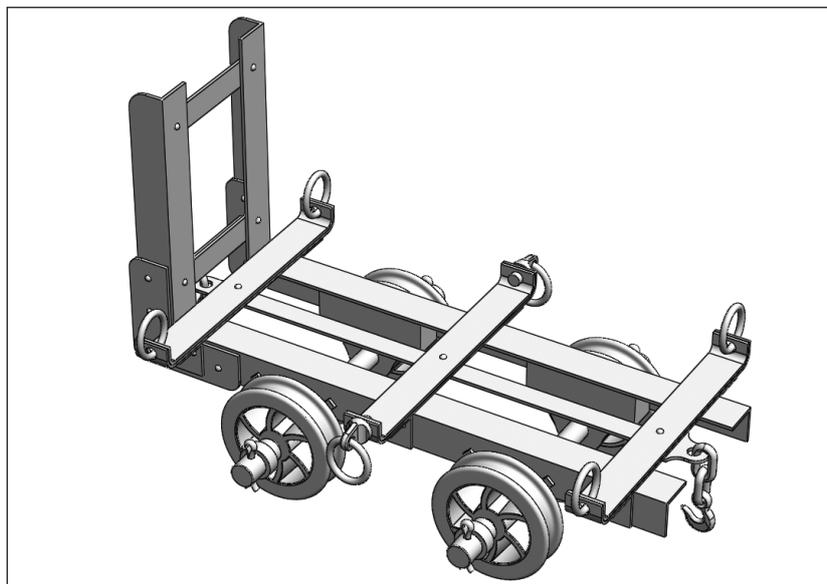


Ref. 16W08 16mm Scale Dinorwic Slab Wagon



INTRODUCTION

Prototype Information

Most Welsh slate quarries had three types of wagon: one for carrying the slabs of slate from the quarry face to the processing mill; one for carrying the vast amount of rubbish (waste slate) to the tips; and one for carrying the finished product (usually roofing slates) away to the outside world (e.g. by ship or main-line railway). Slater's produce kits for all three types from the great Dinorwic Quarry at Llanberis to go with our loco kit from the same place.

Model Information

This kit will enable you to build an accurate scale representation of the Dinorwic Slab Wagon. The assembly of the etched brass components, is best done by soldering. However, all main parts are designed to fold up like metal Origami, then locate together with tabs etc. It is thus perfectly possible to assemble with epoxy glue (Araldite or similar) should you wish to do so.

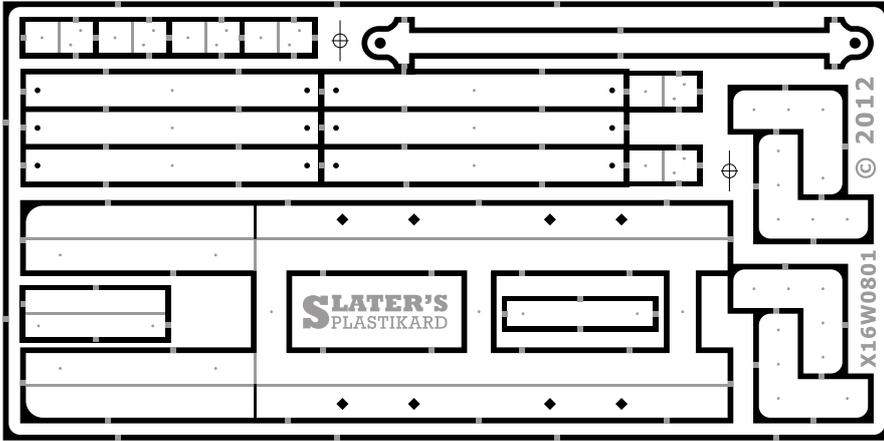
The representation of rivets in this kit is by the "push out" method, using half etched holes on the back of the part, and needing a suitable tool for the purpose. The best tool is a proper rivet press, with a male punch and female die, of which there are several available; you will need a 1mm diameter die. It is possible to do the rivets with a blunt scribe (or similar) pressed onto a fairly hard surface (such as an off-cut of MDF). Alternatively, you could drill out all the half etched rivet locations and use real brass rivets or pins (not included). As a final resort, don't do the rivets at all; this will look a lot better than a lot of badly formed rivets.

