

Furness Railway Wagon Co.

Furness Railway/LMS 1909 Diagram 3 10ton 3 Plank General Merchandise Wagon 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.

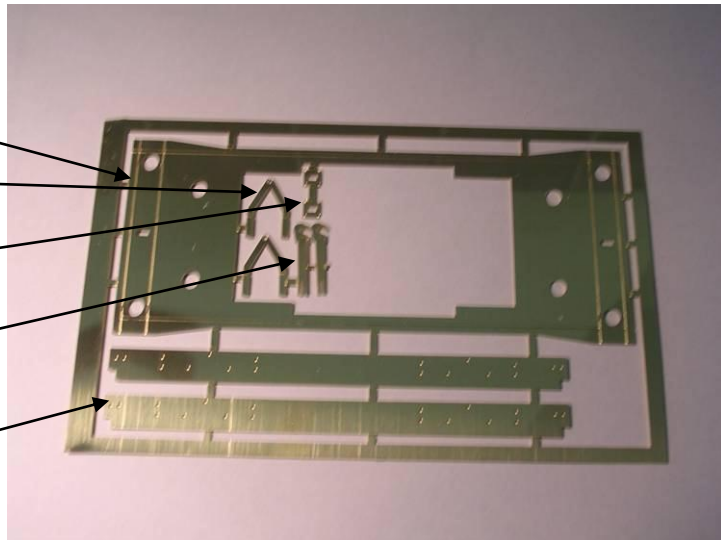
Part 1

Part 12

Part 3

Part 9

Part 2

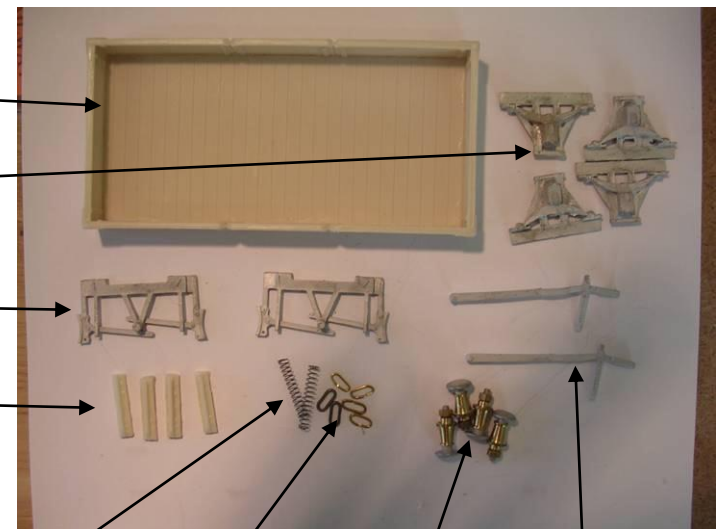


Part 4

Part 7

Part 6

Part 5



Part 10

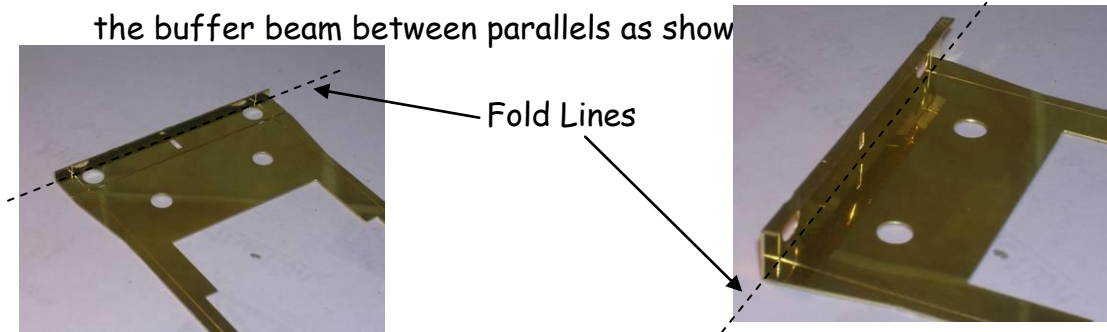
Part 8

Part 11

Part 13

Chassis Construction.

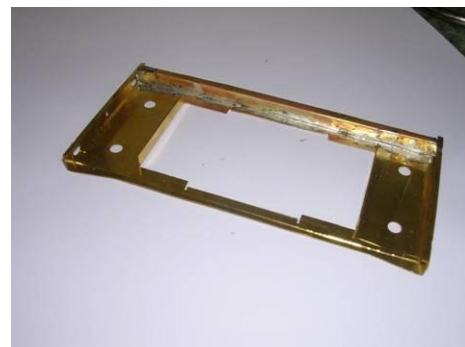
1. Remove chassis (part 1) from the etch and fold up the bottom of the buffer beam between parallels as show



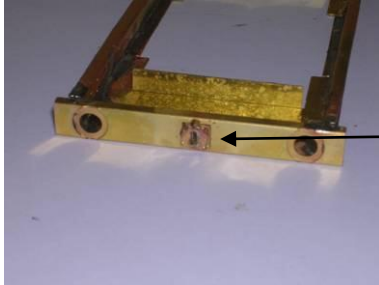
2. Next fold up the buffer beam completely as shown. Make sure that the resulting U shape is square so as to fit the sole bars. Repeat for the other end of the chassis.
3. Remove the sole-bars (part 2) and punch out the rivets. Next fold up the bottom of the sole-bars between two parallels. Make sure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



