

**16W06**

## **16mm Scale (32mm Gauge) War Department Light Railways K Class Skip**



### **INTRODUCTION**

#### **Prototype Information**

The War Department Light Railways formed a vital link in the supply chain for the British Army in France and Belgium during the Great War of 1914-1918 (often referred to as the First World War). Indeed without them, the War could not have been conducted in the way it was. However, they are often overlooked, or even completely ignored by military historians, perhaps because of their relatively benign role - their equipment was designed for carrying supplies, not for killing the enemy!

The French and German governments had been building and stocking up on equipment for their strategic light railways since the end of the Franco-Prussian War towards the end of the 19th century. Both had chosen to standardise on a track gauge of 60cm (approximately 2 feet). The British military authorities, used light railways at various establishments, but were ill-prepared when the Great War started, and had a lot of catching up to do very rapidly. It was only at this stage that they decided to adopt the same track gauge as the French for their light railways (having previously thought that the British "Colonial" gauge of 2ft-6in would be more suitable). British locomotive builders were not able to cope with demand, partly because of their "hand-made" manufacturing techniques, and partly because much capacity had been taken over for weapon and munition making. Hence the need for the well-known American-built Baldwin 4-6-0 tank locos. British rolling stock builders were in a better position, and virtually all the wagons used by the WDLR were British built.

The side-tipping "skip" wagon with the characteristic V shape body did not originate during the Great War, but during that conflict, Robert Hudson of Leeds built large numbers of wagons with  $\frac{3}{4}$  cubic yard and 1 cubic yard capacities. The smaller one was most common and is what is represented by this kit. Hudson built them to a new design incorporating pressed steel headstocks and body support, with channel section side frames

and the very distinctive "bulls horn" body catch brackets.

Many of these wagons were undoubtedly destroyed during the war, but plenty survived to enter industrial service afterwards. At the time of writing, only two are known to survive (neither of them complete), but there may be others waiting to be discovered.

After the War, Robert Hudson changed the design to their "Victory" skip, but this was quickly replaced due to certain defects, by the so-called New Victory design. By the mid 1930s the "Rugga" design was introduced and this became, probably, the most numerous design of wagon (of any gauge) in the British Isles. World-wide it was probably only outnumbered by the Koppel type, of German origin, but also built in America in large quantities.

## MODEL INFORMATION

This kit will enable you to build an accurate replica of a WDLR Class K skip wagon. Construction is largely from detailed injection moulded polystyrene components, complete with metal tyred wheelsets, brass bearings and scale couplings.

### Tools Needed

The following tools are needed, most of which will already be in the toolkit of the average modeller.

"Stanley" type knife	for removing polystyrene items from the moulding sprues.
Assortment of small files	for finishing removal of pips and tabs.
Slater's MekPak (or similar)	For assembly of polystyrene components Also needs a fine brush for application.

### Removing plastic parts from the Sprues

Cut through the joining tabs with a sharp knife or nippers, away from item required, removing the remains of the tab afterwards with the knife and finishing with a file. Do not try to break or snap the tabs, as this usually results in breaking away part of the item you need!

### Joining Plastic Components

Hold the two parts together and apply the MekPak with a fine brush so that the liquid is drawn into the joint by capillary action. The joint will hold very rapidly, but once you've put together all the components in that session, put the model to one side for the solvent joints to cure completely. If you accidentally apply too much MekPak be careful not to touch the affected area and set the parts aside for them to dry out.

### Painting and Finishing

Nobody knows what colour these wagons were painted during the Great War. It is most likely that they were merely painted in red or grey primer and never given a finishing coat of paint, but if they were it would have been Admiralty Grey (use Great Western Railway wagon grey) or black.

Very soon they would have been a mixture of rust and whatever material was being carried; in northern France this would have been a chalky soil used in all sorts of construction work.

