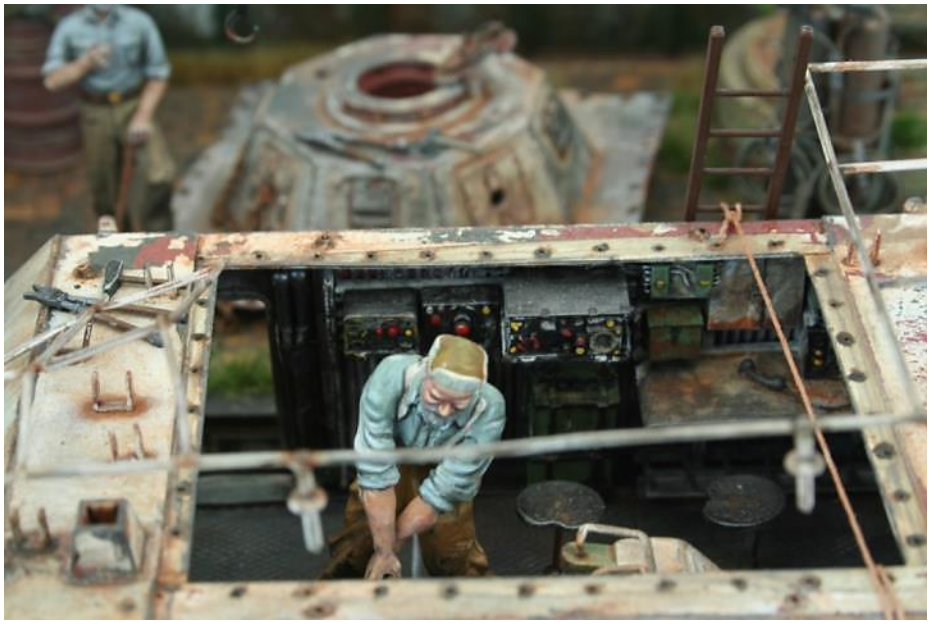


Detailing the interior followed along with finishing details on external parts such as drilling out the exhaust pipes. Parts were taken from the spares box and fitted in locations seen as most appropriate.



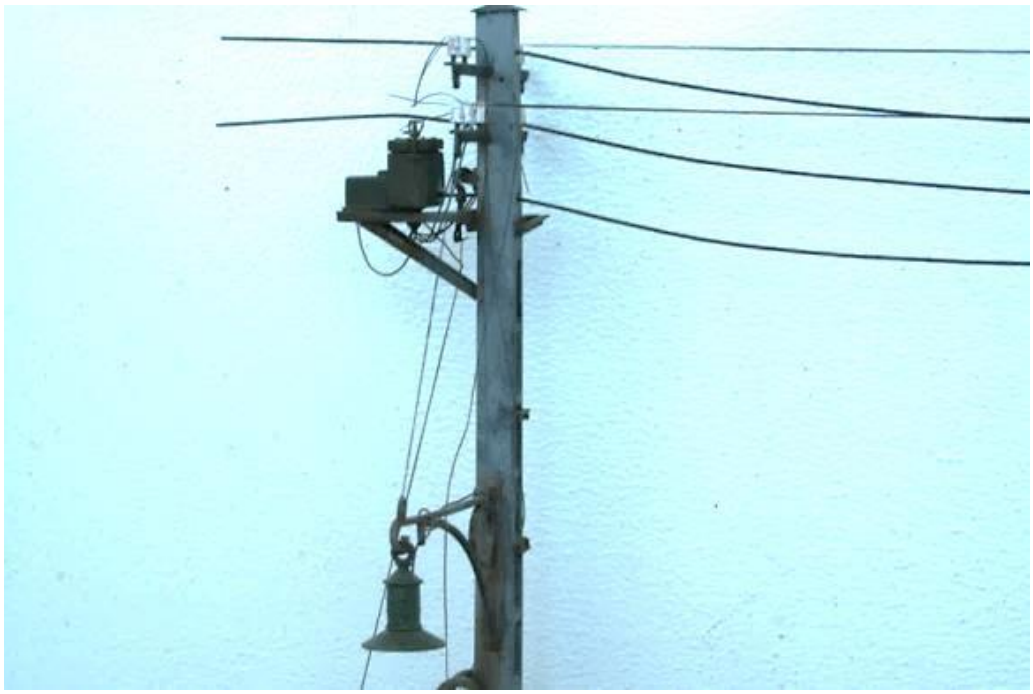
The photo below shows the engine location with a range of cylinders from the spares box used to form compression and lubrication units. On the opposite side and towards the other end, map tables and radio equipment etc. was fitted. Driving positions were fitted for the wagon to be driven from either end.

Much of the interior is filled but only partially visible. The worker is making the most of a mild spring day having removed his jacket but retained his warm trousers and cap. The remnants of the aerial can be seen around the body of the vehicle. Two seats taken from spares from a 20mm AA gun were used for the radio operator and commander. This can be seen in the next photograph. Tools to the trade can be seen on the roof of the car along with a ladder tie to the side to give access. Small details such as these add interest to a scene.



The second worker stands next to the cupola still attached to the crane. The crane was scratch-built from the spares box topped up from some helpful friends. Oxyacetylene cylinders from the Italeri Workshop set stand nearby on a trolley ready to cut the plates into manageable slabs. The rear wall of the rail platform was made using centre panels from an HO railway bridge set with the addition of plastic card to bring it closer to scale.

Note the level of detail on the power cable/telephone line masts to add to the realism. Photographs of the real item were used to help in the construction.



The vehicle shows evidence of its original paint scheme overpainted with white wash. It has been weathered to give a distressed look using the hairspray technique to emphasise the neglect over the winter period. Having painted the original colour scheme and sealed it with a coat of varnish, the car was given two thin coats of hairspray. The car was then given two thin coats of white paint. This was then varied in tones using a variety of buff and related colours.

The hairspray layer makes the top coat water soluble which is easily removed by scrubbing with a wet toothbrush. Removal of the top coat is done in small sections until the remaining top coat produces a satisfactory effect. When complete, the car was sealed with a coat of matt varnish.

The rusty chain hanging from the buffer was made from a cheap jewellery chain soaked in the cleaner “Viakal” which, when allowed to stand in air, turned to a natural rust effect. Note the tufts of grass on the track and platform giving some realism to the base.

The cart has been positioned to give easy access to tools while keeping out of reach of those who might “borrow” it. The second workman gives some thought to what will happen next. The wagon rests against a buffer consisting of a concrete block, steel frame and wooden buffer realistically weathered and enhanced by the addition of a small amount of vegetation.

