

The Prototype

Developed with the encouragement of the LYR the three box wagon became popular for bunker coal traffic to the ports of Liverpool and Fleetwood. The Ince Wagon company appear to have been the principal builder for private owners, although some built their own fleet with minor differences to the boxes.

The boxes were lifted off wagons by the hooks with the door chains taught, brought over a ship's bunker, the door chains were then released; emptying the coal into the bunker beneath. Some 9 companies are known to have used such wagons around the time of the Great War. With the change in ship's fuel from coal to oil these wagons gradually became surplus to requirements. Some were converted or broken up. However it is known that many survived and joined the National Coal Board fleet until the 50's.

This model is based on Ince Wagon practice although with modifications other examples could be built.

References

British Goods Wagons from 1887 to the present day, R Essery, D Rowland & W Steel

Box coal wagons in the North West, A J Watts, Premier Business, December 1996, LYRS/LNWRA
Conclusions of the 3 box coal wagon series, A J Watts, P4, Platform 11, LYRS

Some further reflections on the South Lancashire Private Owner Wagons, A J Watts, P8, Platform 13, LYRS

The box coal wagons of the South Lancashire coalfield, A J Watts, Platform 50, Autumn 2000, LYRS

Private owner wagons from the Ince Wagonworks Co, A J Watts, HMRS, 1998

Acknowledgements

51L would like to thank Tony Watts for his assistance in preparing this model.

Ince Wagon Company Private Owners Three box coal wagon

**Period: from c1890-1950's
For OO, EM, P4 and S4**

Features: white metal body, white metal buffers with steel heads, etched w-irons and brake levers.

Requires to complete:

12mm split spoke wheels, paint, couplings and transfers

Assembly

This wagon consists of a chassis on which three boxes are placed, there is no conventional floor. There are several routes to assemble this model. It is suggested because of painting considerations that these instructions are read prior to assembly. Methods could include:

- 1) Assemble chassis and boxes separately; paint, attach boxes to chassis, followed by running gear.
- 2) Assemble chassis, running gear and end boxes, painting.
- 3) Assemble chassis with box floors, box side and ends separately, running gear, paint, followed by final assembly.

We suggest option 2.

Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. We suggest wet fine emery paper (1200 grit) may be useful to clean up flash marks. Carry out a dummy run before assembly. Assembly is best carried out using low melt solder, an epoxy resin such as Araldite or Super glue. To obtain the best results a combination of several techniques will be needed.

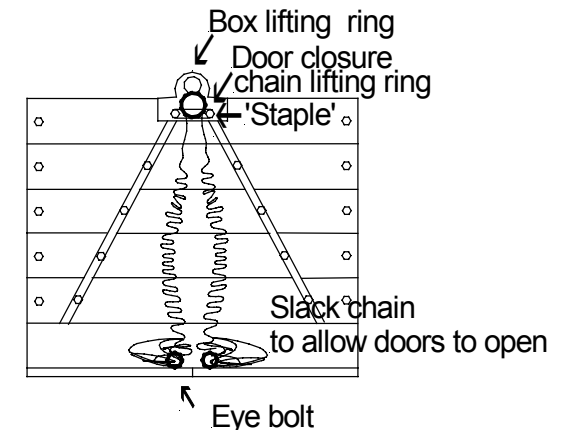
The chassis

Prior to assembly proper undertake some preparation work. Check the buffer holes in the ends will accept the buffers, if not open up the hole to suit, (nominal 2mm bore) using a broach. Bore holes for horse hooks these are 'pip' marked on the left hand side of the solebar. Prepare horse hooks from 0.33mm brass wire. With the solebars and buffer beam upside down on a flat surface, such as a glass sheet, bring together and when satisfied are square fix.

Then turn the chassis over and attach the L shaped retaining box pieces at the corners. These fit over the buffer beam and alongside the solebar. Next attach the retainer pieces at the ends. Their position is marked on the buffer beams. Finally attach the internal box separation bars across the vehicle, these support the boxes and should be 9 mm from the wagon centre point approximately in line with the inner spring carriers. Check the three box floors will all be before finally fixing the transverse bars. Fit the buffers in place with the bolt heads at the 2, 4, 8, and 10 o'clock positions.

