

**Railway Society** 

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PLATFORM NINE is the ninth journal of the L. & Y.R. Society, this being the Summer 1982 edition. It is devoted to the dissemination of information about the Lancashire & Yorkshire Railway up to the grouping and aims to form a permanent record of the railway through the combined editions of the journal. The society also produces several duplicated newsletters through the year and a series of booklets on branchlines of the railway, all of which are supplied to members at periodic intervals. For further details, please contact the Honorary Secretary: Mr T. Wray, 30 Mossway, Middleton, Manchester, M24 1NS.

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#### COVER PHOTO:

George Hughes provided the L. & Y.R. with a class of four cylinder 4-6-0 express locomotives in 1908 that compared with the biggest and best that any other railway had built up to that time. Although they promised to answer every anxiety of the running department, they had the misfortune of being the last 4-6-0s built with saturated boilers and slide valves. The power was there but they were never fast and free running and as time went by other faults developed too. Their massive proportions earned them the nickname of 'Dreadnoughts' and our illustration, taken by George Smith before the Great War shows their impressive appearance. The small tender contrasted with the locomotive but with water troughs liberally spaced along the main lines, nothing larger was required. The train is bound for York and has just replenished its water supply over the troughs at Luddendenfoot.



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1300 pilots 10303 (old 1394) on a York express in 1924.

# Aspinall Standard Goods '1300'

## **B. C. LANE**

This is not intended to be any sort of history of the Standard Goods Engines as designed by J.A. F. Aspinall, but is an attempt to chronicle the variations and alterations that affected just one of the class... the last remaining example, No.1300. Of course, the other locomotives built at the same time as No.1300 were exactly the same but variations within the class to minor details were many and possibly a future article will go a little deeper into these.

The class was the second of Aspinall's standard designs to emerge from the new works at Horwich and the works were still incomplete at the time the earliest locos were being turned out. The 2-4-2T design was a type that the L. & Y. had not used before but the 0-6-0s were truly a development of the successful design provided by Barton Wright over a decade before. The boilers were reported to be of the new 'standard' type but in fact there were differences that made the boilers of the tank and tender locos not interchangeable, as has sometimes been inferred in recent years. The Aspinall 0-6-0 was a larger machine than the previous type and it is not surprising that Aspinall's locos actually replaced some of the Barton Wright 0-6-0s before they were even 20 years old! As these latter engines were converted into saddle tanks, the tenders were paired to new Aspinalls being turned out of Horwich steadily, year after year. Over 50 had been built each year through the early 1890s and by 1896, they were half way through Lot 25. The first one turned out in 1896 was No.1300 bearing works number 420. Lot 25 was one of the few orders to be built with new tenders .... after these locos, not another 0-6-0 had a new tender until the turn of the century when the saddletank conversion work was halted. As built, the locomotive had 18" diameter cylinders with unbalanced 'D' valves over the cylinders. Although the whistle was offset as usual on the earlier Aspinall designs, there was never a second whistle as on the engines built in the time of Barton Wright. A crank

stuck out of the cabside for the train emergency cord and a stanchion stood on the tender top to support the cord between the cab and the first carriage. At this period, there were only two washout plugs on each side of the firebox and these were sealed with large knobs that were polished bright. The lower washout plugs were added some years later when the polished knobs were abandoned. The reversing rod was originally quite high up on the driver's side of the boiler due to the long crank rod on the Joy gear. This was shortened to the more familiar size with the 1890 batch. The livery was black with just two red lines on these engines in 1896 and for some reason not known, the familiar white and red was kept to the 2-4-2T and 4-4-0 classes only until about the turn of the century. The tenders at this time bore only the 51/2" high 'L & Y' in gold letters. The 'loco' crest with the blue garter was applied actually over the lining on the centre splasher. The smokebox carried two lamp irons before the chimney and a single one over the buffer on the fireman's side. This was a direct continuation of the older socket-mounted lamps which were still in use on some Miles Platting-built engines at this time. Finally, the buffers were of the Barton Wright pattern that was also used on all the designs of Aspinall and some of Hughes' designs too.

Three patterns of smokebox door were fitted through the years culminating with the present Hughes pattern fastened with six clasps or 'dogs'. The later pattern of buffer and Ross pop valves were fitted at successive boiler changes and the locomotive became 12322 in the LMS renumbering. Somewhere along the way the tender was swapped and at the end of its life on the railways we find the tender from 1195 paired to 52322. British Railways withdrew the old engine in August 1960 along with many others of the class. Although the last one didn't go until 1962, Mr Leonard Fairclough applied to Horwich to purchase a loco out of pure affection for the type and a very favourable deal was struck. For just a few hundred pounds, the loco was supplied in L.& Y. R. livery and parked on a siding close to the head office of Mr Fairclough's contracting company at Adlington.



1122 in ex-works condition 15.8.61

Photo - W. Potter

As supplied from B.R., the livery was an excellent representation of the 1901 livery introduced by Mr Hoy. It was however confusing to see the number painted onto the bufferbeam as this practise was dropped in the mid-1890s. The crests on the splashers were expertly handpainted as was the tender lettering ... all stock of transfers being used or disposed of long before. Many enthusiasts visited the yard at Adlington in those early years of the 1960s to view a sight that most of us had never seen for there were no other preserved L. & Y.R. locos then and we were too young to remember the livery at first hand. At least one of our members was entertained by Mr Fairclough at his home, and his pleasure that others appreciated his loco was very evident.

As time went by, the weather took its toll and before very many years had passed, the paintwork was in rather poor condition. A covering of scaffolding and polythene was built over the loco and local help was employed to repaint it. Rather than paint the broad red line next to the white line on the cab and tender, the entire outer area (several inches to the edges of the panels) was painted red. The crest was varnished over which was alright except that the blue background of the garter had now faded to a very pale shade of blue. Any modeller copying the livery in 1970 would be greatly misled! At this period there was a move to restore the loco to working order and a report on the work was presented to Mr Fairclough shortly before his death. Negotiations with the Fairclough family later succeeded in arranging the movement of the loco to Steamtown at Carnforth where at least it would be safely under cover.