The cart itself was scratchbuilt from bass wood with drums for draining the lubricants and fuel located nearby. Note the rivet detail visible of the steel platform wall visible on the left of the photograph below.

The above close up shot also shows details of the bricks (individually cast) having been painted in various colours to add variety to the visual effect. The concrete section of the buffer was carved from a slab of plaster. Staples were used in the wood of the buffer for lifting points. Vegetation around the buffer was intended to give the impression of lack of use.

The base edge was designed using different thicknesses of black plastic card to add interest with a name plate designed by “Name It” to finish the diorama.

The project employed a significant amount of scratch-building and converting. The hairspray technique worked well adding to the overall look of the diorama. The title was chosen to help tell the diorama’s story and fits it well.

Despair

Despite superior numbers and on the whole better equipment, during the Battle of France, the French Army largely due to outdated thinking and poor leadership collapsed within a period of six weeks. Within the battle there were often feats of bravery and resistance by small groups of French soldiers, their efforts being in vain and leaving them in despair over the collapse of France. Two 1/35th scale figures from the SKP figure range (an infantryman and gunner) epitomised this and gave rise to the idea for the title.

The completed diorama with all focus directed towards the two Frenchmen

In planning the scenario, the two figures were clearly to be overwhelmed and forced into surrendering. The figures therefore had to be placed in an environment where their efforts of resistance were visible as the enemy closed around them. Having recently gone through my kits, I had come across the Heller 25mm anti-tank gun kit which was widely used by the French but generally ineffective. Along with a Panzer T35 previously painted for another project, the scenario developed further into the two figures acting as the remnant of a French gun crew, having fought until out of ammunition against the Panzer and are forced into submission. Adding to this feeling of dejection, the capture of the two Frenchmen is overseen by a German officer who has not even taken the trouble to draw his weapon such is the demoralisation of the two “gunners”. The presence of the Panzer T35 as it passes its adversaries adds to the sense of defeat as the tank commander offers up a few choice words, having endured the gun’s fire.

In starting the diorama the first step was to lay out where the figures would be in relation to the key components. Having decided the infantryman with his hands raised would sit adjacent to the figure acting as the gunner, the placement of the gunner on the leg of the gun set the location and the centre of focus for the diorama.

The figure is pinned through the split leg and into the gunner to ensure a firm and secure location

The two principle characters, one slumped in despair, watched over by an officer so confident of his enemies defeat that he stands casually by smoking without having taken the trouble to draw a weapon

Despite its age, the Heller 25mm anti-tank gun kit has a reasonable level of detail and on the whole assembles easily. The attachment of the gun shields needed some care as the fixing point was relatively small and could leave the shield loose. Painted in a green/black camouflage pattern, the gun was weathered with a number of earth coloured pastel chalks and sealed with Windsor and Newton acrylic matt varnish.

A key element of the scene was that the ammunition was exhausted so the ammunition box in the kit was filed to thin all of the sides and lids. All the shells in the kit were cut down to represent empty cases.

The backdrop to the scene was a section of Verlinden's street scene. The section chosen included a water trough and garden wall. Cast in plaster, the gate was cut out and replaced with wood strips.

The trough was improved by cutting out the excess plaster and filling with gloss varnish after the wall was painted. A pump handle and feed pipe was added along with some accessories including a ladder and barrel.

The commander of the Panzer 35t was made up of a number of different parts from Dragon figures with a Hornet head added. Positioned to point and make clear his views he added the link between the tank and the gun crew. A five o'clock shadow added to the impression of time spent in the field without rest.

The figures being directed towards the prisoners are from an old Andrea set while the officer is from the Japanese maker Yushitaka Hirano. .

The tank was weathered with the same pastels used on the groundwork and a limited amount of stowage added. Unlike the later Russian campaign vehicles did not carry a huge load of stowage.

The finished diorama is set out above with all of the elements coming together.

“Oop’s”

Introduction
The start of the Second World War and the Blitzkrieg era saw for the first time tanks being used to their full potential in a fast moving and fluid war. This period also brought forward a new generation of tanks with French tanks being at the forefront of developments. Surprisingly, the availability of French vehicles from mainstream companies for this period is sparse; the exception to this is kits produced by Heller.

Heller produced most of its kits in the 70’s and 80’s and these have remained in production either under Heller’s own brand or that of a number of Eastern European manufacturers. The kits are reasonably priced despite their age, will still allow the modeller to produce something that pleases the eye and looks the part. Three kits of the period are available these being the Hotchkiss H35 cavalry tank, the Somua S35 Medium tank and the Renault R35 infantry tank. The latter is described in the article.

What you get
The Renault shows a good level of detail when the age of the kits is taken into account with the weakest point being the detail on the set rubber band type tracks.

Assembly is straightforward. The running gear is reasonably detailed varying from very good to a bit soft in places. The tracks were replaced with those from a Lorraine Tractor purchased for £10 significantly improving the look of the model. In the absence of a suitable alternative, weathering was used to bring out as much detail as possible on the tracks.

The most significant difference from a modern kit is that the lower hull is assembled from 3 parts rather than a single casting. The upper hulls fit well without the need of filler and detailing is good. The quality of the pioneer tools is a bit weak but can be improved with a sharp knife and file.

The turret is cast in 2 parts with a horizontal joint. Some filler is needed near the rear of the joint of the turret. The only improvement made to the turret and guns was to drill out the machine gun barrel.

Painting and Finishing

The tank can be painted in plain olive colours but equally a wide variety of multi-coloured schemes can be adopted. The vehicle was finished in 3-tone colour schemes using acrylic paints. Running dilute dark brown pastel paint around it enhanced the raised detail. White or flesh colour was added to lighten the tone then used to highlight panel edges. Rust around exhausts was added in the form of powdered pastels of differing shades.

