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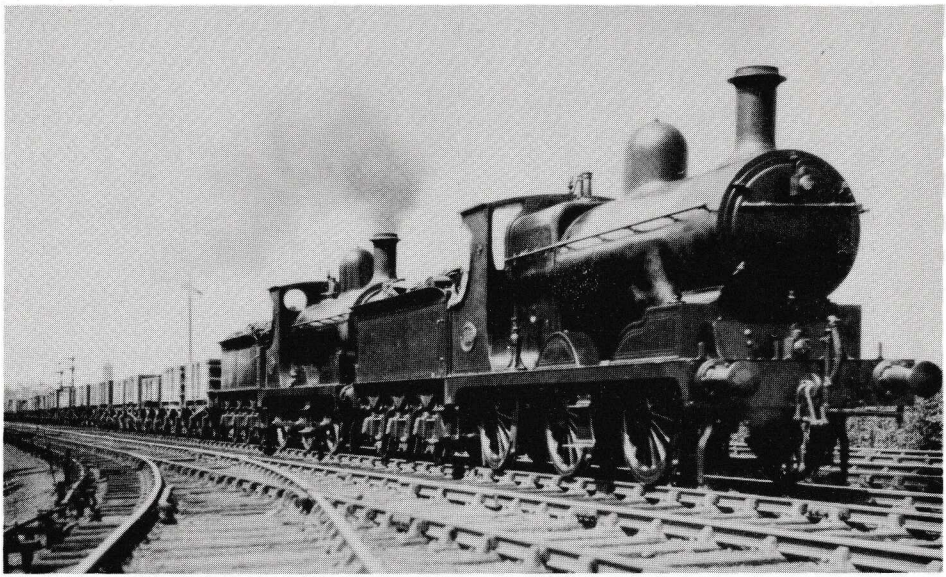
PLATFORM TEN



THE JOURNAL
OF THE
Lancashire & Yorkshire
Railway Society

PLATFORM TEN is the tenth journal of the Lancashire & Yorkshire Railway Society, this being the Autumn 1982 edition. The society produces about three editions of the journal each year with the occasional booklet on other L. & Y.R. subjects. Members also receive regular duplicated newsletters. Our policy is to pass all funds back to members in the form of such historical material. For further details of membership, please contact the Hon. Secretary Mr T. Wray, 30 Mossway, Middleton, Manchester M24 1NS.

Contents

Cover Photograph:

Traffic on the railway system of England grew to enormous proportions during the Great War and trains often required the power of two locomotives. Prior to the war, one loco was enough for almost any train the railway ran, but double heading became common practice and tended to continue into the following decade. Goods traffic was never heavier than in those last years of the L.& Y.R. and the seemingly endless train (of empties) nearing Preston certainly required the two 0–6–0 tender locos.

The leading engine is No. 483 built to Aspinall's standard design in 1897 and fitted with a Belpaire firebox and Schmidt superheated boiler as the war began in 1914.

L.& G.R. photograph courtesy David & Charles Ltd.

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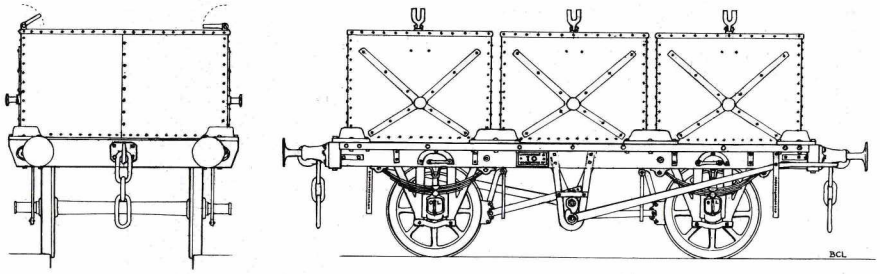
The Box Coal Wagons of the South Lancashire Coalfield

PART 2

A. J. WATTS

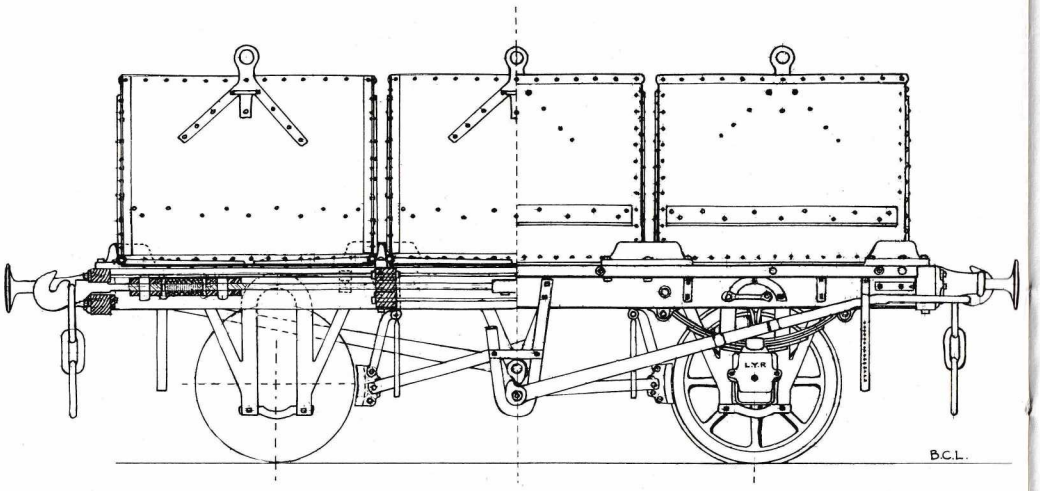
The Lancashire & Yorkshire Railway built a total of 29 three-box coal wagons from 1900 onwards. All the wagons were built for the Fleetwood steamer services to Ireland and many were charged to the Preston & Wyre account which was a separate entity as regards certain items of rolling stock. Wagons charged to this account did not usually appear in the L. & Y.R. diagram book and because of the limited use of the 3-box wagons built for the Fleetwood steamers, their confinement to that service meant that an entry was not important.

The first 12 wagons built probably had wooden boxes. Subsequent entries in the order book stipulate steel boxes. The one wagon built in 1908 had steel boxes with trunnions rivetted to the sides and reinforced by cross strapping similarly fixed. Each box had a shackle attached to one side and this no doubt would be used to control the tipping and emptying of the box. The works drawing has survived for this wagon and the subsequent wagons built in 1914 and 1918 used the same drawings.

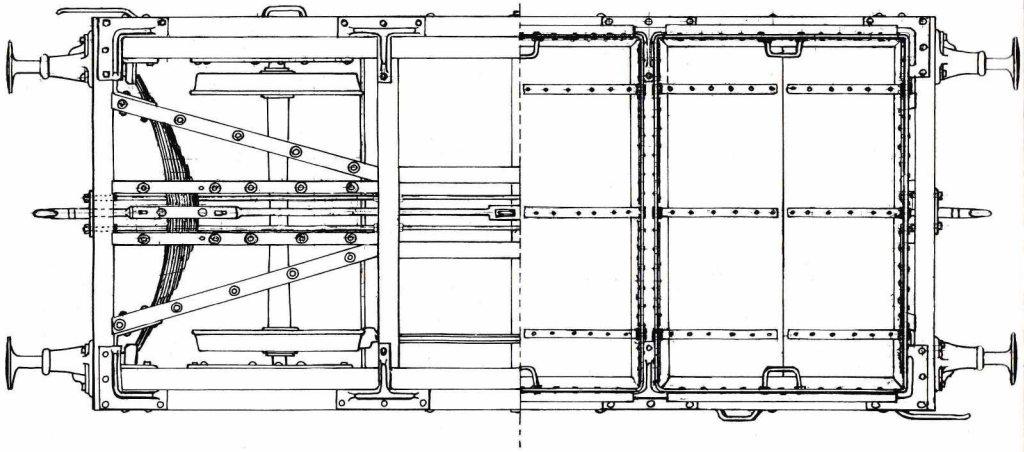


The earliest drawing to survive of the L.Y.R. box wagons is marked Order B43 and the Order Book shows this to be the one wagon built in 1908 although all other wagons built up to 1918 were built to the same drawings. The chassis is basically standard for the period, with the Morton brake. The boxes were made of steel with trunnions on each side by which the box could be lifted and tipped. The L.N.W.R. design was almost identical except that the boxes were made of wood, and it is probable that the first batch of L.& Y.R. box wagons (1900) were wooden also. It is presumed that all the 29 wagons built by the L.& Y.R. were numbered in a series 1 to 49. Drawing to 4mm scale taken from the original general arrangement drawing.

A total of 9 wagons were constructed in 1919 and charged to the P. & W. account. All these were built to drawing 9526 which is the only other known drawing to survive. These wagons employ the classic features of chain ring with inverted 'V' strapping and bottom doors with the additional detail of an angle-



A simplified copy of the official drawing 9526. Altogether, 11 wagons were built to this design which utilised steel boxes with bottom doors.