Although nothing outwardly appeared to be happening to the loco for the first few years, a party from central Lancashire continued work on the superstructure and by the end of 1978 they had built a new tender tank, new cab, new ashpan, new boiler clothing and welded the left-hand driving hornblock which was cracked in two. Much of this work was done by the Fairclough Co. at their excellent fabrication shop at Adlington employing men who had once worked in the plate shop at Horwich works. Steamtown engineers stripped the loco of boiler and tubes for examination and the wasted tubeplates caused much concern, proving to be beyond the limits of a British Rail boiler certificate. All hopes of the loco being steamed in the Rainhill 150 Cavalcade faded.

1981 was a good year for the engine for the boiler was hydraulically tested and placed back onto the frames. By the end of the year the boiler was steam tested and was being assembled again.

When Mr Fairclough applied to purchase a loco from B.R. in 1960, he wanted one that had been built in the year of his birth, 1891. No.52140 (1122) had been withdrawn in July of 1960 but had been fitted with a Belapire firebox. Mr Fairclough wanted one in the original condition and 52322 was withdrawn the following month. This loco was old LYR No.1300 of 1896 but Mr Fairclough had it painted as No.1122 would have been when built and so he had the nearest thing possible to an 1891 original.

Meanwhile, Bob Timmins was progressing with the lining out and lettering and when Easter arrived, the loco was steamed with only one side lined out! The gold leaf lettering and its blue shading was complete on the tender side but the chalk lines were still to be seen around the letters. Most people did not realise that this was because the white outlines to the lettering were still to be added. This time there were transfers of the company 'crest' available thanks to the efforts of Geoff Hallos some years previously who had them manufactured again



Boiler back in place and ready for steam testing.

Photo - P. Scholes.

for use on the Worth Valley Railway carriages and locos. The livery and condition of the loco today is correct for perhaps the last decade of the L. & Y.R. when Hughes's smokebox door, buffers and safety valve had been applied. Modellers who actually count rivets will know that Aspinall's tenders had countersunk rivets and thus were very smooth on the sides and back. It is even smoother now though because the new tender body has been welded together and some of the few rivets that were there are not there now.

Another variation is the frame of angle iron on the tender top which supports a tarpaulin from the tender roof in bad weather. Not many Aspinall engines had these in L. & Y. days but they were added to more and more of them in LMS days and were a very necessary modification for such an open cab when running in reverse.

It has been said that 1300 is "quite the best preserved locomotive in existence and virtually a brand new engine, so should be around for many years to come." To what extent this is true depends on how much you favour the Aspinall 'standard goods', but it certainly is in good running order now .... after 21 years of static existence. It was purchased at a time before the preservation movement really started and must hold some sort of record for finally steaming again after so long.

Mr Fairclough would be very pleased if he could see his engine now.

The writer wishes to thank Len Hough of Warrington and Peter Scholes of Blackburn for help in producing this article.

## The Goole End-Door Coal Wagons

by

NOEL COATES

As on previous occasions the request for information on one particular wagon type has led to the accumulation of enough material to prepare this article. The subject is the high capacity 20T coal wagons built to Diagrams 69 and 71 which gained the nickname "Goole End Doors", with the Dia. 84 wagons as addenda.



Dia. 71 "half" end-door wagon No. 31641

Photo courtesy N.R.M.

#### PREAMBLE

As demands of traffic rose the L & Y decided to set a new standard with a new higher capacity coal wagon. The basis of the new design was the Diagram 6 Coal Wagon (see illustration) and late in 1905 the extended design, Drawing 5897, on the new standard 12 ft wheelbase underframe was prepared.

#### DEVELOPMENT

The first order, T38, was for 40 vehicles on wood underframes and was made on December 4th, 1905. This and all subsequent order details are to be found in Table 1. Whether any were built within 1905 as an experiment is not known but the very next order, W38, was for 36 similar vehicles but on steel underframes, slightly more expensive but a definite saving in weight. Development was rapid, for the next order, Y38, made on the same day—6th January 1906, was for 100 similar vehicles but with the top three planks fixed, presumably this was to strengthen and help hold the body together better. The former full-end door wagons were placed in Dia.69 and the latter 'half' end door wagons in Dia.71, thus T38 and W38 are Dia.69 and Y38 and K41 Dia.71.

Only 24 of the first order for half end doors were accounted as coal wagons, making an even hundred drawn from both types, the remainder were placed in the 'Half Box Wagon' account. The final order for wagons of this type was K41, 200 vehicles which were also classed as half box. It is interesting to see the change of designation of this basically similar wagon type from Loco Coal to Steamer Coal, back to traffic coal and finally general merchandise. Photographic evidence has shown them on steamer, loco coal and cotton traffic duties.

### **GENERAL NOTES**

In their day these were massive wagons, some reaching 10 foot above rail level, and they had a capacity of 893 cubic feet. Known Dia. 69 wagon running numbers are order T38 31452-31491 and W38 31517 and 31532 to 31552, whilst Dia.71 has only 31641 definitely logged. The early wagons in Dia.69 acquired a special plate:—



The probability is that the first 100 wagons charged to the 'Coal and Coke' account were the only ones to receive them and there is evidence that they began to lose them in L & Y days.

#### FINALE

The design was further developed in 1911 when the allied and final third type with centrally located side doors, as well as the half end doors, was created and became Dia.84. Now fully 10-feet high from rail level these 50 wagons rose to 954 cubic feet capacity and were numbered 35111 to 35160 (other details in Table 1). They were the ultimate development of the end door coal wagons.

