

Furness Railway Wagon Co.

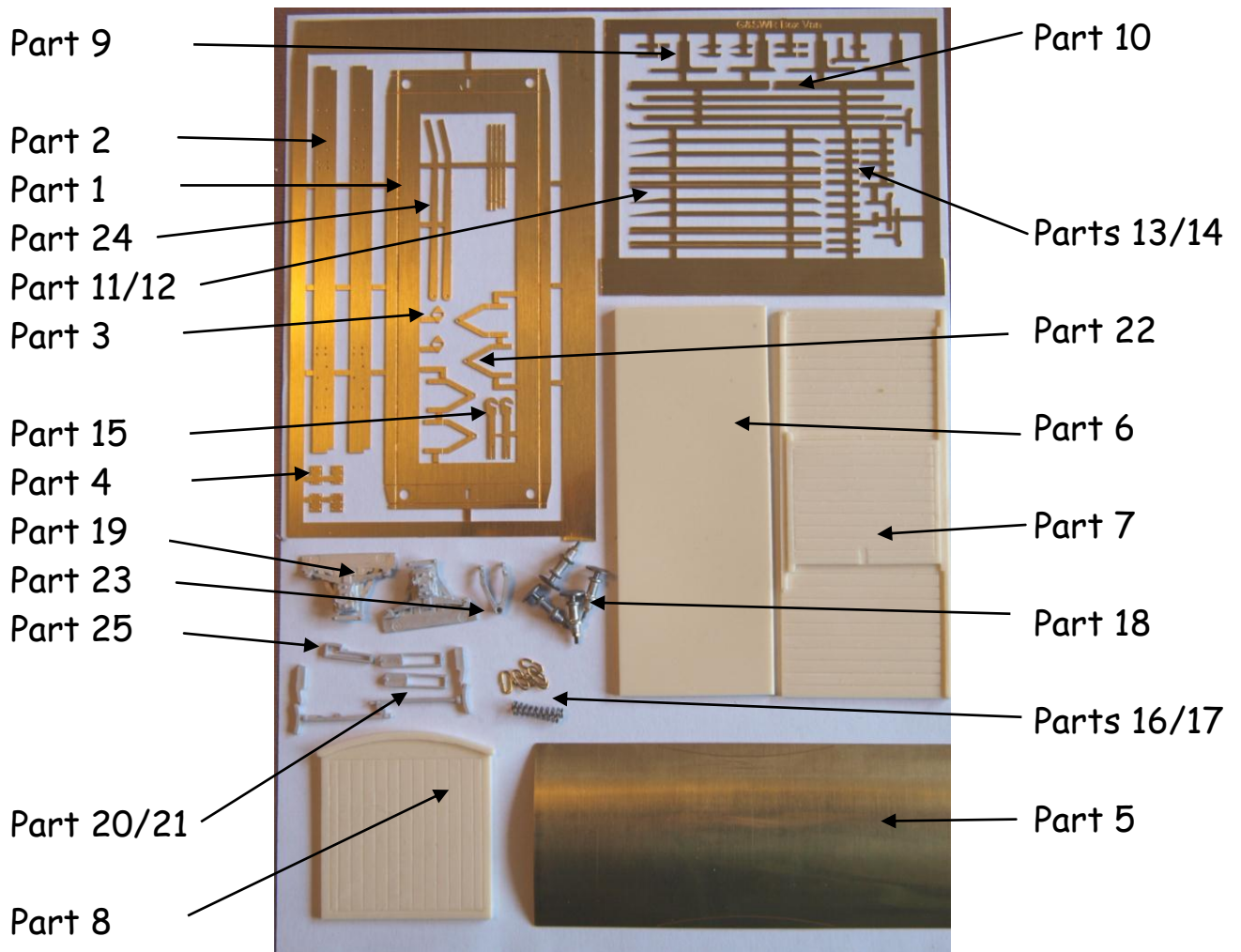
Glasgow & South Western Railway/LMS/BR 1920

10ton Box Van Steel Under-Frame

Wheels, paint and transfers required to complete.

