

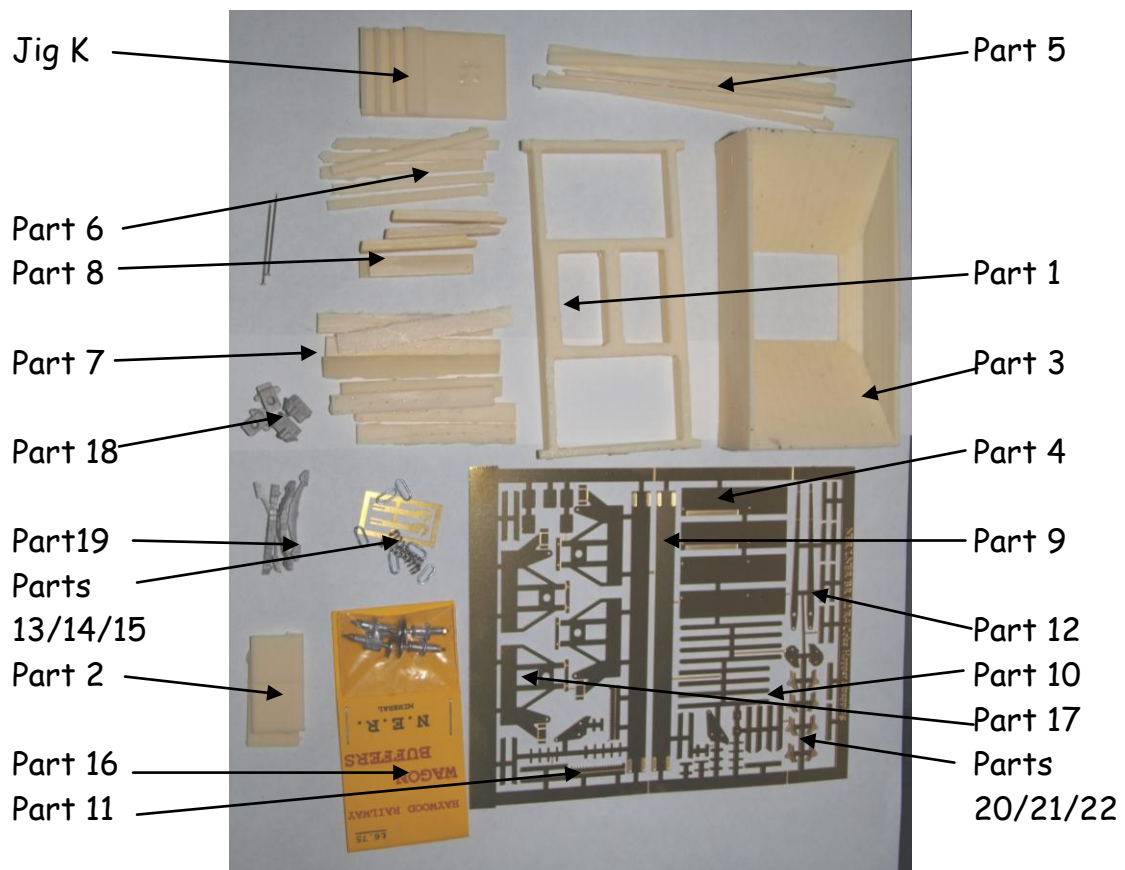
Furness Railway Wagon Co.

NER/LNER/BR/PO 10ton P2/R4 Coke Hopper

Wheels, paint and transfers required to complete.

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

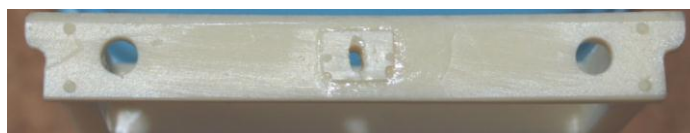
The parts.



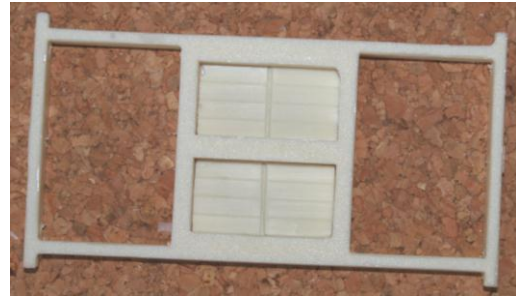
Assembly.