#### LMS DAYS

Whilst the L & Y found uses for them it was clear that the LMS with its rampant standardisation would not and sometime in the later 1920s a conversion of the Dia. 69 wagons was put in hand. After 20 years service these wagons must have begun to gape alarmingly and because the underframes were sound, especially the steel ones, new bodies were ordered. Dia 103 speaks of this, see illustration, and a conventional six-plank, similar to dia. 56, was the new body style but the end stanchions were metal, not wood. Thus the LMS got some relatively new fitted open merchandise stock of larger than average size relatively cheaply, especially the steel underframe vehicles.

I have prepared a flow diagram to explain developments in the family:-





Dia. 69 and Dia. 71:- L & Y days, grey with the large letters 'L' and 'Y' and the legend 'TO CARRY 20 TONS' on the first plank above the siderail. Numbers only on the number plate. The 'Steamers' plate, when fitted, was also picked out in white. Tare weights went on the solebar.

LMS days, some Dia.69 wagons would acquire the large letters 'L M S' before rebuilding, thereafter Dia.103 had large 'L M S' and the grey livery and eventually the 1937 bauxite livery and the small lettering. Dia.71 wagons became LMS grey with the large letters 'L M S', the wagon number went above the left hand axlebox on the first plank above the siderail, the wagon tare went on the same plank at the other end of the side. Small letters 'N' (not in common use) were in the furthest corners of the sides at the bottom. Dia84 wagons were also LMS grey and lettered as per Dia.71 except that the large letters were based on the top of the second plank up not the third as was usual, this was to allow the 'M' to be squeezed onto the dropflap; thereafter LMS 1937 bauxite and small lettering came in. One or two Dia.71 survivors might have received LMS 1937 bauxite and small lettering but this is unlikely.



#### CONCLUSION

Fixed Ends - to carry 20 tons

As the flow diagram shows the Dia.71 wagons were withdrawn well before Nationalisation and it is believed that they had all gone by 1939, though this probably cannot be confirmed. The diagram books suggest that both Dia.84 and Dia.103 lasted into BR days though survivors were ordered to be broken up from 1951.

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Dia. 69 Full-end door wagon.

Photo courtesy N.R.M.

			2.1.						
Date Ordered	Order No.	Quantity	Description <sup>1</sup>	Drawings Used	Account Charge	Built	Cost	Average Tare	Notes
4th Dec 1905	T 38	40	40 Loco Coal Wagons Wood Frames, 20 Ton. Vac. Brake End Doors only.	5897	Capital	1906	£103/9/1d.	9—3—0	Running Nos. 31452–31491
6th Jan 1906	W 38	36	Coal Wagons. 20 Tons End Doors Only. Steel Frames	5902	Capital	1906	£103/11/8d.	8—13—0	10' high from rail
6th Jan 1906	Y 38	100	Loco Coal Wagons. 20 Tons, end doors only. Steel Frames End doors 3 planks down.	5902 6089	3 Capital	1906	£105/4/7d.	8-12-1	9'-8 7/16" high from rail.
16th May 1907	K 41	200	20-Tons Coal Wagons. Steel Frames. 21'-6" x 8'. End doors only.	5902 6089	4 Capital	1907	£111/9/1d.	probably ditto	9'-8 3/16" high from rail
20th Oct 1911	W 47	50	Coal Wagons, 21'-6" x 8', 20 Tons. Side and end doors.	7828	5 Capital	1912	£111/6/4d.	9—10—0	Diagram 84

FOOTNOTES

1. The descriptions given are quotes from the order book, all were vacuum braked and this has been omitted.

2. Of the drawings used, 5902 was the new steel underframe and 6089 the new body drawing.

- 3. Order Y38 was split between coal and coke and the half-box wagons sections, 24 and 76 respectively.
- 4. Order K41 was accounted in the half-box wagons section.
- 5. Also charged to half-box wagons account despite description.

## MODELLERS' ADDENDA

Besides the 'Steamers' plate, intending modellers may like to bear these points in mind:-

a) Tie bars joined the axleguards at each side

- b) Steel underframe vehicles had three additional brackets per solebar
- c) Internally a turnbuckle joined the side to the underframe, right through the floor that is
- d) Small grab handles were fitted to the bottom two planks per end, one each side, to help pull open the doors
- e) The vac. pipes were fitted downwards from the headstock and had a matching support bracket. They had a small metal protective plate over the vac. pipe to prevent coal tearing the hose.

f) 3 link couplings were fitted to both Dia 69 and Dia 71 types.





Diag.84 The final development-with central side doors and "half" end doors.



PREVIOUSLY PUBLISHED DRAWINGS

4mm drawings of D.69 wagons by Arthur Whitehead. 7mm drawings of D.84 wagons by Kenneth Werrett. Railway Modeller, June 1964 M.R.N. Page 257, 1964.

# L.Y.R. Steam Rail Motors

### BERNARD FIELDING, LL.B.

THESE have always fascinated me, so I am attempting to give a concise history of them in one article. Further details as to dimensions etc. can be found in Marshall's book (Vol.3), Eric Mason's L.Y. book, and Rush's book on British Steam Railcars.

For over half a century the railways had had things their own way as regards passenger traffic, but around the turn of the century a new rival appeared for short-distance passenger traffic—the electric tram. Almost every major town and city installed them, and so serious was the position that, by 1903, the L.Y.R. had lost some 40-50% of its local traffic on certain routes around Manchester and Liverpool, with an overall loss of traffic of over 6% throughout the system.

The L.Y.R's first reaction was to design an improved version of the 2-4-2T, larger and more powerful, with an extra pair of driving wheels—the Hoy 2-6-2T. Inherent defects, however, prevented it from being the answer to the electric tram, although (to be fair), it was used successfully on the Liverpool to Southport line, even running to the new electric train timetable. A limited scheme of electrification in Liverpool, and later, Manchester, followed.



