

# THE HAZUG FILES

STAR WARS      STAR TREK      WARHAMMER 40,000

FAN FICTION & ORIGINAL FICTION  
CONVERTED & SCRATCHBUILT MODELS

<http://thehazugfiles.uk/Index.htm>

## RETRO STYLE WARHAMMER 40,000 ORK BATTLEWAGON



The original multipart plastic kit for the Warhammer 40,00 Ork battlewagon was far different to the kit currently available and sadly it was discontinued after a relative short time and examples now change hands for a lot of money on sites such as eBay.

This document provides instructions on how to scratch build a vehicle of similar appearance to the original battlewagon kit without having to spend the amount of money required to obtain an original.

### Copyright notice.

The original Ork battlewagon kis is copyright of Games Workshop Ltd. This project is unofficial and not endorsed by Games Workshop at all.

## **Parts List.**

### **Plasticard.**

1mm thick plasticard for general construction and details.

2mm thick plasticard for some general construction and details.

0.25mm and 0.5mm thick plasticard for details.

### **Other parts.**

Assorted plastic bottle and can lids or empty tape reels for wheels.

20mm diameter (approximately) pipe.

3mm and 5mm diameter wood dowel for mast (optional)

Various thicknesses of styrene tube for details such as exhausts, weapons and lights.

M2 washers for headlights.

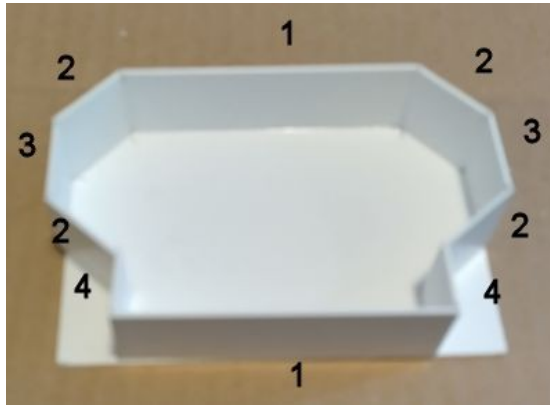
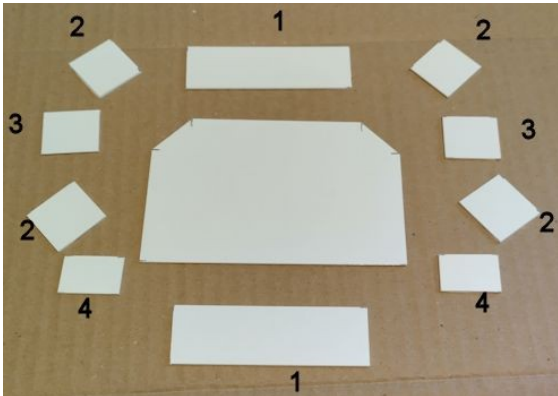
2mm or 3mm thick metal wire for exhaust pipes.

Assorted spare parts as desired for details.

## Basic Core Assembly.

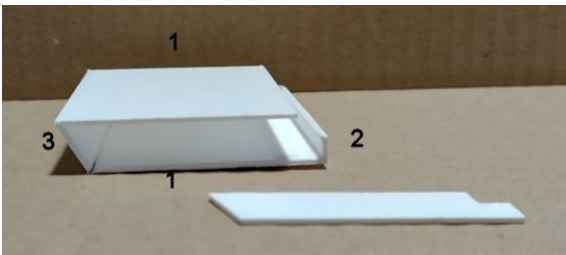
### The central passenger compartment.

This part of the model is made from 1mm thick plasticard. Some parts will require sanding to fit. The wall panels are glued to the base as shown.

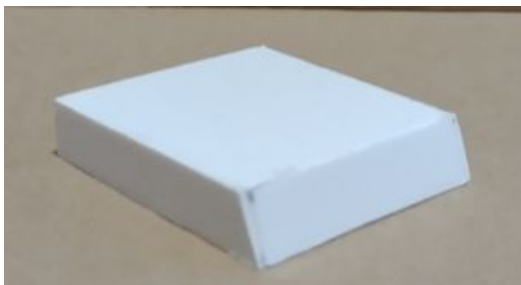
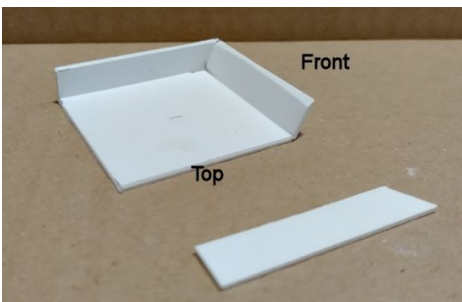


### The driver's compartment.

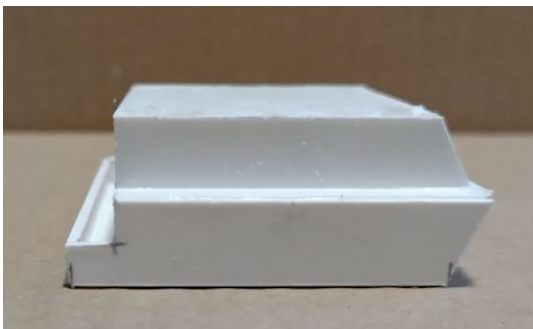
This part of the model is made from 1mm thick plasticard. Some parts will require sanding to fit. The base section spacing parts are glued to one of the side plates as shown. Then the second side plate is glued to the open end of these.



