

The  
**VIRTUAL MUSEUM**  
of the  
**LANCASHIRE & YORKSHIRE RAILWAY**

Accident Reports.

17 February 1897

BoT Report into Accident at  
Rainford Junction.

(4 Pages).

## LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),  
8, Richmond Terrace, Whitehall, London, S.W.  
March 3rd, 1897.

SIR, I HAVE the honour to report, for the information of the Board of Trade, in compliance with the order of the 22nd ultimo, the result of my enquiry into the causes of a collision which occurred, on the 17th ultimo, at Rainford junction on the Lancashire and Yorkshire Railway.

In this case, as the 4.55 p.m. up express from Liverpool was passing through the above junction, at about 5.12 p.m., it came into collision with an unattached engine, which had just moved forward past the up home-signal of the Ormskirk branch, that signal being at danger at the time.

None of the passengers are reported to have complained of any injury, but the driver of the light engine has since complained of shock to the system, although he was not actually hurt.

The express train consisted of a four-wheels-coupled tender engine and five vehicles, and it was fitted throughout with the automatic vacuum-brake.

The light engine was a four-wheels-coupled side tank engine, fitted with the automatic vacuum and hand-brakes.

No wheels of the passenger train, or of the light engine, left the rails.

For details of the damage to rolling-stock, see appendix.

*Description.*

At Rainford junction the main line from Liverpool to Manchester, running approximately from west to east, is joined on the north side by the branch line from Ormskirk, the trailing points of the junction being on the up main line (from Liverpool). The junction is immediately at the west end of the up main platform, which platform is continued northwards alongside the branch line; and at the back of the branch platform there is a bay line, with a trailing connection on the down branch line, used for the departure of Ormskirk trains. Trains from Ormskirk come to a stand at the junction home-signal, only 34 feet north of the fouling-point of the up main and branch lines; the engine then runs round its train and, taking the train across to the down branch line, pushes it back into the bay line ready for the return journey. To run round the train, the engine must necessarily pass over the junction on to the up main line.

The signal-cabin is on the south side of the line from Liverpool, just west of the junction.

In addition to the up branch line signal referred to above, there is an outer home-signal a short distance north of the platform.

The line from Ormskirk approaches Rainford on gradients falling at 1 in 74 and 1 in 91 to within two chains (44 yards) of the junction, and then rises at 1 in 129; the line, at the platform, being on a curve to the left of about 11 chains radius.

The line from Liverpool approaches Rainford on gradients rising at 1 in 141 and 1 in 150, and it is nearly straight through the station. The up home-signal is 92 yards west of the junction points.

*Evidence.*

W. E. Tunstall states: I have been 12 years in the Company's service, 10 years a signalman, and employed for five years in Rainford junction cabin. On February 17th I came on duty at 2 p.m. to work until 9.15 p.m. The 4.57 p.m. passenger train from Ormskirk arrived at the up branch platform at 5.10 p.m. on the above date. The engine came to a stand just in rear of the junction inner home-signal. All Ormskirk passenger trains are turn back trains, and the engine therefore has to run round its train at Rainford junction: for this operation the inner home-signal is invariably lowered, and the driver is not sent forward with a hand-signal. The home-signal is

lowered before the arrival of the train, if there is nothing to interfere with that being done; but on this occasion I had an express almost due from Liverpool, and therefore the inner home-signal remained "on." The train stops at the same place whether the signal is off or not. At 5.9 Rainford Colliery cabin offered me the 4.55 express from Liverpool, which I accepted at 5.10, on the train from Ormskirk coming to a stand. The express was given me "on line" at 5.11, and it is noted by me as having arrived at 5.12. I was in the centre of the frame, ringing a bell on the London and North-Western platform, when I saw the Ormskirk engine moving forward; I ran to the

window and shouted, and got the driver's attention. I motioned to him to stop, and he did so at once; just then the express arrived, and its engine struck the right-hand of the leading buffer of the Ormskirk engine, the Ormskirk engine being, of course, separated from its train. When I saw the latter engine moving forward the driver had hold of the regulator, but I cannot say for certain whether he gave his engine steam or not. The Ormskirk train was punctual to time, but the Liverpool train was one minute before time; on the previous night the Ormskirk engine stood at the platform until the express passed through, before the engine could run round its train. The fireman was not on the engine. I am quite sure the driver did not attempt to get to the hand-brake.