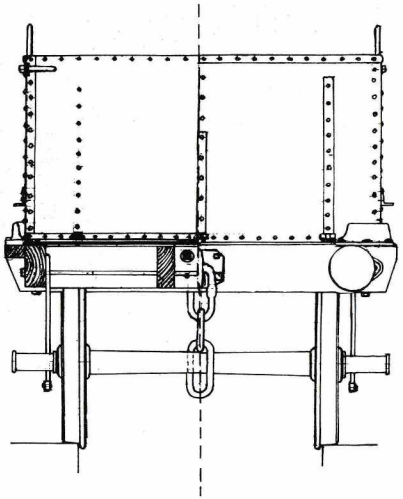


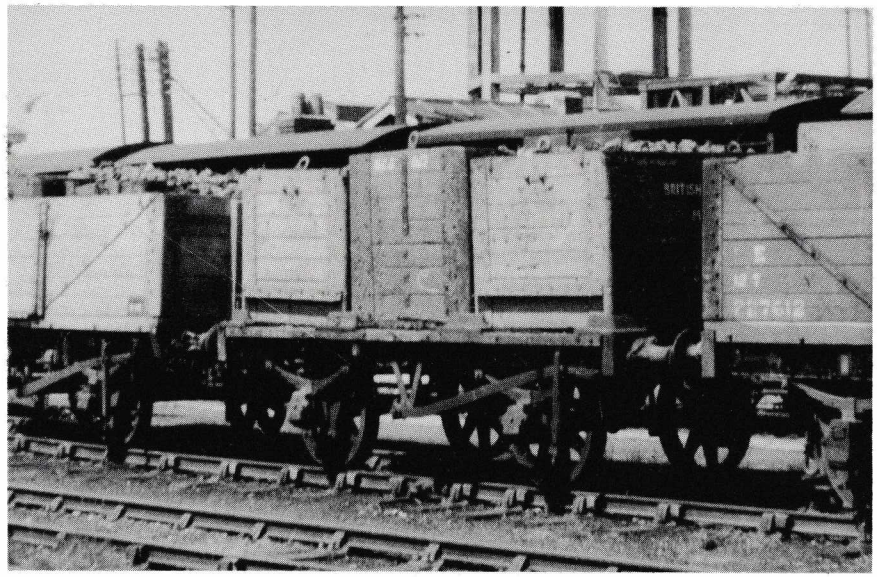
iron rivetted on either side a quarter of the way up from the base. This was presumably as a resting flange when placed on a loading frame at the colliery, possibly so that the hinged bottom doors would not be damaged.

The L.M.S. built the last 2 wagons to the same drawings as the previous wagons and a note in the order book states 'plated for 10 tons.' These wagons carried L.M.S. numbers when built but probably had a very short running life as a 'non-standard' vehicle would not be viewed very favourably after the Belfast steamers had been transferred to Heysham in 1928.

L&Y.R.

3 BOX WAGON WITH BOTTOM DOORS.





Ex-L.Y.R. box wagon photographed by John Hodgson at Heysham in 1949. It is one of the later design of wagon with the final pattern of axlebox covers. The boxes have been replaced with wooden ones and although the end two are similar to the original design of steel box, the centre one is a non-standard design which has undoubtedly come from one of the more common private owner box wagons. All have shackles signifying bottom-opening doors (see p.27 'Platform 9').

L. & Y.R. 3-BOX COAL WAGONS BUILT AT NEWTON HEATH

Details taken from the official order book (NGC/JBH)

Date of order	*Order No.*	*No. built*	*Description*	*Dwg Nos.*	*Account*	*Notes*
18.8.1900	*N30*	*12*	*3-Box*	*4099*	*Capital*	*'for Fleetwood' wooden boxes (?)*
28.10.1908	*B43*	*1*	*Belfast steamers coal wagon*	*6946 5633 (steel boxes)*	*Renewal*	*boxes arranged for emptying by tipping*
25.2.1914	*E52*	*3*	*Box coal wagon for Fleetwood steamers*	*6946*	*Renewal*	*wagons 16'x 6'-9" Nos. 2, 37 and 49*
.... 1918	*N56*	*1*	*Fleetwood and Belfast steamer coal wagon*	*6946 5633*	*charge to Preston and Wyre account*	*No. 36*
.... 1919	*W56*	*1*	*ditto*	*not k'n*	*ditto*	*No. 20 to replace one broken up*
9.9.1919	*057*	*2*	*ditto*	*9522 9526*	*ditto*	*Nos. 13 and 24 to replace those broken up.*
.... 1919	*R57*	*1*	*ditto*	*9522 9526*	*ditto*	*No. 28 to replace one broken up steel boxes*
1.12.1919	*W57*	*1*	*ditto*	*9522 6946*	*ditto*	*No. 31 steel boxes*
10.12.1919	*D58*	*5*	*Preston & Wyre*	*9522 6946*	*ditto*	*Nos 43,47,22,3 and 10 steel boxes.*
18.8.1923	*B59*	*2*	*ditto*	*9522 9526*	*renewal*	*Nos. 34 and 26 LMS No. 169026/169034 steel boxes plated for 10T*

NOTES:

It would appear that L.& Y.R. 3-box coal wagons were numbered 1 to 50.

The P.& W. account was a separate system for the lines worked jointly with the L.N.W.R. and is probably the reason why the wagons do not appear in the diagram book or on the audit list of stock dated 31.12.20.

It is presumed that the box coal wagons would only run between the contracted colliery(s) and Fleetwood.

The Belfast steamers were transferred to Heysham from 28th April 1928 and the L.Y.R. 3-box wagons would lose their purpose at Fleetwood from that date. The only other steamers using the port were the Isle of Man Steam Packet Co. which presumably had its own arrangements, as had the large fishing fleet.

Where dates and drawing number are not known, it is because the original order book is damaged and details near the edges of some pages are lost.

The other major railway of the region, the L.N.W.R., certainly produced a design for a 3-box coal wagon and an Earlestown drawing dated June 1895 exists giving full details of it.[1] Indeed, it is scarcely surprising that with its wagon department situated in the coalfield which had so many examples of this type of wagon that the L.N.W.R. schemed out such a design. What the writer has found equally surprising is that to date he can find no evidence of the L.N.W.R. having built any.

In many respects, the L.N.W.R. design is a classic example, particularly in its dimensions which amply portray the box wagon of the time. Leaving aside the trunnions and top shackle method of unloading the boxes, it represents very accurately the box wagons of the Private Owners in the surrounding region.

PRIVATE OWNER BOX COAL WAGONS

Having started by considering the earliest known Private Owner Box Wagon, it is reasonable to ask how extensive was their use and for how long? To this there can be only a partial answer as many documents and records have long since disappeared. We are left with the personal recollections of those that worked on them .... now a dwindling band, the records of colliery concerns, railway company registers, wagon builders' documents and photographic archives. All of these have been laboriously consulted over a good many years, as a result of which a partial picture has been reconstructed of the historic scene.

The survival of Private Owner Wagon registers has probably been the most unifying of all the sources of information by virtue of the overall details they contain. It has been possible to amplify, check and clarify many other crucial pieces of information which would otherwise have formed a fascinating, but inchoate mass. Nevertheless, it is a matter of considerable regret that of all the pre-grouping railway companies, to the knowledge of the writer, only the P.O. registers of the Lancashire & Yorkshire and the Midland railways respectively have survived. If others are in existence, the writer and other researchers in the field would be interested to hear of them.

The L.Y.R. registers, beginning in 1889,[2] clearly do not encompass what appears to be a sizeable number of box wagons built before that date and which doubtless lasted in use for a good many years thereafter.

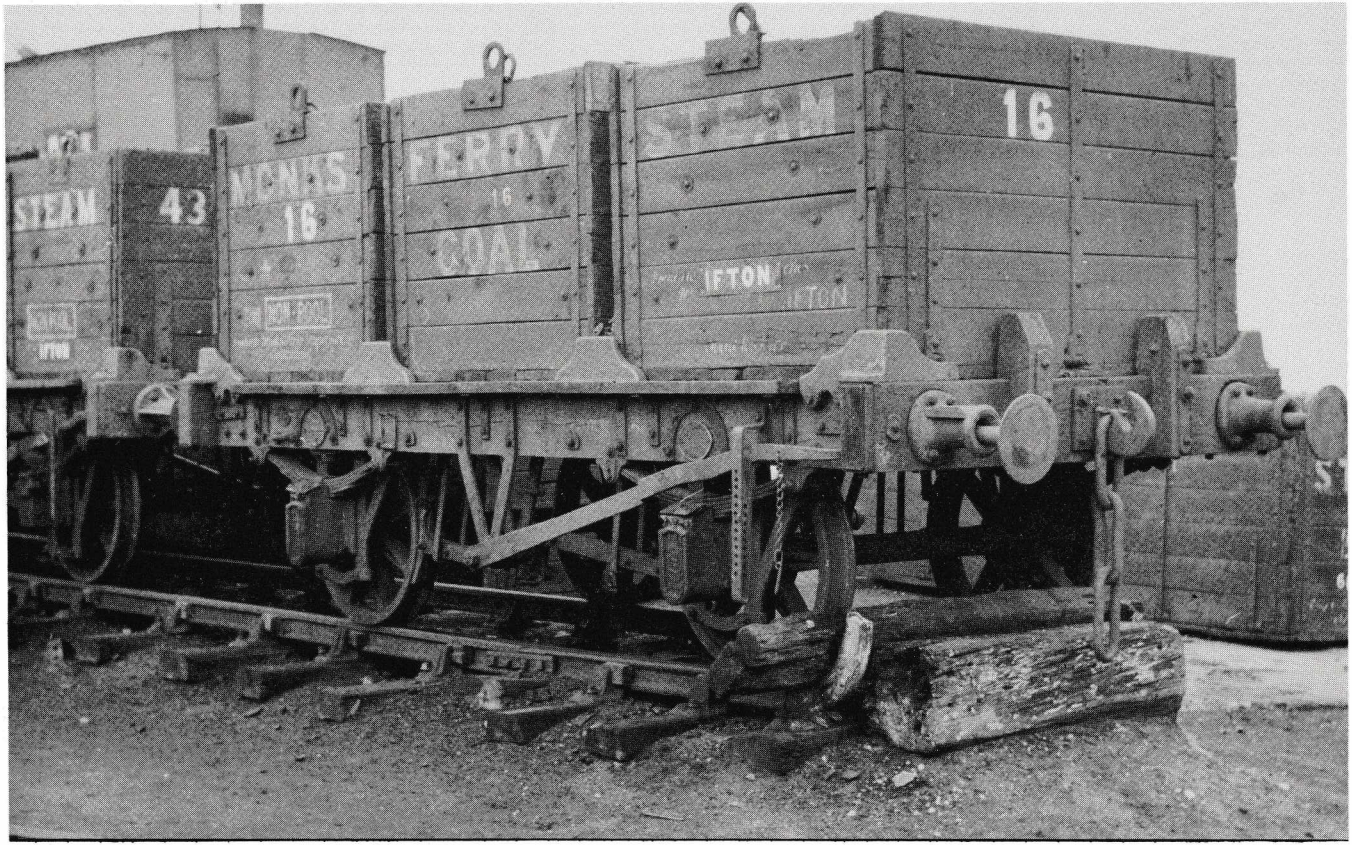
The evidence revealed to date is interesting and while not comprehensive is set out overleaf:—