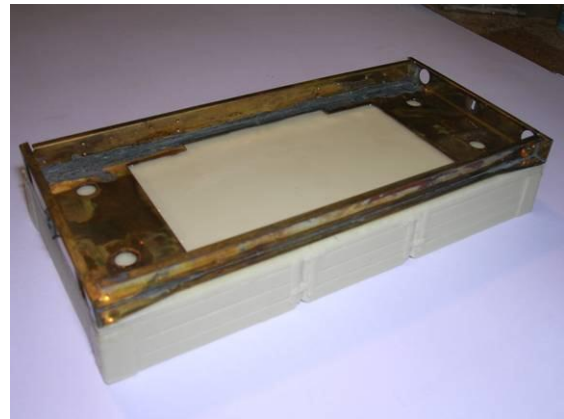
- Next remove the buffer beam reinforcing plates (part 3) and punch out the half etched rivets and tin the back of each piece with 188C solder. Now sweat the plates onto the half etched square in the front of the buffer beam.



Buffer beam reinforcing plates

Final Assembly of soldered components.

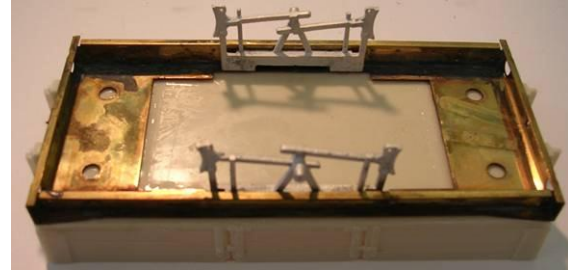
- Position the top of the wagon (part 4) in the middle of the chassis with both the bottom of the hopper through the slot in the top of the chassis. Glue the chassis to the top.



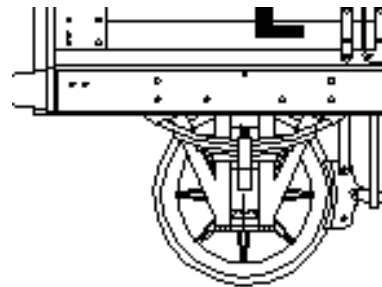
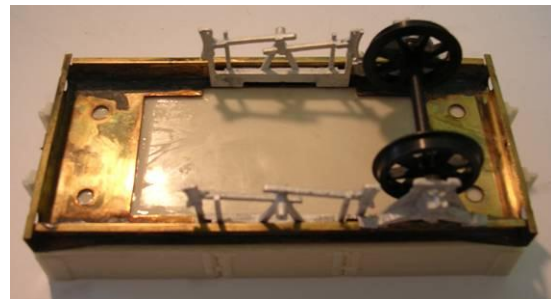
- Attach two of the T-bars (part 5) to the end of the wagon as shown. Then repeat for the other end.

- Place the brake gear casting (part 6) against the inside of sole-bar and slide down into the chassis with the spigot pointing outward. You may require to chamfer the casting so that it clears the solder filet between the chassis and the sole-bar. Glue the casting 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. Now glue the other brake gear casting into position on the other side. Position as per other side.

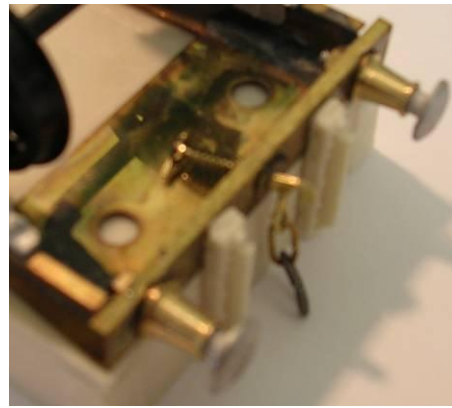


4. Drill out the w-iron castings to suit the bearings of your chosen wheels. Assemble a wheel set, 2 x W-iron's (part 7), 2 x bearing's and 1 x wheel/axle unit, do not glue the bearings into the W-irons at this stage. Again using two part epoxy resin, glue the assembled wheel set onto the sole-bars so that they are square and line up with the rivets as shown in the drawing.