Setting the Scene

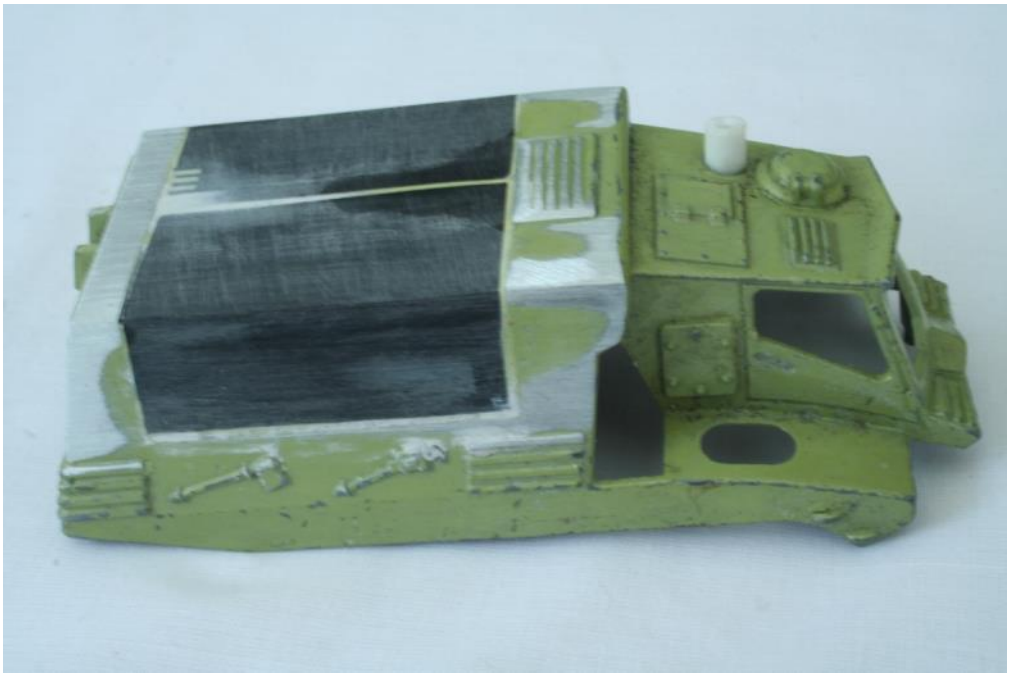
To compliment the Renault, a crew of French Tankers from Nemrod (kit number N35-024) was used. The standing figure holds a puppy while his comrade cleans the sole of his boot with a stick! Mounted on a section of cobbled road the model was finished with its' title plate "Oops".

Converting a Matchbox Toy to a Personnel Carrier

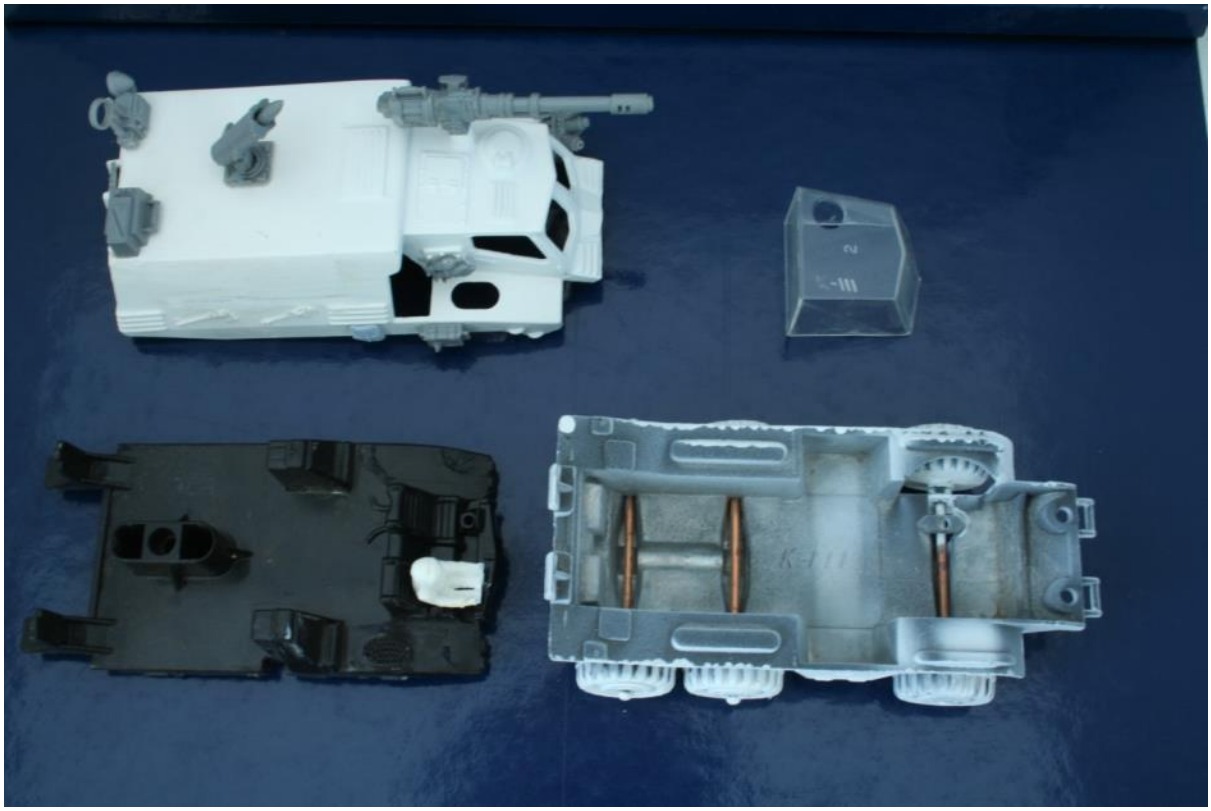
In the Warhammer range of models for their Imperial Guard range, there is no wheeled armoured personnel carrier (APC). Having bought an old toy rocket launcher from the Matchbox series the project was to convert it. The starting kit had a spring loaded mechanism that opened up to allow the launcher to be fired as shown below.

The toy was stripped to its component parts and the rocket launcher and radar system discarded. Where the radar was removed, a mount was fitted to attach an auto-cannon from the spares box to the vehicle.

The next stage was to fix to roof doors in a permanently closed position, fill the gaps with Milliput and sand to give a smooth body.



The spares box was raided to add a communication array at the rear and a missile launcher in the centre of the roof plus a few other accessories. A driver from a toy racing car was cut down to fit and the body and chassis primed with automotive primer prior to assembly.



The APC was painted in a five tone camouflage to match in with the other vehicles being used in the diorama.

Decals for a Cadian Regiment were added and sealed. The vehicles and figures were then added to the base.

The finished diorama as seen from different angles was fun to build with the APC fitting in well.


CADIA

Give No Ground

Using the 40 year old kit from Tamiya of a Universal Carrier Mark II, the aim was to improve the look of this kit without a large financial outlay. Tamiya's kit by today's standard is a bit clunky but still forms a good basis for the planned build. The plan was to convert the model to a Vickers machine gun carrier.

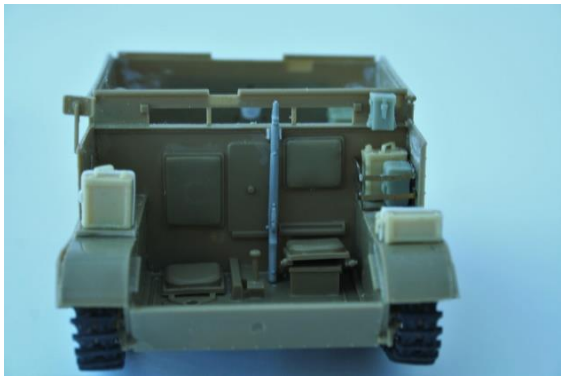
Resicast were kind enough to supply parts for the Vickers machine gun and its mounting. The aim was to improve its appearance by the addition of the prominent machine gun. Existing parts were thinned by filing down visible edges in order to appear thinner. The addition of spares/stowage was used to hide areas where detail was poor or unrefined.

