

Ref. 7054

G.W.R. 18ft-6in Cattle Truck

(GWR Diagram W1 / W5: Telegraph Codename MEX B)

Historical notes

A glance through the Great Western Railways wagon diagram book will quickly reveal a number of standard types of cattle truck built over the years 1879 – 1937 and in quite large numbers. There were essentially two styles; those code named MEX and those code named BEETLE. The later type was produced for pedigree animals, some having a compartment for an attendant, and were usually rated for running in passenger trains. The MEX type of cattle truck were provided for conveying cattle to markets and the like and were not provided with the same degree of luxury as the beetles but never the less they did, of course, have to comply with the regulations laid down by the board of agriculture which set out what sort of facilities must be provided in order that any animals conveyed would arrive at their destination in the same state in which they departed. At least eight different types of cattle truck were built in this category by the GWR, two of which can be constructed from this kit.

The two types, both of which were codenamed MEX B, were virtually identical apart from differences in the brake gear when first built. Diagram W1 called for a truck with a single sided conventional handbrake, and Diagram W5 fully fitted brake gear. However, the W5 vehicles were originally built with a Dean Churchward single ended handbrake but from 1905 they were equipped with vacuum fittings. Many of each type were rebuilt between 1904 and 1910 with the Dean Churchward either sided brake gear and vacuum fittings and in so doing made the two Diagrams virtually identical. The kit provides parts for conventional single sided brakes, the Dean Churchward either sided handbrake, and vacuum fittings. By the careful choice of the parts, therefore, one can represent most of the vehicles built to either diagram.

The table below sets out the building dates, etc, for the two types of vehicles as far as our information allows.

Diagram W1

Built between 1888 – 1904 (at least 1260 built)

Sample numbers include: 38202-38800, 38823-39000, 68001-68122
68133-68231, 68233-68282, 68363-68412

Diagram W5

Built between 1902 – 1911 (575 built)

Sample numbers include: 68338-68362, 68413-68462.

Others were numbered in the: 13xxx, 16xxx and 26xxx series.

Both types were of 8 tons capacity.

As with virtually any type of wagon owned or constructed by any of the British Railway Companies, these wagons displayed their fair share of differences in detail. Some are catered for in the kit, but others will have to be produced by careful modification if you so desire. From about 1903 a patented locking device was fitted to the sides of the wagon to prevent the moveable partition being moved once the door was closed. The partition was fitted to the vehicle so that the farmer could hire a large, medium or small wagon according to his needs (the partition being moved accordingly) with the GWR only having to have one size of vehicle. Having said this, it will be stated that the GWR did own a number of small wagons as well. The provision or not of this device is the most obvious detail apart from the brakes already mentioned, but there were other differences which will be apparent from photographs. The position of the door springs varied a little, and some vehicles were fitted with round plates on the doors instead of the strips on the kit. On some vehicles the door catch was mounted on the opposite door, the cut outs in the bottom of the sides varied, and so on ... Reference to photographs is as usual the only sure way to get these little details correct for your chosen wagon.

Reference Material

This model was produced from copies of the original GWR arrangement drawings supplemented by many photographs and other drawings to establish the nature of certain details. A number of books have been published over the years in which you will be able to find photographs and other information about these

wagons such as:

- "A History of GWR Goods Wagons" by Atkins, Beard, Hyde and Turret, (David & Charles, 1975,1976,1986.)
- "A Pictorial Record of Great Western Wagons" by J.H.Russel, (OPC 1971)
- "Great western Wagons Appendix" by J.H. Russel, (OPC 1974) "Great Western Wagons Plans Book" by J.H. Russel (OPC 1976)

A number of good photographs of these wagons can also be found within the lists of Historical Model Railway Society and we would like to acknowledge the help provided by them in the production of this kit. Our thanks are also due to T.Stone Esq who has also provided much needed information.

Livery Notes

Throughout the Great Western period the basic colour was dark grey all over the body and underframe with the roof originally painted white. The roof would, of course soon weather to a shade somewhere between white and black. We believe that the interior was left in plain wood- alternatively a light colour such as grey. Until around the middle 1920's lime-wash was used inside the vehicle for disinfecting purposes and this would of course dribble onto the outside of the vehicle as well. After that time, other disinfectants were used which did not colour the vehicle to such an extent. The lettering of the vehicles did, however, vary according to period.