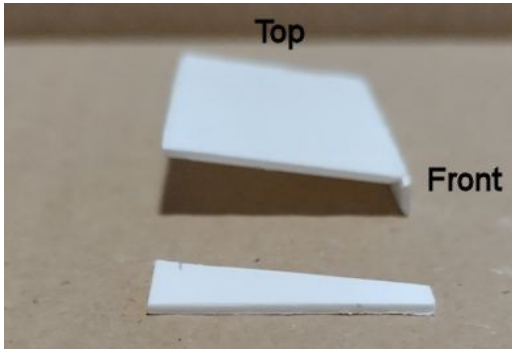
The mid section front and top plates are glued to one of the side plates as shown. Then the second side plate is glued to the open end of these.



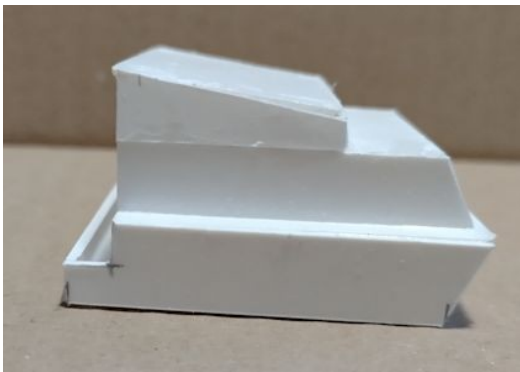
The completed mid section is then glued to the top of the base section centrally so that the back ends align.



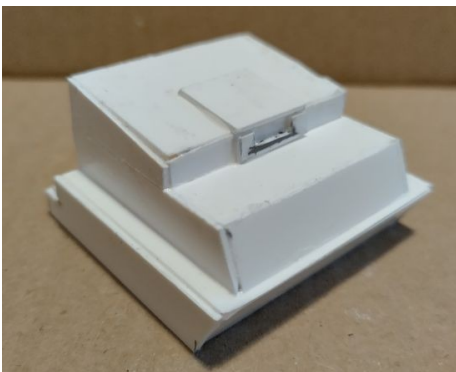
The top section front and top plates are glued to one of the side plates as shown. Then the second side plate is glued to the open end of these.



The completed top section is then glued to the top of the mid section so that the back ends align.



The driver's hatch front plate is glued to the top section front plate centrally. The driver's hatch top plate is then glued to the top section top plate so that it aligns with the driver's hatch front plate.



The completed driver's compartment is then glued centrally to the front of the passenger compartment.



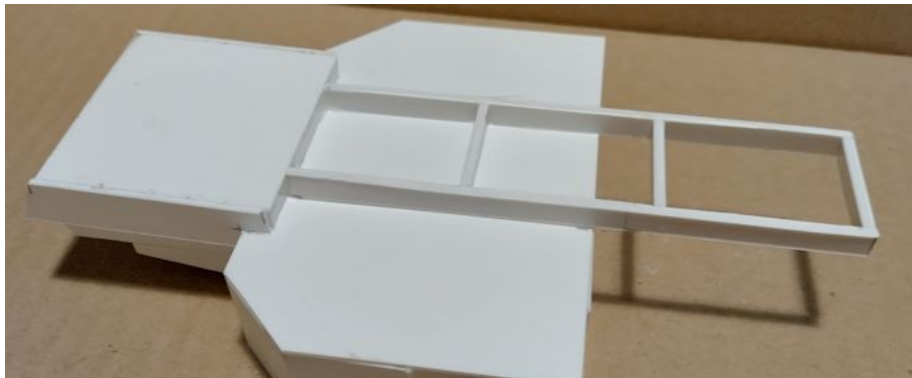
**The chassis.**

<https://thehazugfiles.uk/index.htm>

This part of the model is made from 2mm thick plasticard.

The two chassis side strips are glued to the underside of the passenger compartment so that there is a 26mm gap between them and 10mm in from the edge of the driver's compartment at each side.

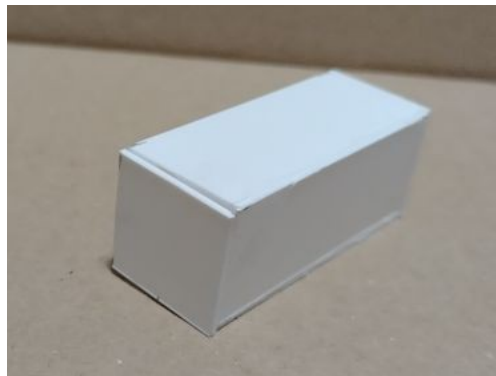
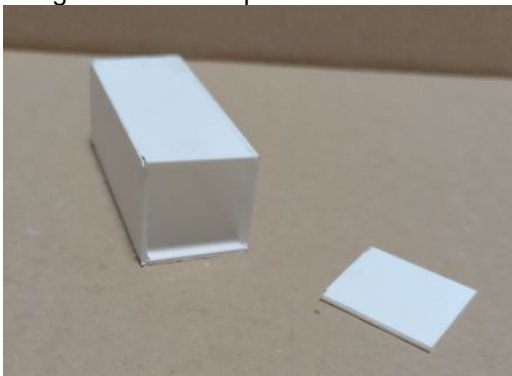
One of the chassis spacing strips is glued between the ends of the side strips. The other two spacing strips are glued between the side strips so that all three are roughly equally spaced.



