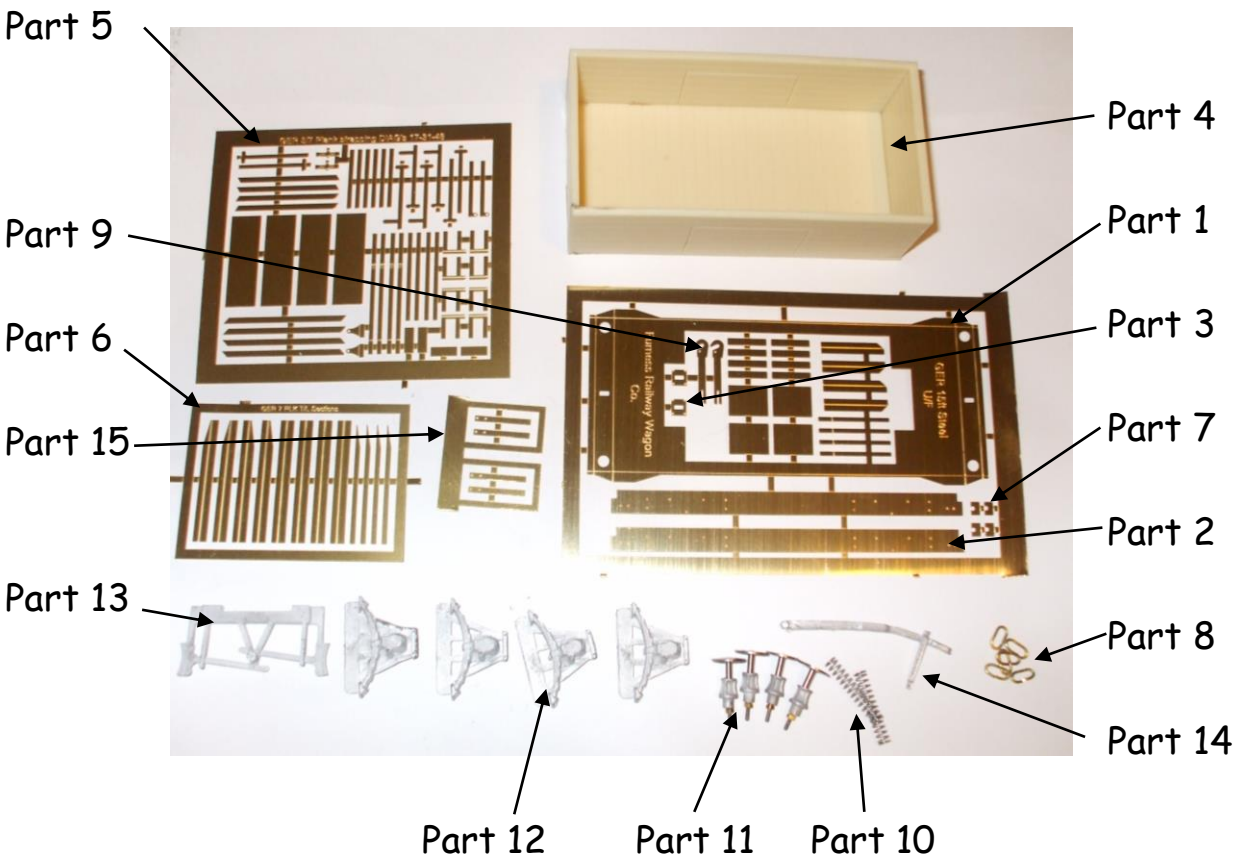
Furness Railway Wagon Co.

Great Eastern Railway/LNER/BR
Diagram 31/48 10/12ton
7 Plank Coal and General Merchandise Wagon
Steel Under-Frame