BLUNDELLS (Pemberton Colliery, Wigan)

Wagon Number	Registration date	Dimensions				Remarks
1	28.05.1894	16.0	8.0	4.0	(8T)	Old wheels & axleboxes of previous wagon re-used
78; 88	10.05.1895	15.6	7.10	4.0	(8T)	Old wheels & axleboxes of previous wagon re-used
65	01.04.1896	16.0	7.6	3.9	(8T)	
11	23.07.1896	15.10	7.6	3.11		Chassis sold to Mangers Salt for construction into a van, 1934.
27	11.1896	16.0	7.6	3.9		
71	17.12.1896	15.6	7.6	3.9		
89	21.10.1897	15.10	7.8	3.4		
176-179	29.04.1898	16.0	7.11	4.2		
115; 180; 181	15.07.1898	16.0	7.10	4.2		
182-186	04.11.1898	16.0	7.10	3.10		
187-194	04.11.1898	16.0	7.10	4.0		
19; 57; 142; 400	22.11.1899	16.0	8.0	4.1½		
72; 48; 140; 148; 150	12.12.1899	16.0	8.0	4.2		Certain of these chassis sold to Mangers Salt for conversion into salt vans, 1934.
2; 6; 82	31.05.1900	16.0	8.0	4.0		
42; 162	06.1900	16.0	7.11	4.0		
445; 462	1900	16.0	8.0	4.1½		
106; 218; 492; 615; 699; 972	12.1901	16.0 16.0	7.6 7.6	4.00 (106) 3.8		
196; 201	26.12.1902	16.0	7.11	4.0		
		Note: All the above wagons were built by Blundells themselves, usually employing an Attocks No. 46 axlebox with a 'B' usually cast on the face of it.				

Wagon Number	Registration date	Dimensions				Remarks
ELLERBECK						
691-704	- .05.1902	16.0	7.11	4.0		Broken up — c.1932.
706-712	- .02.1904	16.0	7.6	3.8		Broken up — c.1932.
713-745	- .02.1904	16.0	7.6	4.0		
	All wagons constructed by Ince Waggon Co: Attocks Grease Axleboxes.					
	NOTE: A further 25 Box Wagons are known to have been built for Ellerbeck Colliery in 1895 by the Ince Waggon Company					
WHITE MOSS COAL CO.						
159, 455, 497 530, 676	16.05.1898	16.0	7.8	3.8		
845-860	28.06.1898	15.11	7.11	4.2		Width of boxes 6'-9½"
861-869	20.07.1898	15.11	7.11	4.2		
469, 497, 530, 532, 679	-. 04.1903	16.0	8.0	4.2½		
	All wagons constructed by Ince Waggon Company: Attocks Grease Axleboxes.					
J. GRIFFITHS & Co., (Liverpool)						
702, 704, 709 717, 732	- .09.1909	16.0	8.0	4.0		Rebuilt by Wigan Wagon Co. Attocks Grease Axleboxes.
PRESTON LIVERPOOL DISTILLERY CO.						
13, 14, 15	07.07.1899	15.6	7.9	3.0		Built by Wigan Wagon Co. Attocks (Old pattern) grease axleboxes. Broken up 1934.
		(4 Boxes—6'-9" x 3'-6" x 3'-0")				

NOTE: The individual tare weights of these wagons are not cited in the registers. While they are classified therein for the greater part as 10-tonners, the L. & Y.R. report mentioned elsewhere in this article cites them as 8-tonners, and comments that . . . "Box Wagons complete vary from 5-tons 10-cwts to 6-tons 10-cwts . . . ."



J. Peden collection.

Finally,[3] there is the Ince Waggon Company whose products feature prominently in the L. & Y. P.O. wagon registers and who, on the basis of the entries in the registers, would seem to be virtually the sole constructor of Box Wagons for private owners. Unfortunately, only the Company's Minute Books survive, all other documents having been destroyed in company takeovers some years ago. These show that the Company was constructing Box Wagons at least as early as June 1893 when it fulfilled an order for the Monks Ferry Steam Coal Co. for 80 of such wagons. The accompanying photograph of a Monks Ferry wagon bears many of the identifiable features common to Ince Wagon Co. wagons of that date and it is the writer's view that this particular example could be one of that original order, albeit in a repaired or rebuilt form. (There is ample evidence of wagons constructed in that period lasting until after Nationalization in 1947 and longer). It is not known whether this order for Box Wagons was for the 3 or 4-box variety for both types were used by the Monks Ferry Company.

Other orders were fulfilled by Ince Waggon for the Blainscough Colliery Co., Coppull, in June 1896, for at least 20 box wagons, doubtless of similar dimensions, and a puzzling reference in the minutes dated January 1902 refers to an order for "120 Boat Boxes for the Clifton and Kearsley Colliery Company" . . . . this is followed in April 1904 for a further "50 Boat-Boxes." There is at that time no contemporary entry in the L.& Y. Registers that would infer the rebuilding or the construction of box wagons for the colliery and one is left with the impression that this reference relates either to the renewal of boxes for pre-1889 wagon chassis, or, as has been suggested by the writer, that these boxes may well have been for internal use by the colliery in loading coal from its pit head screens into canal barges. Unfil further and better information is forthcoming the question remains unanswered.

Two other concerns are also documented as Box Coal Wagon users; Garswood Hall Colliery and Richard Evans—Haydock Collieries.

Garswood Hall, in an investigative report of the L.Y.R. dated 1915, is shown as using at least fifteen of such wagons. Whether these were the total number used is not known but it would be doubtful for a firm of that size. [4]

The case of Richard Evans' Haydock Collieries is different and more unusual in that one is dealing with two types of wagon, namely a 3-box and a 6-box respectively. The case for the 3-box rests more on its reported use than anything else as there is a current lack of firm corroborative evidence to demonstrate their existence conclusively. As far as the 6-box coal wagon is concerned the situation is quite the reverse.[5] Photographs show this to have been a direct derivation of the 3-box version with the boxes sliced down the middle to create the 6 boxes. Views of them were taken at the various Haydock coal agencies throughout the North West and North Wales where their usage is clearly stated on the outside of each box: *'HAYDOCK'* (on the second plank) and *'LANDSALES'* (on the fourth plank). No details have been unearthed to date on their numbers but this particular type of box wagon, perhaps peculiar only to this company, seems to have lasted at least until the mid-1930s and possibly beyond.

Apart from a solitary batch of 4-box coal wagons[6] constructed by the Wigan Wagon Co. in July 1899 for the firm 'Preston Liverpool Distillery Co. of Liverpool, the remaining record is of verbal recollections of at least two other colliery concerns in the Wigan Coalfields employing 3-box coal wagons; Park Hall and Norley Hall respectively, but the absence of alternative evidence precludes positive confirmation for the time being.