For less heavily-trafficed lines the L.Y.R's answer was to seek economies, i.e. a small engine pulling only one or two coaches. The first two steam railmotor cars were bought from Kerr, Stuart & Co., of Stoke, in 1905, built to the designs of Tom Hurry Riches, C.M.E. of the Taff Vale Railway, who seems to have been the leading advocate of steam railmotors. These had two small boilers, three smokeboxes, and small uncoupled driving wheels—an unlikely mixture for beating the electric tram. They soon proved underpowered on the L & Y, so George Hughes set about designing his own railmotors.

One of the chief difficulties was the fluctuation in traffic volume. If you made the engine too small, it could not pull a trailer at peak times. If you designed it large enough to pull a trailer, then the engine was bigger than need be for perhaps 90% of the time, and so was wasteful of fuel. There was no saving in manpower, as railmotors needed a driver, a fireman, and a guard. The L.M.S. phased out the railmotors, preferring a 2-4-2T fitted for push/pull service, to which extra coaches could be added as needed.



Kerr Stuart No.2 on the Burnley-Colne service about 1907. Note the unique front lining and copper-capped chimney.

## TABLE A

#### ROUTES SERVED BY RAIL MOTORS

3/7/05	Bury–Holcombe Brook (until electrified 1913)
7/06	Southport–Altcar & Hillhouse $(C.L.C.)$ to $24/9/38$ .
7/06	Southport-Ormskirk
7/06	Ormskirk-Rainford Junction, (extended to St.Helens, via the L.N.W.R. in 1911).
9/06	Burnley–Colne.
1/3/07	Halifax—Stainland—to 23/9/29.
1/3/07	Sowerby Bridge–Rishworth–to 8/7/29.
5/07	Ormskirk—Aintree (until electrified 1913).
10/08	Blackpool (Talbot Road)—Fleetwood.
3/6/12	Wakefield-Edlington (Dearne Valley Railway).
3/6/12	Crossens-Tarleton.
9/13	Blackpool (Central)-Lytham.
1/1/18	Bolton-Radcliffe (later extended to Horwich). R.M. ceased 3/48.

The L.Y.R. provided 22 "halts" on the above branches, usually no more than a cinder track or a few sleepers, although on the Dearne Valley line the body of an old 6-wheel coach was provided at each halt. The booklet "Steam Up in Lancashire" refers to the Southport-Altcar line in some detail, and describes how, after dark, passengers at halts had to strike a match, as a signal to the driver to stop!

## COACHES

The first two coaches had narrow windows and inside-framed bogies. They lasted until 1927.

Coaches 1-8 did not have corridor connections at first, but are believed to have been so fitted later, coaches 9-18 always had corridor connections.

The coaches are believed to have become L.M.S. 14671-88, and when the L.M.S. renumbered their coaches in 1934 the few survivors were numbered at the end of the electric trains in the series 2999X, but only 29990 and 29995 have been traced.

### TRAILERS

There were twelve trailers, fitted with corridor connections, numbered L.Y. 3200-11 in the ordinary coaching stock, becoming L.M.S./B.R. Nos.3445/56/58 and 61. They were built in four batches between 1907 and 1912. Some are believed to have survived the railmotors, as ordinary saloons; one ran on the Dearne Valley Railway with an Ivatt 2-6-2T, until closure in 1951.

## **DESTINATION BOARDS**

In the early days, some railmotors carried a long destination board on the roof, but the practice does not seem to have lasted long, possibly because they were difficult to read from the platform, and difficult to change round, or simply because everyone knew where the train was going.



Note the low platforms of Poulton Curve Halt, built especially for the new railmotors. Eric Mason took this view of No.15 about 1911. This service from Blackpool (Talbot Road)-Fleetwood was so popular that a trailer coach was in general use.



Railmotor No.3 in its early years poses at Rishworth. The photograph was taken by the late George Smith so it must be dated about 1911 when he is known to have taken photographs in this district. Points to note about the loco are the plain smokebox door which Hughes had started to fit to all locos as the earlier Aspinall doors had become so troublesome, and the narrow chimney which was later replaced with the shorter pattern. Notice also the shopping date painted on the valance above the cylinder. No. 3 was the first of the locomotive units built to Hughes' design in 1906, and lasted to be one of the two that lasted through the whole of the L.M.S. period. It would be quite a coincidence if the coach was also No. 3 as they were swopped about very often. In the background can be seen the tiny signal cabin which lasted to the last days of the branch. The time is probably just before 11.15 a.m. and the train is about to leave for Sowerby Bridge. B.C.L.

## NICKNAMES

The L.Y.R. Album quotes the "Rishworth Pig" and the "Stainland Donkey." Other names were the "Altcar Bob," and the "Skem Jazzer" (Ormskirk-Rainford).

### GENERAL REMARKS

One of the supposed advantages of having a separate engine and coach (as opposed to a self-contained unit such as the G.W.R.), is that if the engine is away for repairs, the coach can simply be coupled to another engine and kept in service. Eric Mason, however, mentions an instance where one shed had no less than four railmotor coaches propped up on timber baulks, awaiting the return of their engines, so theory and practice did not always coincide.

One other point which strikes me as odd, (considering that railmotors could be driven from either end), is that an official instruction to drivers stipulated which way the engine should face on each branch, e.g: the Ormskirk-Rainford motor had to have the engine facing Ormskirk, and on the Dearne Valley Railway the engine must face Wakefield. So far as I know, on the Rishworth line the engine always faced Rishworth.

It must be admitted that some of these branches were hopelessly uneconomic—e.g. the Tarleton branch, which closed in 1913, surely one of the earliest L.Y. branches to close? or the Altcar branch (the former L.S. & P. Junction Railway), once described as "this miserable pretence of a railway." One wonders how on earth it survived until 1938—did anyone 200 miles away at Euston even realise it existed? When the L.M.S. got road transport powers in the late 1920s, the Rishworth and Stainland lines soon gave way to buses, in which the L.M.S. had a financial interest.