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

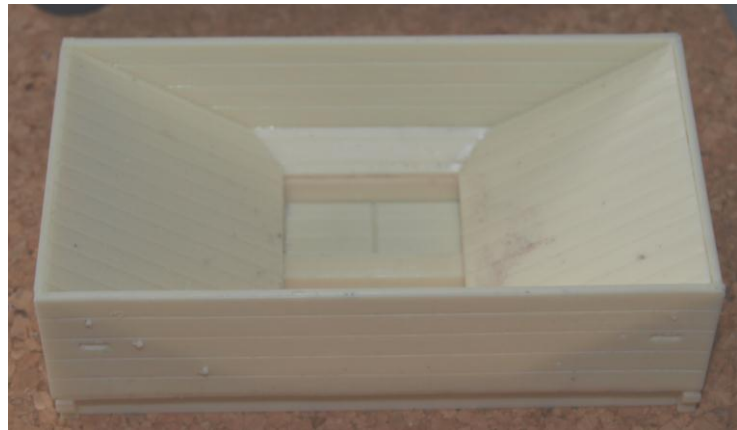
Drill out the holes at both ends for the buffers and coupling hooks as shown.



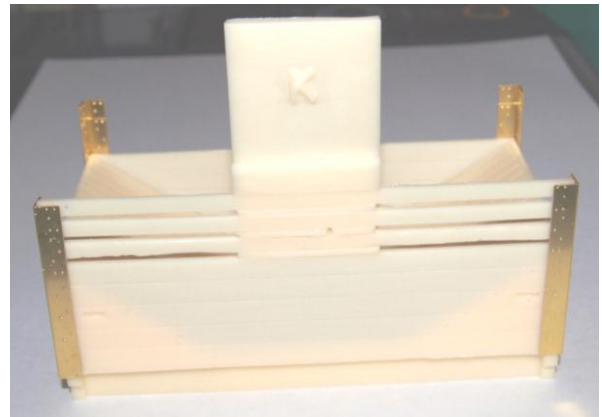
2. Fit (part 2) the hopper bottom doors inside the central holes in the chassis, making sure that the planking detail faces up.



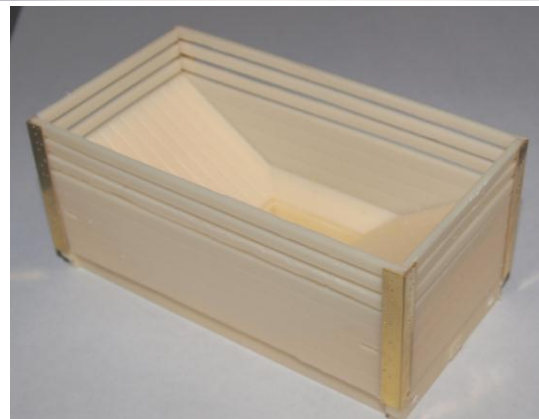
3. Position the top of the wagon (part 3) in the middle of the chassis and glue together.



4. Punch out all the half etched rivets on the etch.
5. If you are building the R2 version of the kit you will need to brake off the top of the corner plate etch (part 4) before you bend it up but if you are making the R4 bend up as is. Note the end plates are handed and the left hand plate has a half etched recess in it.

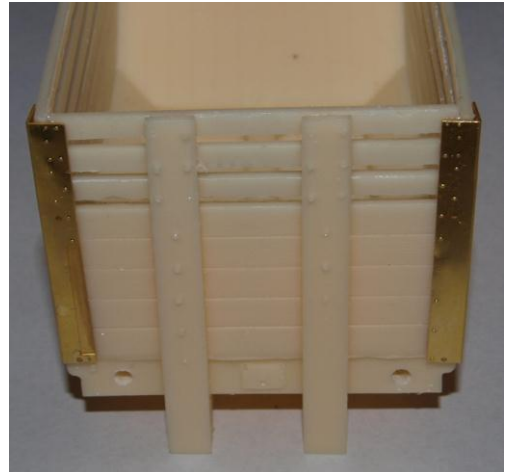


6. Now, using the coke rave jig K, assemble the coke raves (parts 5/6). Use all three slots for the R4 and the bottom two for the R2. Start with the sides glue