Parts List

Brass Etching	Sheet	1
Brass Castings	Lifting Eyes.....	2
	Axle End/CotterPin	4
	Dinorwic Couplings (2 on sprue)	1

Whitemetal Castings	Axleboxes.....	4
Wheels	12" diameter double flanged.....	4
Axles	Steel	2
Coupling Chain	Brass (links).....	4
Brass Wire	40thou (1mm) - 6" long	1

Etching Drawing



Not to scale

Acknowledgments

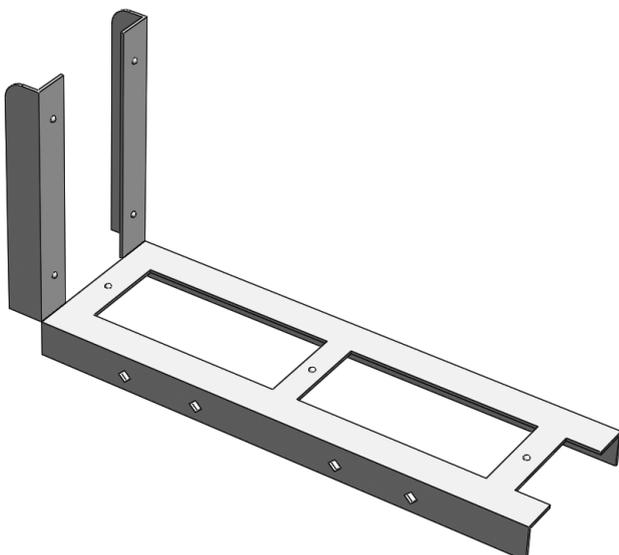
This kit was originally developed by Bob Alderman for his own use. We have modified it to suit our production methods.

Assembly

These instructions take the form of computer generated pictures of a wagon being assembled. Where necessary, text has been added to amplify what is shown in the pictures. In all sections, the rivets must be formed first. Where items have to be folded, the half-etched fold line is on the inside where the bend is 90°, and on the outside where the bend is 180° (unless otherwise stated).

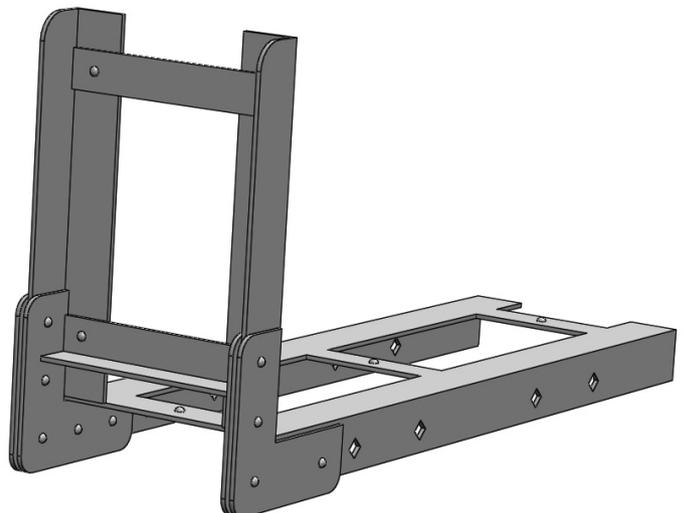
Stage 1

Fold up main body. Note that the fold lines for the joint between the upright angles and the horizontal ones are on the outside of the fold (contrary to normal practice).



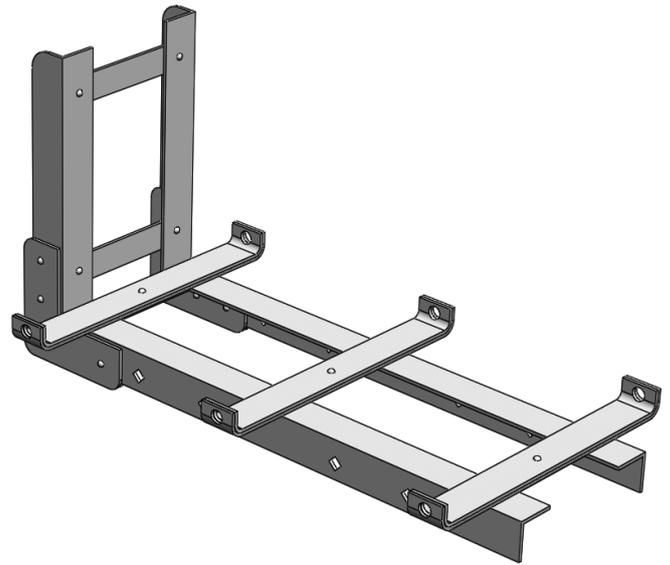
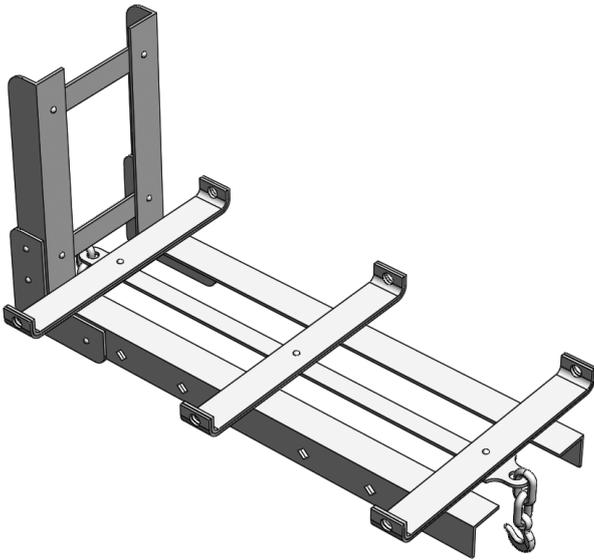
Stage 2