Up to 1903

There are several different styles, which can be identified in this period with both painted lettering and cast plates. It would appear that both types existed concurrently although later vehicles of this period would have been fitted with cast plates. The earlier styles with painted lettering are illustrated in diagrams 1 & 2. Note that the characters "GWR" were 5" high whilst the italic "To Carry 8 Tons" and "Tare 6-6-0" were 3.5" high. Diagram 3 illustrates the cast plate style (no plates are provided in this kit), which had white characters on a grey background. The cast plates were fitted from about 1894 onwards.

1904-1919

See diagram 4. The style was essentially as per the previous painted style but the letters "G" and "W" were 25" high and were placed either side of the door. The ends of the vehicle were also lettered.

1920-1939

This style was virtually identical to the previous one except that the letters "G" and "W" on the wagon side were reduced to 16" in height.

1940 onwards

The wagon number and the initials "GW" were now applied in 3" high characters as shown in diagram 5. The load and tare were applied in 2" high characters. The roof was painted grey.

For further information on liveries you are referred to "Great Western Way" by J.N. Slinn (HMRS, 1978)

Assembly Notes

We recommend that you read through instructions and study the parts supplied to familiarise yourself with the kit. A small piece of plate glass will enable you to assemble your kit accurately and squarely. We recommend our Mekpak liquid cement for plastic parts, for bonding metal to plastic we suggest the use of an epoxy type of adhesive such as araldite or a cyanoacrylate such as Loctite Superglue 3.

Clean off any ejector pips and flash from the mouldings using a Sharp craft knife and fine needle files. File the mitred ends of the sides and ends to a knife-edge.

Etched parts should be cut from their frets using a sharp knife or a piercing saw, do not use cutters as you could easily damage the parts. Clean off any remaining pips with files. Note that fold lines are usually etched such that the line is on the inside of the fold. If the opposite is the case it will be indicated as necessary in the instruction notes.

This kit includes fine scale wheels, which can be exchanged if desired for Scale Seven or Coarse scale wheels. If you wish to exchange your wheels please contact us for an up to date price then send your wheels back to us in new condition and we will happily exchange them.

Transfers are not included in this kit as suitable types are available from PC Models in a sheet sufficient to finish several wagons.

Assembly Procedure

Take the two side mouldings and carefully remove the four rivets, which cover the positions for the horizontal bars across the side apertures. Drill these positions carefully with a 0.5mm drill (0.020"/ No 76) and fit the bars

from brass wire supplied. Note that earlier vehicles had the top position. Now turn the sides over and fit a wire in a similar fashion to the rear of the door.

Cut the door catch from the sprue and cement in place on the doors. The vertical rods should fit against the tiny blocks provided at the top and bottom of the top doors. Also fit the partition locking device bracket to the doorframe so that its centre is immediately above the line of the side aperture bottom angle. This part should be fitted to the right of the centre on one side, and to the left on the other.

Open out the holes for the buffer bodies using a reamer or a fine rat tailed file (gently) until the bodies are a nice fit. Glue them in place with a tiny drop of adhesive.

Carefully assemble the two sides to the two ends ensuring that all the corners are square and that there is no twist in the body. When this is set, drop the floor in place from above, keeping the planking upward. This may need a little trimming with a fine file to make it a snug fit. Ensuring the floor is in place properly, cement it in place and place the vehicle to one side to set.

Now fit the sole bars in place under the floor in between the ends and against the locations provided. Do not remove any of the vee hangers yet and ensure the sole bars are straight or they may interfere with the W-irons.

Punch out the bolt heads from the rear of the W-Iron stays (parts 1 & 3) using a blunt scribe or similar implement. Fold these stays through 180 degrees (with the fold line on the outside of the bend) and then fold up the strengthening ribs and W-Irons. Check for squareness and run a solder fillet or fillet of glue along each fold for strength. Gently open out the holes for the bearings if necessary and insert the bearings. Carefully spring the wheel sets into place and adjust the bearings so that there is a minimum of side play consistent with free running and lock the bearings in position with a tiny amount of solder or glue. Fold up the two lugs on the rocking unit (part 2) and drop the W-Iron assembly (part 3) over this. Ensure that it is free to rock from side to side and gently bend the outer part of each vertical lug to prevent the two units coming apart.