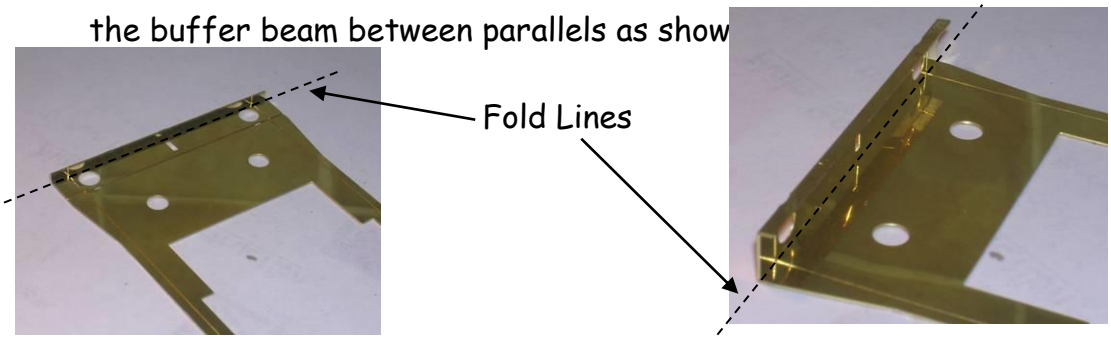
Wheels, paint and transfers required to complete.

The Parts.

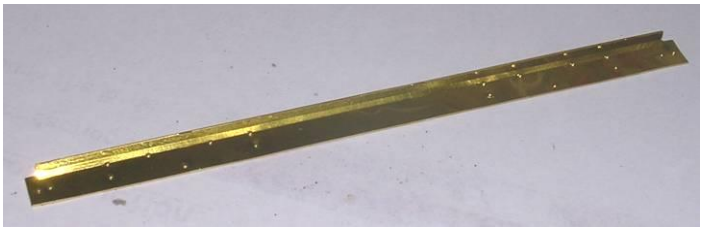


Chassis Construction.

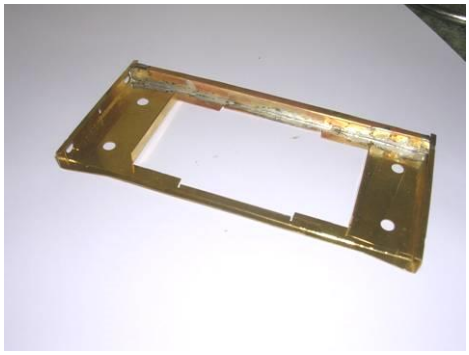
1. Remove chassis (part 1) from the etch and fold up the bottom of the buffer beam between parallels as show

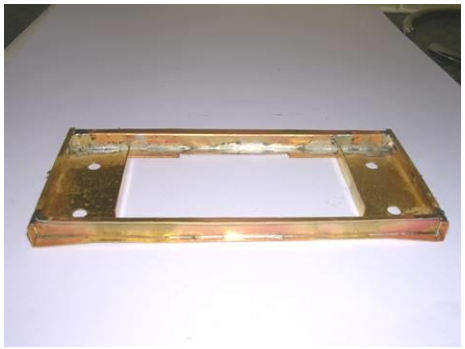


2. Next fold up the buffer beam completely as shown. Make sure that the resulting U shape is square so as to fit the sole bars. Repeat for the other end of the chassis.
3. Remove the sole-bars (part 2) and punch out the rivets. Next fold up the bottom of the sole-bars between two parallels. Make sure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

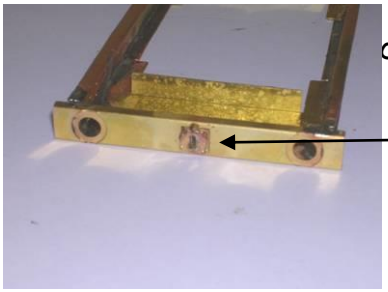


4. Click one of the sole-bars in to the half etch slot that runs between the two buffer beams. Solder into position using 188C solder. Make sure that the sole-bars are actually soldered inside the buffer beam. Repeat for the other sole-bar.





