

PARKSIDE DUNDAS

Instruction Sheet

PS44 GREAT WESTERN RAILWAY 20 TON GOODS BRAKE VAN AA19

Preparation

Basic items required are craft knife, tweezers, light flat file, round rat tail file, pliers, soldering kit, 1/32" and 0.6mm drills, liquid plastic cement, 'super glue' and paints. The parts on the black mouldings are in ABS plastic. This tough material is not amenable to weaker cements but can be held by ABS cement, super glue or strong cements such as EMA Plastic Weld.

Construction

To help identify parts for the model, the verandah end of the van is shown as the 'X' end and the other plain end is the (Y) end.

Cut 2 pieces of glazing material 17mm x 9mm and fit into the window spaces in the plain end (3). For the door end (4) cut two pieces 16mm x 9mm and fit into its window spaces. Form a staple shape of the 0.5mm brass rod 2.5mm long with legs 2mm long for the door handle on that end. Fix in the window rain strips (45) as shown on the plain end (3). They go at the top and bottom respectively of the short horizontal planks immediately above and below the window spaces. The rainstrips for the hatch (46) should go immediately above and below the hatch surround. Attach side (1) with its end marked 'Y' to the plain end (3). Cement in the floor (7) and then the remaining side (2) and the door end (4). Note that floor rests immediately above the buffer beam. Then fix in the verandah end (8) and the verandah sides (9 & 10). At this stage do a 'dry' test with the roof (11) to see everything sits snug. The chimney hole in the roof should be nearest the 'Y' end. Cement sand hopper lids (16) to the tops of the sand hoppers (17). Add the sander bench front (15) to the locators on the verandah sides (9 & 10) and then fix the sander bench top (17) on its locators.

Assemble chassis. . Cement the axle box bodies (22) onto their bases (21). Push bearing cups (19) into axle box backs (20), insert into 'W' irons (18). Put a drop of 'super glue' on the end of each bearing cup (19) and add the axle box front assemblies (21/22).

Alternatively carefully cement the axle box fronts (21/22) onto the backs (20). In any case ensure that the assembly moves freely on the 'W' iron. This will give an element of compensation. The axle box can also of course be cemented rigid onto the 'W' iron. Make sure that the axle boxes sit evenly under the springs. Attach the axlebox / 'W' assemblies onto the backs of the sole bars (16 & 17) in the pockets. The solebars are 'handed'. The verticals on the sides (1 & 2) should line up with the equivalent features on the solebars. Add the solebars (16 & 17) to slots on underside of floor (7). They will require to be flexed in and a 'dry run' is suggested. Make sure that they fit snugly. Attach the sub - chassis moulding (23) between ends (3 & 8) and solebar backs (16 & 17). Fit wheels in, checking that they turn freely. Attach the brake shoe mouldings (50) so that the shoes are in line with the wheels, which should still turn freely.

Assemble the brake rigging. Fold up the etched hangers to the profile shown. (Fold half – etched lines inwards). Study the diagrams of the arrangements of the brake gear. Notice that the brakes are the same at both ends except that at the 'X' end there is a linkage to the hand brake column. Make up the two sets of levers (60 & 61) and fit the long and short yokes (51 & 52). Then take the etches A/B and C and slip the lugs on the levers (60 & 61) into the holes in the etches. At this point it simplifies assembly to carefully remove the wheels. Fit the ends of the short yoke (52) into the holes on its brake shoes (facing the 'Y' end). Attach the etches A/B at the 'X' end and C at the 'Y' end to the dimples on the underside of the floor. Put the wheels back in and attach the remaining long yoke (51) to its brake shoes. A little spot of plastic cement on the joints during construction can help hold the parts together while being adjusted. Cement the assembly rigid when complete.

Brake adjuster and linkage at 'X' end. Make up the slack adjuster (58 & 59) on either side of the lever (60 & 61) with the short lever (56) between the lugs on the ends of the slack adjuster. Thread a short piece of 1/32" wire through the holes in etch A, to run through the free end of lever (56) and also brake crank (57). Secure in place. Trim the vertical screw of (57) as necessary and fit it into the small hole on the underside of the floor. Finally with the 1/32" rod make a small loop at one end and hook around the top of the lever (60 & 61) at the 'X' end. The free end of the wire should then be bent round the equivalent point on the lever at the 'Y' end.