Locate the two W-Iron assemblies over the pips on the underside of the floor and secure with a small amount of adhesive. You should now have a running wagon.

Many photographs of the prototype show a stay between the W-Irons so check first. If present these should be modelled using the brass wire supplied and soldered or glued just behind each stay.

Fit the partition inside the wagon locating the two lugs over the partition support in one of the three positions. Ensure that the bracing faces the nearer end of the wagon (i.e.: it will be hidden if you put it in the "large" position).

Locate and secure the leaf springs on the solebar so they are positioned centrally about each W-Iron and fit the tiny spring stops above the centre of each. Now fit the axle boxes ensuring that they do not prevent the W-Irons from rocking properly (you may need to relieve the top of each with a fine file). Glue the axle boxes in place with a small amount of glue.

Carefully trim and position the T strapping extensions in the solebar channel so that they line up with the vertical strapping on the side of the wagon.

Brake Gear

There are several variations on the exact nature of the brake gear that can be applied to this model from the parts supplied so check from photos and the notes above which one you want.

Single Sided Handbrake

Bend up the brake safety loops from the parts supplied on the smaller etched fret. Carefully slide them over the brake push rods and glue the tail to the supporting lump of the moulded brake gear. This part can be mounted either way so be sure to check that you have got it the correct way round. Now glue the inner brake support to the rear of this part lining up the holes using a short length of plastic rod. Now locate this assembly onto the underneath of the floor ensuring that it does not foul the wheels and impede free running.

Bend the etched brake lever (part 6) so that it will clear the axle box, etc. and glue the brake lever guard to the solebar in the position indicated on the diagram. Thread a length of plastic rod through the lever and through the brake gear mounted on the wagon and carefully fix in position. Carefully cut any unused vee hangers off the solebars.

We are led to believe that these vehicles were not fitted with an independent handbrake on both sides of the wagon but sufficient parts are provided in the kit in the event of a photograph turning up- please let us know if you have any evidence!

Dean Churchward either sided handbrakes

Assemble the brake gear, Safety loops and brake supports as above but ensuring that they have two units handed oppositely. The diagram should make this clearer! Locate these in place on the underneath of the wagon as above. The brake lever guards and brake levers will not be required in this case so put them in your spare box.

Mount the separate D-C brake vee hangers between the ribs at either end of the floor ensuring that they are the correct way round and that the holes will line up. You will need to trim the base slightly to ensure they do.

Following the diagram connect up the brake levers and cranks (parts 7,8,9, 10) using plastic rod through the vee hangers and wire for the various rodding between the cranks. Bend up the two levers (parts 11) and glue them onto the ends of the operating rods at the right hand end of each side.

Vacuum fitted brakes

This is identical to the above except that the vacuum cylinder etc. should be added. Assemble the two parts of the cylinder and locate this in the hole in the floor. Fit the operating rod into the cylinder and locate the shaped crank (part 5) onto the rod between the vee hangers and the operating rod. The remainder of the brake gear is the same as that described above, but do not forget the vacuum pipes later on!

Following the diagram, rivet and bend up the door springs (parts 4) and glue them onto the blocks on the solebars. Take care as these will be easily knocked off the model with careless handling.

If you modelled a wagon with vacuum brakes assemble the vacuum pipes by cleaning up the castings and fixing a long spring over the end of each standpipe (use glue). Fit a connector to the other end of the pipe in a similar manner. This connector will fit into the jaws of a similar piece cast onto the pipe or can be connected to the next vehicle in the train- the choice is yours! Glue the pipe assembly to each end of the wagon just to the left of the coupling pocket.

Now is the time to paint your model (see the livery notes above) as the inside will be a trifle inaccessible when the roof is fitted. For the best results you should spray the model, but if you wish to brush paint it remember that several thin coats are better than one thick one.

The roof can now be painted and then fitted to the model.

