

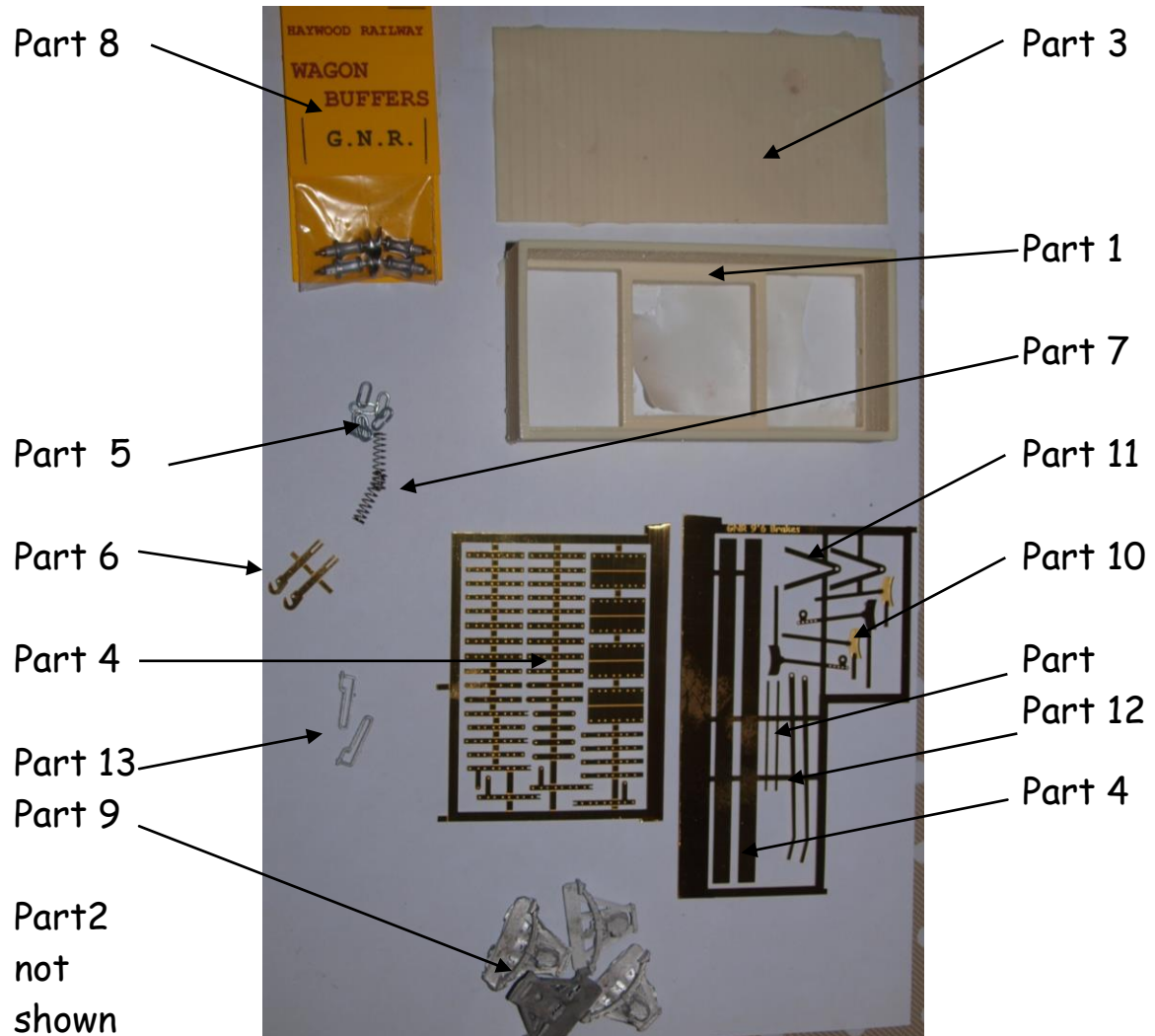
# *Furness Railway Wagon Co.*

GNR/LNER/BR

8ton 4 Plank Open Wagon

Wheels, paint and transfers required to complete.

## The Parts.



## Wagon Construction.

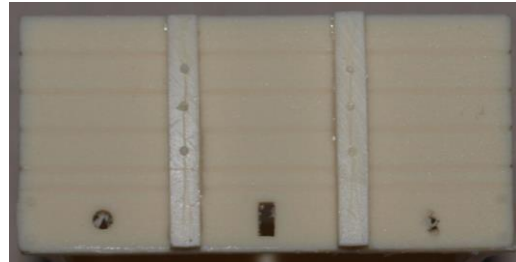
1. Clean up the wagon body (part 1) by removing any excess material.