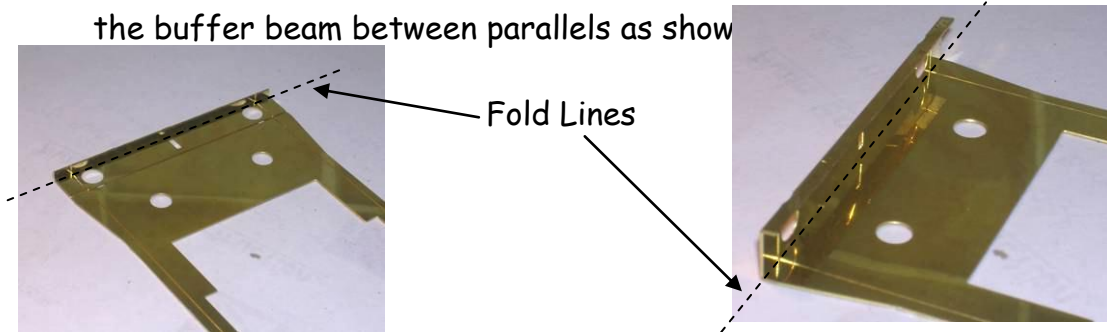
Please note that to aid the folding of the various parts score all the halfetched foldlines that are to be folded.

The Parts.

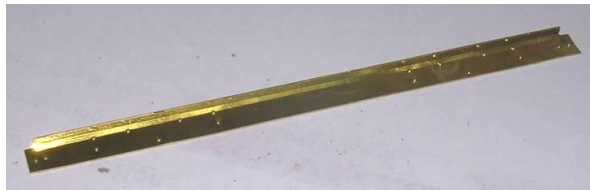


Chassis Construction.

1. Remove chassis (part 1) from the etch and fold up the bottom of the buffer beam between parallels as shown



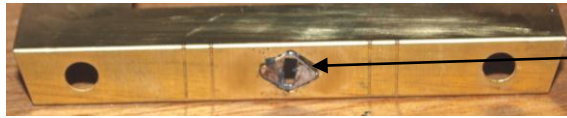
2. Next fold up the buffer beam completely as shown. Make sure that the resulting U shape is square so as to fit the sole bars. Repeat for the other end of the chassis.
3. Remove the sole-bars (part 2) and punch out the rivets. Next fold up the bottom of the sole-bars between two parallels. Make sure that the resulting shape is square.



4. Click one of the sole-bars in to the half etch slot that runs between the two buffer beams. Solder into position using 188C solder. Make sure that the sole-bars are actually soldered inside the buffer beam. Repeat for the other sole-bar.

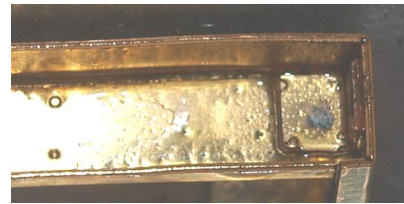


- Next remove the buffer beam reinforcing plates (part 3) and punch out the half etched rivets and tin the back of each piece with 188C solder. Now sweat the plates onto the half etched square in the front of the buffer beam.



Buffer beam reinforcing plates

- Finally fit the four sole bar reinforcing plates (part 4).



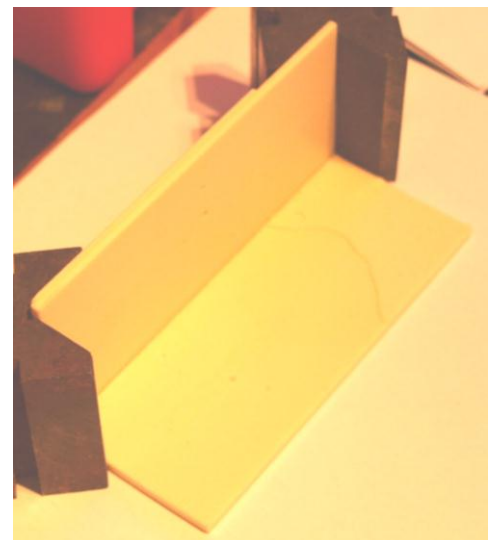
Final Assembly of van.

- First attach wire in to the half etched slots in the roof (part 5).



- Wash and Clean up the castings making sure that the casting fit together before gluing.

- Fit one of sides (parts 6) to the floor (part 7), making sure that the ends of the sides line up with the floor and are square the bottom of the side has the long running strip, with a curved end, on it.