The secret of good model painting is preparation even when the final finish is to be very rough! Make sure that all parts are thoroughly clean, dry and free of any grease. The plastic parts should be washed with a mildly abrasive kitchen cream cleaner, such as Cif (ex Jif). Use an old toothbrush to work into the corners and crevices. When it is clean, rinse in clean water. Once thoroughly clean and dry do not handle the model except with surgical gloves or tissue paper/kitchen roll. Leave to dry, at least overnight, before applying the primer. Cover with a clean cardboard box or similar to prevent dust settling. It is common practice these days for metal parts (such as the wheel tyres) to be treated with a chemical metal black (Gun Blue or similar) either before painting or to avoid the need for painting.

The easiest way to prime and paint a model like this is with car type aerosol spray can. Make sure it is the modern acrylic type not the older cellulose type, which can dissolve polystyrene-based plastics. To prime the plastic parts only needs a light mist coat from the aerosol spray. For this job, use grey if it is going to be painted "properly", or red oxide if the desired finish is rust. Read the manufacturer's recommendations on the minimum drying time. If you are going to follow a car aerosol spray primer with the same maker's top coat, ten minutes may be sufficient. However, with many paints you will find that at least 24 hours should elapse before the top coat is applied.

If you want your model to be rusty all over (and the real thing often was) there are several products available for simulating very realistic rust. Two products we know about (and we have no connection with either the manufacturers or suppliers of them) are American made but available in the UK. One is called "Rustall" and the other "Modern Options Instant Rust"; both are available from traders at model railway exhibition and an internet search will reveal numerous other suppliers.

## ASSEMBLY INSTRUCTIONS

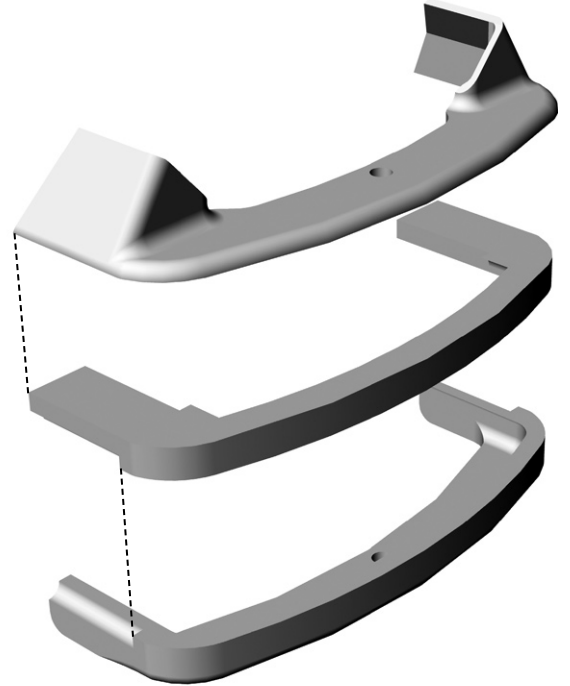
To avoid tedious repetition, it will be assumed in each sub-section that the parts have been removed from the moulding sprue, etc., that tabs, moulding pips, etc., have been removed and preliminary cleaning done ready for gluing. In these instruction, "gluing" means using MekPak for plastic-to-plastic assembly.

### Stage 1 - Assemble Headstocks

Note: only one is illustrated; there are two identical headstocks in each wagon.

Assemble and glue the three pieces as shown using the locating pins and notches. When thoroughly dry, gently dress the outer face with a fine file or wet-and dry, to blend together as if made from one piece. This is not as difficult as it sounds, but greatly adds to the finished appearance of the model.