5. 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

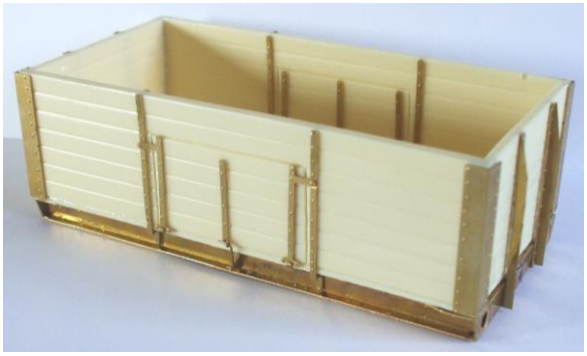


ched square in the front of the buffer

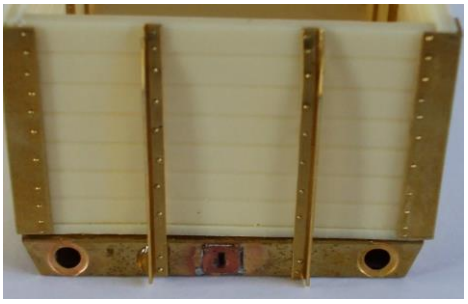
Buffer beam reinforcing plates

Final Assembly of soldered components.

1. Position the top of the wagon (part 4) in the middle of the chassis and glue the chassis to the top.



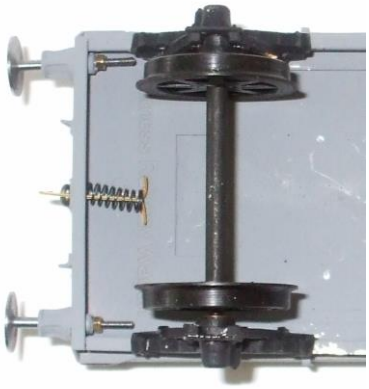
2. Next attach the strapping (part 5). Please note strapping etch will produce more than 12 different variants of the 7 plank wagon. The one illustrated is only one of these. Please consult a photograph before going any further. Regardless of which variant you choose you will require to punch out two the half etched reverts and either fold up the 'L' sections or solder the 'T' Sections (part 6)for the end of the wagon. Note some of these wagons were fitted with door balancers these are formed by selecting the door strapping with the lug on it and the small triangular part on the strapping etch. These need to be folded up and linked together with a short piece of wire as shown. Alternatively some wagons were fitted with conventional door stops (part 15)

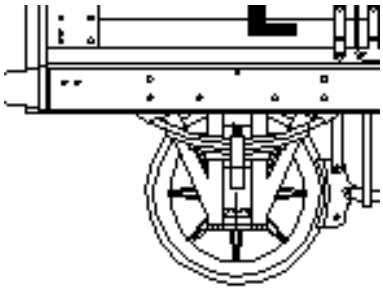


3. Next fit (part 6) sole-bar reinforcing plate at the ends of the sole-bars next to the buffer beam.

4. 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 11) into the holes in the buffer beam using two part epoxy.

5. Drill out the w-iron castings to suit the bearings of your chosen wheels. Assemble a wheel set, 2 x W-iron's (part 12), 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. Note the GER used a mixture of spoked and solid disc wheels on it wagons so please refer to a photo.





6. 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.

7. Next place the brake gear casting (part 13) 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.

8. Next fix the brake lever and ratchet casting (part 14) to the sole-bar as shown below.

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

History of the Wagon

In 1891 the Great Eastern Railway company introduced a 10ton 7 plank coal wagon (Dia.31) for the movement of Loco and domestic coal. And by 1898, when building stopped, there were 1,250 of these wagons all of which had been built at the company's own wagon works at Stratford. These wagons were built to a modern design with a steel channel under-frame.

In 1903 production of 7 plank wagons had once again commenced this time with the addition of cupboard doors (Dia.48) instead of the through planks of Dia.31. and by 1908 1,300 had been built. In addition the these 650 wagon built to Dia.31 and number of others built to Dia.17, 5 plank wagons, had been converted to Dia.48.

Dia.48 wagons were mainly used to convey general merchandise and domestic coal to and from between East Anglia and London although some of the wagons where photograph as far away as northern Scotland and south west England.

The wagons were issued the numbers by the Great Eastern Railway:

Dia.31: 896, 1029, 1619 and 1729

Dia.48: 3304, 3475 and 23246

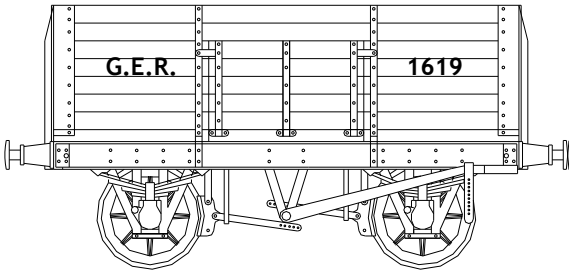
Dia.17 (converted) 3304

Most of these wagons were absorbed into the LNER. These would have been renumbered by adding 600,000. Wagons built to dia.31 started to be withdrawn in the late 1920's and all had gone by 1946. Wagons built or converted to Dia.48 faired better with 133 lasting to be taken over by British Railways, the last wagon being scrapped by 1960.