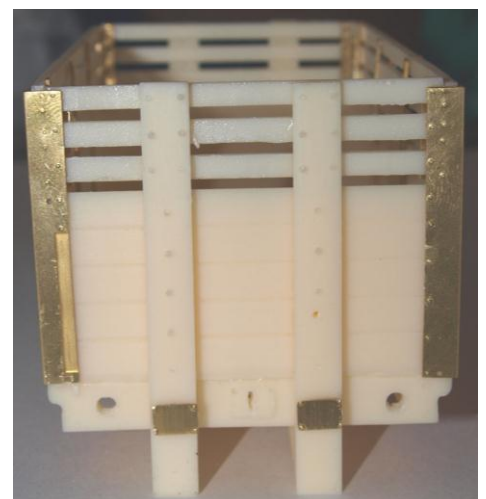
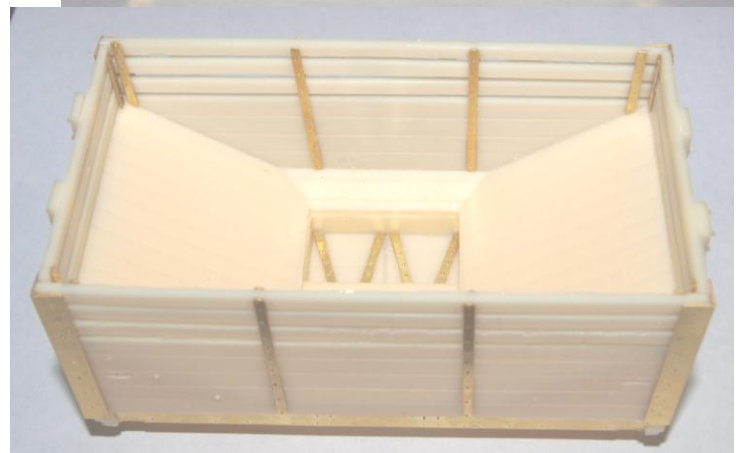


them to the corner plates. Repeat for the other side and the ends.

7. Attach the end beams (part 7) and end beam supports (part 8) as shown. NB there are two sets of ends (long R4, Short R2) they are handed so the left hand one (wagon upside down) only had 3 single bolt heads. Also, it is a good idea to set the distance apart using a wheel set to get the correct clearance.



8. Now fit the sole bar detail plate (Part 9) and strapping (part 10) as shown. Fit the reinforcing plates on the ends you can either fit two small plate at the pint the end supports cross the buffer beam or alternatively you can fit a large plate in the same place.





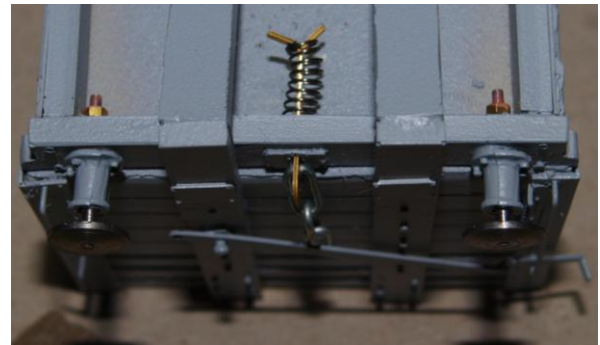
9. Punch out the half etched rivets and fit the brake ratchets (part 11) and fix into the half etched recesses on the end.

Then, drill through holes in the end plates, tops of end beams and finally the end brake pivot.



10. Fold up the brake lever (part 12) then attach it and the brake lever reinforcing plate using a pin, as shown. Then fold up some of the wire in to hand rails which fit into the holes previously drilled.

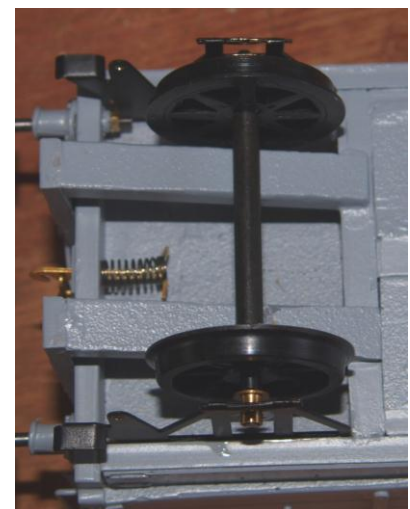
11. Assemble the links (part 13) on to the coupling hook (part 14) and push through the slot. Now, push the spring (part 15) over the back of the back of the