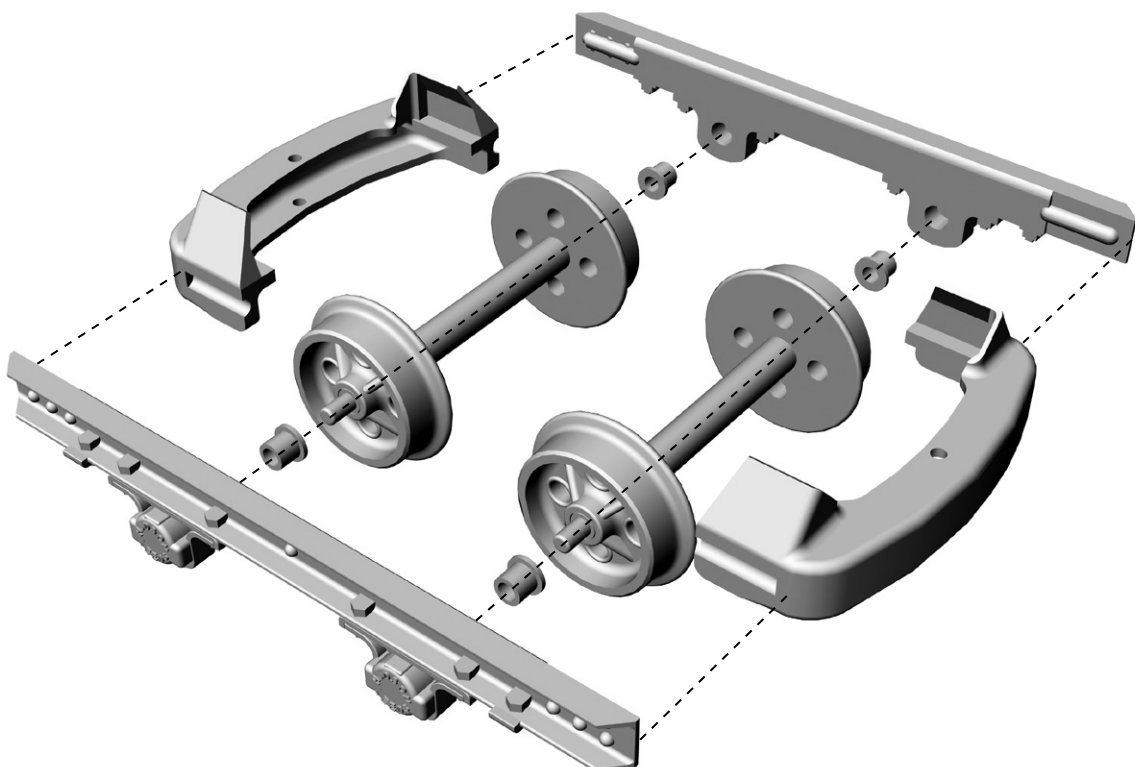
The assembled result can be seen in the picture for stage 2.



### Stage 2 - Assemble Underframe

Note: This stage permanently traps the wheelsets into the frame. You may wish to do some painting and finishing before this happens.

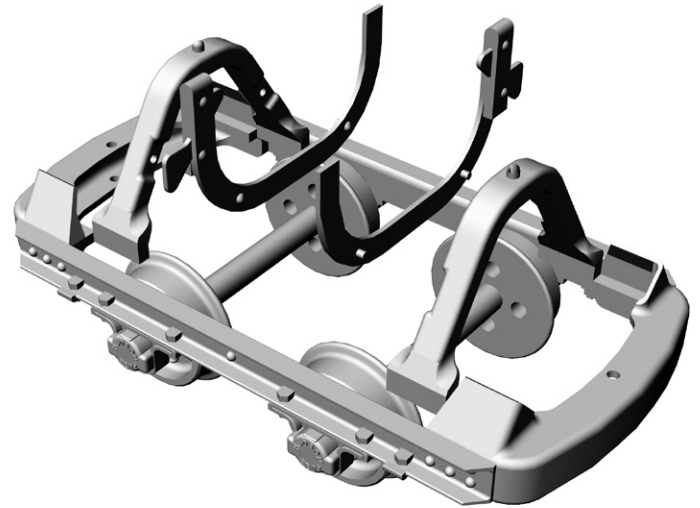
Push the 4 brass bearings into the side channels. (These may need to be retained by the tiniest drop of Superglue/ACC/Cyano, but make sure you don't inadvertently glue the axle journals into the bearings!). Then assemble the side channels, headstocks and wheelsets as shown. Do this right way up with the wheels on a level surface (a piece of mirror or plate glass is ideal, but not essential). Also, by viewing down from above, make sure that the wheelsets and side channels are perpendicular (i.e. that the frame is assembled square).



