

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, Railway Department,
8, Richmond Terrace, Whitehall, London, S.W.,
2nd January, 1905.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 9th December, the result of my inquiry into the causes of the collision which occurred on the 7th December between two goods trains at Anchor Pit Junction, Brighouse, on the Lancashire and Yorkshire Railway.

In this case, as the 10.50 p.m. goods train from Bradford to Wakefield was standing on the down north line at Anchor Pit signal-box, waiting to set back into the Exchange sidings, it was run into by the 10.15 p.m. down goods train from Salford to Hull.

The guard of the Bradford to Wakefield train was killed, and the driver and fireman of the Salford to Hull train were slightly injured.

The Bradford train consisted of a six-wheels-coupled goods engine with a six-wheeled tender with the automatic vacuum brake on all wheels of engine and tender, and the usual hand brake on the six tender wheels, and of 40 waggons and a 10-ton brake van.

The Salford train consisted of a similar engine and tender, 75 loaded waggons, 14 empty waggons and a 20-ton brake van, and weighed 700 tons.

The collision occurred at 2.16 a.m.

Details of damage to permanent way and rolling-stock are given in the Appendix.

Description.

At Anchor Pit Junction there are two pairs of lines running east and west known as the north and the south lines. There is also a double junction between the branch lines from Clifton Road and the north lines, and there are the usual crossings in each direction between the two pairs of lines. There are also up and down loop lines on the north of the north pair of lines, terminating by a junction with the latter lines 214 yards west of the signal-box.

The signal-box is on the south side of the four main lines, and taking its centre as a reference point, the following distances may be noted :—

	Yards.
Outer down north line home signal	338 west.
Trailing points of down loop line from Exchange sidings in the down north line	214 „
Points of double junction between branch lines and north lines	44 „
Down inner home signals bridge	70 east.
Facing points in down north line, leading to down loop line to Bradley Wood	110 „
Down starting signals bridge	370 „

The length of the train from Bradford was 170 yards, and the van was standing just under the inner home bridge of signals 70 yards from the signal-box, and its engine was 130 yards from the down starting signals.

The gradients are unimportant.

The rule regarding the detention of trains at home and starting signals referred to in the evidence is as follows :—

No. 55 (a). In the case of detention at a home, starting, or advanced starting signal, the engine driver must at once sound his whistle; and if still detained, the guard, shunter, or fireman must go into the signal-box and remind the signaller of the position of the train, and remain there until the signaller can give permission to go forward.

(c) The duty of going to the signaller must be performed as under :—

In the case of a goods train with only one guard, when waiting to be crossed on to another line, or to be let into a siding, by the guard.

Special importance is attached to this rule by the Company, who except under special circumstances of fog, &c., do not use the "Blocking back" signal when the line is obstructed *inside* the home signal.

Evidence.

Willie Robertshaw states : I have been in the Company's service 15 years, a signalman 13 years, and at Anchor Pit box 4 years. I came on duty on December 6th at 10.0 p.m. for eight hours, having previously come off duty at 6.15 a.m. I received circuit for the 11.50 p.m. goods train Bradford to Lockwood and Clayton West at 1.35. I received "Is line clear" at 1.35 from Wyke Junction and acknowledged it at 1.36. "Train entering section" was given at 1.41, and the train arrived at 1.59. I brought the train off the branch down past my box on to the down north line so as to be ready to back it into the down loop at the Exchange sidings after a special train from the loop had departed on the south line at 1.58. I gave the setting back signal 2-3-3 to Exchange sidings box at about 1.58 a.m. for the Lockwood train, but it was not acknowledged. I received circuit for the 10.20 p.m. express goods train Salford to Hull at 2.1; the "Is line clear" at 2.12 from Brighouse East box, acknowledged it at the same time, and "Train entering section" was given for it at 2.14. The train passed me on the down north line at 2.16 and ran into the rear of the Bradford to Lockwood goods which was standing on the down north line. I forgot all about the Lockwood train standing on the down north line. I sent "Obstruction danger" signal in all directions at 2.18. The guard of the Lockwood train did not come back to my box in accordance with rule 55. I received a message for relief for driver Pitchforth from the Exchange sidings box at 2.10 and I was engaged despatching this message at the time the Salford to Hull train was signalled. I completed sending the message at 2.14. I sent the message forward to Bradley Wood from which box it would be transmitted to Mirfield locomotive shed. The 11.10 Wakefield to Rose Grove was standing at my up south home signal and the fireman was in the cabin at the time of the collision carrying out rule No. 55. It had arrived at 12.48 a.m. He came to the box a few minutes later. There are seven block instruments and three telephones in my box. The only reason I can give for forgetting the standing train is that I was at the telephone when the express was offered me. It is about 70 yards from the box to the van and I could have seen the tail light of the van if I had looked out of the window.