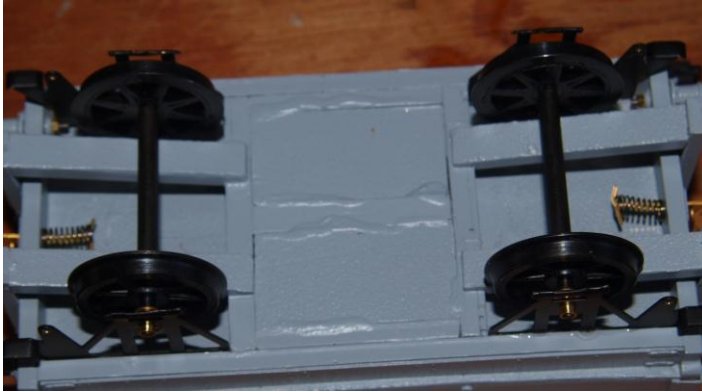
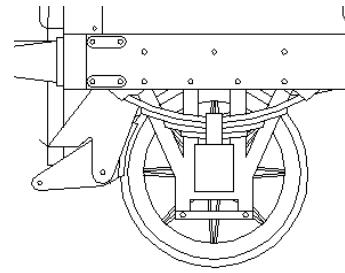
coupling hook and bend the tags over to secure the spring in place.

Fix the four buffers (part 16) into the holes in the buffer beam using two part epoxy.

12. Drill out the etched w-irons (part17) to suit the bearings of your chosen wheels then fold up the steps on each corner. Assemble a wheel set, 2 x W-iron's, 2 x bearings and 1 x wheel/axle unit. 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.

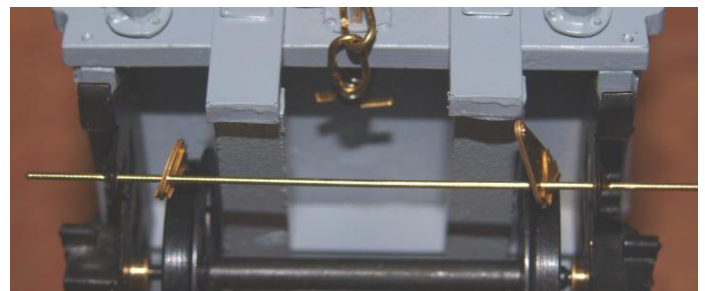


13. Repeat for the other wheel set. Use a straight edge across the back of the wheels to aid getting these parallel and square to the chassis.

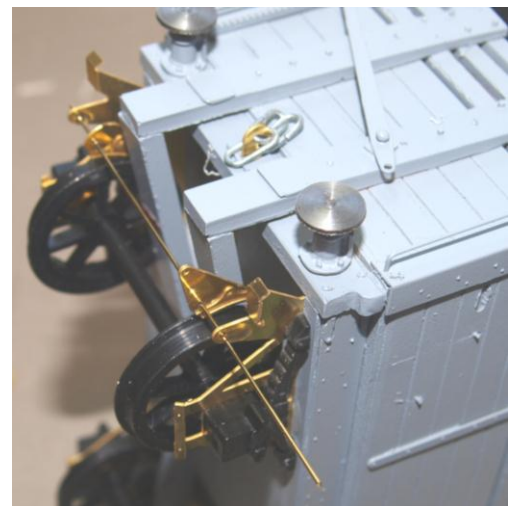
14. next fit the cosmetic axel boxes(part 18) and springs (part 19) as shown



15. Next laminate the brake blocks together these are made up from one central blank (parts 20/21) and 2 brake shoe (part 22) parts.



16. Thread a piece of wire through one of the steps and then through both of the brake shoes and finally through the other step. Note the larger of the two shoes goes on the right hand side of the wagon below the lower end of the



brake lever. Next thread a piece of wire through the hole in the brake lever and the larger of the two brake blocks. Make sure both brake blocks are clear of the wheels and secure.

17. Repeat for the other end of the wagon.

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



History of the Wagon

This kit represents a R2/R4 Coke hopper wagon built for the North Eastern Railway's Central Division between 1893 and 1910. These wagons were a direct descendent of the Stockton and Darlington Railway's 8ton coal hopper and were basically a NER central division P5 hopper with extra planks added to the top. The R2 having 2 planks and the R4 having 3 extra planks.

From 1905 the number of R4's were drastically reduced as they were either rebuilt into R2's by having the top rake removed or sold off in to private ownership either to Gas, Chemical or Coke works around the north of England and southern Scotland.