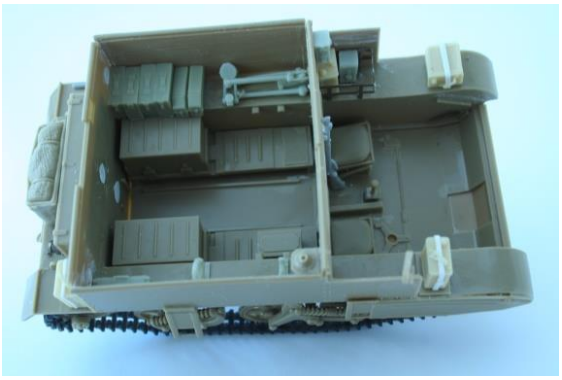
Before starting the build, consideration had to be given as to how to paint the cramped and exposed interior of the model. Three sub-assemblies were planned consisting of:

1. The main hull, running gear, crew and driver compartments
2. Frontal armour and glacis plates to allow access to the driver compartment
3. Engine housing onto which the Vickers heavy machine gun would be mounted along with stowage attached to hide areas of poor detail

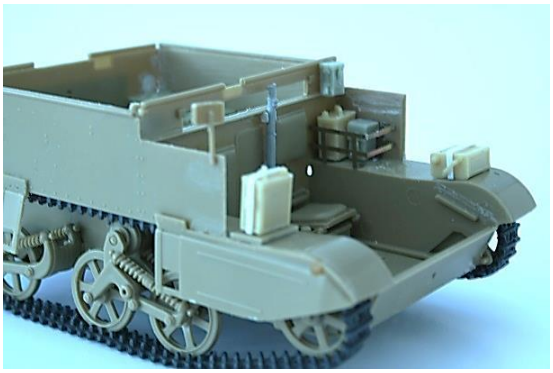
The main weakness in the kit is the running gear and track. While resin replacement parts are readily available, the decision was taken to remain with the existing running gear and track to meet the low cost option. The accompanying photographs show the construction of the subassemblies and the modifications made on the final model.

Modifications made	1. Addition of Resicast Vickers machine gun and mount having first removed all detail on the engine cover plate. 2. Resicast etched brass replacement parts for stowage cage on the near side position 3. Resicast etched brass light fitting brackets and exhaust covers. 4. Addition of stowage and Sten gun from spares box. 5. Addition of extra set of entrenching tools from spares box to front glacis plate used for digging in the Vickers mg. 6. Reduction in thickness of frontal armoured shields from 1.1mm to 0.75mm by chamfering the outer edge at a 30 degree angle to Improve scale appearance. 7. Reduction in thickness of towing bracket supports by half using by paring and filing around the bracket. 8. Addition of Sovereign 2000 (petrol or water) POW cans with retaining straps. 9. Addition of tie-downs using plastic strip and Historex buckles. 10. Homemade decals printed on decal sheet.

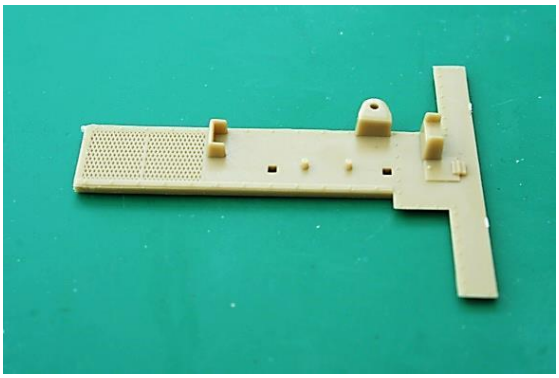




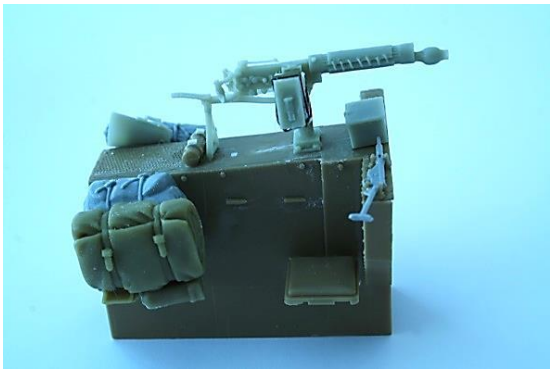
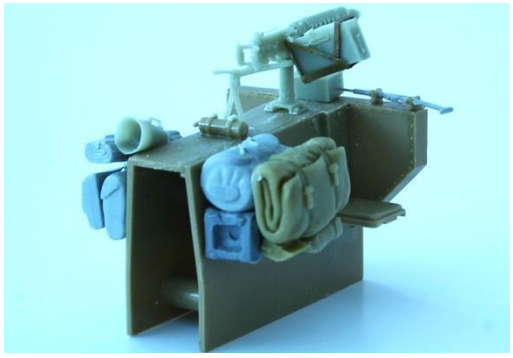
Main body – subassembly 1



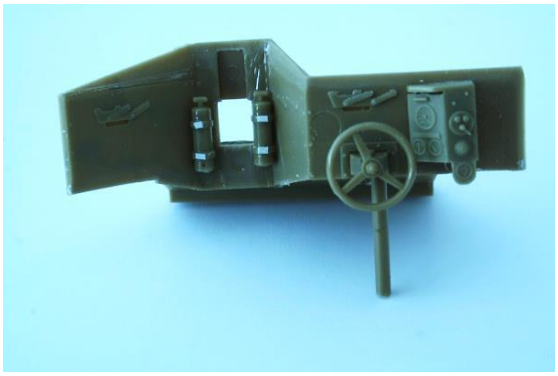
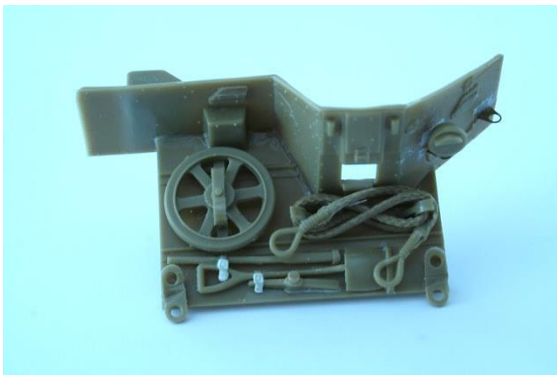
Driver compartment