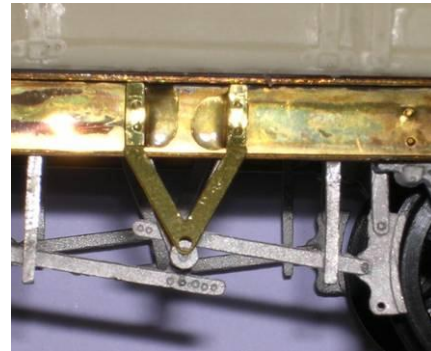


5. Repeat for the other wheel set. Use a straight edge across the back of the wheels to aid getting these parallel and square to the chassis.
6. Next, assemble the links (part 8) on to the coupling hook (part 9) and push through the slot. Now push the spring (part 10) over the

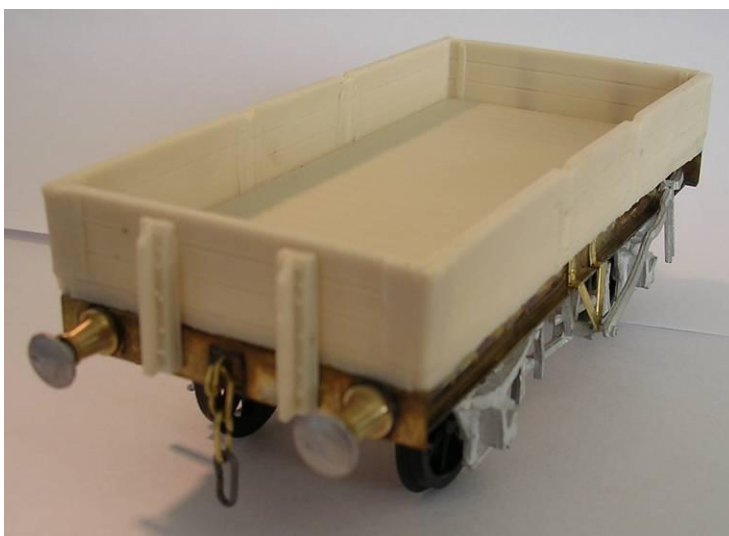
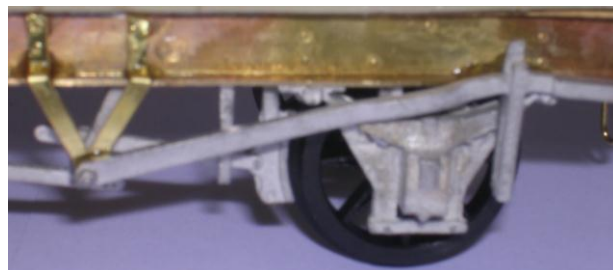
back of the back of the coupling hook and bend the tags over to secure the spring in place. Then fix the four buffers (part 14) into the holes in the buffer beam using two part epoxy.



7. Rivet the outside V-hangers (part15), fold up, and glue into position on the sole-bar and to the spigot of the brake gear casting.



8. Next fix the brake lever and ratchet casting (part 16) to the sole-bar and to the outside V-hanger as shown below.



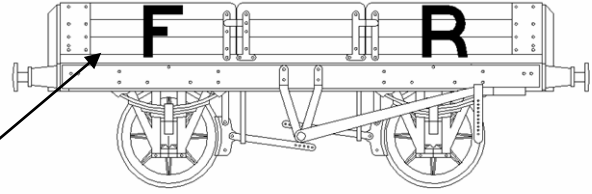
9. Finally paint the model in the livery of your choice.

History of the Wagon

In 1909 the Furness Railway company ordered two batches of 10ton 3 plank general merchandise wagons from the company's own wagon works at Barrow-in-Furness. The first batch of wagons, totalling 839 wagons, were of an all-wood construction. The second batch of wagons, totalling 17, were ordered at the same time, built to the same sizes but with a steel under-frame. These wagons were to replace its ageing fleet of mainly wooden wagons rated at between 6 and 8 tons.

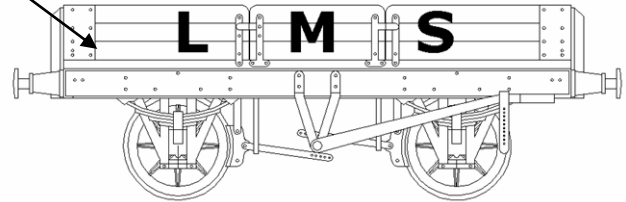
The wagons were mainly used to convey general merchandise from Cumberland and North Lancashire although some of the wagons were photographed as far away as northern Scotland and south west England. This kit represents one of the 17 wagons built in 1909 with steel under frames. The wagons were issued the numbers 2201 to 2217 by the Furness Railway. The wagons of this batch were absorbed into the LMS. These would have been renumbered 297201 to 297217. It is possible that some of these wagons managed to last into early British Railways. In Furness Railway days the wagons would have been painted grey. There is no specific shade of grey mentioned by the Furness Railway Company but, as its headquarters were at Barrow-in-Furness, home to Vickers, Son & Maxim's, Naval Shipyard, battleship grey would be a good guess. The wagons would have also been painted grey from 1923 to 1935 and then painted bauxite from 1936 to 1948. In British Railways days, the wagons would have reverted to a shade of grey.

Furness Railway
Livery Circ 1909



Numbers

LMS early Livery
Circ 1923-36



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1. Construction Manual,
2. One etch,
3. Two brake gear castings,
4. Two brake lever castings,
5. Four W-iron/axle box castings,
6. One wagon body casting (resin),
7. Four 'T'-bar end supports (resin),
8. Four buffer assemblies,
9. Two coupling hook springs,
10. Six coupling hook links.

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

Transfers are available from Dragon Models ref:7031 or on the HMRS LMS pre-grouping sheet.