Assemble the three link couplings (see drawing)

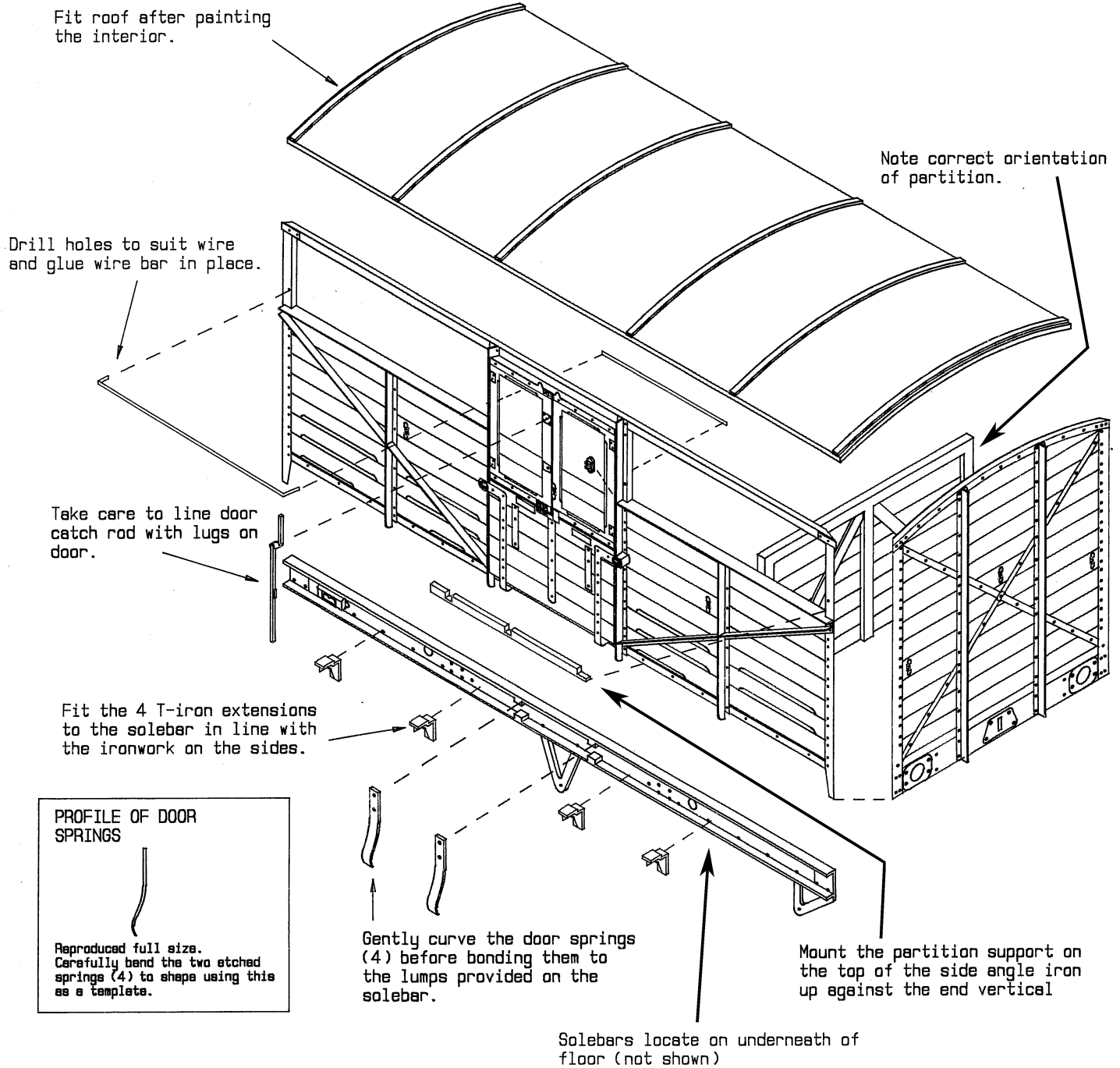
Following the diagram bend the buffer springing pads to an L-shaped and slide the buffer heads through the guides. Slot each pad over the slot in each head and secure with a tiny amount of adhesive. Do not let any glue run into the guides or you will prevent the buffers working at all! Now locate and glue the spring locators against each solebar ensuring that they do not interfere with the rocking W-Irons. When the locators are stuck firmly, position each part of the springs between the buffer ram and locator.

This completes your model of the Great Western Railway cattle truck and any further painting can now be completed. Lettering of your choice and weathering will give it that "in service" look....