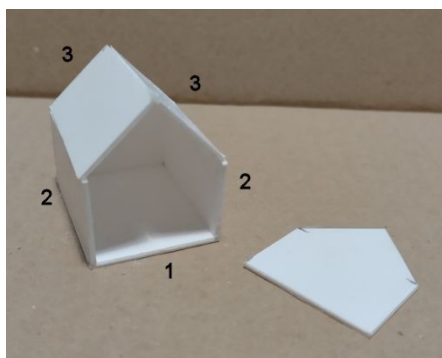
### The engine.

Apart from the wheel mounting strips this part of the model is made from 1mm thick plasticard. The rear wheel mounting strips are made from 2mm thick plasticard. Some parts will require sanding to fit.

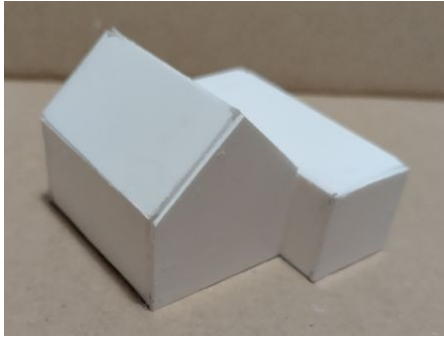
The four engine part 'A' side panels are glued to one of the end plates as shown. The second end plate is then glued over the open end.



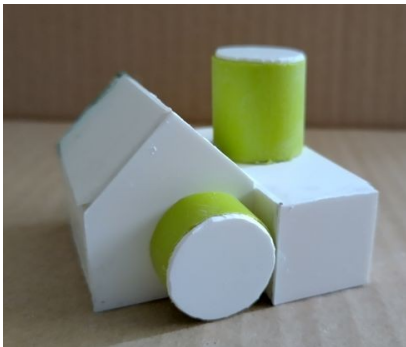
The engine part 'B' spacers are glued to one of the end plates as shown. The second end plate is then glued over the open end.



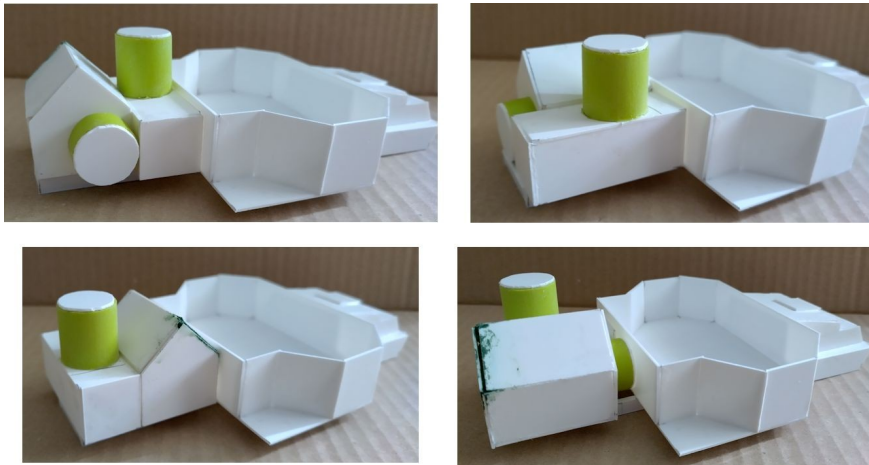
The two parts of the engine are then glued together as shown.



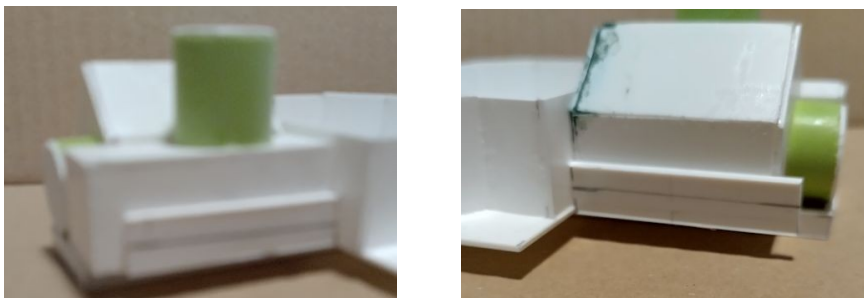
The main exhaust is made from a length of plastic tube approximately 20mm in diameter and length. One end of this is covered before it is glued to the top of engine part 'A' in the desired location  
A second length of 20mm plastic tube that is 10mm long when one end is covered is glued to parts 'A' and 'B' as shown.



The engine is now glued to the chassis and back of the passenger compartment. It is designed to be able to be glued any way around as desired.



The two rear wheel mounting strips are glued to the sides of the engines level with the bottom and touching the back of the passenger compartment.



## Wheel Assembly.

The battlewagon's wheels can be made in a variety of ways depending on available parts and your own taste. The original battlewagon used rear wheels that were significantly larger than the front ones and that has been retained for this project. The most basic wheel design is a simple cylinder that can be made from pipe, plastic lids or plasticard and then have details added but this section provides two examples each of other types of front and rear wheels.



### Front wheel type 1.

This design of wheel is fitted with a large tyre. The tyres are made from a pair of plastic bottle lids. These have any flat section at the base removed to leave only the textured part of the lids which are glued back to back. To strengthen the bond between the two lids it is suggested that a strip of card bent into a circle is fitted within the lids so that they can be glued to it as well.

The hub cap can be made from any suitable small plastic or metal circle. This could be a washer, plastic model shield, disc of plasticard or (as shown here) a piece cut from the lid of a Citadel paint pot.

A small length of plastic tube is glued to the back of the wheel as an axle to connect it the side of the driver's compartment.



