WDLR10

War Department 'L' Class Side Tipping Wagon

History

As the First World War raged on, British companies struggled to keep up with the War effort. In 1916, the War Department put in an order for tipping wagons with the Western Wheeled Scraper Company in the USA.

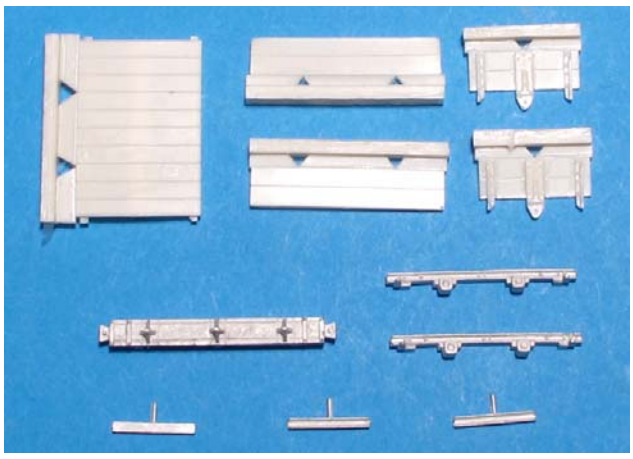
One of their 60cm gauge standard products – also used by the US Army - suited the requirement. Unlike the British 'skip' wagon, these consisted of a wooden body centrally pivoted on a metal underframe. The body had doors either side, which lifted as the body was tipped. Being pivoted, the body was held level by hooks and chains in each corner – a pair of each was released on one side to allow the body to tip to the other side. The wagons proved to be useful, but in the end British companies were able to meet demand and no more were ordered.

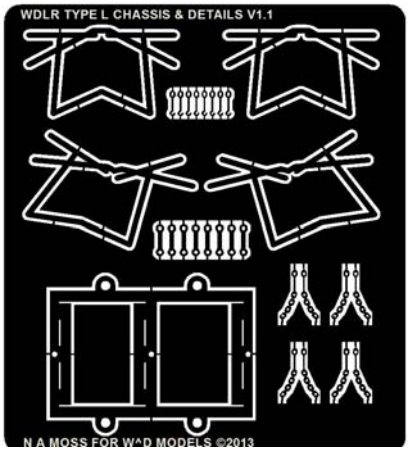
References

Railways and War before 1918 by WJK Davies and D Bishop. 1972. Out of Print.
Light Railways of the First World War by WJK Davies. 1967. Out of Print.
Narrow Gauge to No Man's Land by Richard Dunn. 1990. Out of Print.
Narrow Gauge and Industrial Railway Modelling Review Issue No 84 – article by Tom Porteous.

Before you begin

This kit is produced using three materials – resin, etched nickel silver and whitemetal – all of which should be familiar to the railway modeller. Carefully wash the resin parts before use. Give them a waft of primer to bring out the detail and to make it easier to see where to remove the sprue. Any air holes can be filled using a gel-type superglue. The nickel silver etch has sharp edges. The tags holding the parts are as small as possible and should be cut using a sharp craft knife and finished off with a small file. The white metal may have some casting 'flash'. This can be removed with a sharp craft knife or small file.





Construction

As the wheels will need to be trapped in the underframe during construction we recommend that the model is primed as you go along. This will prevent the wheels from being primed by accident.

1) Take the etched underframe and carefully fold down the three cross members – all fold lines are to the inside of the bend. Fold down one sole bar to 90 degrees and fold the other to 45 degrees. Take the three cast cross members and fit these to the etched cross members – the pegs help to locate them on the etch. Note that each cast cross members has a flat side – ensure that this goes against the folded down etched part – this then allows the other side to represent the metal angle of the prototype cross member.

2) Now prime the underframe and the two cast sole bars.

3) Once dry, fold down and glue the other etched sole bar to 90 degrees, trapping the wheels in place. The cast sole bars can now be added, ensuring that the axle boxes align with the axle holes in the etch. Don't get any glue one the axle ends or you might glue the whole thing solid. The underframe should now run smoothly.

4) Having primed the individual resin parts, it should be clear where to cut and remove the sprue and feeds. As ever, cut to the 'wrong' side of the line and file back to the edge of each part.

5) Take the floor and add an end. This should locate so that the central end strapping is aligned with the beam beneath the floor. Once set, add the other end. Carefully add the sides. NOTE that both ends and sides sit on top of the floor.

6) Once set, turn the body over and fit the cast longitudinal pivot beam. Note that this has a casting line along each side. Carefully remove this – scraping away with a curved knife blade is best - leaving the three bolt heads on each side in place. The three pivots on the top of the longitudinal beam should fit in the corresponding pivots on the bottom of the floor. Fitting this part is critical to whether the body sits level so it's best to support it as level as possible while the glue sets.

7) Remove the operating levers from the etch – the top horizontal pair are required. These are fitted to the end of the body as per the photograph over the page – the levers can be glued to the ends of the sides to ensure they don't get damaged. Once set, prime the body.

8) On the underframe, remove the two outer pegs of the cross members and file flush. Shorten the central peg to about 1mm. The underside of the longitudinal pivot beam has three holes, plus cut outs for fitting Greenwich couplings. Fit the beam to the underframe locating the central peg in its hole and ensuring that the body and underframe are parallel.

9) Prime the rest of the etch and once dry, carefully remove each hook and chain – there are spares just in case! The end of the hook fits to the bottom corner of the body and the end of the chain fits to the projection on the ends of the cast sole bar. The wagon is now complete.

10) The kit is designed to fit Greenwich couplings. These are constructed as per their instructions and can be fitted between the underframe and the pivot beam where the cut out has left space. The tail of the coupling can be shortened to allow as close coupling as possible. If you want even closer coupling, the cast coupling blocks can be removed from the ends of the pivot beam. RT Models also produce shorter coupling loops compatible with the Greenwich coupling which may be of use.

Open Version

The etch also contains parts to make an open version of the wagon as a static model or diorama. The photograph shows one built up. Additional details include the separate hooks, which can be fixed hanging down from the corners of the tipped body. Similarly, the chains can be separated from their hooks and fitted hanging down from their fixing points on the underframe. For full details we suggest that reference is made to photographs in the various references given. The article in Narrow Gauge and Industrial Railway Modelling Review is particularly useful.

Painting and Transfers

It is suggested that W^D rolling stock bodies were most likely delivered in a 'battleship' grey colour. Both Humbrol 140 or Tamiya XF54-Dark sea grey have been identified as being closest to this. Details of the US Army livery and lettering can be found in Richard Dunn's 'Narrow Gauge to No Mans Land'.

W^D Models produces a sheet of suitable WDLR transfers for the 'L' Class. Details can be found on our website. If there is enough interest, a set for the US Army livery might be produced.

Acknowledgements

W^D would like to thank the late Tom Porteous for the original inspiration for this kit and his help, to Ian Armstrong for the patterns, Neil Moss for the etch design and David Gander for his help, advice and instructions.