Uncorrected engine deck

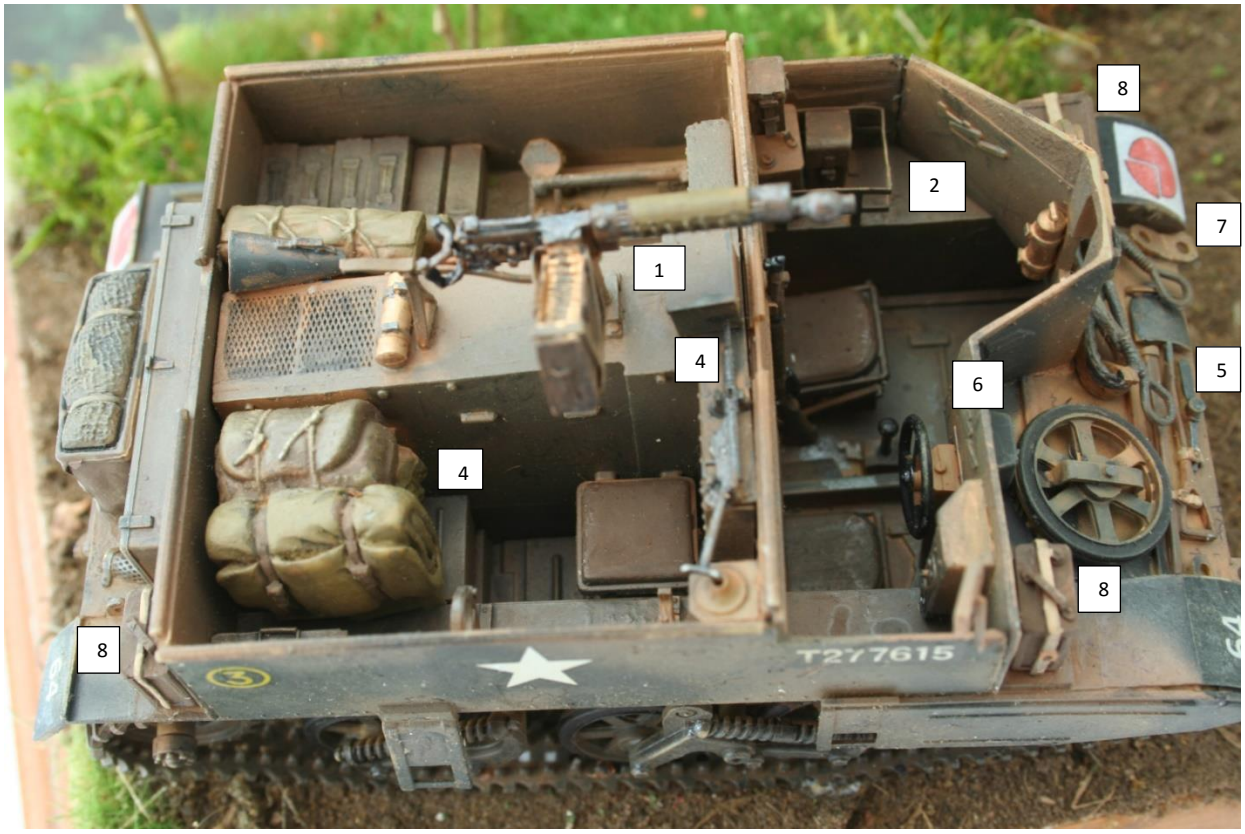



Subassembly 2 - Engine deck with internal stowage attached

Subassembly 3 – glacis plate and frontal armour


The carrier assembled and finished in its basic camouflage scheme prior to adding the decals and weathering the vehicle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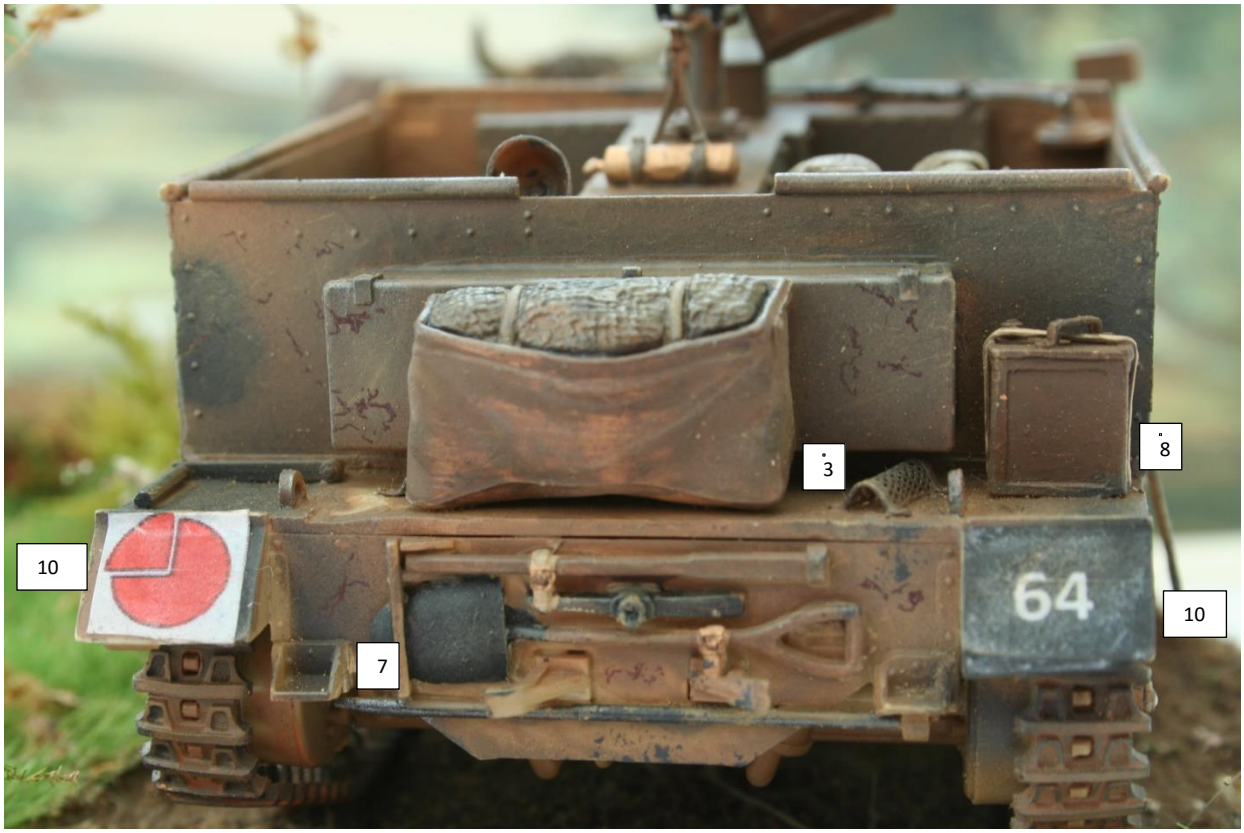
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7

Dry brushing with Buff paint was used to give a faded paint effect

Extra stowage was used to hide ejection marks and cover heavy detail on parts.
A pin wash of dark brown paint brought out the grill detail on the engine cover.