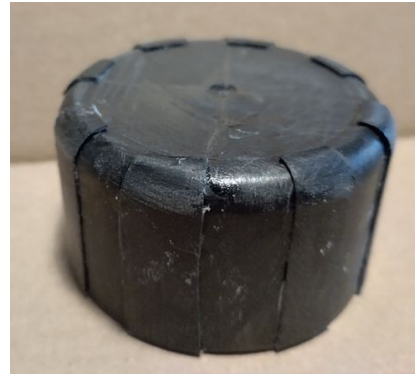
### Front wheel type 2.

This is an open wheel design with spokes. The wheel is made from a used tape reel and has an axle made from a pen lid. The axle is connected to the wheel by spokes made from plasticard. Treads made from more strips of plasticard are glued around the outside of the wheel.



**Rear wheel type 1.**

This design of wheel is also fitted with a large tyre. It is made from the lid of a can of spray paint. This is shortened to the desired thickness of the wheel. The treads are made from pieces cut from the outside of another spray paint lid glued around the first lid. By having the treads cover half the tyre's circumference one lid can be used to make the treads for two wheels.



The wheel can have a hub cap made in the same way as the similar front wheel, however the example shown here instead has a wheel made from a toothpaste lid that is mounted within the tyre. To position this first a small hole is cut in the middle of the tyre before the wheel piece is glued inside the wheel. The small hole is then widened to match the size of the wheel.



The back of the tyre is covered in thin (0.5mm thick) plasticard.

The back part of the wheel can also be detailed before a short length of plastic tube is glued in the middle to act as an axle.

The wheels are glued to the rear wheel mounting strips.



### **Rear wheel type 2.**

This wheel is a larger version of the type 2 front wheel.

The wheel is constructed from a short length of plastic pipe mounted inside an equal length taken from a plastic lid (any suitable cylindrical sections of plastic can be used). In this example pieces of balsa wood are used to space the two sections of plastic from one another.



The open ends of the wheel are covered by thin plasticard before spokes and treads are added in the same way as for the similar front wheel.



### **Mounting the wheels to the battlegagon.**

The exact mounting of the wheels to the battlegagon will depend on the size of the wheels as well as personal taste. It may be necessary to adjust the placement of the wheel mounting strips or add extra mounting parts if the wheels cannot be sensibly mounted to the core construction previously described here.

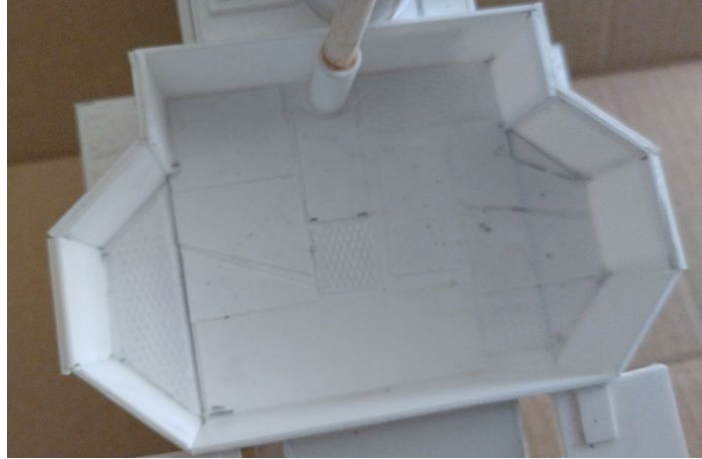
## Details.

Ideally every battlewagon should be unique and the details added to the model will help achieve this. This section describes ways to customise your models.

### Breaking up flat surfaces.

Flat surfaces can be covered in pieces of thin plasticard or textured plastic to give them a rough appearance. Building a border around the edge of a flat face will also help break up smooth areas.

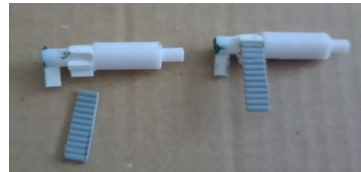
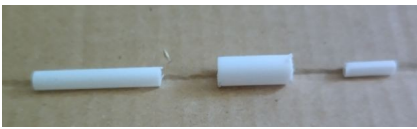
Rivet or nail heads can be represented by gluing very small squares of plasticard (for example 1mm square and 1mm thick) to the model. These should be applied in large numbers to give the model the appearance of being crudely constructed.



### Weapons.

There is no reason not to use spare weapon parts from official Games Workshop kits but weapons can also be custom built using short lengths of plastic tube that fit within one another. Belts of ammunition for automatic weapons can be made from pieces of ribbon cable.

Example of big shootas:

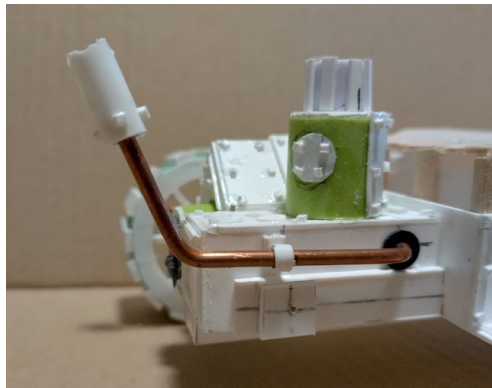
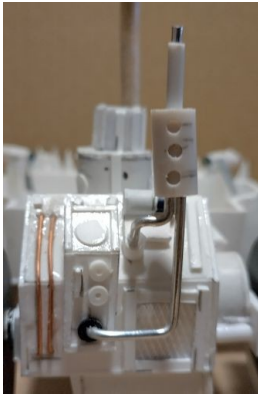


Example of a kannon:



### Exhausts/Pipes.

Exhausts and other pipes can be made from thick wire and pieces of plastic tube. The points where pipes enter the vehicle can be further detailed with washers with a hole that matches the diameter of the exhaust.