Add the rivetted reinforcing 'L' shape pieces and the flat strip and angle spacers. Note which way the L pieces go, with the 2 rivets horizontal and on the outside.



Stage 3

Add the cross members. These are double layered. Using the rivet dimples for location, tack solder the middle then grip 3mm at each end in turn in a pair of smooth plyers and bend over forming a radius as shown. Finish soldering and attach to frame using the rivet dimples to aid location. Enlarge the holes to 2mm diameter.

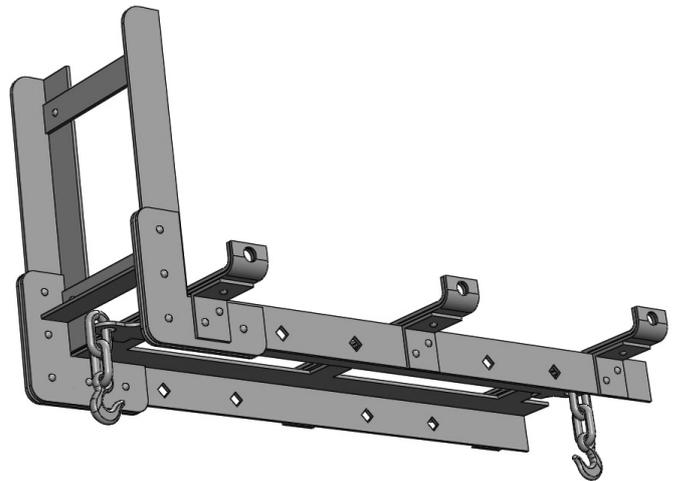
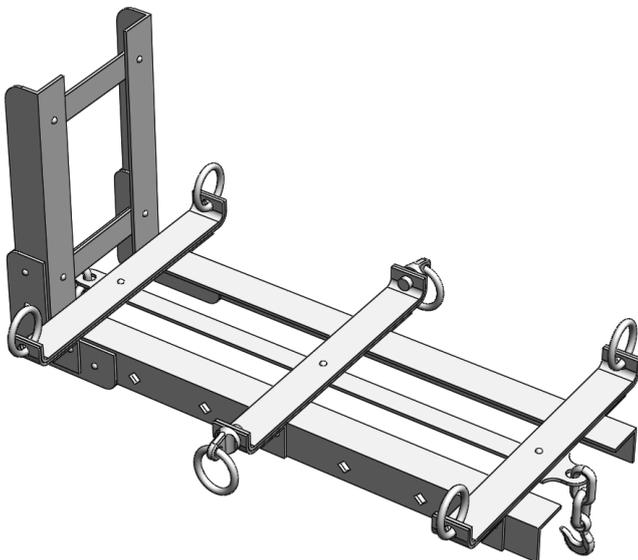
**Stage 4**

Add the etched coupling bar (down the centreline), then the couplings. Gently open up both chain links to insert into the hook and through the end of the coupling bar, trapping all the parts in place.

Note that the cast coupling bar on the sprue is not needed for this kit.

Stage 5

Add the reinforcing angle (3 per side) between the frames and the underside of the cross members.