One might possibly have expected railmotors to have been tried on the Clayton West, Holmfirth, and Meltham branches, near Huddersfield. I also feel that the Rishworth line might have done better if the trains had started from Halifax, (as in the case of Stainland railmotors), instead of from Sowerby Bridge. Were the L & Y a bit lukewarm over railmotors?

If anyone can assist with more information as to the allocation of railmotors I would be glad to hear from them, and if necessary, I will write a short supplement to this article.



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		TABLE B
5	AL	LOCATION OF RAIL MOTORS
1 and 2	Kerr, Stua 6/05	rt 7/05 Bury-Holcombe Brook 7/06 Southport-Altcar. 9/06 Burnley-Colne. Engines scrapped 12/09. Coaches scrapped -/27
3.	5/06	LMS 10600 At Horwich Works, 1930s, (coach 14688). Scrapped 6/47
4.	5/06	-/10 Halifax—Stainland. (L.Y.) Blackpool—Fleetwood (coach 8). LMS 10601 Scrapped 2/34
5.	5/06	(L.Y.) Sowerby Bridge—Rishworth. LMS 10602 11/26 derailed at Crofton (Dearne Valley) Scrapped 8/27
6.	6/06	LMS 10603 Scrapped 5/27
7.	6/06	LMS 10604 Scrapped 10/29
8.	6/06	3/07 Halifax—Stainland (coach 8) (L.Y.) Sowerby Bridge—Rishworth (coach 13) LMS 10605 Scrapped 6/29
9.	1/07	(L.Y.) At Bolton shed. (LMS) At Agecroft shed. -/37 Visited Horwich Works. LMS 10606 Scrapped 11/43
10.	1/07	LMS 10607 Scrapped 11/34
11.	2/07	3/07 Sowerby Bridge—Rishworth (coach 11) LMS 10608. -/28 to -/33. Beattock—Moffatt Branch, Scotland. Scrapped 11/35
12.	2/07	(L.Y.) Blackpool—Fleetwood (coach 12). LMS 10609. 6/37. At Bolton shed (coach 29990). Scrapped 6/37
13.	3/07	-/13. Blackpool—Lytham (coach 12). LMS 10610. -/33. Deame Valley Railway. c/37 At Bolton shed, (coach 29995). Scrapped 8/37.
14.	3/07	LMS 10611 c/31. Southport—Altcar. Scrapped 10/31
15.	3/07	LMS 10612. (1930s) at Bolton shed. Scrapped 12/34
1	12/09	-/10. Sowerby Bridge—Rishworth (Gothic coach 1). LMS 10613 Scrapped 12/31
2.	12/09	(Gothic coach 2). LMS 10614 -/26. Halifax—Stainland. (LMS) Dearne Valley Railway. Scrapped 6/37
16.	12/09	LMS 10615 (not carried). Scrapped 9/28
17.	12/11	LMS 10616 6/33. Dearne Valley Railway. (coach 14685). Scrapped 11/33
18.	12/11	LMS 10617 (LMS) (with coach 14685) 5/38 at Bolton shed. 3/48 Horwich branch. Latterly fitted with LMS push/pull control system.

Scrapped 3/48





# Liversedge

The railway line from Low Moor to Mirfield abounded in characteristic names. Liversedge was the station between Cleckheaton and Heckmondwike and the picture on this page shows the original station provided by the railway. The line was a constant gradient of 1 in 100 from Heckmondwike, our picture looks up the grade toward the summit at Low Moor. The 79-yard 'Littletown' tunnel has smoke rising from it showing that the train has just left but the signals have not been returned to danger yet. There are two signal posts by the tunnel mouth and there are two at this end of the station although only a part of the extreme righthand one can be seen. Another signal can be clearly seen through the tunnel.... this being the 'outer' station signal which in the early days indicated to the driver that he was to stop at the station. There is also a cross-over near the tunnel mouth, the controls of which are not apparent. There does appear to be a lever frame behind the man in the white jacket but no connections are visible to the other end of the platform. The odd signals were supplied by Stevens & Sons whose patent systems embodied the slit-shaped spectacles operated separately to the arm on lattice posts. The whole line was provided with Saxby and Farmer signal boxes during 1875/6 but there is no evidence of it at the time this photograph was taken. When the line was first opened in 1848, it was the only route from Bradford to Manchester as the Halifax line was not completed for another four years.

Three-way points were a common feature on the L. & Y.R. and this picture includes one on the 'DOWN' line. Following an accident, the use of such points was made 'illegal' on running lines about 1878 and this possibly dates the photograph as prior to that date.

A new station was built at Liversedge in 1894-5 and our second photograph shows this in the Edwardian period. It will be noted that the platforms have been raised and the entire station has been renewed and given the name LIVERSEDGE CENTRAL so not to be confused with the other station called Liversedge on the nearby L. & N.W.R. branch.

The three-way point has been retained but is now situated on the entrance road to the goods yard where the loading dock, coal offices and weighing machine are sited. One long loop line extends back on this side past the old Strawberry Bank Colliery. On the opposite side of the main line was another loop past the Ironworks and the Gasworks and one siding came off this loop into the goods shed. A signal box has been provided in place of the original lever frame and this is out of the picture on the right.

The road has been diverted from the earlier level crossing and crosses by a substantial cast iron bridge hidden by the separate-covered footbridge. The steps for the footbridge were inside the station building but there was an access way direct from the roadbridge to the footbridge and station.

The gas lamps have been renewed since the earlier photograph, no doubt the close proximity to the gas works being the reason for such 'modern' lighting at the earlier date! The old gas 'lanterns' have now been replaced with the standard 'bowl' type and between the three lamps up by the tunnel mouth now stands a wooden nameboard for it was the rule to have a nameboard on the "approach end of every platform."