All of the R4s had gone before 1923 with over 100 of R2's passed into the LNER's stock with a few living long enough in private hands to reach nationalisation in 1947.

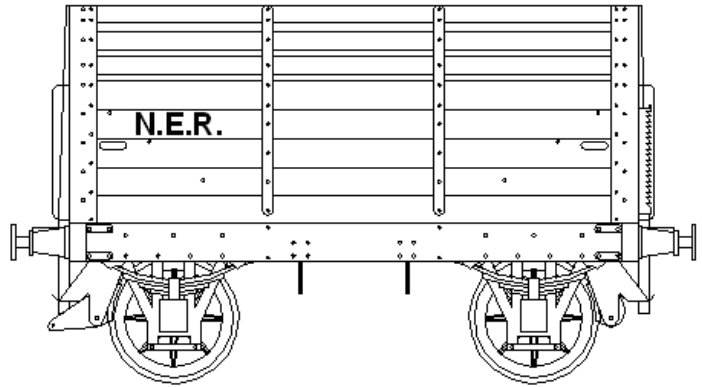
These wagons would have spent most of their working lives painted grey from the sole bar up, and black below.

Over the years a large number of these wagons were sold out of service to private owners across the north of England and southern Scotland making them a familiar sight in mines, steel and iron works and general goods trains.

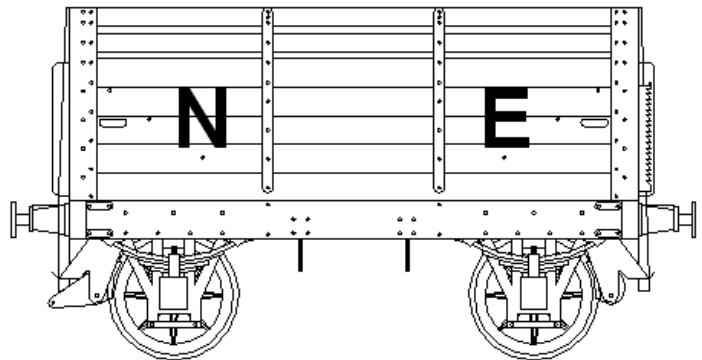
The only known running number is R2 93546

Liveries

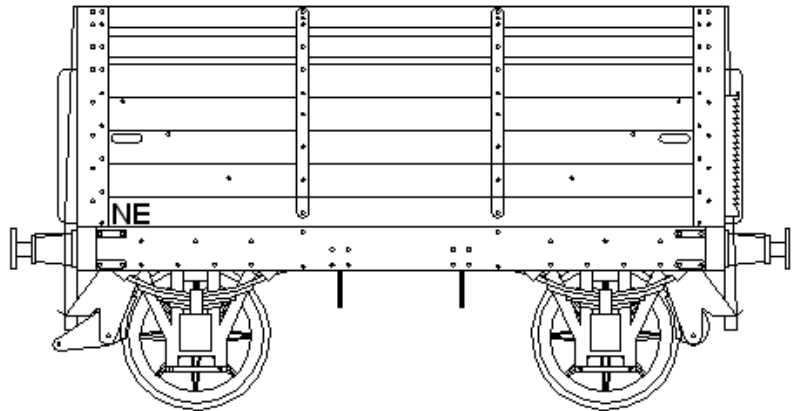
NER Livery
Circ 1901



NER/LNER
Livery
Circ 1911-36



LNER Livery
Circ 1936-47



Furness Railway Wagon Co.

NER/LNER/BR/PO 10ton R2/R4 Coke Hopper

1. Construction Manual,
2. One parts etch,
3. One wagon body casting (Resin),
4. One Chassis (Resin),
5. Four End beams (long R4) (Resin),
6. Four End beams (Short R2) (Resin),
7. Four End beam supports (Resin),
8. Two bottom door castings (Resin),
9. Six long coke rave castings (Resin)
10. Six short coke rave castings (Resin)
11. Four axle box castings,
12. Four axle box spring castings,
13. Four buffer assemblies,
14. Two coupling hook springs,
15. Six coupling hook links,
16. Two pins,
17. One coupling hook etch,
18. One piece of wire,
19. One coke rave jig.

We recommend Haywood Railway 3'1" closed spoke wheels for the early wagons and their open spoke wheels for the later wagons.

Transfers are available from Slater's, POWSides and HMRS.