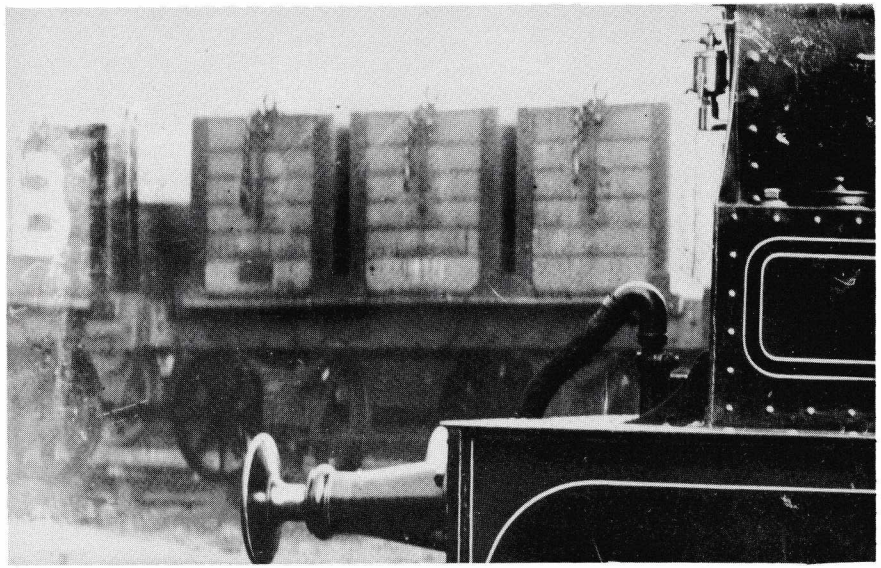
Doubtless there were others and the hope of the writer is that this review may encourage the revelation of material that has hitherto lain dormant.

There is no doubt that the use of box coal wagons suffered from the decline of the use of coal-fired boilers in shipping fleets occasioned by the transition to oil fuel in the 1920s and 30s, but for some there remained a sufficiently sizeable market to warrant their retention and use throughout the depression and war years until nationalisation of the railways and beyond into the late '50s. By that time, they had been taken over by the National Coal Board and could be seen working out their remaining years with the initials NCB across the second plank on the side of each box.[7] By this date they were used 'inter alia' for delivering fuel to power stations. The writer has no precise date for their demise but even if one takes the late 1950s as a terminal date, this would give them a usage or life-span of around 130 years.

It will never be possible to quantify their overall numbers when in full use; too much of the relevant material that might provide an answer has been destroyed or is missing.

A glimpse onto the scene is provided by an investigation by the L. & Y. into a crisis in coal train handling and disposal in Liverpool Docks during 1914/15. The ensuing report of affairs in February 1915 deals 'inter alia' with the numbers of 3-box coal wagons conveying coal to the High Level Docks over a fortnightly period and compares their numbers with those of the ordinary standard wagons.[8]

The box wagons comprise 9.76% (539) of the overall total of 5,523; other sample figures taken on individual days on or about the same time show percentages of a broadly similar kind, but no other deductions can be drawn from such figures; they stand very much on their own.



Blundell's wagons included many 3-box examples and this 'dead' buffered wagon is typical of early vehicles. Each box had a large 'B' on the side which is hardly visible in this view.

This article has been written with the twofold objectives of comprehensively presenting all the evidence known to the writer on these wagons, hitherto a substantially neglected subject, with the hope that its publication will stimulate the release of information on it which has been lying dormant elsewhere.

If this would prove to be the case, the writer will be more than satisfied. It should also assist towards creating a fuller and more accurate picture of the activities and workings of Private Owner Wagons in the North West, another area of study which to date has been largely ignored. This again the writer hopes shortly to remedy.

ACKNOWLEDGMENTS

The writer would like to thank all those who have assisted him in his researches on this project. Particular thanks are due to Donald Anderson who allowed access to his father, the late James Anderson's notebooks, a source of invaluable information; likewise James Parkinson, without whose personal recollections of his early years working on these wagons, much could not have been written.

Thanks are also due to Jim Peden for allowing use of crucial photographic material, the archivist staff of the Lancashire County, the Merseyside Metropolitan County and the St.Helens Metropolitan Borough Councils respectively, all of whom dealt courteously and patiently with the writer's enquiries; likewise to John Edgington of the NRM, York, whose timely and judicious provision of information was greatly welcome and of considerable assistance.

FOOTNOTES

1. *HMRS drawing ref. No. 1131 (No. 10)*
2. *Lancashire & Yorkshire Railway Private Owner Wagon Registers 1888–1923. Public Records Office, Kew. Ref. Nos. RAIL 343/814-817.*
3. *Ince Waggon & Ironworks Company Minutes–copies in possession of writer.*
4. *Report on the working of the High Level Coal Traffic–Liverpool 1915. Public Records Office, Kew. Ref. Nos. RAIL 343/708.*
5. *Lancashire County Records Office; St.Helens Metropolitan Borough Council. Richard Evans & Co. archives, Ref. NCE 3 10 (1-8).*
6. *(see ref. 2 ibid.).*
7. *'London Midland Steam in the North West'–Carter, Vol. 1, p. 13. Bradford Barton, also J. Peden photographic collection.*
8. *(see ref. 2 ibid).*

From the 1851 Rule Book . . . . .

Regulations for Enginemen and Firemen.

(11.) No engine is allowed to PROPEL a Train of carriages or wagons, but must in all cases DRAW it. In case of an Engine being disabled on the road, the succeeding Engine may propel the Train SLOWLY (Approaching it with caution) as far as the NEXT SHUNT or turn out, at which place the propelling Engine shall TAKE the LEAD.

(18.) Enginemen are strictly enjoined to START AND STOP their Trains SLOWLY, and without a JERK, which is liable to snap the coupling chains; and they are further warned to be careful not to shut off their steam too suddenly (except in case of danger), so as to cause unnecessary CONCUSSION of the Carriages or Wagons.

The Fleetwood Boat Train

by the late R. B. O. BRINDLE

In the now distant days when there existed a really efficient Railway rejoicing in the name of "The Lancashire & Yorkshire" there ran each evening an express from the two great Yorkshire cities of LEEDS and BRADFORD, known as the "Fleetwood Boat Train", and many are the legends woven around this famous train.

During the period from 1913 until the end of its running in 1927, this train was a never ending source of interest to me. My first journey on this train was only a short one from Chorley to Preston in 1913, but I can well remember the end entrance type corridor stock, the Dining Car, and the 4-4-2 L & Y Aspinall Atlantic at the head.

After the 1914-18 War finished the L & Y began to improve their services and I used to watch the arrival at Preston of the train on many occasions, but a brief word about the times of the train must be mentioned.

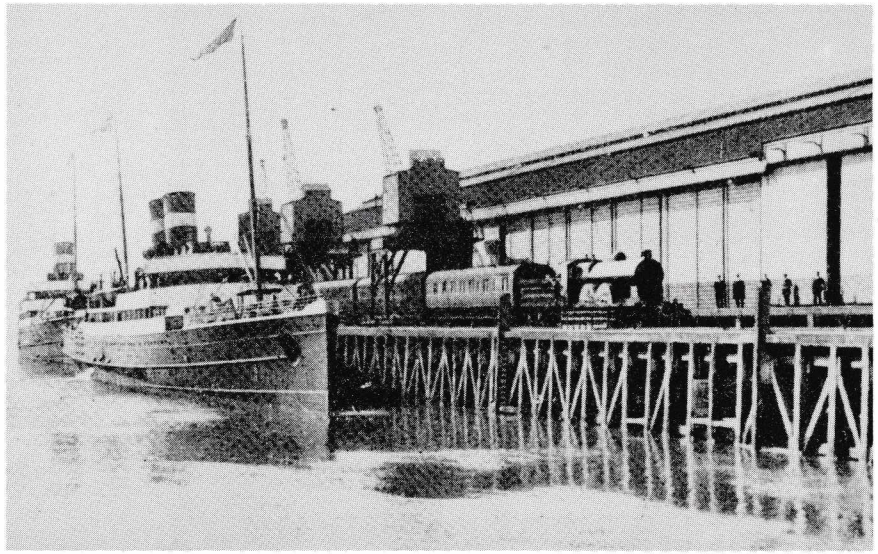
The train left Bradford (Exchange) at 7.23 p.m. each evening (Sundays excepted), and Leeds (Central) at 7.15 p.m., calling at Low Moor and the main stations to Manchester (Victoria), leaving there at 9.5 p.m. and calling at Bolton (Trinity Street), Chorley, arriving at Preston at 10.1 p.m. (where the Through coach from Liverpool (Exchange) was attached. The train then weighing between 287 and 375 tons (at holiday times) left Preston at 10.10 p.m. The start from Preston up a gradient of 1 in 103 from the platform end proved a severe test for the 7-feet 3-inch coupled wheeled Atlantics, or 4-4-0's used if an engine was changed at Manchester owing to a bad fire. It appears the Loco that worked the Bradford portion of around four 27-ton corridors steamed only lightly, and the fire sometimes clinkered up, and as the heavier Leeds portion with Dining cars, and Mail vans were added at Manchester (Victoria) a good steaming loco was required. Manchester, Victoria station pilot was usually one of the Aspinall 7'-3" class.

In the later part of 1920, or early 1921 one of the famous "Dreadnought" 4-4-0's was tried on the train, and when a batch of new locos of this class were completed at Horwich we had 1649 at Fleetwood shed for this working, but other locos of the same class from Blackpool shed were to be found sometimes on the job, working up to Manchester and Bradford to return with the "Fleetwood Boat Train" for a number of years (until 1927).