Upon completing your model you should have a number of spare items on the plastic sprues. Do not worry that they should have a place on the model! There are two spare partition locking device brackets (provided in case of accidental breakages) and on the vacuum cylinder moulding there are three vee hangers and a rod (not used in this particular kit)

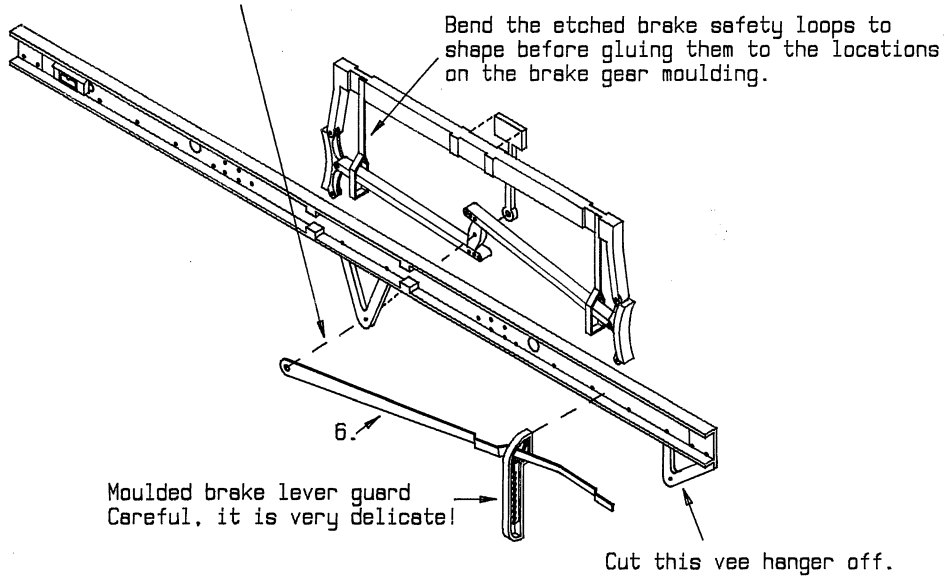
We can supply some superbly detailed cast white metal shorthorn cattle which will make an ideal load for this model! (ref. No. 7A29). Full details of these and all other products can be found in our price list. You can contact us on 01629 583993 or www.slatersplastikard.com.

GWR Cattle Truck Assembly



HANDBRAKE ASSEMBLY

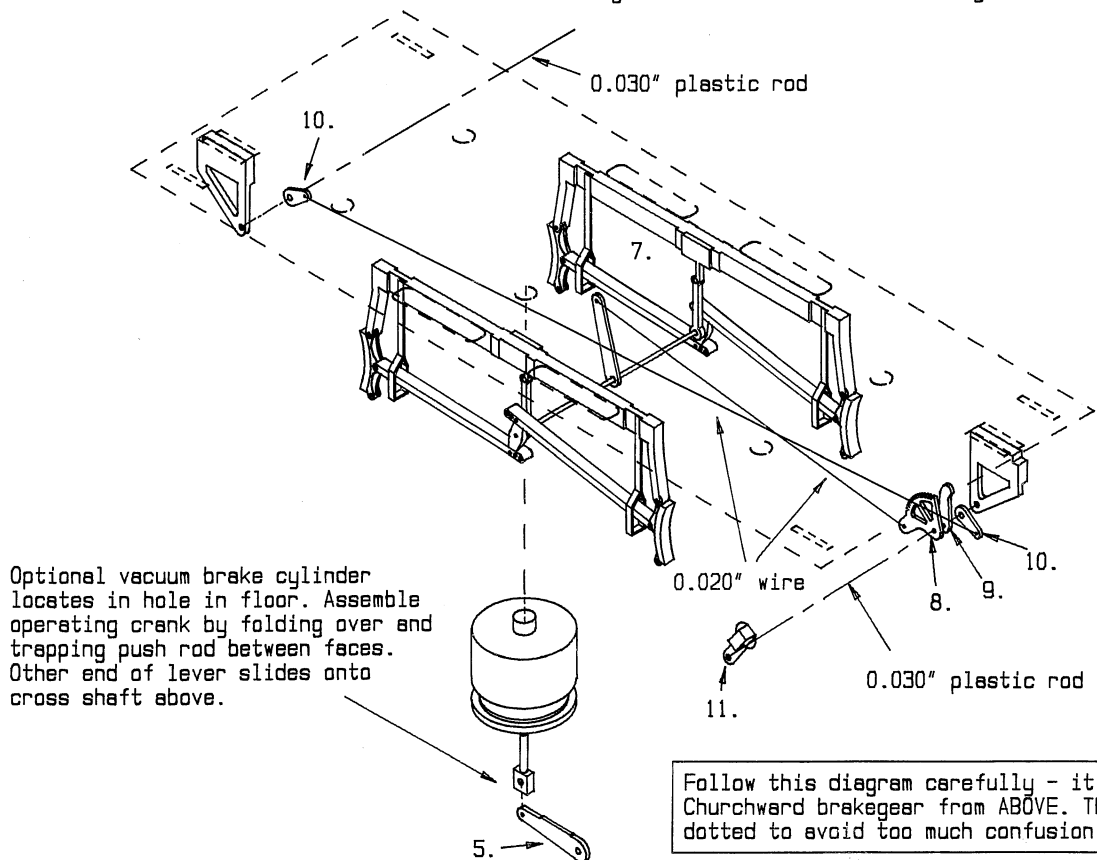
Use a length of 0.030" plastic rod to line up brake gear and vee hangers, etc.