Add the sander lever (6) to the door end (4) locating in the holes. Refer to the drawing and attach the sander levers and cranks (54) to the inner sides of the sand boxes. The lever section of the left hand moulding should be cut off. Cut a piece of 0.5mm brass rod (66) to fit between the cranks and fix it to the inside of the end (8) with the two holders (53). Cement the top (43) to the brake column (44) and then attach the handle (42). Fix the whole assembly into the hole in the floor (7).

Assemble the lower footboards (34) by attaching their back pieces (36, 37) Note especially the sequence of the supports for the lower footboards. The middle two supports (40 & 41) fit behind the solebars (16 & 17) through the holes in the sub chassis base (23). Fit the supports (38) onto the upper footstep (35) and fix into place.

Attach lamp brackets (63) on the ends, 3mm to the right of centre with the bottom, 13mm above the foot of the buffer beam. The side lamp brackets (62) should be fixed 3mm from the edge and 19mm from the foot of the sides on the sides as shown.

Handrails. The handrails are secured using the brackets (64) at each corner, which fit into the vertical slots on the body sides. The large handrail on the van side is also held onto the vertical 'T' irons on the van sides with the smaller brackets (65). Check the larger brackets fit into their slots. The smaller brackets sit against the vertical 'T' irons facing the 'X' end. Using the templates make up rectangles for the handrails on each side. It is suggested that the join be on one of the short vertical sections. Thread 4 x (64) on each rectangle, with also 6 x (65) on the larger. Use a spot of solder to secure the join. Fix each assembly into place using the four large brackets (64) at the corner slots. Then attach the smaller brackets (65) against the vertical 'T' irons. Form two staple shapes with the 0.5mm wire 12mm long for the short handrails on the verandah gates.

Attach the roof rib (13) to the underside of the roof (11) 28mm from the 'X' end. Trim off any material from its ends that overlaps the bottom of the strips on the sides of the roof. Fit the chimney (12) into the roof and cement the roof assembly into place, the chimney being nearest the 'Y' end. Finally add the rain strips (14) using the plastic strip to the shape indicated.

Assemble buffers. Attach the buffer rings (26) to the end of each buffer body (27). Slide the spring (25) onto the shaft (24) and secure with the 12ba nut (28). The buffer castings make a tight push fit into the holes on the buffer beam. Note that the short web on the casting should be uppermost. Adjust the nut so that the distance from buffer base to head is 10.5mm.

Assemble coupling chains (30 & 31/32). Attach these to the eye hole of each coupling hook (29). Insert it through buffer beam, slide on spring (33) and bend out ends to retain spring. If modelling GWR use the Instanter coupling link (31) as the middle coupling link. For BR from 1958 use Instanter link (32)

Painting and Lettering

GWR. Body and chassis; grey (Railmatch 604). Handrails and sand lever ends, white

BR. Body; grey (322), Solebar, buffer beam and running gear; black. Handrails and sand lever ends, white.

Lettering. See diagrams. In the BR period letters and figures are painted onto a black background box. A sheet of black transfer material is provided for these backgrounds. In practice BR lettering styles varied a lot as reference to photographs will show. The R.U. (restricted use) legend appeared during the War years but was also used by BR, who also used the more standard 'Not In Common Use' for the same purpose and many vans appeared with both.

This kit is supplied with self-adhesive type transfers. Ensure that the painted model is free from dust and grease. Remove the protective tissue from the transfer sheet and with a sharp knife cut lightly round the transfer required, through the tissue only and not through the heavy backing paper. Lift of the transfer and lay it very gently on the model. Adjust as necessary and then press down firmly. Soak the tissue with water and leave for 20 –30 seconds before peeling of the tissue. Wash of surplus gum and dry. Varnish if wanted, but cellulose varnish should only be air brushed on.

Historical

These vans were built from 1929 to 1933 by the GWR. They formed part of a natural progression of development going back to the 19th century and which continued unbroken until Nationalisation. The AA19 vans were the first to use standard RCH specification parts. Many vans were allocated to home depots throughout the GWR system and carried that place's name on their sides. The GWR was alone amongst the 'Big Four' in using brake vans with only one verandah. The shutter in the middle of the plain end could be opened for the guard to have access to the coupling at that end and the tail lamp. The vans remained in use until around 1970.

Number series: 114740 – 49; 114776 – 986. At Nationalisation in 1948, the wagon numbers took an 'W' prefix.

Reference; A History of GWR Goods Wagons, Atkinson, Beard, Hyde & Turret.
B R Wagons No.5 (Cattle & Brake Vans) Gamble.

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