2. Firstly drill out the holes, both ends, for the buffers and coupling hooks as shown

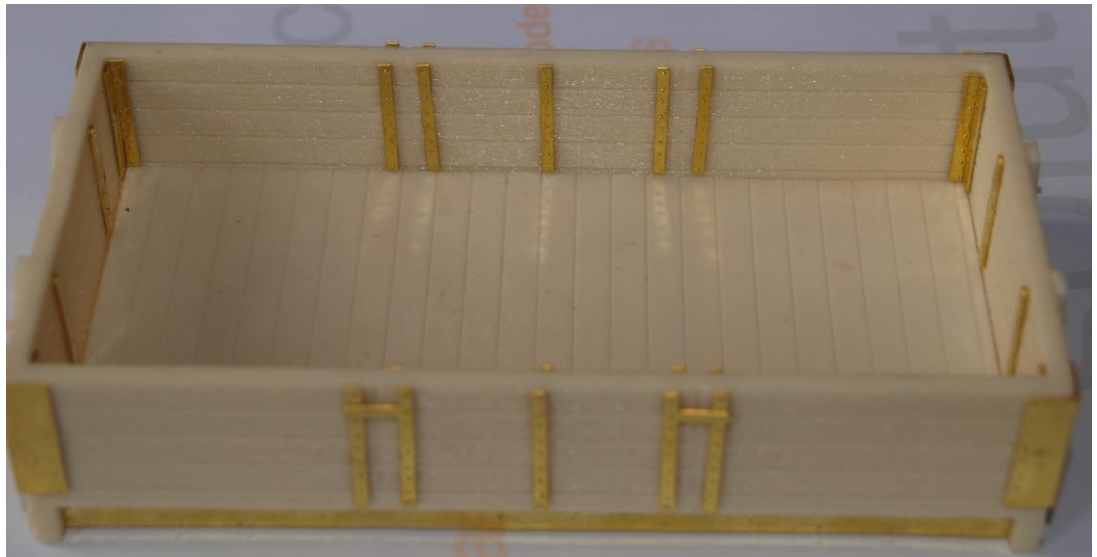
Drill here



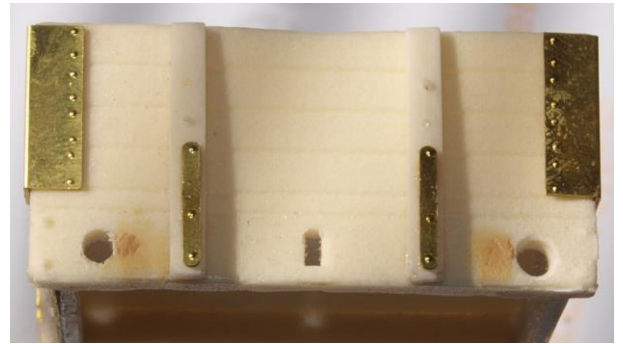
3. Now you need to fit the supports (Part 2).



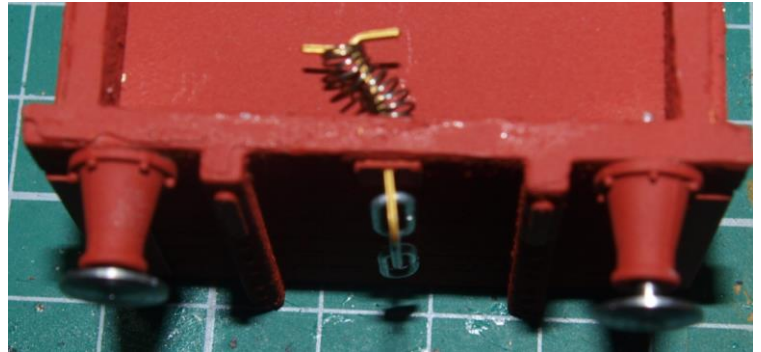
4. Next clean up and fit the floor (part 3). Note you will need to file some small notches into the floor to enable it to pass over the internal strapping.
5. Next take the strapping etch (part 4) and punch out the half etched rivets and attach as below.



6. Next fit the strapping to the fixed ends.

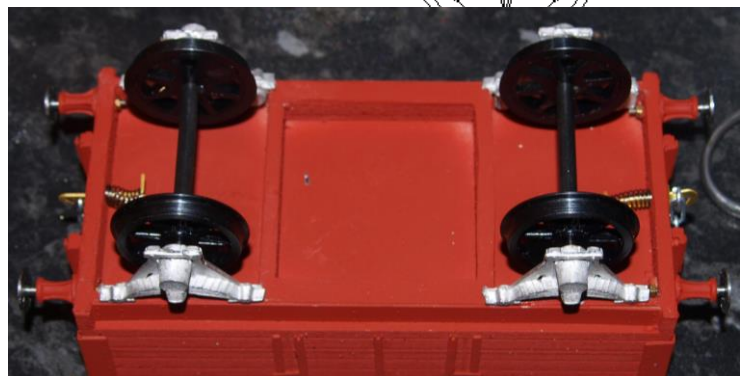
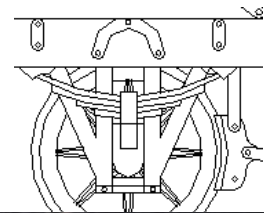


7. Next, assemble the links (part 5) on to the coupling hook (part 6) and push through the slot. Now push the spring (part 7) over the back of the back of the



coupling hook and bend the tags over to secure the spring in place. Repeat for the other hook. Now fix the four buffers (part 8) and then into the holes in the buffer beam using two part epoxy, as shown. Repeat for the other end.