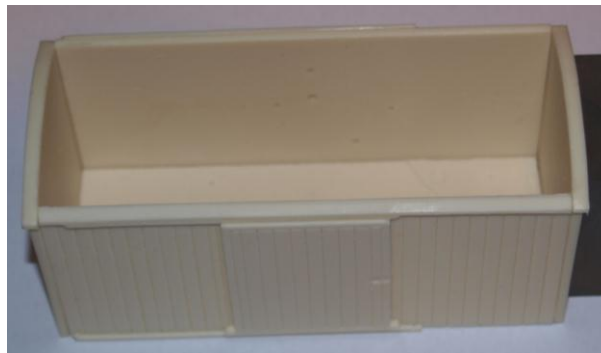




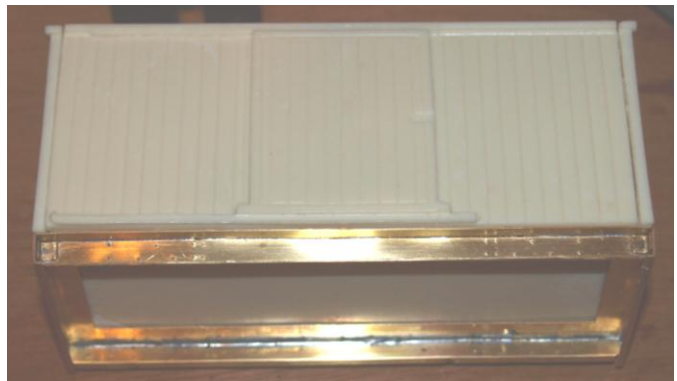
4. Now repeat this for the other side as shown.



5. Next fit the ends (Parts 8) to the sides and floor, as shown. Then fitting the last end completes the box.



6. Position the top of the wagon in the middle of the chassis then glue the chassis to the top.



7. Next punch out the half etched rivets on the strapping etch (Part 9) and fit to the side as shown. Then repeat for the other side of the wagon

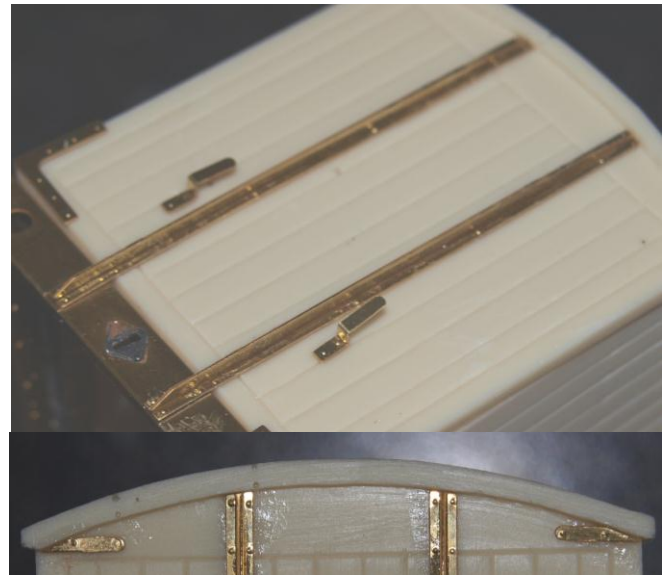


8. Now fold up and fit the door stops (part 10). As shown. Please note that in this case the half etched line goes to the t side of the fold.
9. Next drill out two holes under the door latch and fit a piece of wire to form the door handle as shown.



10. Next fit the strapping to the end of the van by first fitting the 'T' section flats (part 11) using the half etched lines in the buffer beams as a guide.

11. Then fit the 'T' section uprights (part 12) in to the slots the 'T' section flats. With the shallow angled end to the top.
12. Next fold up and fit the lamp brackets (part 13) and the last bit of strapping



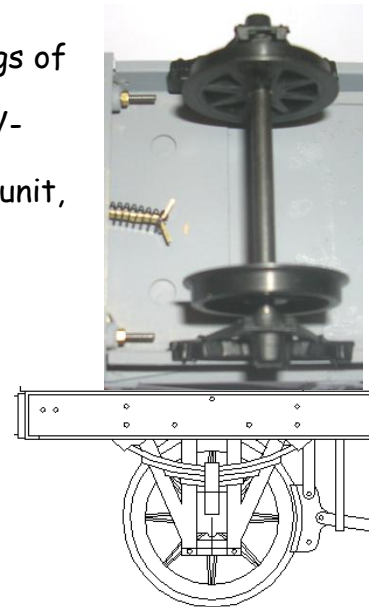
13. Now fold up the chassis support brackets (part 14) there are 8 on each side.