There was a time-honoured "Race" out of Preston with the 10.10 p.m. Blackpool (Central) express which left from platform 1, the Boat Train leaving from No. 4. The race was unfair because the 10.10 Blackpool express usually loaded very lightly, but the men on the Fleetwood Boat always did their best, and I used to cycle out to Lea Troughs in summer—and strange to relate, the Fleetwood Boat train would often be leading, and what a display there was if it was Atlantic hauled; we had a firework display with sparks from the chimney. If it was a Dreadnought we had the mighty full-throated roar as she tore past in the sixties, her and her ten or twelve bogies, the Blackpool fellow galloping behind with his four light bogies swaying from side to side as only those light L & Y bogies could.

Memory can never die, in quiet moments I can imagine I hear the great double beat of an Atlantic's exhaust as she climbs out of Preston, passing Ashton Cabin, and roaring away into the night, or I think of the Dreadnought's mighty power as he forced his way past the lighter 10.10 p.m. Blackpool passing Lea Troughs; there was something about those times a diesel can never compete with, or an electric either, although the rattle of the speeding coaches will ever cause a thrill, however "horsed."

There was a pride in their engines expressed by the drivers in those far away days, and loyalty too. If we had more today, our beloved Railways would be in better shape to compete with the menace of road transport.



At one period, boat trains were run on to the quayside at Fleetwood and this rare photo shows one train of the post 1910 period arriving at the special timber platform adjacent to the shipping berths. The vessel is the "Duke of Cumberland" which was one of two turbine triple-screw steamers in service on the Belfast and Londonderry routes. They had a speed of 21 knots and well maintained the proud reputation of the Fleetwood and Belfast Royal Mail route inaugurated in 1843 and often referred to as the Premier Route between England and the Emerald Isle.

May 1901 (extract from 'Locos & Railways, page 68)

Dock engine No. 1287 (0—4—0ST) has been fitted with wooden 'dead' buffers, the old spring type having been removed.

Fleetwood Coal Dock

Coal handling at Fleetwood was done in a variety of ways. Another article has already dealt with the 'three-box coal' wagons which were for transport of coal for the bunkering of the companies' own steam ships to Ireland and served the ships by the lines adjacent to the station, at the mouth of the River Wyre.

A large hydraulic coal crane was erected in the Wyre Docks for speeding the handling of coal for export. Wagons were lifted bodily and lowered to deck level before discharging into the ship's hold and it was said that 250 tons per hour could be dealt with in this manner.

There was also the vast trawler and steamer fleet to be bunkered with steam coal and one whole side of the inner 'fish' dock was devoted to this purpose. A series of giant traverser cranes spanned the quayside sidings, lifting steel boxes of coal across to the adjacent ships. As can be seen, there were narrow gauge lines laid between the sidings and four-wheeled well-trolleys ran on these lines. Each trolley held one steel box into which the coal from the wagons was loaded. The raised ledge at each end allowed the labourers to reach into the wagon with ease. The boxes were not the same size as the ones on the 3-box wagons but were obviously a close relation to them, having both lifting trunnions at the sides and lever-operated bottom doors.

The wagons belong to the Amalgamated Coal & Engineering Syndicate who contracted coal to shipping lines at a number of ports. Their colour was White letters shaded Black on a base of BS283 Aircraft Grey-Green.

B.C.L.

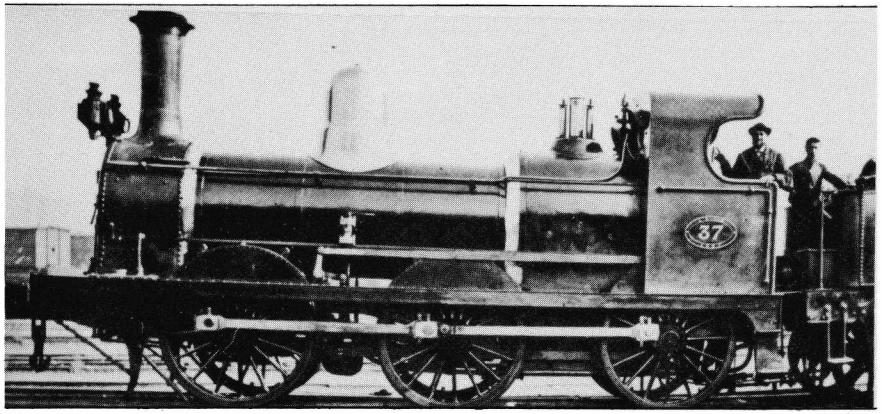
Aero steam engines and the L.& Y.R.

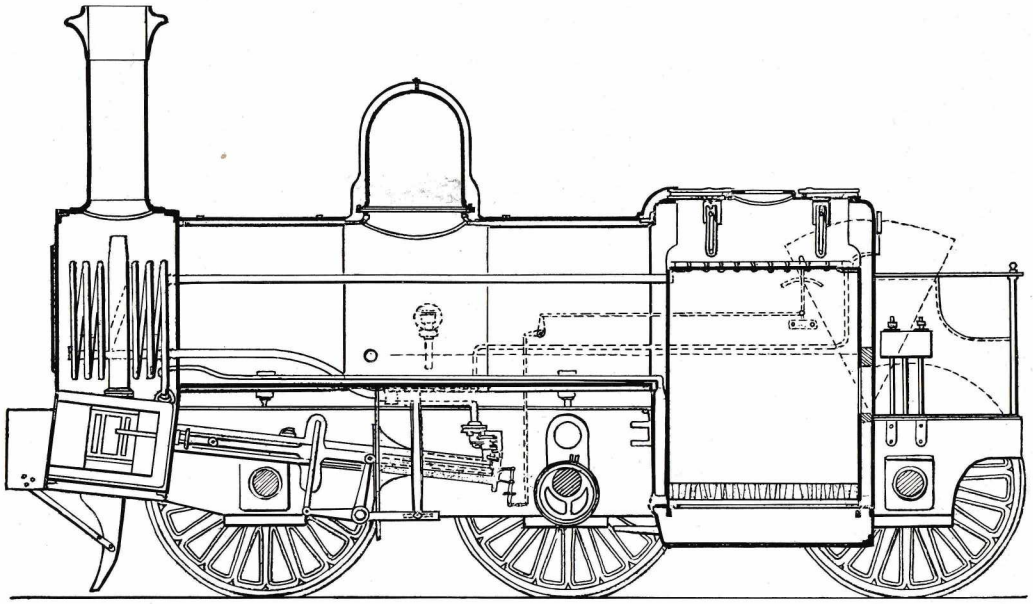
B. C. LANE

The mid-Victorian age was the time of greatest activity by inventors and the railways, being part of the great engineering revolution, spawned more inventions than possibly any other area of science of the day. Many of the gadgets and 'improvements' have long since been forgotten. Some were so bizarre as to be laughable now but we have the gift of hindsight. Some came so close to success yet were misunderstood and soon forgotten and it is one of these instances that concerns the Lancashire & Yorkshire Railway in 1871.

Mr Warsop was a gentleman of some standing in the scientific circles of the day and he had read papers to the British Association and Institution of Mechanical Engineers on his system of using hot air in steam engines. The use of expanding air instead of steam as a means of obtaining motive power had long been a favourite device among engineers. Ericsson, Siemens, Wenham and others had all tried to construct a really effective hot-air engine and all had failed. The theory was perfect, according to the 'Engineer' who chronicled the events of the period and records an experiment using locomotives of the L.&Y.

The principle of the experiment was to feed air that had already been heated to the boiler of the locomotive. First trials had used two pumps driven from the inside crosshead but this had not been successful and one pump was removed and replaced with a single acting air-pump. In trial, the engines did as 'nearly as possible the same work' and great savings in coal were claimed for the experimental engine. At the same time, it was observed that a loco recently emptied of water and refilled with 'unboiled' spring water showed advantages which were attributed to the water being naturally aerated. The trial engine was even pulled up and down in a dead condition while various gentlemen gazed down the manhole of the boiler and marvelled at the agitation of the water from the air being pumped into the boiler by the pump. Obviously, the water would have the same properties as newly supplied fresh water . . . . or so they thought. Other advantages too presented themselves to the interested parties. Priming (or as the Americans were pointed out to call it, foaming) was greatly reduced while scaling and incrustation was almost totally absent.





Of the six engines constantly employed between Normanton and Liverpool, figures were recorded of their mileage and coal consumption for the six weeks ending 3rd July, 1873. The table below shows the results and the savings for the pump-fitted engine No.369 are most noticeable. The engines are of Jenkins' design of 0–6–0 with 4'-10" wheels and at the time of the experiment all were fairly new. Three of the engines are in fact of the later Yates 5'-0" design with slightly larger cylinders but these are of very nearly the same design as the Jenkins' engines as to be acceptable in comparison.