The solebar and brake gear locate on the ribs on the floor - this is not shown for clarity.

DEAN-CHURCHWARD BRAKEGEAR ASSEMBLY

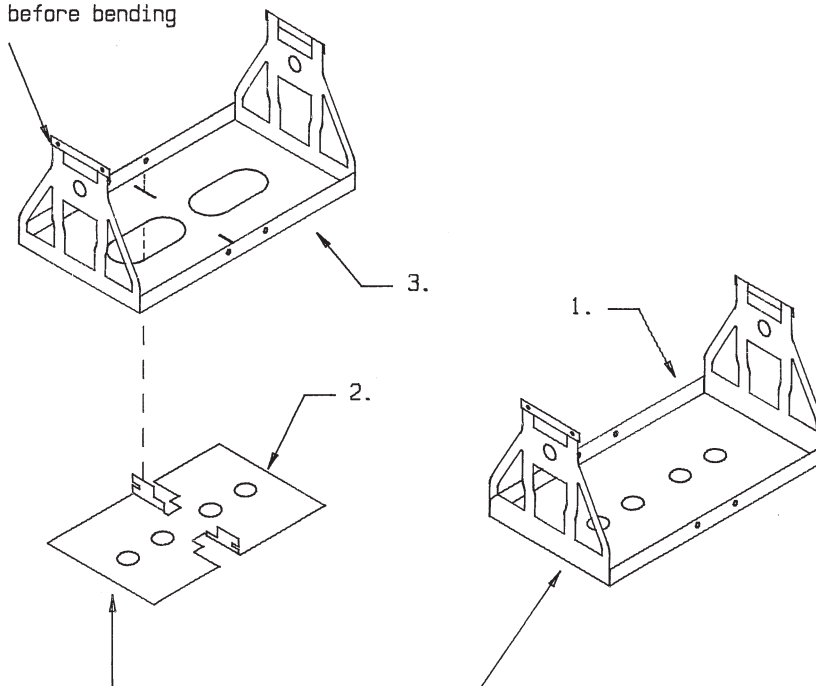
Solebars are omitted for clarity.
Take great care to orientate brake gear correctly.