14. Next, assemble the links (part 15) on to the coupling hook (part 16) and push through the slot. Now push the spring

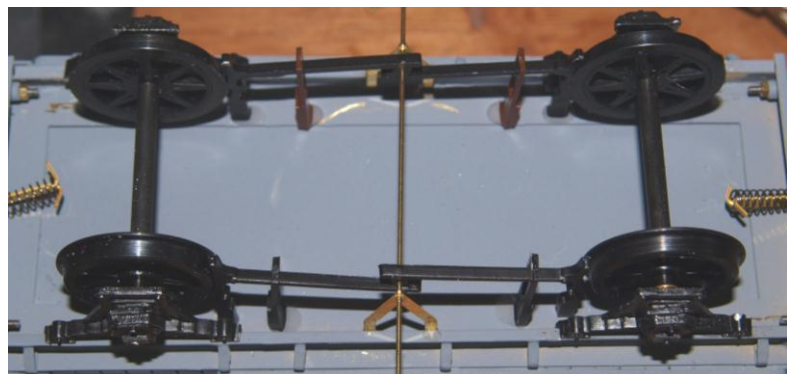


(part 17) over the back of the back of the coupling hook and bend the tags over to secure the spring in place. Then fix the four buffers (part 18) into the holes in the buffer beam using two part epoxy.

15. Drill out the w-iron castings to suit the bearings of your chosen wheels. Assemble a wheel set, 2 x W-iron's (part 19), 2 x bearing's and 1 x wheel/axle unit, do not glue the bearings into the W-irons at this stage. Again using two part epoxy resin, glue the assembled wheel set onto the sole-bars so that they are square and line up with the rivets as shown in the drawing.



16. Repeat for the other wheel set. Use a straight edge across the back of the wheels to aid getting these parallel and square to the chassis.



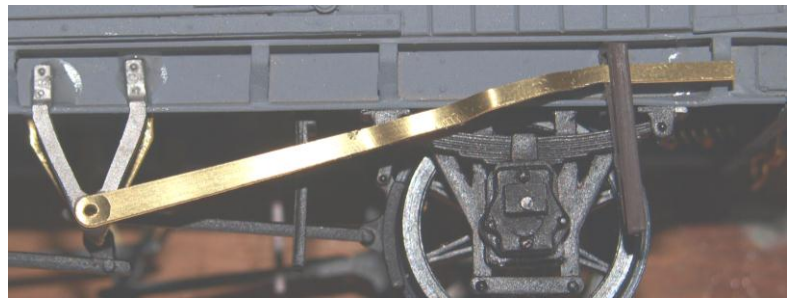
17. Assemble the brake gear castings (part 20), brake guard castings (part 21) and inside against 'V' hanger (part 22) as shown above. Glue

the castings into position using two part epoxy resin; this will give you opportunity for adjustment. Position the casting with care centrally between the rivets on the sole-bar making sure that the wheels are not fouled. It is a good idea to use a piece of wire to ling both sides up.

18. Using the wire as a guide fit the outside 'V' hangers (part 23) to the sole bar.



19. Next fix the brake lever (part 24) and ratchet casting (part 25) to the sole-bar as shown below.



20. Finally fit the roof, making sure that it is square. Paint the model in the livery of your choice.



History of the Wagon

G&SWR

The G&SWR started to build a new version of their 10t box van in 1919.

The van was the same dimensions as the previous van but had a steel under-frame and steel 'T' sections on the ends. This van was the last evolution on the G&SWR van and when production stopped in 1922 over 200 of these vans had been built.

Due to the common user policy that had been introduced in World War 1 these wagons would have travelled all over the country and not just in their native Scotland.

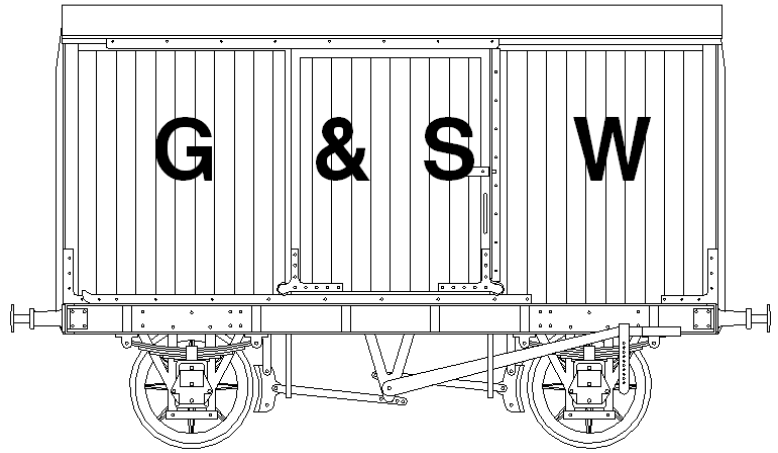
These wagons would have spent the majority of their lives painted grey from the sole bars up and black below. Between 1919 and 1935 the only difference in livery would have been the lettering. As these wagons would have been only painted just before the G&SWR were taken over by the LMS at the grouping there is a very good chance that they would have been some of the last wagons to have been repainted in their new livery and as such these wagons could well be seen in the early 1930's still carrying the G&SWR lettering.