Pin washes followed by dry-brushing resulted in small rivet detail being visible.
Scratches/wear was reproduced using a fine tip roller ink pen in a random pattern.

Setting the Scene

The finished model was set against a scenic background having added the crew figures. As the crew of the carrier come up against a bullock on a narrow path and try to get it to move, a bemused bullock stares back and refusing to move holds its ground.

“Bonjour Mademoiselle” – A Crusader Conversion

A little bit of History

Having failed as a gun tank, the Crusader succeeded in a number of auxiliary roles. One variant, employed as a self-propelled antiaircraft tank, used a triple mount of 20mm Oerlikon or Polsten cannons. In total, 27 triple 20mm AA Crusaders were built as self-propelled guns, each designed to tow another triple AA gun mounted on a modified Bofors carriage.

Serving with the Royal Artillery and being capable of rapid deployment in the absence of roadways from the beaches, they were used during the Normandy landings to expand the bridgehead from the beaches. Assigned solely to the 93rd Light Antiaircraft (LAA) Regiment, the guns were dispersed as part of ad hoc formations on all of the British beach heads.

Having proved their worth, they continued to be used throughout the remainder of the war. In early 1945 the decision was taken to remove them from the Crusader mounts and fit them on Ford F60L lorry chassis. In this configuration, they would continue to serve until the end of the war participating in the crossing of the Rhine.

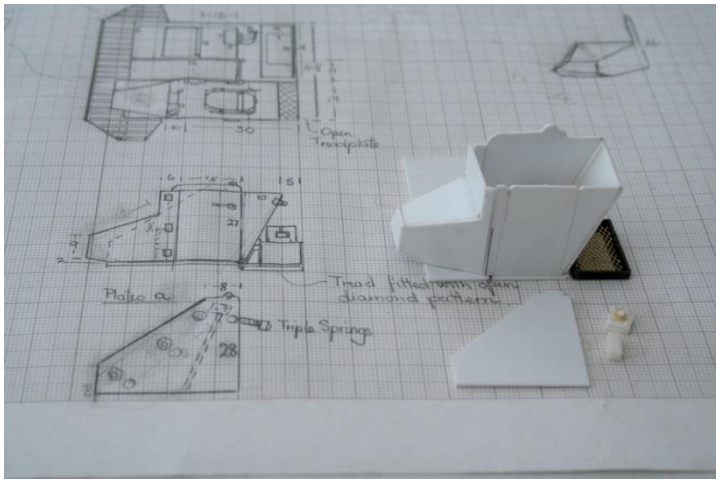
Parts and Resources

Building this version of the Crusader requires a set of 20mm Polsten cannon as accessory parts provided by Resicast. Information and photographs of the Crusader triple 20mm AA tank are rare with the best source of information on the vehicle’s history being a MAFVA article published by Nick Perry.

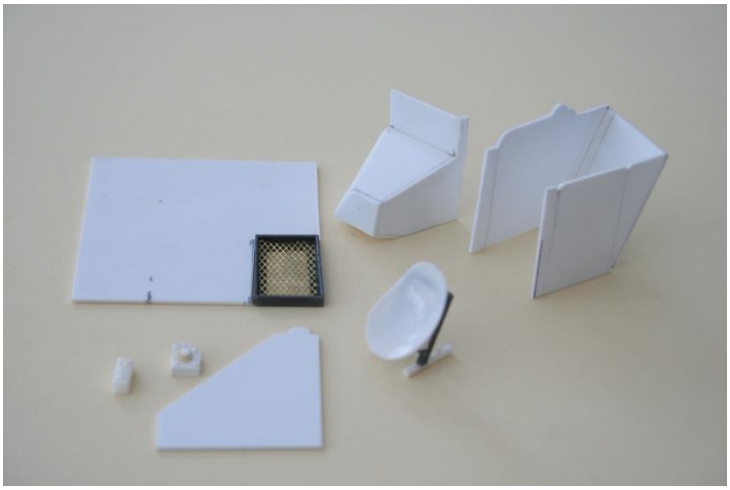
Photographic references were drawn mainly from the now excellent Imperial War Museum library website. Of the photographs available, only three gave enough detail to be used to draw together a plan of the gun mount. The only published photo of the Crusader triple AA is B 7738 while in Normandy with the vehicle in the hull down position. Photo H 31130 shows an early version of the towed gun being trialled in 1943. Photo BU 4138 shows a lorry mounted gun protecting a Bailey bridge at the time of the Rhine crossing.

The Build

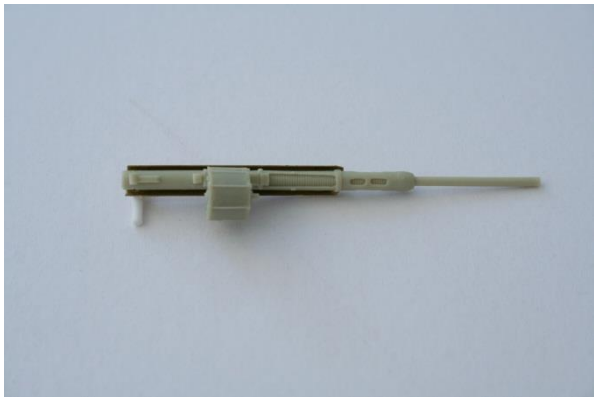
The model used Italeri kit 6444 of the Mark II AA Crusader as the donor for the hull. With the exception of the Polsten guns and a left over etched brass gun-site, most of the additions were built from plastic card, tube, rod and a variety of wire including narrow gauge florist wire which has a good rigidity, with a few pieces coming from the spares box.