*Edward Swift* states: I have been about three or four years in the Company's service, nearly all the time at Rainford junction as a porter. On the 17th February I came on duty at 12 noon, to work until 11.20 p.m. When the Ormskirk train arrived on the evening in question I was standing at the ticket barrier, at the end of the Ormskirk bay line. I saw the Ormskirk engine moving forward, and at the same time I noticed the Liverpool signals "off." I shouted and whistled to attract the driver's attention, and I also held my hands up to stop him. It was quite light at the time. The driver moved forward about an engine-length after I first called to him. I cannot say for certain whether the driver had given his engine steam, but there was steam about the engine at the time, and no other engine anywhere near from which it could have come. The driver was on the left-hand side of his engine, *i.e.*, next to the platform when I saw him. As a rule, the Ormskirk train is stopped at Bushey Lane junction until the Liverpool express has gone through Rainford, but that week the local train got in twice before the express. I think I have seen a driver hand-signalled forward once or twice when there was a train standing in the station, but in those cases he had special instructions from the signalman. The express is booked to pass about 5.13.

*Reuben Bullock* states: I have been 23 years in the Company's service, 11 years a driver. On February 17th I signed on duty at 6.55 a.m., and I should have signed off at 6.45 p.m., but owing to the mishap I was not off duty until 7.50. I get about 3½ hours during the day off the engine in the above tour of duty. My engine, No. 1,000, is a four-wheels-coupled tender engine with leading bogie, fitted with the automatic vacuum-brake. I left Liverpool at 4.55 p.m. for Rochdale, with five vehicles behind the engine. Approaching Rainford junction the distant-signal was pulled off just as I got to it, and all signals were off in front of me. When I was about 40 yards from the fouling-point with the Ormskirk line, I saw the engine of an Ormskirk train, at the platform, moving forward. I shut off steam and applied the brake, whistling at the same time to warn the driver. Before I had time to reverse we collided with the other engine. The left-hand side of my front buffer-beam just caught behind the right-hand side of the leading buffer of the other engine; my engine-step on the left-hand side was damaged and partly torn off. The foot-board was, practically speaking, torn off for the whole length of the train. No wheels left the rails, and my mate and I only felt the blow very slightly. I only take that train once a week, and I do not recollect seeing an engine standing at the inner Ormskirk home-signal before. There was a train standing on No. 1 exchange siding, which prevented me from seeing the Ormskirk engine until it was within a yard or two of the point where it finally stopped. I saw no signs of steam from the Ormskirk engine. When I run round my train I always keep the automatic brake on the engine and tender wheels is on the left-hand side underneath

the ejector. My speed would be about 35 to 40 miles an hour before I shut off steam.

*John Beddow* states: I have been nine years in the Company's service, four years a fireman. On February 17th I was firing for driver Bullock, and my hours of duty were the same as his. Approaching Rainford junction I was looking out on the fireman's side, *i.e.*, the right-hand, side of the engine; all signals were off for us. About 50 yards from the junction I saw the Ormskirk engine on the move towards the junction. I could not tell whether that engine was in steam at the time or not. My driver seemed to see the other engine at the same time as I did; he shut off steam, applied the automatic-brake, and whistled. I opened the sand-valves. The brake seemed to work all right, and we stopped about half-way down the platform. I have frequently been through the station on the Liverpool lines, but I do not recollect seeing an engine standing at the Ormskirk platform-signal before as we were passing on the up line.