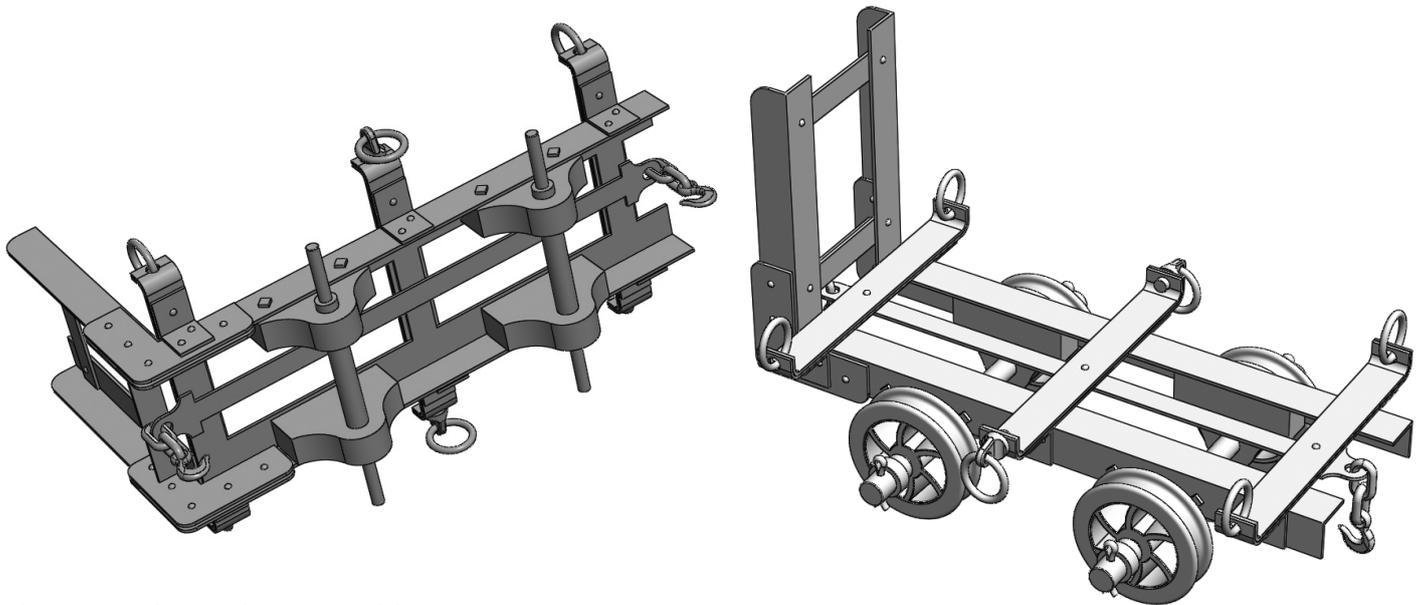
**Stage 6**

Add the cast lifting eyes to the ends of the middle cross member, then form 6 rings of about 4mm internal diameter from the 40thou (1mm) brass wire supplied. These go where shown on the ends of the cross members.

Stage 7

Fit the whitemetal axleboxes, steel axles, wheels and retainer/cotter pin castings - in that order. The axleboxes need to be drilled out to 1/8" (3.2mm). The axles are fixed into these holes, so it does not have to be high precision work! The axleboxes are located by the pairs of holes in the underframe channels. Once the axleboxes are glued into place, the square location protrusions need to be trimmed down so that they are about 0.5mm proud of the underframe sides.

Glue the axles into the axleboxes with an equal amount protruding each side. The wheels slide on and should revolve freely. Finally glue on the retainers - use 2-part epoxy, but make sure that no glue runs out and fixes the wheels on the axles! The cotter pins should be vertical with the loop at the top.



That completes the assembly.

Painting and Finishing

These wagons may have been painted when new (probably only red oxide primer), but latterly the only "livery" they carried was rust. There are numerous ways of reproducing rust on a model; here we outline just one.

Depending on your skill and personal preferences, you may wish to complete all the painting and finishing before finally fitting the wheels and retainers.

First, thoroughly clean the model with a kitchen cleaner such as Cif. Allow to dry completely.

The edges of brass etchings are very vulnerable to chipping and general wear. Therefore it is well worth treating these edges with a suitable metal black such as Birchwood Casey Gun Blue; the bottle says it is not suitable for non ferrous material but experience says otherwise! It is probably worth doing the whole wagon, axles and wheel tyres included.

Then give the whole model a light coat of Red Oxide acrylic primer. Halfords in the UK supply it for motor cars.

A good rusty finish can be achieved with Modern Options Instant Rust™ Set, available from several traders who regularly attend model shows. It is an artist material, primarily intended for sculptures, but it works well on larger scale models. The "rust" is a grey paint-like substance with iron powder suspended in it. When dry the developer supplied is brushed over it to create the rust. This can be applied several times to develop degrees of rust.

The correct load would be a large lump of slate. Pick up some suitable pieces next time you are in North Wales.