> 1870s photo courtesy J.B.Hodgson 1900s photo courtesy P. Ward Notes by John Hodgson and Barry Lane.

# The School of Signalling, Manchester, or The L & Y is Still Alive and Running a Daily Service

### MIKE ADDISON

Very few commuters, scurrying from trains at Manchester Victoria, are aware of the wonders that await them if they should stray from their usual path. High above the concourse, above the murky underground waters of the River Irk, you have to stand back as an Aspinall 4-4-0 sweeps past, running to time, under clear lower quadrant L & Y signals, worked from L & Y boxes and signalled on L & Y instruments.

The place is the Manchester School of Signalling, opened in 1910 and one of the oldest schools on BR. Pictures of Watson, Marriott and Parmitter look down from the walls and even the room temperature is measured by a device stamped LYR. Preliminary and Advanced Classes were held for all grades of staff. Classes were voluntary, but large numbers enrolled in their own time, after work, to hear experts lecture on 'the rules' and to gain a much treasured certificate—an invaluable asset to promotion—or even a prize. 100 students enrolled for the first class and such was the interest that in the 1924/5 session some 4,981 students gained a certificate. Since 1953 British Rail has used the School to train Signalmen. A six weeks course in theory is followed by two or three weeks practical training in a 'real' box with a verbal and practical examination from at least two officials before they become fully-fledged Signalmen.

The main interest for the enthusiast is the fine model railway installed in 1912 and built as an exercise by the apprentices at Horwich Works. Slightly larger than 'O' Gauge, it is powered by electricity from a third-rail pick up—a system then being pioneered by the L & Y. The model is 'signalled' just like the real thing with points and signals worked from miniature lever frames which are fully





interlocked. Block instruments of various kinds allow trains to be dealt with just as at a full-sized box. The layout consists of a terminal station with a scissors crossing. Signal Box 'A' has a junction with the Down Permissive Goods Loop and also an Up siding. The loop ends at 'B' which is the main junction signal box. At box 'C' the two lines from 'B' join up to form a continuous double loop to get the trains back to 'T'. The 'C' Signalman has an Intermediate Block Signal (semaphore, of course) to help him keep the traffic moving. The layout has several working track circuits which lock signals at danger as well as indicating where the train is. In addition to the model there are full-sized signals, a pair of Tyers Token instruments and various other static exhibits. There was originally a full-sized lever frame which could be worked in conjunction with the model but this has been removed. A colour light signal and intermediate Ground Frame were added in 1938 but, apart from the later addition of some B.R. block instruments, the layout is unchanged from when it was first laid down in 1912.

The rolling stock was all built in 1912 but it is probable that the apprentices were given old diagrams to work on as the types seem to be of an earlier period. There are four coaches, several goods wagons, three 20-ton brakes and five engines. The 4-4-0 is the pride of the shed but there are also four 2-4-2 tanks. The engines are built in brass and run at 40 volts and each was individually made to such an extent that the parts are not interchangeable and the gearing and motors are all slightly different. It is not clear if this was for any experimental reason or just that the apprentices were left to their own devices. Any spares have to be hand-made and regrettably only one loco is in good order, the others being life-expired. Early photos show a sixth mystery loco based on a steeple-cab electric design and it was running on the model before L & Y No.1 was built in August 1912, however no trace of it remains today.

All the stock remained in L & Y colours throughout LMS days but in early BR days they were looking very shabby and were sent for a repaint-to Derby of



all places—and whilst most came back in something like the right livery and number the 4-4-0 completely foxed them and came back as 41000 and was listed as a Midland Compound!

The model and its associated equipment has always been a showpiece and many members of the public have viewed it at some time or another. It was on display at Wembley in 1926 and has been shown at various exhibitions in Manchester.

It is hoped that at some future date someone more expert than myself will be able to identify exactly which design the stock is based on and we may even find somebody with the skill and patience to restore the locos to working order. Whilst the door is often open I regret that we cannot encourage casual visitors during School hours but it may be possible, at some future date, to hold a slightly unusual 'at home' at the School. Meanwhile those of you who have time to pause in your dash across the Concourse might just hear the 4-4-0 whistle for the distant at the junction.

> We are indebted to the Divisional Manager, Manchester, for his permission to publish this article and the illustrationsthat accompany it.

# The Box Coal Wagons of the South Lancashire Coalfield

## A. J. WATTS

The Box Coal Wagons of the South Lancashire Coalfield were a sufficiently distinctive feature of its operations during its heyday to merit attention and research but surprisingly little if anything has been written about them particularly as they represent one of the earliest examples of containerisation on railways!

Recent research on the Liverpool & Manchester Railway has co-incidentally thrown some light on their early appearance and this seems to indicate that they were in use in the latter part of the eighteenth century on mineral railroads in Derbyshire. There is no indication that they were employed on the nascent railway systems until their appearance on the L & M. R. soon after its opening.<sup>2</sup>

The associated research reveals that their earliest use on that line was for the carriage of coal from adjacent mines to the burgeoning port of Liverpool for transhipment. It is possible that they may have been used on the earlier colliery railways in the Wigan coalfield where they would have been entirely appropriate for loading the canal barges which, until the opening of the railway systems in the early nineteenth century, were the only means of transporting coal to Liverpool and other centres. However, this is conjecture and must remain so unless confirmatory evidence is discovered.

#### CONSTRUCTIONAL DETAILS AND METHODS OF OPERATION

The Liverpool and Manchester Railway vehicles would seem to be one of the earliest examples of Private Owner Wagons on our railways. They were a fairly simple type of construction, having overall chassis dimensions of ten feet in length and six feet-six inches in width. Their wheelbase was a mere four footeight inches while the wheels were three feet in diameter.