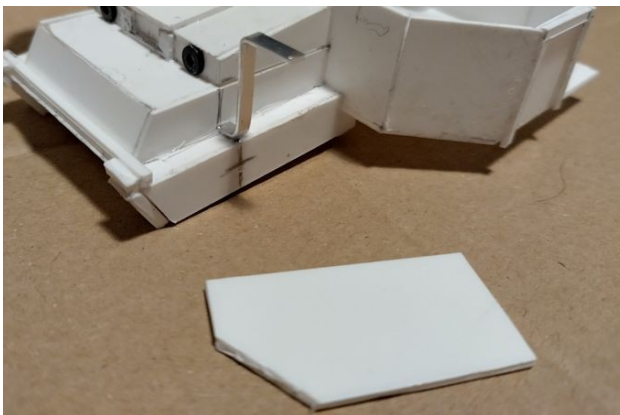
### Lights.

Washers can be used to represent lights that are flat against the vehicle (such as the lights either side of the driver's hatch on the original model). Free standing lights can be made from short pieces of plastic tube with a body of plasticard behind them.



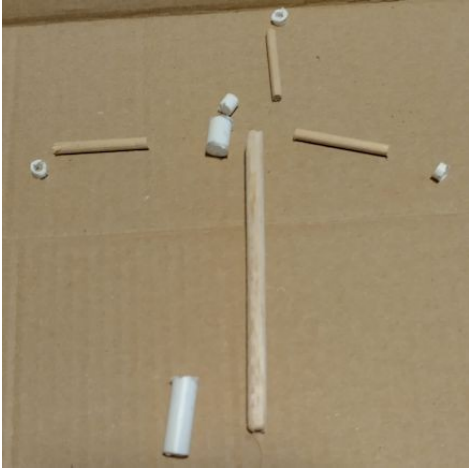
### Mudguards.

Mudguards can be made from pieces of plasticard cut to the desired size and shape. These can be supported by thin strips of plasticard but metal strip bent into shape is better for this.



**Mast.**

The original battlegon kit included a large mast from which banners could be flown. This can be replicated by using lengths of wooden dowel. The main mast section should be slightly wider than the top and side arms. The ends and joins should be covered by short lengths of plastic tube.

**Enclosing the passenger compartment.**

The passenger compartment does not have to be left open topped. A roof piece has been included in the templates to enclose this part of the vehicle. The thickness of plasticard used for this depends of how you want to enclose the passenger compartment. The roof can be stuck directly to the top of the passenger compartment walls to create a surface that can be further detailed or raised up to leave a gap between the walls and roof.

Example of an enclosed passenger compartment with roof made from balsa wood strips glued to sheet of thin plasticard:



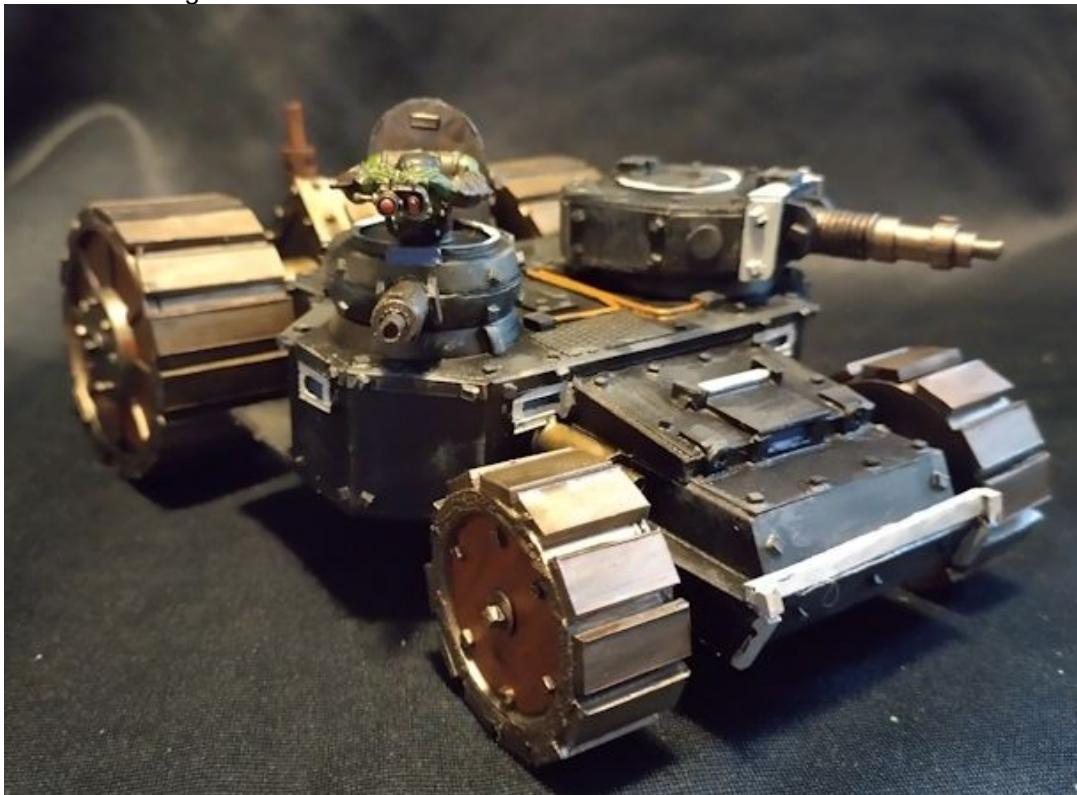
## Examples of Completed Battlewagons:

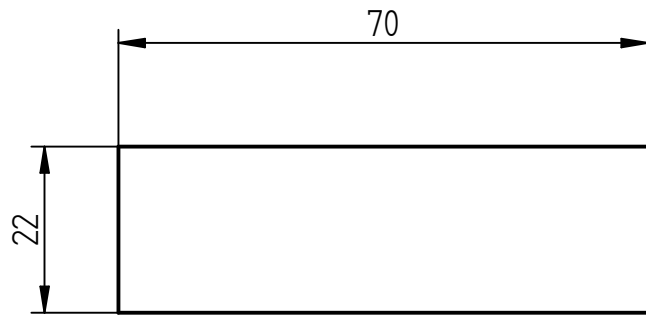
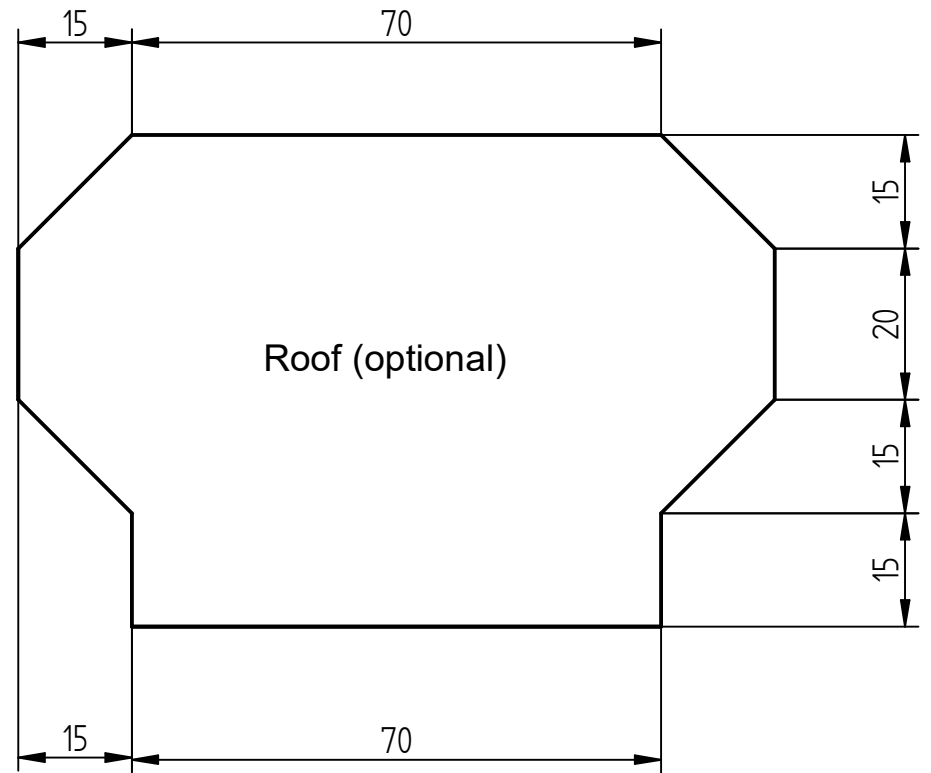
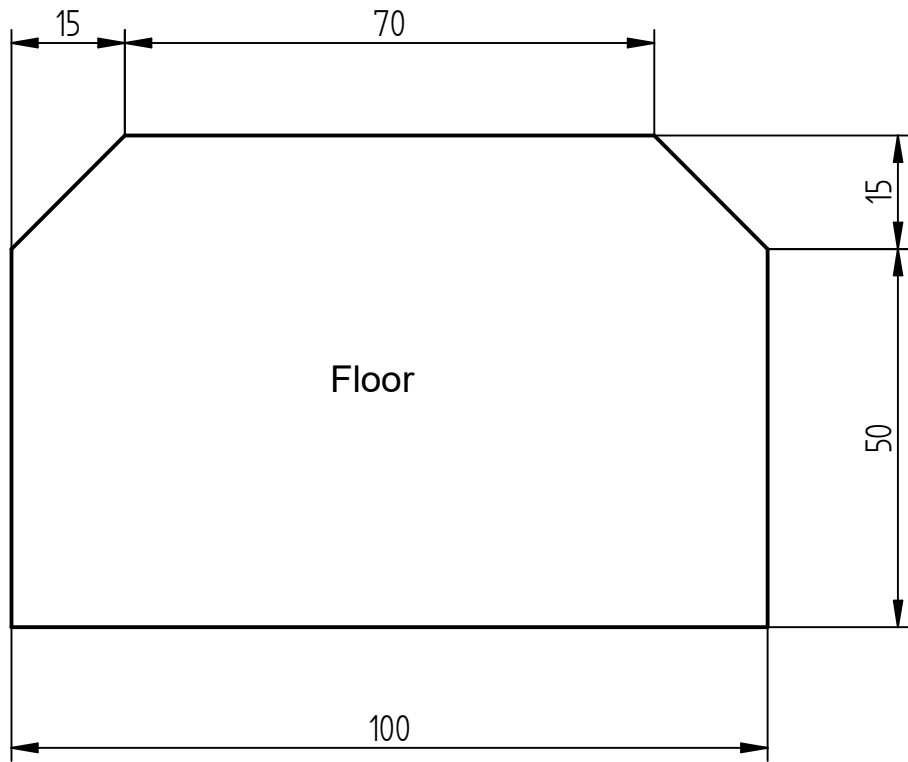
The image of the first page of this document shows a basic battlewagon with open passenger compartment and large tyres. Other examples are as follows:

Battlewagon with spoked wheels and covered passenger compartment.