John Ward states : I have been in the service since 1876 and since 1878 in the Locomotive Department. I have been a booked driver since 1896. I signed on duty at 9.20 p.m. at Agecroft to work the 10.20 p.m. express goods train Salford to Hull. I stopped at Sowerby Bridge and on leaving Sowerby Bridge my train consisted of 89 waggons, most of them loaded, and a weight of 700 tons. On approaching Brighouse, the West distant was on, but was lowered before I had to check the train at all. After that every one of the signals was off. I noticed some red tail lamps ahead before reaching Anchor Pit cabin, but I do not think I was more than 250 yards away when I realised that it was an obstruction on the line I was travelling on. I shut off steam, applied the brake with full force, reversed my engine, and I had got steam against the pistons when I crashed into the van. I saw no person walking about with a lamp at the rear of the standing goods train and I did not see the guard until his body was found under the cylinders of my engine. I had been popping my whistle before hitting the

van. The guard's van was thrown into the street below and other waggons went down the embankment past my engine and a number of wheels got under the engine footplate. All the wheels of the engine were off the rails and one pair of the tender wheels. My engine was badly smashed in front and along the sides. My engine was No. 1145 which is a six-coupled standard goods engine with a six-wheeled tender, vacuum brake on all wheels, and hand brake on the tender as well. I was running at about 25 to 27 miles an hour. Immediately after the accident I went up into Anchor Pit cabin and said to the signalman "Whatever have you been doing with all your signals off?" and he replied "I have forgotten the Bradford-Lockwood." At that time the fireman of the Wakefield to Rose Grove goods train was in the cabin carrying out rule 55. I then went back to the engine to make it safe and to look for the guard and I saw his body underneath my engine cylinders.

James Hanway states : I have been in the service 12 years, a booked fireman six years. I signed on duty at the same time as driver Ward to be his fireman. I came off duty previously at 9.30 a.m. with driver Ward. On approaching Brighouse I noticed the West cabin distant signal at danger, but it was lowered before we had to check the train. I saw all the other signals off to Anchor Pit. The first I knew of anything being wrong was my mate calling out to me, "Stick on, Jimmy!" and he began to pop his whistle, reverse the engine, and apply his vacuum brake, and I should think about the time he called out we should be about 200 yards away from the obstruction. I saw no light or hand lamp moving about the brake van before we hit it. My mate went into the cabin, and I stopped with the engine and threw the fire out.

Thomas Robinson, goods guard, Salford, states : I have been in the service 23 years. I came on duty at 9.5 p.m. on the 6th to work to 7.20 a.m. on the 7th, having come off previously at 9.10 a.m. I was in charge of the 10.20 p.m. express goods train Salford to Hull on 6th December. When we left Sowerby Bridge I had a load of 89 waggons on, including 14 empties, and a 20-ton brake van. I noticed by the waggons buffering up that the distant signal was on for Brighouse West, but as we neared the signal it came off, and the train maintained its speed. On passing Brighouse Station I looked at my watch, as the driver seemed to be gaining speed and all signals were off. Shortly afterwards I felt the effects of the collision. I cannot say whether the driver was popping his whistle or not, as shunting operations were going on in the Exchange sidings and engines were whistling there. I had no previous warning before the collision took place. I was knocked from one end of my brake to the other, and received a slight shock. I went forward to the signal-box and afterwards to the Brighouse East cabin to protect my train.

David Smith states : I have been in the service about 35 years, a driver about 21 years. I signed on duty on the 6th December at 10.35 p.m. at Low Moor to work the 11.50 p.m. Bradford to Lockwood and Clayton West goods train. My train came to a stand on receiving a red light from my guard when we had got the van over the junction points. There were 40 waggons on the train and

a 10-ton brake van, and we were waiting for a signal from the guard to set back, but after standing about 20 minutes, another train ran into our guard's van. The collision moved my engine forward about 40 yards, but it was not damaged at all nor derailed. I signed off duty at 11.5 a.m. previously. I do not know how far I was standing from the starting signal. I did not see it lowered, as I was looking back to get a signal from my guard to set back into the Exchange sidings. If I had seen it come off I should have sent the fireman back to the signal box.