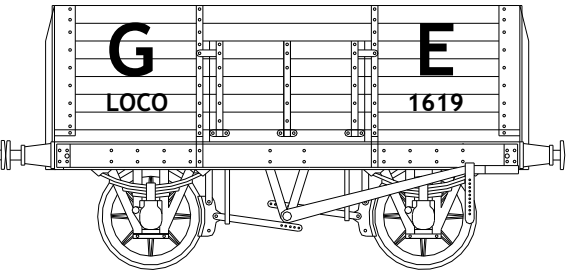
In Great Eastern Railway days the wagons would have been painted mid grey which would not have changed through the wagons life.

Liveries

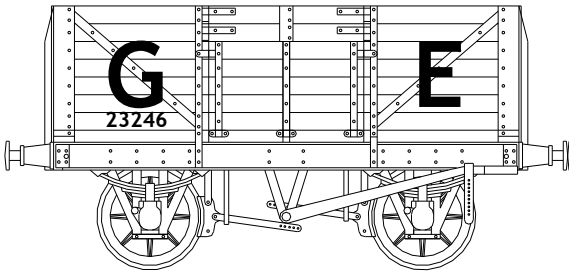
Great Eastern Railway
Early Livery Circ 1891



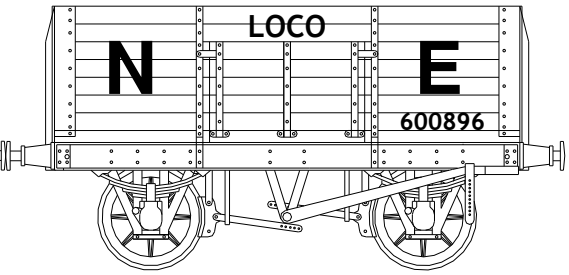
Great Eastern Railway
Livery 1910



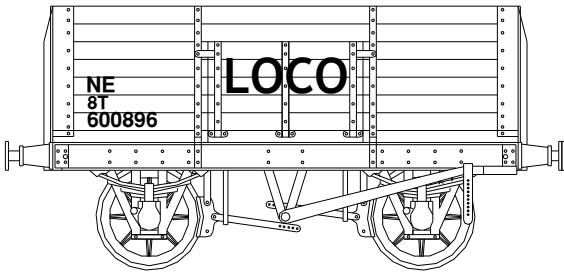
Great Eastern Railway
Livery 1910



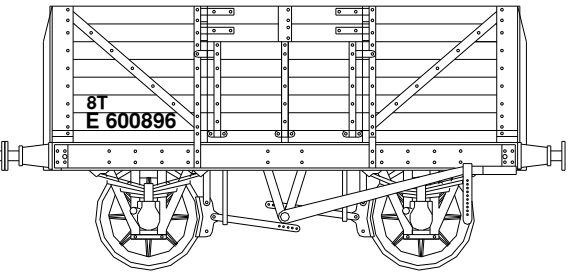
LNER Early Livery
Circ 1923-36



LNER Livery Circ 1936-1947



BR Livery Circ 1947-1960



Furness Railway Wagon Co.

Great Eastern Railway/LNER/BR
Diagram 31/48 10/12ton
7 Plank Coal and General Merchandise Wagon
Steel Under-Frame

1. Construction Manual,
2. One chassis etch,
3. One strapping etch,
4. One end support etch,
5. One brake gear casting,
6. One brake lever casting,
7. Four W-iron/axle box castings,
8. One wagon body casting (resin),
9. Four buffer assemblies,
10. Two coupling hook springs,
11. Six coupling hook links,
12. One door stop etch.

We recommend any of Haywood Railway's 3'1" wheels as the GER used any wheels at hand.
Transfers are available from POWsides.