From 1935 onwards these wagons would have been gradually repainted in a bauxite livery as they were unfitted stock. In the post World War 2 era these wagon should have been repainted yet again this time returning to a grey livery however there is a good chance that most did not receive this livery as most wagons would have only been repainted when called in for overhaul and many would have been withdrawn from service before being overhauled.

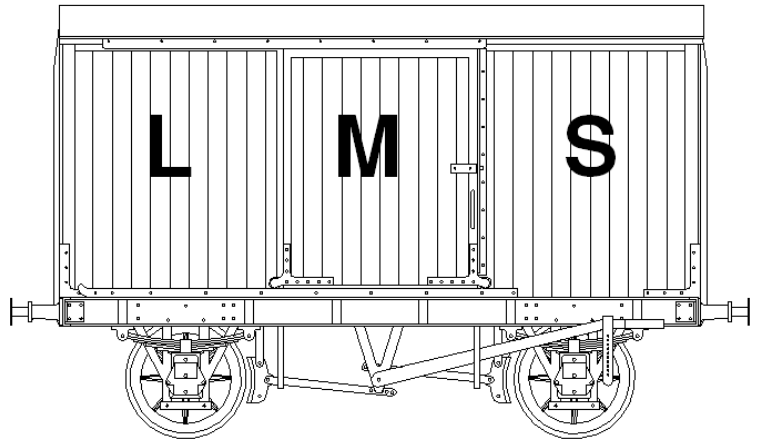
Known running numbers G&SWR 7232, 12477, 12773 and 15001. These would have had 17,000 added to the in 1923 by the LMS.

Liveries

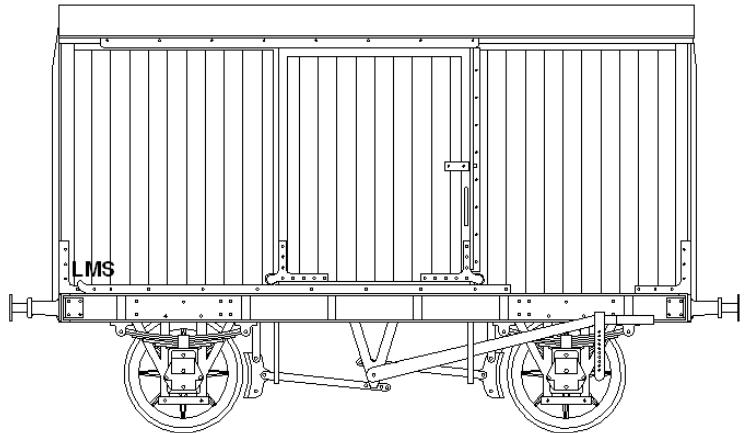
G&SWR
Circ 1920



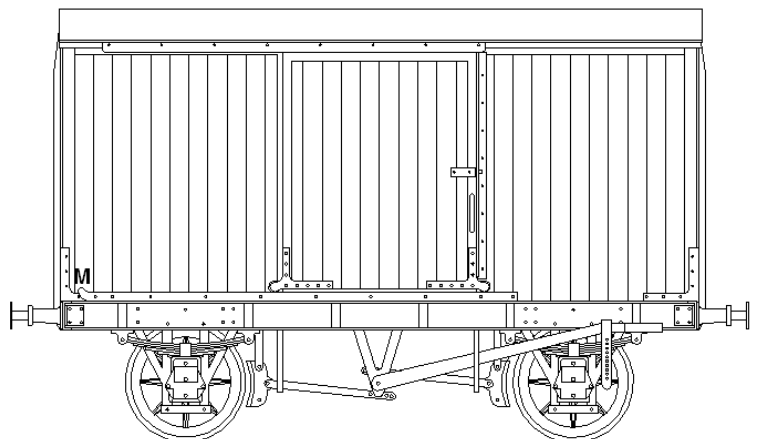
LMS early
Circ 1923-36



LMS Late
Circ 1936-47



BR early
Circ 1947-57



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1. Construction Manual,
2. One Brass chassis etch,
3. One rolled etched brass roof.
4. One Brass Strapping etch
5. Two brake gear castings,
6. Four W-iron/axle box castings,
7. Two van side casting (resin),
8. Two van end casting (resin),
9. One wagon floor Casting (resin),
10. Four buffer assemblies,
11. Two coupling hook springs,
12. Six coupling hook links.
13. Two lengths of 0.7mm brass wire.

We recommend Haywood Railway's 3'1" split spoke wheels

Transfers are available from HMRS.