Engines	Diameter of cylinders	Engine miles run	Coal consumed	Average lbs. per mile
	Inches		Tons Cwts.	
369 steam & air	*15*	*4,477*	*65 5*	*32.64*
38	*15*	*3,987*	*74 0*	*41.57*
329	*16*	*4,700*	*84 15*	*40.39*
381	*17*	*4,353*	*74 15*	*38.47*
383	*17*	*4,698*	*75 15*	*36.11*
391	*17*	*4,310*	*77 5*	*40.15*

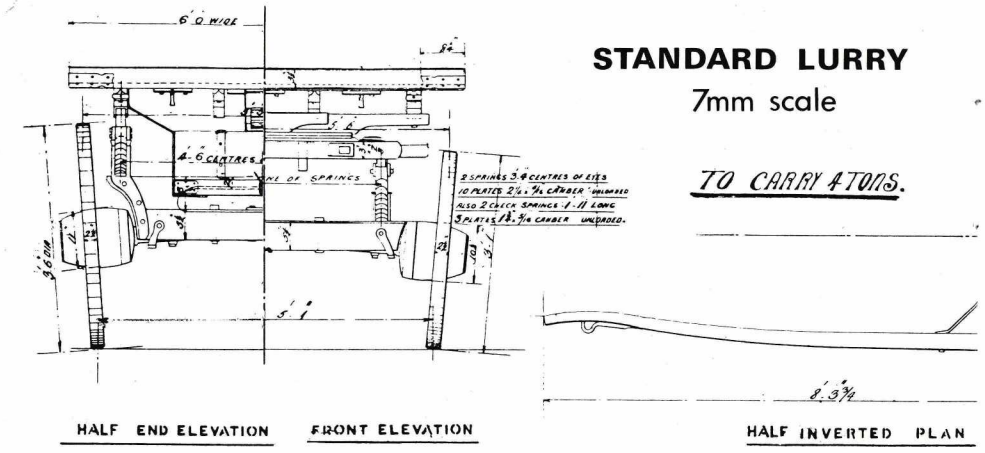
In addition to the tests recorded in 1873, the figures of coal consumption for the trial engine before it was fitted with the pump are recorded just to prove the equality of the tests. The second table shows the figure for No.369 before and after its 'improvement.' The comparitive figures for No.38 are also included.

A.D.	Engines	Miles run	Coal consumed		Average lbs. per mile
			Tons	*Cwt.*	
1871	*369 (steam)*	*21,048*	*403*	*6*	*42.92*
1872-3	*369 (steam & air)*	*27,934*	*472*	*10*	*37.89*
1872-3	*38 (steam)*	*28,053*	*550*	*10*	*43.95*

The air is reported to have been heated to an average temperature of 650 degrees before entry to the boiler but as the boiler pressure was not stated it is not possible to say what the temperature of the air was when it left the condensing pump. The 'Engineer' reported that "balancing all the advantages and disadvantages we arrive at the conclusion that a very considerable economy can be effected—especially in working the engines very expansively—by the introduction of air into the boiler on Warsop's system; but the quantity required is only small and in properly set boilers nothing whatever is gained by the use of coils in the flues, except in so far as their presence prevents the air already heated by the pump from being cooled."

The coiled pipes in the smokebox were nearly three decades ahead of the similar principle applied by John A. F. Aspinall when he designed a steam drier to fit his new 'High-flyers.' By then it had been realised that adding hot air or cold air was not the way to greatest efficiency and that to heat the steam itself was the real answer! Once again though, the experiment was allowed to lapse when the steam driers (the earliest form of superheating) were removed from the 4—4—2s due to problems in lubricating the piston valves.

Reference—The 'Engineer' 1874.



Lurries & Drays

J. B. HODGSON

WHAT IS THE DIFFERENCE BETWEEN A LURRY AND A DRAY?

Having spent a few days holiday in Derbyshire, included in the places visited was the Rutland County Museum, which has amongst other things a goodly collection of horse vehicles.

Discussing them with the Curator, I was sent to see an old coach builder in his 92nd year and it was he who explained the difference!

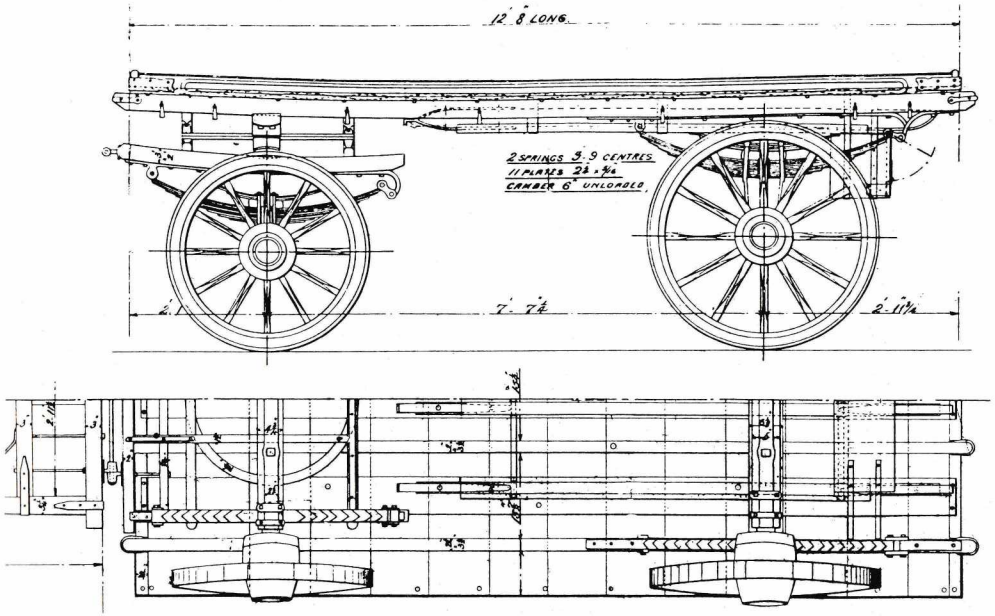
A DRAY is a vehicle whose body is wider than any other part—in plan view completely covering all wheels—enabling it to be drawn alongside a dock or warehouse. Also, the fore-carriage (front axle assembly) can be pivotted without the angled wheels appearing outside the body line—this means the front wheels are generally closer together than those on a lurry.

Also to enable the dray to pull away from a dock—the back wheels are fairly close to the back of the body.

A LURRY:

Often the wheel hubs will extend outside the line of the body, making the vehicle much more stable than a Dray; whilst the fore-carriage is fairly close to the front of the body, the rear wheels are well inset, giving a shorter wheelbase.

This answers another query that I had—in many of the records there are *"Lurry—Liverpool-Pattern"* entries, these are apparently a cross between a Dray and a Lurry, in other words, a lurry with a wide body, enabling them to be parked side-by-side, along cargo to be off-loaded, without the problem of dockers or lurry men falling between the vehicles.



How are the mighty fallen!
or
The sad end of an LYR First Class Saloon

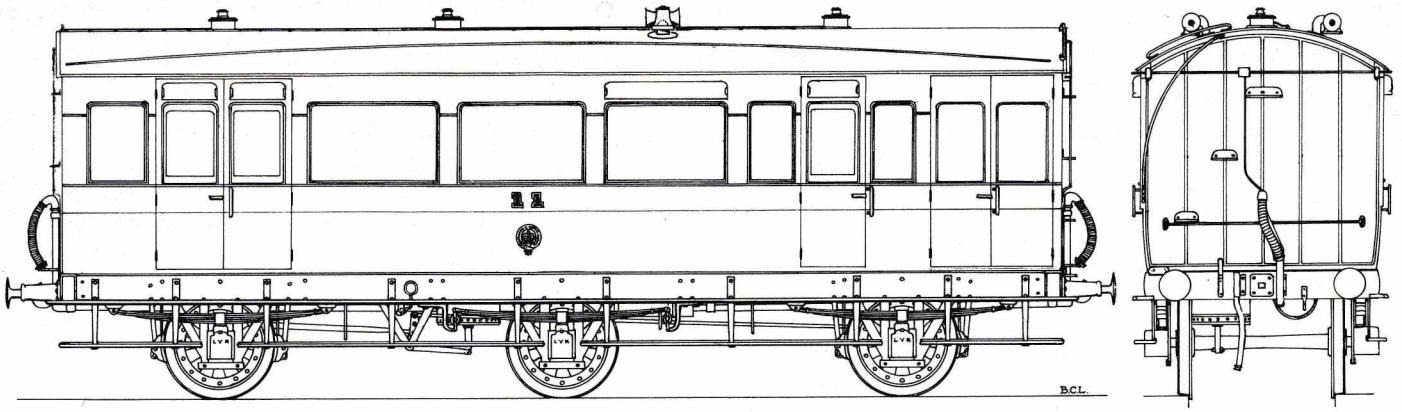
by
G. H. FOXLEY

It was whilst negotiating for some parts from a pair of ex-LNWR saloons which had been used as a house for some 50 years that I learned of an ex-LYR coach which had been similarly used, not far from the LNWR coaches, at Woodbrook Road, Springhead, Oldham. Local enquiries suggested that it had been at Leeds Goods Yard before being moved to its present location in 1935 or thereabout. The coach had been abandoned for about two years when I first saw it in early 1980 and all the windows had been smashed and one door and some of the exterior panelling had been ripped off.