The boxes

These consist of a floor and two sides and ends. For clarity the side includes the loop at the top, the sides fit inside the ends and both fit on top of the floor, the part with four holes is the floor. Following the sketch prepare staple from supplied 0.3mm wire and attach to end interior. The pot marked positions will require boring out very slightly.



Bore four holes in floor as pot marked to 0.4mm. The door chains will be attached here. Very slightly countersink the

holes on the underside of the floor and fix a small loop of wire inside so that the 'chains' can eventually be threaded through this. Clean up the glue/solder the bottom of the box is flat. Fit one end to a side, ensure the parts are square and fix. Ensure all is level and square. Fix the second side to the second end. Bring both assemblies together and fix. When satisfied the assembly is square solder or glue the joints. The assembly may now be attached to the floor or alternatively may be painted.

Detailing the boxes

The box door closure chains should now be formed from fine wire. Take the very fine wire supplied and loop it double. Then, twist it carefully; hold one end of the loop in a vice and the other end in either a pin vice or a mini drill and turn carefully until the wire is finely twisted. Then cut off pieces approximately 58mm long. The chains are threaded through the eye bolts in the floor, four per box, threaded through the staple at the box top and then joined to the crane ring. This ring should be just too large to pass through the staple. Prepare a ring from the 0.3mm wire supplied.

Finally carefully push the 'chains' down inside the box to give the impression of two loose chains hanging on the crane loop. It is suggested that full wagons would have the chains dangling outside, but this thought is open to confirmation.

The running gear

Prepare the etched brass w irons following the enclosed instructions, use the straight bridal bars. Note: the 51L w-irons may be used in the non-rocking mode a method of choice for many OO modellers. Place both w-irons on the floor using the crown plate coach bolts for positioning. Check the rail to buffer centre height and add packing to the floor as required, to achieve 14 mm. Some 0.060" packing may be required on **both** ends. Ensure the packing will not be in the way of the brake shoes. When satisfied attach the packing to the floor using super glue. Glue the w-irons in place. If the wagon is gently pushed along a flat surface it should run in a straight line. If not one or both of the w-irons are out of line and should be adjusted.

Bore out brake shaft hole in the brake shoe assembly with a 0.7 mm drill. Also ensure that the V hangers and brake lever and are also bored the same size. Check that you

have the brake shoes the right way round; when looking from the outside of the wagon the right hand push rod is above the left one. Using a piece of the 0.7mm wire line up the inside brake hanger (the one with the joining piece at the top) to the outside of the brake shoe assembly. Then fit the brake shoes under the vehicle ensuring that they just clear the wheels. Thread the 0.7mm wire through both sets of break gear and attach the exterior V hangers to the solebar.

Following the attached instruction sheet prepare brake lever and lever guides. The brake levers and guides should be attached in place with the guide approximately 2mm to the left of the right hand spring carrier. It will be found easiest to attach lever and guide at the same time. Attach brake safety loops, these should be a 'U shape loop' type and be about 2mm from the brake shoes. Repeat for the second side if required. Once all the break gear is secure remove the centre section of the 0.7mm wire to leave two sets of independent brake gear.

Finishing

Clean and degrease the model, using white spirit before painting. For white metal parts use and etching primer, such as Precision Paints PS1. The model should be painted using the livery of your choice. After painting clean the model using a tissue soaked in white spirit. This is especially important if you are dry lettering such as Pow Sides rather than waterslide or 'Methfix' transfers. After painting and lettering fit three link couplings. You may find it useful to blacken the chain using Casey Gun Blue or a chemical blackening agent.