8. Assemble a wheel set consisting of: 2 x W-iron's (part 9), 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 crown plates as shown on the drawing.

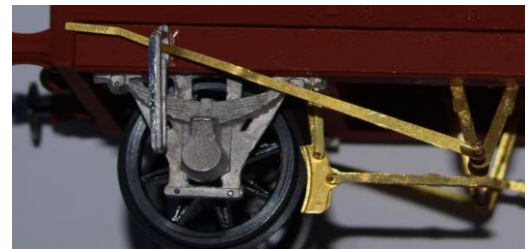


9. Repeat for the other wheel set. Use a straight edge across the back of the wheels to aid getting these parallel and square to the chassis.

10. Glue the brake gear (part 10) onto the wagon, using the etched 'V' hangers (part11) as shown.



11. Next fix the brake lever (part12) and ratchet casting (part 13) to the sole-bar and to the out side V-hanger as shown.



12. Now you are ready to paint your model in the livery of your choice.



## History of the Wagon

In 1870 the GNR introduced a standard 4 plank open wagon design as its standard open goods wagon. By the time production of these wagon ceased in 1906 over 13,000 had been built, 12,400 with wooden under-frames with another 600 with steel under-frames. Over 700 of these wagons lived long enough to get to the grouping with the going to the LNER and 30 being withdrawn by British Railways in the 1950's.

There were a number of variations over the long life of these wagons. The main variation in the building of these vans was the braking systems. The standard wagon were, originally built with a, single brake block acting on one wheel with no adjustment. This was updated to a push rod brake, on one side only. This was later updated, again, to a single brake block on each side, with a common cross shaft, with two brake levers pointing in the same direction. Some of the vans were also fitted with Automatic Vacuum Brakes (AVB), while others were through piped for AVB and Westinghouse Airbrakes. Also some wagons were fitted with "Williams' patent automatic sheet support rail". Were as others were converted for the vegetable trade by the addition of a vegetable frame, that made the look like a coke wagon

The GNR's livery was red oxide above the sole bars and black below. Lettering was simple with a large 'G' 'N' in white on the side of the wagon. LNER livery copies the practice of the GNR apart from the base colour was mid grey rather than red oxide. However in 1936 the LNER reverted back to red oxide. Those of the wagons that managed to survive past 1947 would have been eventually grey if they were lucky.

Known running numbers

Standard wagon 9/1120/9660/10339/10465/12404/13608/26091/33716

Fitted with sheet bar 552

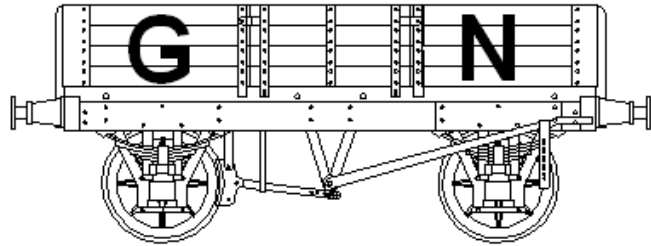
Fitted with sheet bar and ABV 4256

Fitted with sheet bar and piped 35735/35755

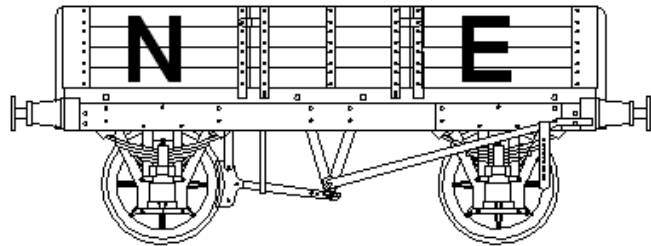
Fitted with Vegetable frame 35686

## Liveries

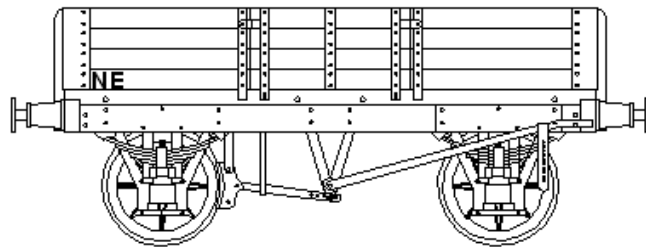
GNR Livery  
Circ 1913



LNER early  
Livery Circ 1923-



LNER Late Livery  
Circ 1936-47



# *Furness Railway Wagon Co.*

## **GNR/LNER/BR 8ton 4 Plank Wagon**

1. Construction Manual,
2. One strapping etch,
3. One brake etch,
4. One wagon body casting (resin),
5. Four end support castings(resin)
6. One wagon floor casting (Resin),
7. Two brake ratchet castings,
8. Four W-iron/axle box castings,
9. Four buffer assemblies,
10. Two coupling hook springs,
11. Six coupling hook links,
12. One set of etched coupling hooks,
13. One piece of brass wire.

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

Transfers are available from POWsides.