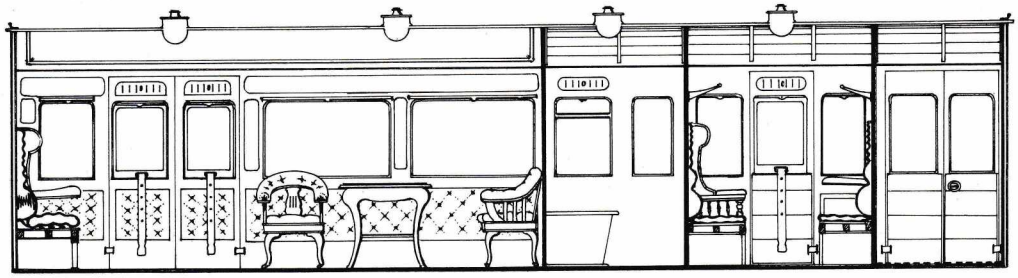
A survey of the main dimensions, and the window and internal arrangements enabled Barry Lane to identify the vehicle as one of nine 33-foot six-wheeled family saloons built between 1889 and 1899. The lack of end lights, and the existence of a flue suggesting a gas fire, enabled the search to be reduced to Nos 9, 11 or 12. Whilst cleaning up and restoring one of the internal doors, the number 11 was found stamped on the top edge of the door, providing a definite identity for the vehicle. No photographs of these saloons have come to light yet.

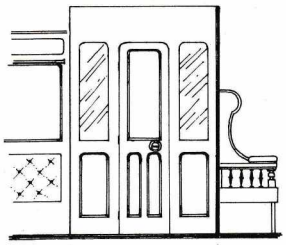
The brass fittings for the droplight straps were made of cast brass but were not marked with the company's initials unlike the internal door handles and the main door hinges which were plainly marked LYR. The brass ceiling ventilator (rotating segment type) was not marked. A virtually complete window blind was found above one of the second class compartment windows—the original colour, i.e. that part of the blind tied round the roller, was a yellow pattern on a maroon background. The external ventilators above the windows had been carved from a single piece of wood and had zinc gauze (fly?) traps inside.

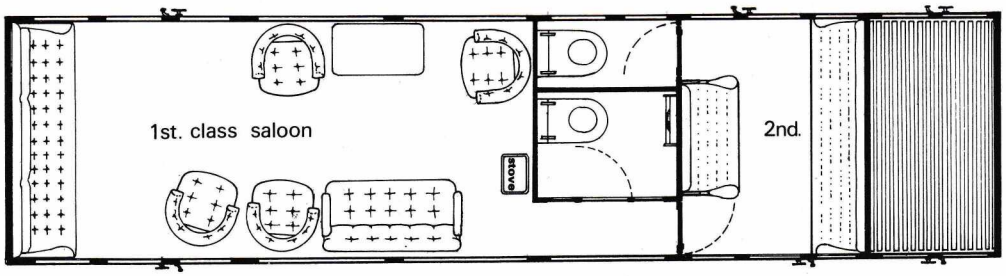
The exterior of the coach had been given many coats of black bitumen and there were no signs of external markings—some scraps of brown paint were found on the wooden ventilators during their clean up.



SIDE ELEVATION







L&Y.R
FIRST CLASS
FAMILY SALOON
Diagram 21

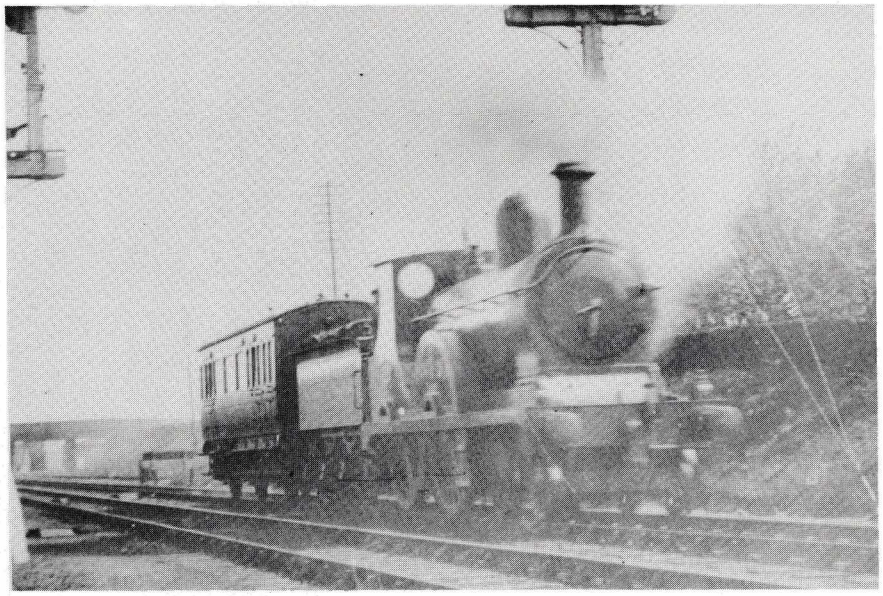
Further notes by the Editor:

The drawing is based on actual measurements taken from the saloon and checked against official drawings of other 33'-0" saloons from the Newton Heath drawing office records. The above length was nominal however for measurement of the body proved it to be 33'-2" and 8'-1" in length and width respectively. The saloon doors are the standard size of 2'-2" wide while the end (luggage) compartment had two 2'-0" doors. It was to be hoped that passengers were not too portly as the short corridor past the first class lavatory was just 20" wide and the lavatory door was also to this same dimension. In the period when these carriages were built, it was normal to travel with one's own service staff and a separate compartment was provided for them . . . 2nd class being adequate. At least, the attendants had their own toilet which was still a rare luxury in the greater part of the company's stock at that period.

It should be remembered that carriage heating was still a rarity in 1892 and the stove would certainly be a welcome improvement on that Victorian speciality, the 'foot-warmer.' The saloons were used for travel by the better classes to almost anywhere in England, Wales or Scotland and so were dual fitted with Vacuum and Westinghouse brakes. There is every excuse for a model of one of these saloons or other similar saloons on any period model railway but they have been very rarely modelled.

The last four carriages to this design were built in 1899 and are noted as being capable of fitting with 'bed or couch.' As there were particular saloons for invalids, this should be recognised as the ability to furnish the saloon for possibly an overnight journey such as the long journey to the north of Scotland . . . a popular tourist destination. The L.& Y.R. did not build any sleeping carriages.

All the nine carriages built lasted through the pre-grouping period and were occasionally to be seen tagged onto an express train through the 1920s. Two of the 1889/93 batch were altered in the Hoy period (1903 approx.) to have three end-windows in the saloon end. They were used as engineers' inspection saloons from time to time through the remaining L.Y.R. days which culminated in No. 13 being transferred to the 'A' division (LNWR lines) in 1922. The smaller toilet was refitted to become capable of serving light refreshments. As a grounded body, the Springhead unit had the large toilet area as kitchen and the luggage end area as bedroom. An outside toilet was installed as both internal lavatories were knocked into one room and the fittings removed. Latterly, it was lived in by an old lady.



4–4–0 No. 488 with one of the Diag. 21 saloons. Since it is running as a special, it is probably either No. 10 or 13 as converted for the use of company officers.

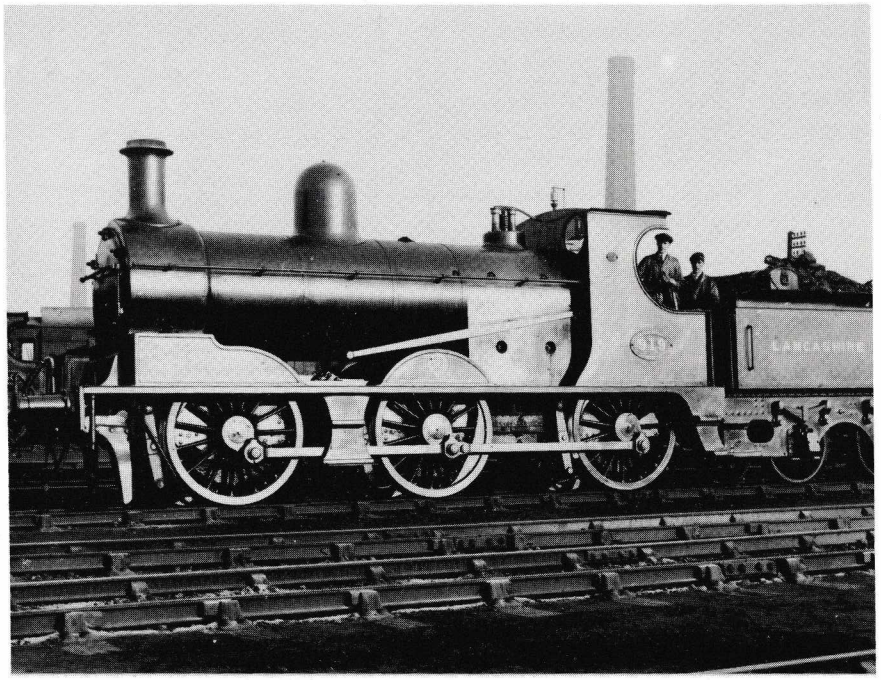
DIAGRAM 21 FIRST CLASS FAMILY SALOONS 33'–0"

Date	*Order No.*	*Qty.*	*Drawing*	*Cost*	*Numbers*	*Notes*
1889	*P6*	*2*	*2328*	*£690.11.10*	*9* *10*	*Fitted with gas stoves.*
1893	*S8*	*3*	*2328*	*£794.0.5*	*11* *12* *13*	*Fitted with gas stoves*
1899	*R13*	*4*	*3966*	*£775.0.10*	*46* *48* *51* *54*	*Not fitted with gas stoves*

Nos 10 and 13 fitted with 3 end lights in one end to drawing No. 4873 1903/4.