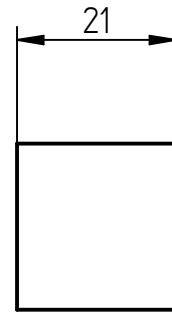


Fully armoured battlewagon with scratch built turrets.





Wall 1 (x2)



Wall 2 (x4)

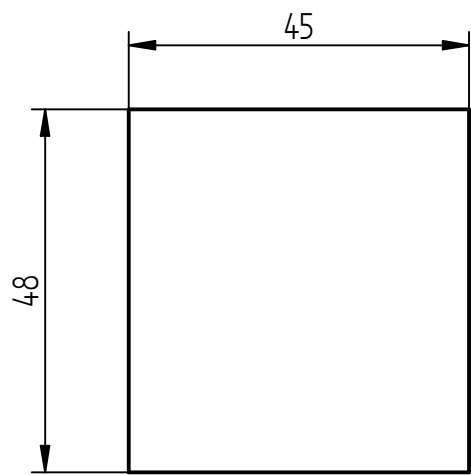


Wall 3 (x2)

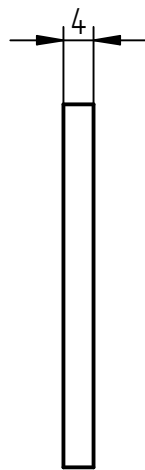


Wall 4 (x2)

Passenger compartment templates. Dimensions in mm  
 Retro style Ork battlewagon. <https://thehazugfiles.uk/index.htm>



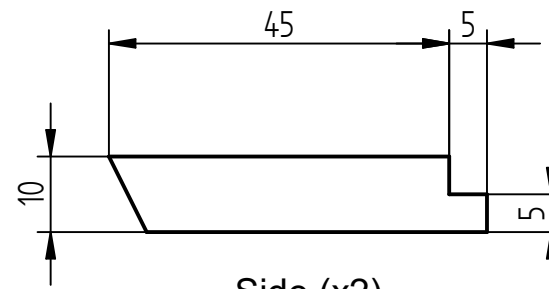
Spacer 1 (x2)



Spacer 2

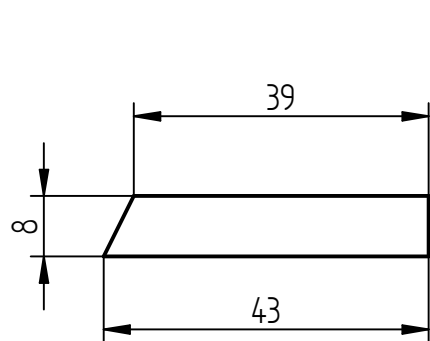


Spacer 3



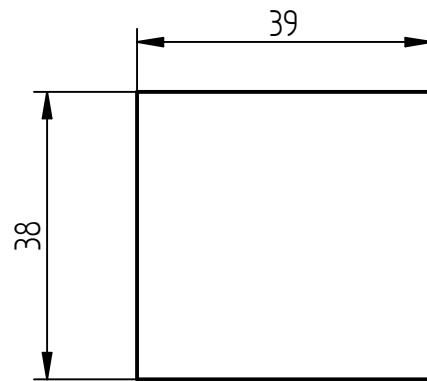
Side (x2)

Base section

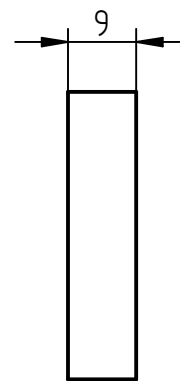


Side (x2)

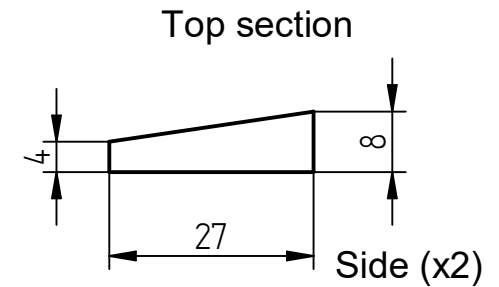
Mid section



Top

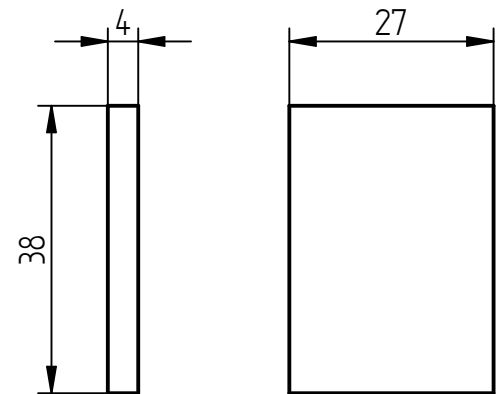


Front



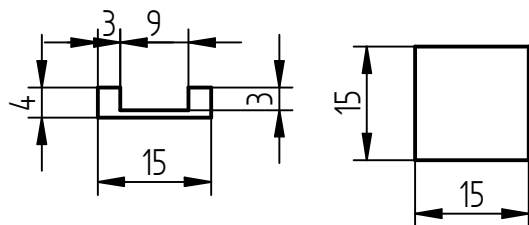
Side (x2)

