



THE 2MM SCALE ASSOCIATION

INSTRUCTIONS FOR BR STANDARD BRAKE VAN DIAGRAM 1/506

This etch includes body and chassis components but requires the following items for completion:

4 No.	brass top hat bearings	(2-041)	2 prs.	6mm 3 HD wheels (12.25mm axle)	(2-205)
4 No.	brass turned wagon buffers	(2-443)	1 pr.	DG Couplings	(2-110)
2 No.	torpedo vents (Ultima or similar)			25 mm length of 0.3mm brass or nickel silver wire for chimney	

Modelmaster transfers (Sheet 2615 for pre-1965 or 2863 for post 1965 livery)

The Prototype - The standard BR brake van Diag 1/506 was the result of various alterations and improvements to the LNER design. Constructed predominantly at Darlington's Faverdale Works, a total of 4632 were constructed between 1950 and 1961. Full details, including key dimensions, scale drawings and running numbers are contained in the HMRS publication "British Railways Brake Vans & Ballast Ploughs" by Eric Gent (ISBN 0-902835-16-5)

The Model - Refer to the exploded diagram overleaf.

BE VERY CAREFUL WHERE YOU CUT PARTS OFF, especially on the solebar units which have bend up tabs (NOT to be cut off) for both footboards, and solebars with "hinges" which are not cut off until AFTER the blank and outer solebars are soldered together. Check and clean out all holes prior to removing parts from the etch, then clean off the attachment tabs and any excessive edge "cusp".

The chassis - Bend up the the chassis and fit top hat bearings and buffers. Bend up the solebars and solder along the edges, keeping the vertical slots free of solder. Solder this unit to the chassis with the tops flush. Bend up the tabs and fit the footboards on top (top board first) and noting the tab/slot in the middle of the solebar. Do likewise for the lower footboard in the bottom rail. Fit four "open" thick gussets into the wider slots at the outer ends of the solebars. The rest of the gussets are the single thickness solid type. You may find it easier to glue these in. Bend up the axlebox overlays and glue over the top hat bearings. Fit wheels last, after all soldering is done.

The body - Note the body is wider than the chassis and overhangs each side. Start by deciding which configuration of end lamp iron(s) your model has. Earliest lots (c 1950) had two irons but later versions had only a central one. Drill out the half etched holes you require from the back of the planked outer ends. Align and solder together the plain and planked outer ends, noting the side tabs stand proud. The bottom of both parts have tabs to fit the wider front slots in the chassis. Bend the top lamp irons forward, being careful not to catch them from now onwards. Bend out the ducket sides in the body and shape the separate outer cover to match, before fixing together. Fill in any fold line gaps (with Milliput or similar) and clean up.

Bend over the tops of the sides to match the roof profile. Using a **square** block of wood, solder one side/end using the tab/slots. Make an opposite unit with the other side/end. Tack solder in the chassis slots, keeping **all square and not twisted**. Lower the inner (door) ends (the correct way round!) through the slots in the top of the sides and tack solder in the chassis slots. Use the "packing" pieces to keep the body sides from bending in by soldering to the chassis floor whilst positioned against the sides. Slide the verandah floor in from one side and solder, noting the small slot in the bottom front of the body side to take the floor. Bend up the "concrete" weights and fit to chassis as shown, with the cut-outs next to body. Fit brake units under chassis into slots, keeping the half-etched detail outside. Fit the etched handrails or your own wire if required. Fit the etched roof with straight rainstrips or file these off and fit the radiused rainstrips supplied separately on the etch. The three holes are for the two vents and a chimney, with the chimney nearest the edge.

Additional assembly notes:

Solebars - BEFORE folding up and soldering together check that the locating slots for the triangular gussets are wide enough to accept the gussets. Remember that two gussets on each side are double thickness and require a wider slot than the remainder.

Aligning Inner & Outer (Planked) Ends - This operation can be aided by pre-tinning the two mating surfaces then pinning the two pieces to a piece of plywood with two diagonally opposing pins in the "window" section, before sweating together. If the pins are vertical correct alignment is assured. The planked end should be face down and heat applied from the rear of the inner end.

Roof - This should be rolled to shape using a metal rod and a resilient pad such as a good thickness of kitchen paper towelling. The metal rod needs to be of a smaller radius than that actually required. If you get it wrong the roof can be annealed (softened) by heating in a flame to DULL red and allowing to cool naturally. This will make the metal workable again and give you another chance to get it right.

Handrails - These should be fixed using a thin card spacer of suitable thickness to ensure even projection all round. If separate wire rails are required use 0.3mm brass or nickel silver wire.

(c) Fencehouses (additional notes by E Sissling)

INSTRUCTIONS BRITISH RAIL BRAKEVAN DIAGRAM 1/506 - S2-509