Rudimentary W-irons with springs were bolted to a solebar/chassis member of 6<sup>1</sup>/<sub>4</sub> inches square cross-section, the ends of which appear to have a small Dead-buffer which, on the basis of the drawing, looks woefully inadequate for its task. Doubtless these would have been strengthened in due course to cope with the vigorous treatment these wagons would have received.

These wagons are depicted as carrying two boxes whose internal dimensions are given as 3-feet 9-inches across the ends, 5-feet 11-inches wide and 2-feet 9-ins deep; apparently the sheeting was composed of four planks approximately 1 3/8inches thick which were secured by vertical strapping at about 9-inch intervals. The bottom of the boxes appears to have been set into a rectangular base frame which rested upon a most unusual runner gear at each corner of the box, each runner having a wheel in the vertical and horizontal plane respectively. This was doubtless to assist in the manoeuvring of the boxes onto and off the wagon by hand. No indication exists to show whether they were capable of being lifted off the wagon by crane or hoist. <sup>3</sup>

This, therefore, is apparently the earliest extant example we have of this type of railway container wagon. The evidence suggests that this particular type of box wagon on the Liverpool & Manchester Railway was in use until at least



1833 and possibly 1845, in the latter instance under the ownership of the colliery concern of Bourne, Bartley & Co. Ltd., of Elton Heath Colliery, Rainhill. Although there is nothing known of wagons of that type belonging to other colliery owners or railways at that date, there is little doubt that it was subject to development and enlargement over the following decade or so.

During that time there was massive and rapid expansion of the railway network in the North West so that the South Lancashire coalfield, particularly around the Wigan district, became the centre of an intricate web of lines, many of which belonged to the coal owners of the area. Much of their output was directed to the Port of Liverpool where it was shipped either to other parts of the United Kingdom or exported overseas to Europe or the Americas.

The local coal owners were clearly anxious to secure the best possible service for the transportation of their coal to the Liverpool docks which had been enhanced by the provision of the high level line access to the Bramley Moor & Wellington docks in 1856. This enabled the coal trains to be run straight from the collieries to the dockside over Lancashire and Yorkshire Railway metals and to be discharged directly into the bunkers of waiting ships. There seems to be little doubt that it was the provision of these superb facilities that prompted Charles Fay, the then Carriage & Wagon Superintendent of the L. & Y., to submit a design for a 3-box coal wagon to the company's Rolling Stock Committee in November of 1856. Approval was given and following successful trials at the Liverpool docks, an order was confirmed for the construction of thirty-three such wagons.<sup>4</sup> This was completed at the end of the following month and they were put into use between Wigan and Liverpool. It has not been possible to trace whether further of these wagons were constructed by the L. & Y. at that time, but there is little doubt that this step was taken by a number of coal owners in the Wigan district in equal or greater numbers.

This evidence relates only to the Box Wagons that ran on the L. & Y. at that time, although there is evidence, albeit scanty, for similar wagons running on neighbouring railways. The photograph taken just a few years later at Preston shows 3-box coal wagons in sidings adjacent to the East Lancashire Railway goods shed with an early brake van of Northern Union or L.N.W.R. design in the background. Identification of the coal wagons' ownership is not clear but details are clear enough to show that the wagon had a single plank along its sides and ends within which the boxes were placed. From this evidence one may deduce that not only did some colliery owners employ these wagons for transhipments to the ports but possibly also used them for landsales.



We now approach the years when the use of such wagons reached its height, their overall design features having become established; and while photographic evidence is still meagre for the period, that which has survived provides us with ample evidence of the 3-box wagon and its variants.<sup>5</sup>

Let us now consider how the design progressed over the intervening years between 1845 and 1885/90. While no drawings or details of the 3-Box wagons designed by Charles Fay for the L.& Y. survive, bearing in mind the general advance in wagon design by the mid-1850s as evidenced in Colbourne's 'Locomotive Engineering' and D.J. Clark's 'Railway Machinery' of the same period, it is entirely reasonable to assume that even by that date the 3-Box coal wagon had already attained the basic features it would retain for the rest of its days. Such alterations that took place subsequently were marginal and were for the most part variants allowing different methods of unloading or the use of alternative materials in its construction.

The boxes were now placed on a basic wagon underframe about 15 feet long, sometimes with a running board along the sides of the boxes and secured to the top edge of the solebar. Most of the wagons were of the Dead-buffered variety, many of which lasted until 1913 or beyond after conversion to spring buffers... usually the self-contained variety.

The boxes were now separated on the wagon by either wooden or cast iron spacers and secured by cast iron corner pieces bolted onto the top or side of the solebar and buffer beams. Some wagons had two vertical retaining pieces secured to the buffer beams to limit movement fore and aft, although from the available evidence only one or two owners seem to have used this method of retention. Of the overall size of the boxes we have little clear evidence until the 1880/ 1890 period when the surviving Private Owner Registers of the railway companies and some of the latters' remaining drawings start to provide details. Most of the boxes were of the 4 or 5 plank variety and were re-inforced internally at their corners by 4" x 4" vertical sections of wood. Bolts securing the planking to these corner pieces also secure external vertical strapping or corner plates (either 7" or 9" deep) on the box corners.

The remaining features of the Box were dependent upon its method of unloading which was effected either by the opening of two doors in the bottom of the box or by the box tipping its contents out. In this latter instance the box was designed with a trunnion on each side and a shackle on the top of one of the sides, or possibly even both. The shackle was used as the means of retaining the box in the upright position during the unloading operation but once this was released the box would swing over by gravity thereby tipping out its contents. Once empty, the box would be returned to its upright position and replaced on the wagon.

The Box wagons with the alterantive technique of unloading by employing bottom doors seems to have been the most numerous, so far as can be ascertained, and it is proposed to deal with them in some detail. The accompanying sketch derives from the notebook of Mr James Anderson who was in charge of the colliery workshops of Blundells—one of the major users of these wagons—as a result of which we are able to gain some highly authentic details of their finer points of construction.