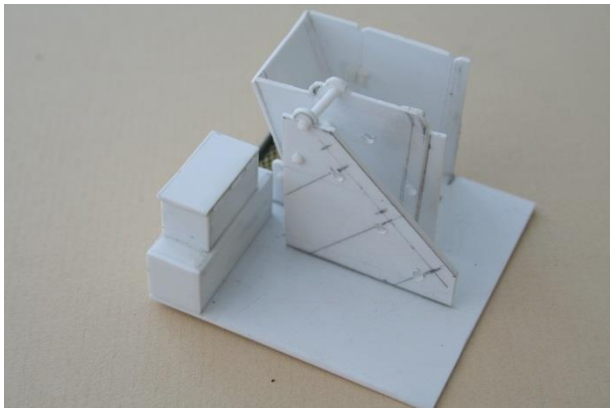
The gun platform consists of a square platform with the guns mounted between a mounting plate and one wall of the gunner's cab. An extended platform is attached at the front for the loaders while the gun is directed from a mesh platform at the rear of the cab. The plan is the best interpretation of the three reference photos.



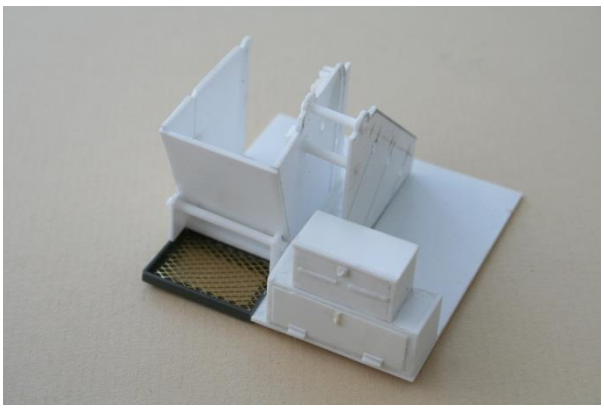
The Gunner's cab was assembled as a two piece structure with the bucket seat formed from a cut down plastic spoon.



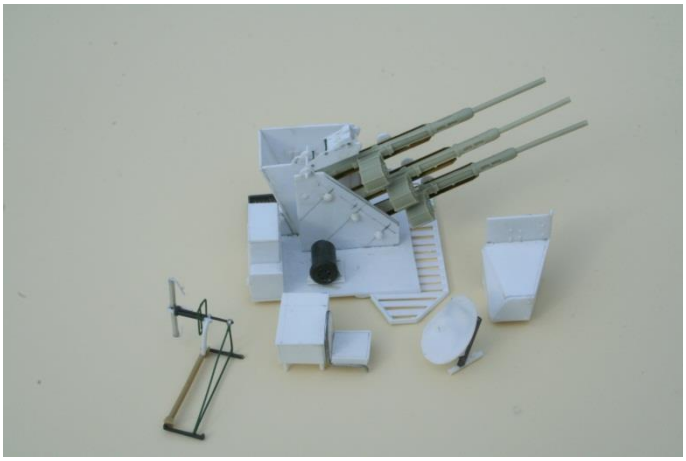
Resicast's mouldings of the Polsten gun were sharp, free from flash with the receiver and magazine fitting snuggly together. The mount for the gun was formed using an Etch-mate with each of the 3 faces angled at 45^{o} to each other. A section of plastic rod was attached to act as the pivot mount for the assembly.



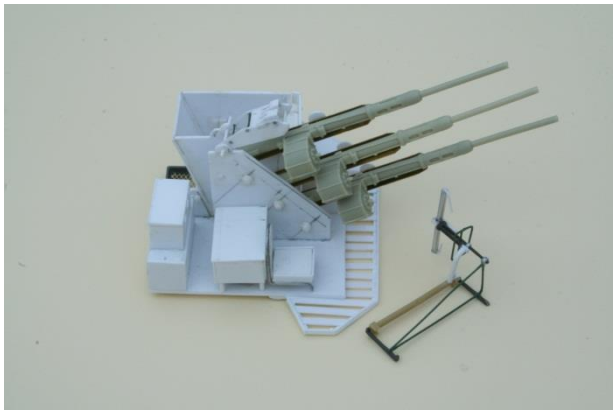
The relationship between the mounting plate and the gunner's cab can be seen here. The plate was placed against the cab and location points for the gun pivots drilled as a single piece to ensure they lined up. Some of the ancillary equipment/boxes are in place.



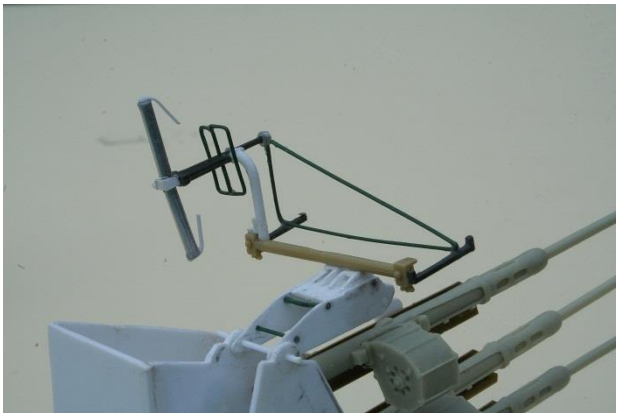
The rear view of the assembly shows the mesh platform and detail on the boxes.



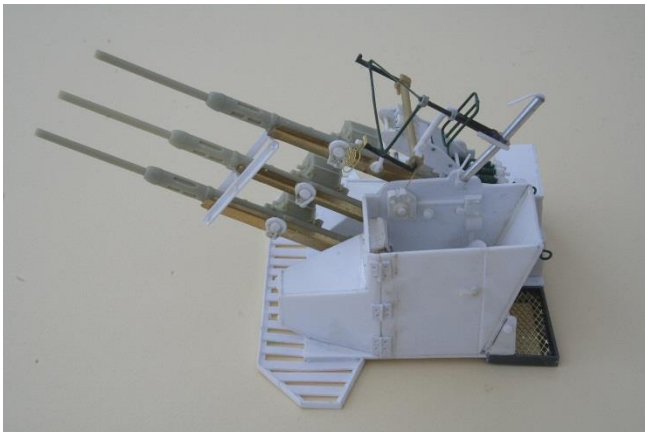
A motor/pump (in green) was made from a spare wheel for the fan/drive and attached to a cylinder from the spares box. This will be covered and largely hidden by the cover attached to the loader's seat. The guns have been mounted and detailed, with rivet detail added to the gunner's cab. The gun-sight mount has been made from a variety of rod/wire, being a cut-down version of the "Stiffkey" sight seen on 40mm Bofors Guns. The extended platform has also been added using a frame constructed from right angle rod with strips of plastic spaced across it.



The nose of the cab is in place along with the loader's seat assembly. The gun-sight mount can be viewed from a different angle.