**Stage 3 - Assemble Upstands**

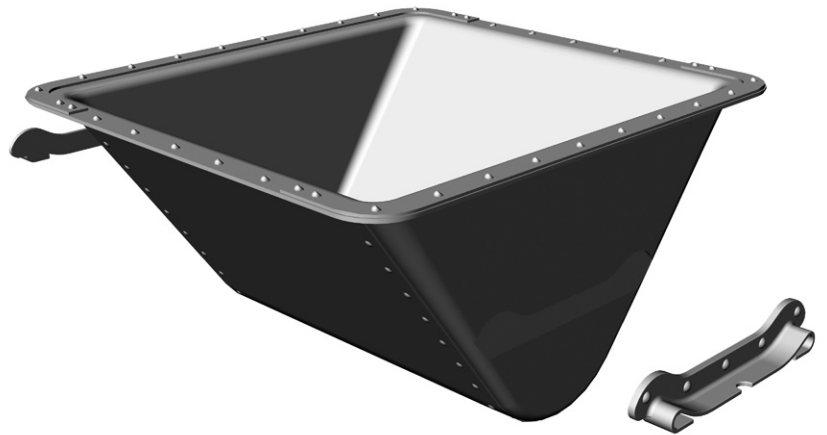
Slide the Body supports (inverted "V", part X16W0604) into the recess in the headstocks and glue, making sure, when viewed from the side that they are vertical. Then glue the body brackets ("U" shape, part X16W0605) into the recesses in the body support, located by little plastic pins.

Note carefully the orientation of each piece before gluing.

**Stage 4 - Assemble Body**

Glue the cradle brackets (part X16W0606) onto the ends of the body. There are slight recesses to ensure the correct location.

There are several ways to mount the body onto the underframe. The simplest, and that recommended is just to carefully "click" the body into place (see picture on the title page for the correct location) so that it remains removable, but reasonably secure. You can unclick it and have the body in the tipped position, but if you want it more secure, then simply glue it in place.



If you want to be able to actually tip the body, then remove that part of the retaining catch which stops the body tipping. If you want fully working retaining catches, then we're afraid you're on your own in terms of how to achieve it!

**Stage 5 - Couplings (could also be done as part of Stage 1)**

Take a piece of the 2mm brass rod, and bend one end by about 45°. Glue into holes in headstock (as seen in the picture on page 1) and when set, trim the bottom level with the underside of the headstock. Form the chain into two 3-link chains, if necessary, by twisting links open, re-arranging, then twisting closed. You only need one chain per wagon, but be careful not to lose it - as happens on the real thing just as easily!

**Parts List****Ref. 16W06: WDLR K Class Skip**

<b>Part Number</b>	<b>Description</b>	<b>No. Per Kit</b>
<b>Plastic Mouldings</b>		
16W0601	Headstock (3 items on sprue) .....	2
16W0602	Body (1 item on sprue).....	1
16W0603	Side Channels (2 items on sprue) .....	1
16W0604	Body Support (2 items on sprue).....	1
16W0605/6	Body and Cradle Brackets (4 items on sprue) .....	1
<b>Other Parts</b>		
60 thou Brass Wire	for Coupling Pins (1½" long).....	1
Coupling Chain	Brass (16W01/2) (6-link length) .....	1
16W0620	Wheelsets (2 x wheels mounted on axle) .....	2
1211	Bearings (4mm coach bearings) .....	4
-	Instructions .....	1