Top section

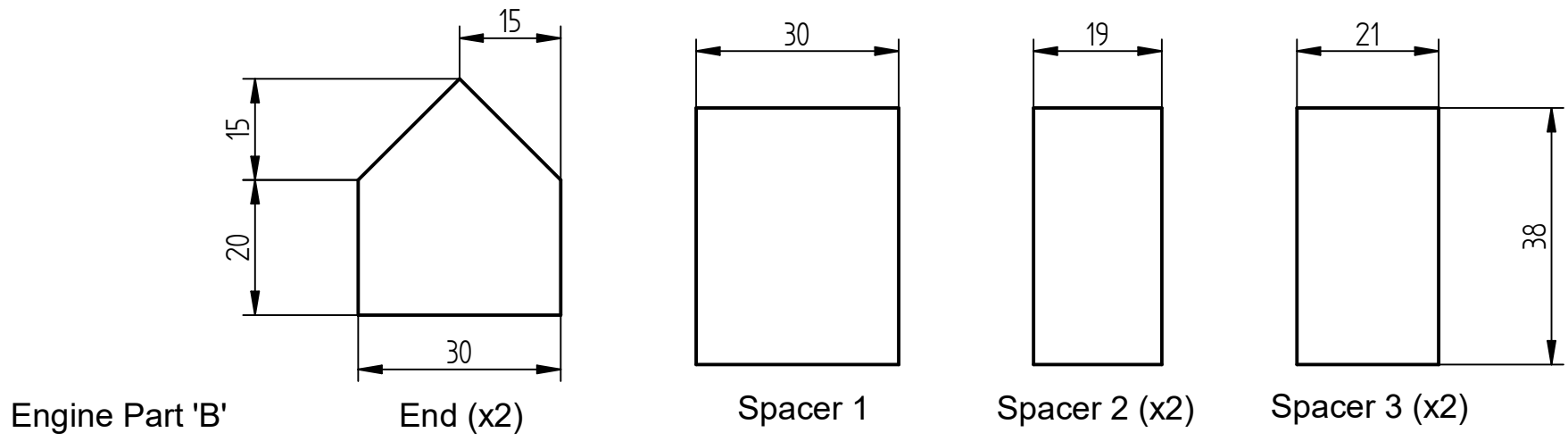
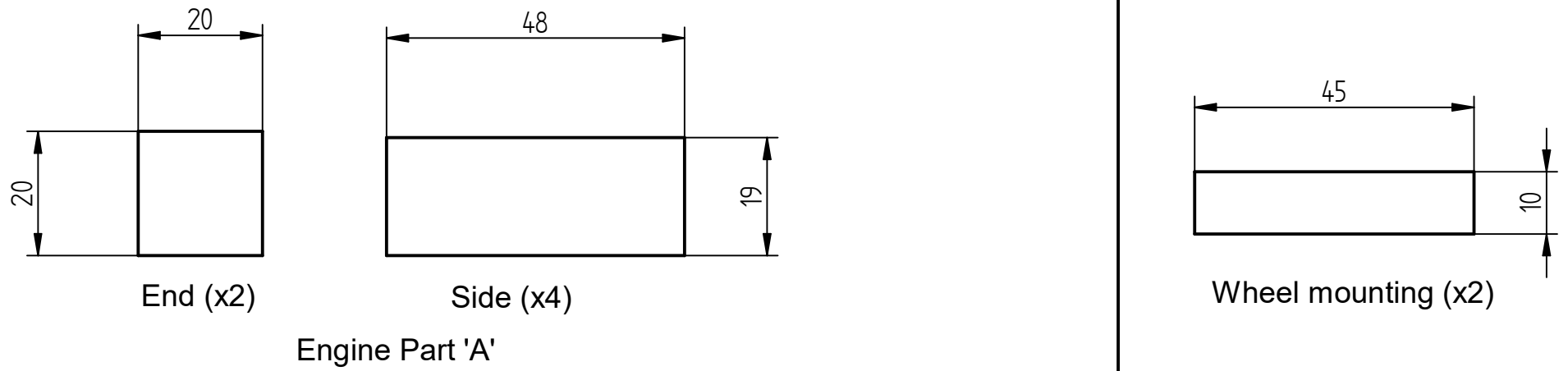
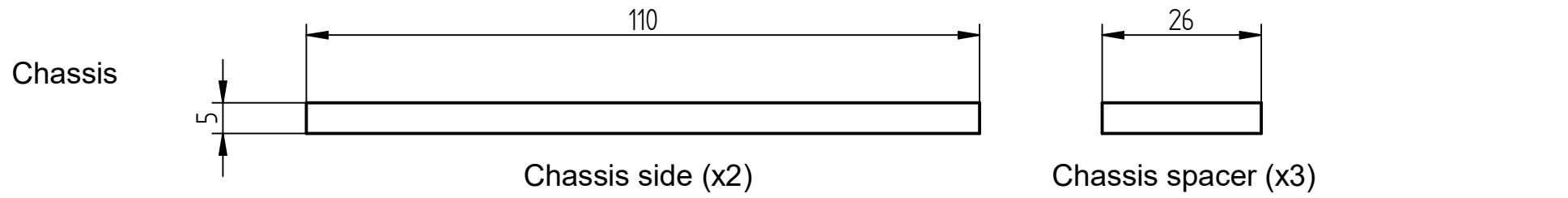


Front

Top



Driver's hatch



Chassis and engine templates. Dimensions in mm  
 Retro style Ork battlewagon. <https://thehazugfiles.uk/index.htm>