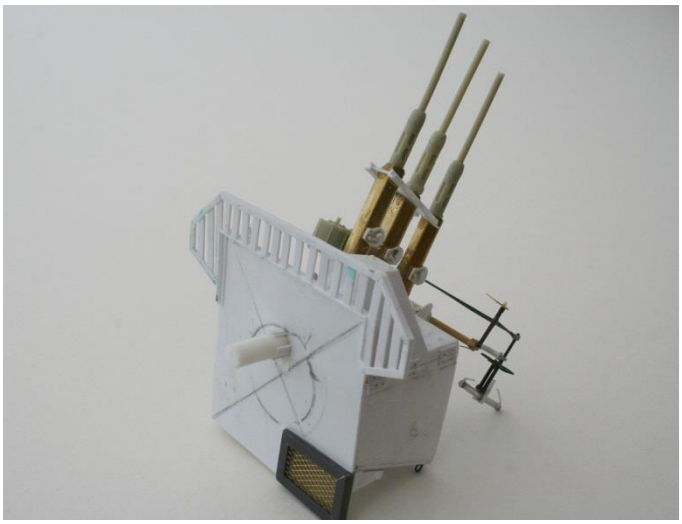


The detail of the gun-sight mount can be seen in more detail.

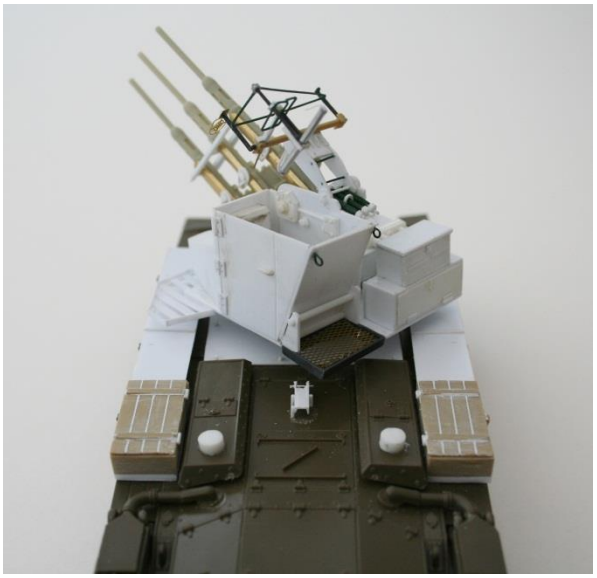


The linkage for the guns has been added with some of the interior detail of the cab visible

The Italeri hull was put together as per instructions with the exception of the stowage boxes. These differed from those normally found on the Crusader and were either build from plastic card or were modified parts from the spares box. The circular gun mount was the base of turret basket of Italeri's Crusader twin 20mm inverted and sections filled with Milliput.



To ensure a good fit when mated, the gun platform was fitted with a strong section of plastic rod with shims of plastic sheet added at the top to secure the fit.

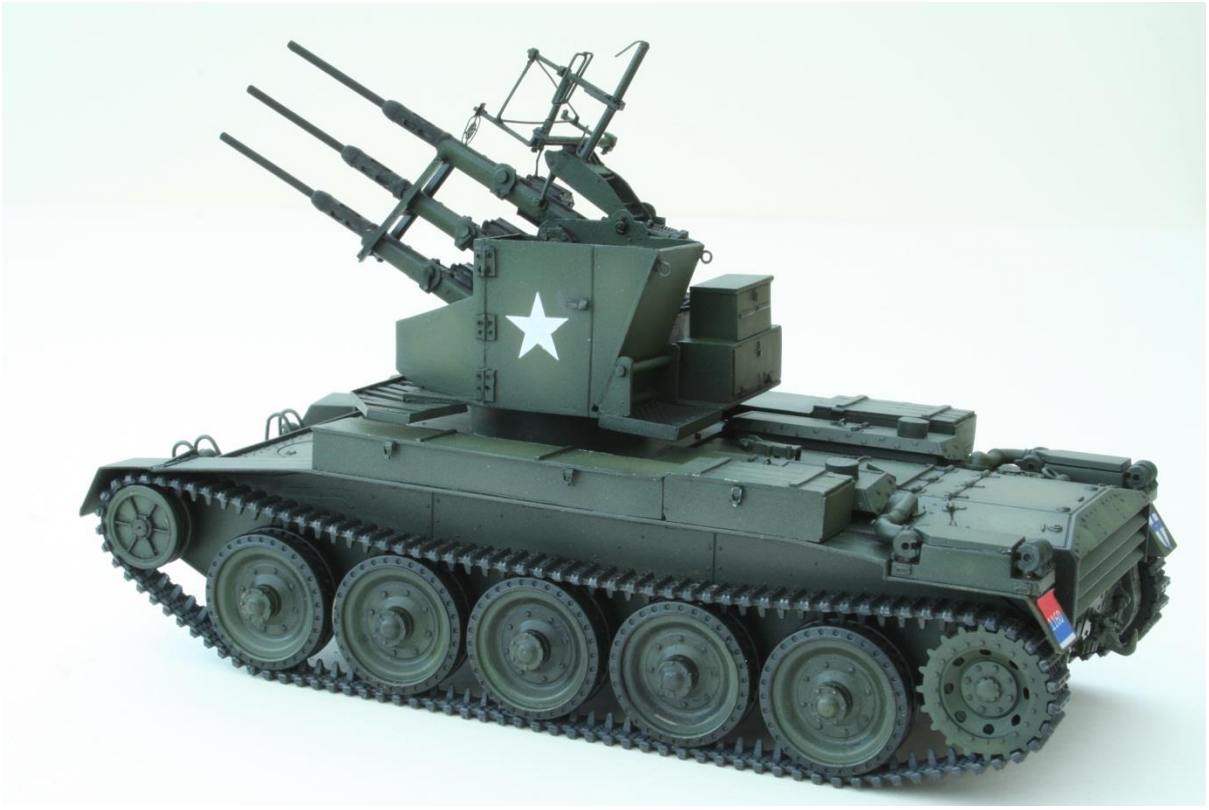


Viewed from the rear is some of the additional detail added. The central bracket may be a travelling lock for the guns but the purpose of the two short cylinders is unknown. The two rings at the back of the cab were to hold a strap that would steady the aimer in position.

Hinge detail has been added to the door on the cab.

All ancillary equipment has been added with wiring, conduit and guard rail for the loader's seat are in place.

The full extent of additions can be seen in the photo. Photos of the finished model operating under the command of the 2nd Army follow below.



Titled ***"Bonjour Mademoiselle", t***he sergeant full of optimism tries to charm the young lady passing by.

A mix of the characters used in the diorama with the young lady coming from Master Box, the bare headed soldier from SKP and the helmeted solder being a hornet figure with a replacement head

Loaded with the baggage of war the vehicle undergoes its daily checks

Detail of the homemade tree and wall from Lion Roar

Notes