The sketch shows the precise dimensions of the hinges that secured the bottom doors of the wagon boxes which would be approximately 4'-2" in height.



The sides of the boxes had substantial crane rings bolted to them by means of strapping which stemmed from the ring either in the form of a single strap or alternatively by twin straps in the form of an inverted 'V'. This strapping seems to have been bolted on either the inside or the outside of the box according to choice. The sketch shows the single strap version. However in the succeeding sketch showing the internal arrangements of the Box, the inverted 'V' version of the crane ring is shown. A stout wrought iron staple was bolted to the upper inside of the box sides through which two lengths of chain passed. These in turn were secured to an independent ring at their upper end and to a shackle at their lower end which in turn was attached to an Eye Bolt fixed in each of the bottom edges of the box.

(Dimensions of these items are shown in the first sketch and their method of attachment in the second sketch.).

BLUNDELLS SHEET 2 NOT TO SCALE INSIDE SECTION DETAIL OF BOX



The lengths of chain were sufficient to allow the doors to be fully opened when the ring securing them at their upper end was restrained by the wrought iron staple. The method of discharge was relatively straightforward; crane hooks were secured to the Crane Rings on either side of the Box. Further crane hooks were attached to the Crane Rings secured to the ends of the chains attached to the bottom doors and pulled taught. The box would then be lifted clear of the wagon and swung out over the awaiting vessel's bunkers. It would then be lowered down and at a predetermined point the crane hooks holding the ring and chains would be released, thus allowing the contents to fall into the bunkers.

The chains securing the bottom doors would then be pulled up, thus closing the doors and the box would be lifted back onto the wagon chassis.



Photo courtesy N.R.M.

Evidence of this operation is very slender indeed, only one photograph being known to the writer which shows a White Moss Colliery wagon box being lowered down to a small coastal vessel. Other views show some of the distinctive Blundells 3-Box wagons at the dockside at Liverpool, waiting either to unload or be returned to the colliery. 6

Fleetwood was another port to which 3-Box wagons ran although there is no supporting photographic evidence which shows clearly their presence at the dockside. The writer has one photograph which seems to show a metal container similar to a coal box which is being swung out over some railway wagons towards a number of trawlers moored at the adjacent quayside. However the indifferent quality of the photograph precludes precise identification and until further and better evidence is forthcoming, one must rely on the construction by the Lancashire & Yorkshire Railway, in 1900 and in 1914 respectively, of 3-Box coal wagons to run on the Preston & Wyre Branch Railway as the only evidence of their presence at that port.

The Midland Railway also constructed 4-Box coal wagons for supplying bunker coal to their steamers at Heysham.<sup>7</sup>A drawing for a 3-Box version also exists but whether it was built is not known.<sup>8</sup> The interesting features of the M.R. box wagon are the prominent and lengthy inverted strapping stemming from under the crane ring at the sides of the boxes. There is however no evidence of external strapping and hinges for bottom doors, although notes on the drawings indicate that they were employed. Large wooden pieces attached to one side only of each box served as 'distance pieces' when the boxes were in position on the wagon chassis. In Volume 1 of Midland Wagons, the author states that these wagons were built in considerable numbers but does not give any precise figures possibly because, as he indicates, no entry was made in the lot book of their construction.

This approximates to the L. & Y.R. position where, although the dates of construction and Lot numbers are known, the wagons find no entry in the Wagon Diagram Book so far as the writer is aware.

Of the 29 wagons built by the L.& Y. between 1900 and 1923, only two drawings are known to have survived. 9

#### To be continued.



#### FOOTNOTES

- 1. Model Railway News, February 1947, p32 Monks Ferry wagon; Model Railway News November 1963, Cooke & Nuttall, Horwich 3-box wagon, (Probably a cut-down version of earlier wagon stock).
- 2. The Liverpool & Manchester Railway A. G. Thomas 1980
- Merseyside M.R.S. Project 1980 Sources guoted N. Ward 2nd edition 1831: 3. Wishaw - 'Gauge Evidence'.
- Lancashire & Yorkshire Railway Minutes-Public Records Office, Kew (Rail 343/30 &. 4. 31.
- 5. 4-Box coal wagons were employed on the Vale of Neath Railway during the 1860s and doubtless before and after that date. See 'Great Western Way' J. S. Slinn HMRS p176/177.
- NRM York Horwich Neg. No. F866.
- Wellington Docks 26.4.1911. 6 7.
  - Midland Railway wagons. R. J. Essery. Vol. 1 p108.
- 8 HMRS Drawings: Nos. 1500 (1955) 3-box wagon
  - 1501 (1993) 4-box wagon
  - 1502 (1394) coal tub for 4-box wagon
- 9. Order D 58 Drawing No. 9526; Order B 43 Drawing No. 6946: see also HMRS drawings Ref. Nos. 3094 and 3050 respectively.

#### Rear Cover

Our last journal featured a dividend statement on the rear cover which did not require a caption. It was however the only one that any of us had ever seen .... its early date of 1856 making it all the more remarkable. Sam Sutcliffe has produced the later example that we feature on the rear cover of this edition. Can there be many more of these about?

Lancashire and Workshire Railway. 

MANCHESTER, 10th August, 1892.

I beg to send you the following Statement, together with a Warrant for the amount of Dividend on the Stocks herein shown.

Proprietors desirous of claiming repayment of Income Law are requested to return this Statement to the Secretary of the Company for verification, after which it will be accepted by the Commissioners of Inland Revenue as a certificate of deduction in support of a claim for repayment, which should be preferred after the 6th April next.

C. W. BAYLEY, Secretary.

N.E.-Proprietors are requested to give early notice to the Secretary of any change in their address, quoting the Register No.

103rd Dividend—Half-Year end	ing 30th u	lune,	1892.		
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