*Richard Howard* states: I have been 34 years in the Company's service, nearly 27 years a driver. On the 17th February I came on duty at 6.55 a.m. to work until 6.35 p.m. My engine, No. 651, is a four-wheels-coupled side tank engine, with radial leading and trailing wheels, fitted with automatic vacuum-brake apparatus and a hand-brake, the brakes working blocks on the four coupled wheels. On the above date I left Ormskirk at 4.57 to run to Rainford junction with four vehicles behind the engine. I arrived at Rainford about 10 minutes past 5, and stopped with the engine just behind the inner home-signal. When we came to a stand my fireman got off, as usual, to detach the engine to enable me to run round the train. The fireman shouted to me to ease back, as he could not get the shackle of the coupling off the hook. I reversed my engine and eased back, then reversed it ahead, and she sprung out a little. I heard an alarm and saw the Liverpool express approaching, so I went at once to the hand-brake to prevent the engine being pulled along with the train. The hand-brake is on the right-hand side of the foot-plate. I had destroyed the vacuum by turning the thumb-screw on the engine for the purpose of easing back, but I should have restored the vacuum again while I was running round the train. After reversing I never touched the regulator. If I had put the hand-brake on before putting the engine in forward gear it would have been all right. I do not recollect whether we arrived at Rainford before the Liverpool train on the previous night, but I do recollect standing occasionally at the platform-signal until the Liverpool train has run through the station. The signal is always pulled off for us to run round, unless there is a train in front at the platform, and then we get a hand-signal and verbal instructions from the signalman. When the collision took place the right-hand corner of the buffer-plank of my engine was bent back. The engine did not leave the rails, and I was not hurt, but much frightened.

*Lawrence Abraham* states: I have been 10 years in the Company's service, four or five years a fireman. On the 17th February I was firing for driver Howard, and my hours of work were the same as his. On the arrival of the Ormskirk train at Rainford junction I put on the hand-brake, and, in a minute or two, after exchanging the remark with my mate that the home-signal from Liverpool was "off," I got down to uncouple the engine. It is a very rare occurrence for the Liverpool train to pass through while we are standing at the platform. I got between the engine and leading carriage, and unscrewed the shackle and hung it up on the draw-bar hook; it was rather stiff to unscrew. I did not ask my mate to set back, and he did not do so, as far as I am aware. I had time to put the shackle up on the hook, the engine buffers remaining against the buffers of the carriage, but before I could get out from between the engine and carriage

the former moved forward. I cannot say for certain whether the engine had been given steam or not. The driver did not go away any sooner than usual when the

signal is off, and I generally run and get on the engine while it is in motion.

### Conclusion.

The 4.57 passenger train from Ormskirk arrived at the up branch platform at 5.10, stopping, as usual, with the engine close up to the junction home-signal, which was at danger. It is a "shuttle" service between Ormskirk and Rainford, and, as explained above, upon the arrival of the train at the latter place, the engine runs round its train and then puts it into a dock line at the back of the up platform; to do this the engine must go forward on to the up main line, and it appears that the driver usually finds the junction signal off, ready for the operation to be completed without delay. On this occasion the local train had been brought into the station, contrary to the general practice, before the 4.55 express from Liverpool had passed through, but as soon as the former train came to a stand the signalman accepted the latter, and pulled off the signals for it. The fireman of the branch train got off his engine to uncouple it; he says that before leaving the engine he remarked to his driver that the signal was "off" for the train from Liverpool, and he also says he left his hand-brake "on," but the driver has no recollection as regards either of these statements. Before the fireman could get out from between the engine and the leading carriage, after uncoupling, the engine moved forward, and in so doing just fouled the main line as the express was approaching. The driver and fireman of the latter seem to have noticed the movement of the Ormskirk engine when they were about 40 or 50 yards from the junction, and they then did everything in their power to avert the slight collision which followed; happily only the right-hand end of the front buffer beam of the Ormskirk engine was foul of the main line, and the express got past with no worse consequences than the destruction of the engine-step, and carriage foot-boards, on the left-hand side of the train.

No blame whatever attaches to the express enginemen, and driver Howard seems to be solely responsible for the mishap in that he allowed his engine to go past a stop-signal at danger. His explanation of the occurrence is flatly contradicted, in its main details, by his fireman Abraham, while it is extremely improbable in many respects, and I have no hesitation in expressing my belief that his mistake was due to forgetfulness amounting, under the circumstances, to culpable negligence.