The most recent version of these assembly instructions is available on the 51L web site: www.51l.co.uk. For further help or information please e-mail: info@51l.co.uk

51L

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Private owner wagons

Three box coal wagon

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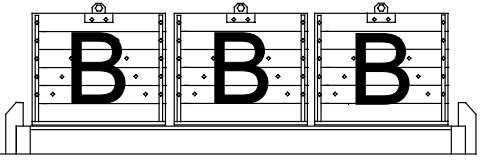
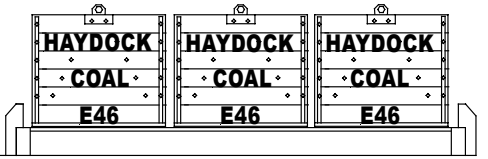
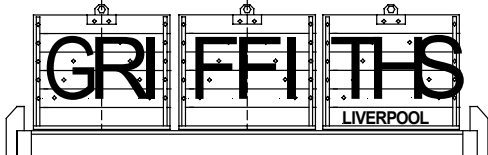
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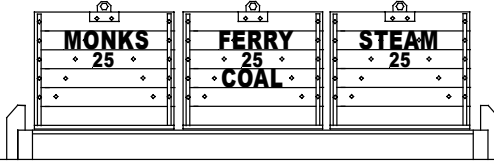
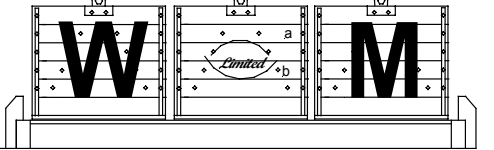
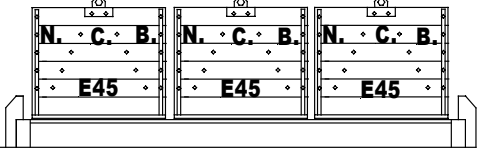
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Livery

Company	Comments	Livery	Sketch based on photographic evidence
Blundells	Fleet of around 200 in regular use 1870/1880s, mainly built by Blundells	Black, white lettering, 28" high, 24" wide, stroke width 6"thick	
Blainscough Colliery Co, Coppull	All constructed by Ince Wagon 1896: 20 wagons Total of at least 25	No photographic evidence assumed to be the same as ordinary wagons. Red oxide, lettering white Blainscough assumed to be evenly spaced	
Ellerbeek Colliery Co	All constructed by Ince Wagon 1895 1902: 691-704 1904: 706-745 At least 80 and probably others built by Ince Wagon Broken up 1932	No photographic evidence assumed to be the same as ordinary wagons: Red oxide white lettering Ellerbeek assumed to be evenly spaced.	
Richard Evans' Haydock Collieries	Similar to Ince Wagon, built in house. Numbers preceded by an E extending to the 140's	1) Bright red oxide to 1918 2) Black post 1918 Lettering white	
Garswood Hall Colliery	At least 15 in service in 1915	Assumed to be the same as ordinary wagons with evenly spaced lettering. Red oxide, lettering white shaded black	
John Griffiths & Sons	Some of the fleet was similar to the Ince Wagon design, but boxes with box corner plates. Fleet may have totalled around 300	Grey, white lettering shaded red. Griffiths evenly spaced.	

Monks Ferry Steam Coal Co	80 purchased from Ince Wagon Company, 1893	1) Red oxide, white lettering, black iron work. Box ends are numbered with the wagon number 2) In later years black overall white lettering	
Preston Liverpool, Distillery Co	Wigan Wagon Company 1899: 14 in total including 13, 14, 15,	No information available.	
White Moss Coal Company Skelmersdale	All constructed by Ince Wagon 1898: 159, 455, 407, 530, 676, 845-869, 1903: 469, 497, 530, 532, 679 Total fleet around 200 Colliery closed in 1928	Red oxide with white lettering	 <p>Note: a= WHITE MOSS COAL CO b= SKELMERSDALE</p>
National Coal Board	Ex Private owner wagons include some ex Haydock, and Monks Ferry fleet	Black or bare timber, white lettering, original numbers used	

Source of transfers:

HMRS sheet 3 and/or sheet 4 either Methfix or Pressfix
Pow Sides, Blundells only

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