W-IRON ASSEMBLY

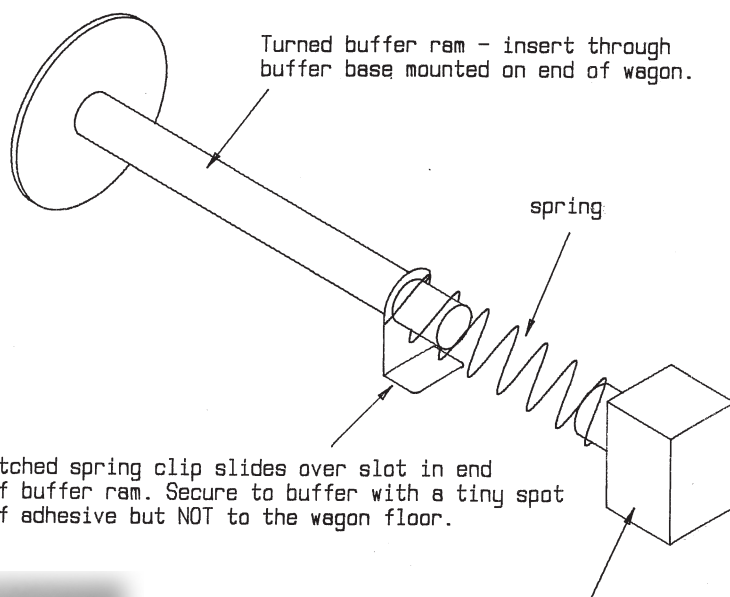
Lock the rocking W-iron (3) to the baseplate by gently bending the two vertical tabs across.

Rivet the stays before bending them over.



The fixed W-iron (1) and the rocking unit base (2) locate on the lugs moulded onto the underneath of the floor.

BUFFER SPRINGING ARRANGEMENT



Turned buffer ram - insert through buffer base mounted on end of wagon.

spring

Etched spring clip slides over slot in end of buffer ram. Secure to buffer with a tiny spot of adhesive but NOT to the wagon floor.

Secure this block to the floor hard up against the adjacent solebar.

7155. Three Link Couplings



To assemble links, twist sideways, thread together, then twist back.

Assembly. Insert links, as shown, into cast coupling hook. Insert shank of casting into slot in buffer beam, then put the spring over the shank and retain in place with a split pin. (For clarity, the coupling is shown assembled without a buffer beam). One long spring is supplied, which needs to be cut in half to produce two shorter springs. Use fine side cutters or heavy-duty scissors, but make sure that neither half flies away as you cut them!

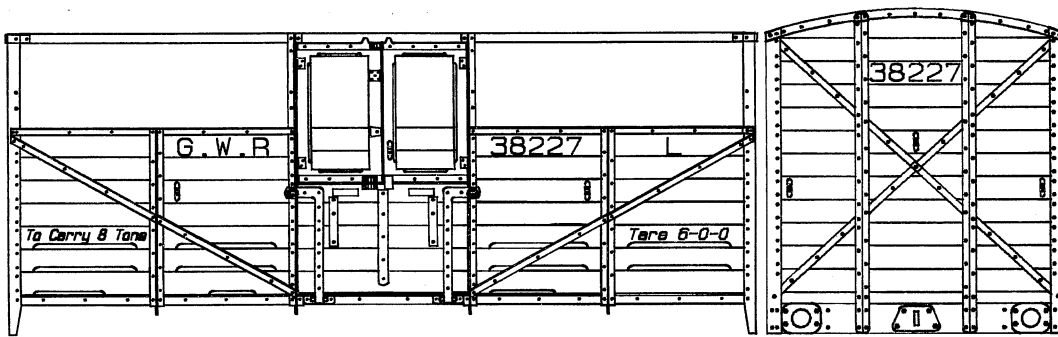


DIAGRAM 1 - PRE 1894 LETTERING
(End lettering conjectural)

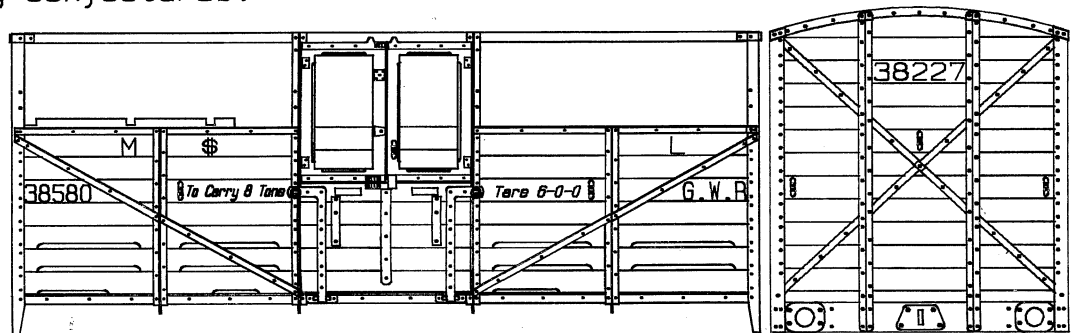


DIAGRAM 2 - PRE 1894 ALTERNATIVE STYLE
(End lettering conjectural)