This narrow escape from a very serious accident makes it necessary to consider how far the arrangements at Rainford station are suitable for the traffic. The junction-signal at which trains from Ormskirk pull up is, as stated above, only 34 feet from the fouling-point with the main line from Liverpool, and it is at the bottom of a rather steep gradient (1 in 91) on which the train stands at the platform. The length of the platform will not admit of the signal being moved further back, being only long enough to take an engine and five carriages with the signal in its present position. It is evident that a very slight mistake on the part of the branch train driver, either when standing at the signal, or when setting back to his train, might cause the junction to be fouled, and the margin of safety is in this case unusually small, and, in my opinion, quite insufficient. I may also add that there is a siding connection on the up branch line between the junction and the signal, which the latter does not properly protect, and therefore some alteration is desirable.

By far the best plan, if the necessary additions and alterations for the purpose are feasible, would be to utilize the dock line for the arrival as well as for the departure of the branch trains. So long as the north end of the up platform is made use of for the branch service, I would strongly urge the Company to revise the local service where necessary, so as to do away with any need for passing trains through the station on the up main line while there are vehicles standing at the up branch platform.

I have, &c.,

G. W. ADDISON,  
Lieut.-Col., R.M.

The Assistant Secretary,  
Railway Department, Board of Trade.

## APPENDIX.

## DAMAGE TO ROLLING STOCK.

3rd Van No. 1930.—One panel, two headstock castings, foot-boards and three foot-board irons broken; nine foot-board irons and one lamp-iron bent, one bottom rail damaged.

Composite No. 94.—Foot-boards, one headstock casting, and one side-panel broken, and foot-board irons bent.

Composite No. 82.—Foot-boards and foot-board irons broken.

Third No. 2121.—Foot-boards and foot-board irons broken.

3rd Van No. 2078.—Foot-boards and foot-board irons, one door-light, and one headstock broken; bottom rail and lamp-iron damaged.

Meat Van No. 4521.—No damage.

## DAMAGE TO ENGINES.

Engine No. 1000.—No damage.

Engine No. 651.—Buffer-plate, platform angle-iron and gusset stays bent, heating apparatus damaged.

Printed copies of the above Report were sent to the Company on the 15th March.

## LONDON AND SOUTH-WESTERN RAILWAY.

Board of Trade (Railway Department),  
Richmond Terrace, Whitehall, London, S.W.,  
March 16th, 1897.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the instructions contained in the Order of the 10th instant, the result of my enquiry into the circumstances attending a collision which occurred on the 3rd instant at Eastleigh, on the London and South-Western Railway.

In this case, a train consisting of tank-engine, one third-class and one composite carriage and brake-van, which had formed part of the 6.48 p.m. train from Salisbury, and which had to be attached to a portion of the 6 p.m. down train from London to make up a Portsmouth train due to leave at 8.18 p.m., was drawn out from the Salisbury loop on the up side of the line, and across the main lines on to the down Portsmouth line, under charge of a shunter, and, while waiting to be backed on to the Portsmouth loop on the down side of the line, was run into from behind at 8.13 p.m. by a special cattle train which had been, by mistake, allowed to start from Eastleigh to go to Portsmouth. This train had come from Southampton on the up line, and had to turn back along the down Portsmouth line, the engine being first run round the train.

The collision was not a violent one, but the passenger carriages were derailed, and the only two passengers in the train complained of being shaken.

No part of the cattle train (which consisted of engine and tender, eight loaded cattle waggons, and two brake-vans) left the rails.

The damages to rolling-stock were trifling. (For particulars, see Appendix.)

*Description.*

At Eastleigh there are two island platforms, and between the platforms there are four lines of rails, two of which are platform lines. In addition to these there are two loop passenger lines, viz., the Salisbury loop at the back, or west side, of the up platform, and the Portsmouth loop at the back, or east side, of the down platform.

Immediately south of the station the double line to and from Portsmouth diverges, on a sharp curve of 10 chains radius, towards the south-east, from the main line running due south to Southampton.

On the east side of the Portsmouth line there are carriage sidings, which upon this occasion were full or nearly so.

The signal-cabin (Eastleigh West), which contains 94 working-levers, is situated between the station and the point of divergence of the Portsmouth line, and, owing to the sharp curve, and the vehicles standing on the carriage sidings, the train standing at the point of collision was out of the signalman's sight.

The down signals are placed on a signal-bridge near the south end of the station platforms, and all the points and signals were interlocked. The line is level.