GREAT WAR Miscellany

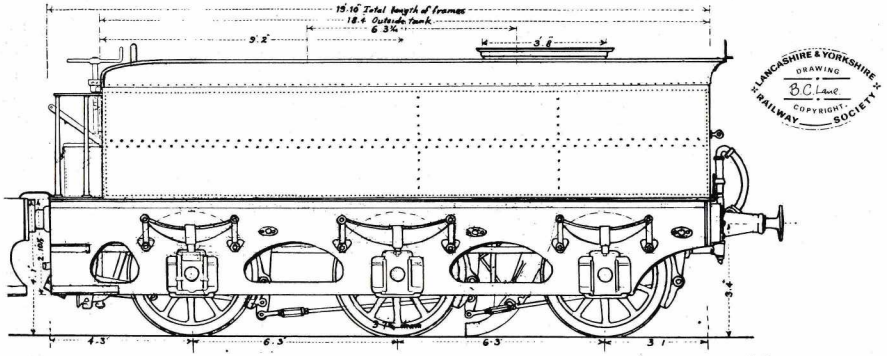
COMPILED BY B. C. LANE & N. G. COATES



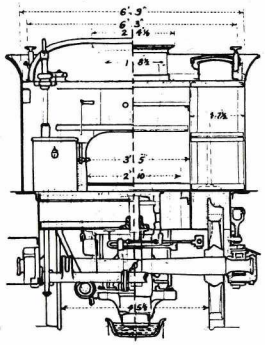
(A. G. Ellis collection)

It is well known that Horwich works put together ten more 'standard' goods engines in the Great War period using "spare parts from stock." It has always been disputed just how much of the locos was 'stock' and how much was in fact 'new'.

They were built in two batches. The earlier 1917 five are well known to have had narrow valancing (as an economy measure) which is easily recognisable by the absence of curved ends by the buffer beam. They were paired with Aspinall pattern tenders which were not new judging by the well-worn tyres of the wheels.



THE VULCAN FOUNDRY COMPANY NEWTON LE-WILLOWS, ENGINEERS.

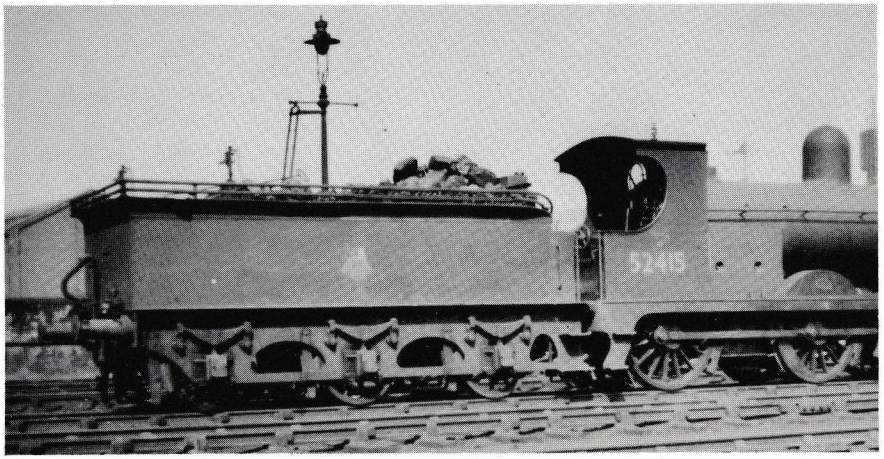


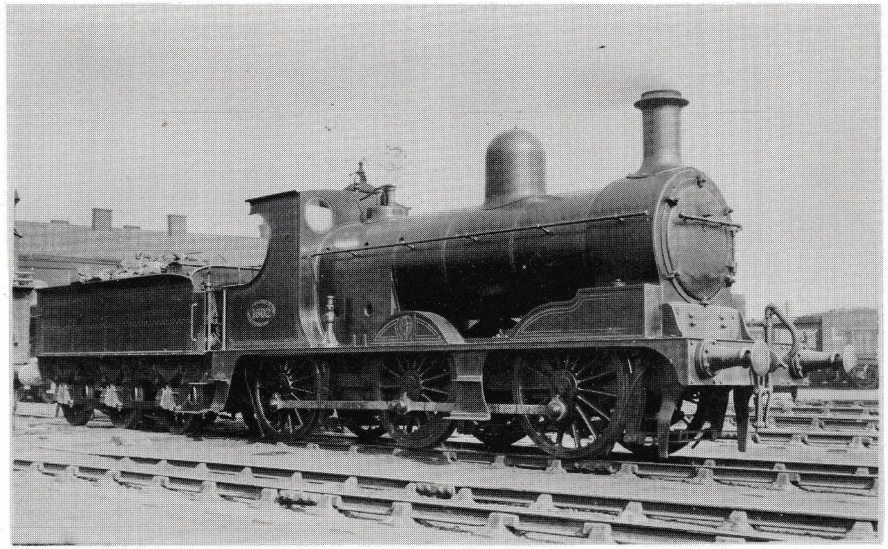
Larger 42" springs were fitted to centre bearings on most Barton Wright tenders. All were altered to the standard 32" springs in Aspinall/Hoy days.

Standard brake hangers, Hughes-pattern buffers and coal rails etc. were added through the years.

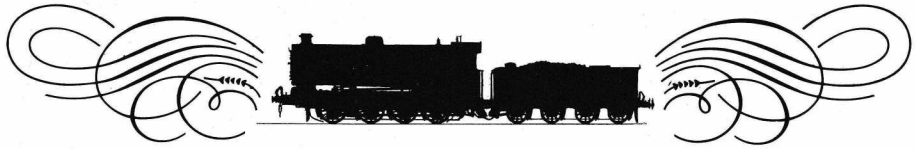
The second batch were built in 1918 as 1599, 1600/1/2/3 and had two differences to the earlier batch. On the later locos, the valance was finished off with a curve although it remained narrower than the previous standard size. The other economy measure was the pairing of tenders from Vulcan-built 6ft. 4—4—0s withdrawn at the beginning of the war. Modellers have therefore a third variety of tender to pair with an 'A' class. 52415 (ex-432) still had one of these tenders in 1956 when photographed at Blackpool Central Shed.

Photo — B. C. L.





1602, Built in 24-hours! *Photo: J. B. HODGSON Collection.*



R.O.D. LOCOMOTIVES

Interesting information, as yet unproven, has suggested further L & Y locomotive activity in foreign parts during the Great War. A book of linen blueprints inscribed "Inspector Horan, Loco Dept. Horwich" lists each locomotive number against its correct blueprint; the 0—6—0s which went overseas are dealt with correctly but the section on 0—8—0s contains the following:—

1. *The blueprint for 8-wheeled coupled goods engines, six-wheel tenders, small boilers states:— locomotives lent to LNW Railway — 154, 1457, 500, 390, 406, 407, 383, 159, 384, 876, 1491, 659.* *(Note these are not in numerical order, Author)*
2. *The blueprint for 8-wheeled coupled goods engines, large saturated boilers states:—overseas—1425, 1485, 695, 412, 745, 704, 436.*
3. *The blueprint for 8-wheeled coupled goods engines, large boiler, rebuilt from corrugated firebox states:— overseas — 373, 169, 436, 392, 1437.*

Thus a dozen went to the LNWR and a dozen overseas. I seem to remember reading somewhere that 0—8—0s did go overseas but no-one appeared to know the numbers of the locomotives involved, perhaps Inspector Horan has given us that list. Further information, confirmatory or otherwise, on this topic would be greatly appreciated. *N. G. C.*


31
LANCASHIRE & YORKSHIRE RAILWAY

No. 31 was a Leyland chassis and engine with a Newton Heath body. In the war, it was modified to run off gas instead of petrol. The railway manufactured its own gas (for carriage lighting) but even with such a ready supply, the danger of fire from the bag must have outweighed the economies. It is not known whether No. 31 was an isolated experiment or one of many such conversions. *Photo courtesy N.R.M.*

LANCASHIRE & YORKSHIRE RAILWAY.

AIR RAIDS.

Received from .....

Time..... *By*.....

1. Place ..... Date .....
2. Title of reporting authority or Military unit .....
3. Status of original observer such as "Coastguard," "Coastwatcher," "Policeman," "Local Doctor," "Labourer," "Sergeant," "Patrol," &c. ....
4. Actual place of observation ....
5. Degree of probability indicated by one of the words: "Certain," "Reliable," "Probable," or "Doubtful." If the Observer himself is reporting add the word "Self" ....
6. Time at which observation was made ....
7. Nature and number of aircraft; whether seen and/or engines heard. By day, state if nationality can be recognised ....
8. Estimated distance and direction of aircraft from observer ....
9. Direction in which aircraft was seemingly proceeding ....
10. Whether bombs were dropped; whether seen or heard ....
11. State Naval, Military, or Police Authorities to whom the same report is being repeated .....

It would not be expected that the L.& Y.R. would have been greatly troubled by Air Raids in the Great War but a form was distributed to all departments for any enemy action to be reported accurately.

Warning label for application to vehicles carrying explosives. Actual size 13" x 7", colours as printed. *(P. Ward collection)*

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