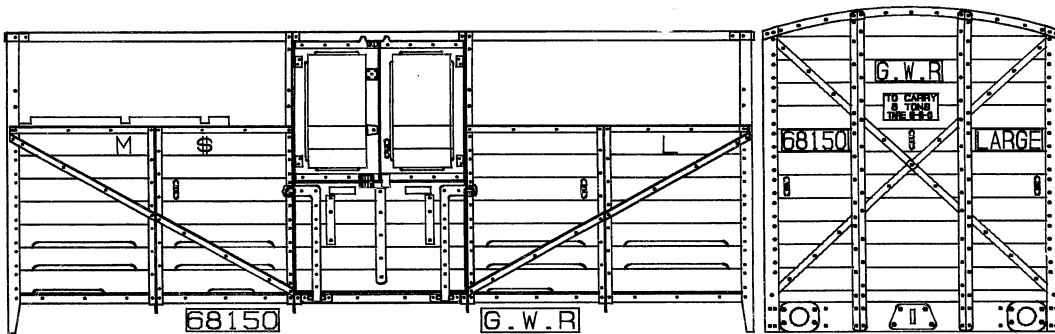


DIAGRAM 3 - 1894 to 1903 STYLE WITH CAST PLATES

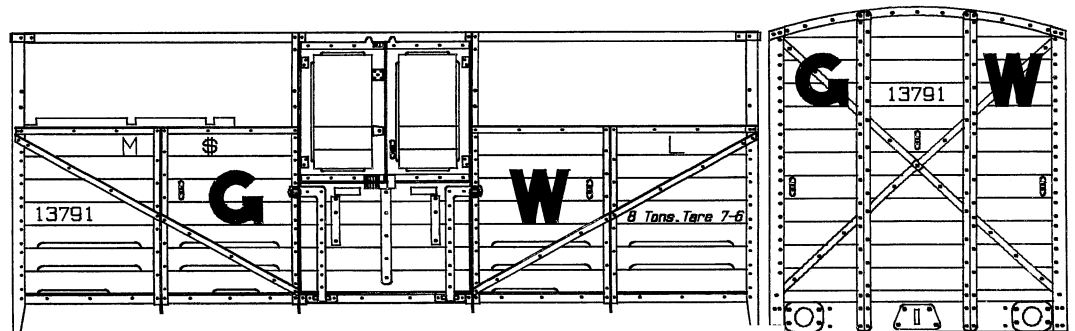


DIAGRAM 4 - 1920 to 1939
(1904 to 1919 similar but "GW" on side
in 25" high characters)

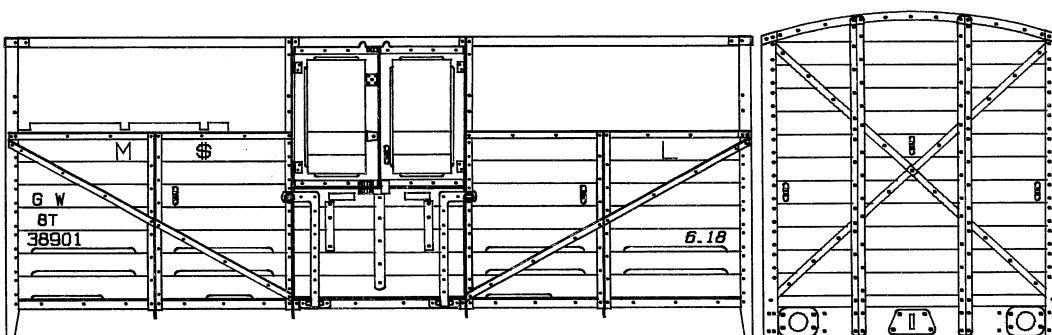


DIAGRAM 5 - 1939 ONWARDS

NOTE: the character styles in these diagrams are NOT to scale and are only representative of the actual styles used by the GWR. Please refer to photographs to ascertain the exact styles for finishing your model.