Demaine Berry, states : I have been in the service 20 years, a booked fireman about 13 years. I was working with driver Smith, and signed on duty at the same time to work the Bradford to Lockwood and Clayton West goods train. We were not brought to a stand at the branch home signal, but drawn down on to the north line. We came to a stand when the guard gave my driver a red light. I was looking back for a signal from the guard to set back, and after we had been standing about 15 minutes I caught sight of approaching headlights, but at first only thought they were on the south line, and did not realise that they were on our line until the collision took place. We were standing about 40 or 50 yards from the down starting signal, but I did not hear it come off. I was looking back for a signal from the guard.

Fred Laycock, signalman, states : I have been in the service 27 years, a signalman 24 years, at Brighthouse East box 19 years. I came on duty on

December 6th at 10.0 p.m. for eight hours. I received circuit for the 10.20 p.m. Salford to Hull at 2.3, "Is line clear" at 2.12, acknowledged it at the same time, from Brighthouse West, "Train entering section" given at 2.15, and the train passed me at 2.16, and shortly afterwards I received the "Obstruction danger" signal from Anchor Pit box at 2.18 p.m. I heard a loud noise immediately after the train passed me but thought it came from the direction of the Exchange sidings where shunting operations were being carried on. I was not aware of anything being wrong until I received the "Obstruction danger" signal from Anchor Pit.

George Henry Hobroyd, states : I have been in the service 26 years, a signalman 24 years, at Bradley Wood Junction box 23 years. A special goods train was offered to me from Anchor Pit box on the south line at 2.0 p.m. I acknowledged it at the same time. "Train entering section" signal was given at 2.0, and the train passed me at 2.2. I received the "Is line clear?" for the 10.20 p.m. goods train Salford to Hull on the north line at 2.14, acknowledged it at the same time, and "Train entering section" signal was given at 2.18. The train did not reach my box as it came into collision with another goods train at Anchor Pit. I received the "Obstruction danger" signal from Anchor Pit at 2.20 a.m. The 11.50 p.m. goods train Bradford to Lockwood and Clayton West was not signalled to me at all. The previous train on the down north line entered section at 12.36, and I gave "Out of section" at 12.37 a.m.

Conclusion.

The events leading up to this collision were as follows :—

A goods train from Bradford arrived at Anchor Pit Junction, and was brought from the branch line on to the down north line, and came to a stand clear of the junction points, with the guard's van about 70 yards from the signal-box, in order to set back from the down north line into the down loop and sidings. It arrived at 1.59 a.m., but could not be at once taken into the sidings, so waited on the down north line.

Shortly afterwards, at 2.1 a.m., W. Robertshaw, the signalman on duty at Anchor Pit Junction signal-box, received the circuit message regarding the running of the Salford to Hull express goods train, and this was offered to him from Brighthouse East signal-box, on the down north line, at 2.12 a.m. Forgetting all about the train already standing on that line, he at once accepted the express and lowered his signals, with the result that the express ran into the van of the standing train at 2.16 a.m.

The apparent causes of the lapse of memory on the part of signalman Robertshaw were that, at 2.10 a.m., he was called to one of the telephones in his box to take down a message regarding the relief of a driver of another train, and while engaged in this he was offered the express goods train at 2.12 a.m., which he accepted without thinking, and then went back and completed the transmission of the message at 2.14 a.m.

Robertshaw would have been reminded of the standing train had guard Dewis of that train carried out the rule quoted above, and gone to the signal-box and remained there until his train could be let into the sidings ; unfortunately, he remained in his van, and by so doing lost his life.

The driver of the express had no chance of avoiding the collision. He was running with all signals off at close on 30 miles an hour, with a long and heavy train behind him, consisting of 89 waggons weighing 700 tons, and with no braking power beyond that available on his engine. Owing to the curve of the line it was impossible for him to ascertain that the tail lights of the brake van of the standing train were on an obstruction on the down north line until he was 250 yards from it, and in that distance he could not appreciably diminish speed, and so the collision was a violent one.

He thought at first that the tail lights were on a vehicle in the down loop line to Bradley Wood, the points of which are 40 yards beyond where the van of the Bradford train was standing.

As the engine of the standing train was 130 yards from the advance starting signal, it was possible for the enginemen to have heard the signal wire move at 2.12 a.m. (as the engine was some distance from any sidings where shunting was in progress), but they both state they did not hear the wire or see the signal after it came off, as they were looking back for the guard's signal to set back into the sidings.

The number of trains dealt with at Anchor Pit Junction during the night hours of duty is not very large, 15 passenger trains and 50 goods trains and light engines being about the average for the eight hours, 10 p.m. to 6 a.m.; and the number of telephone messages, apart from the circuit messages, regarding the running of trains, only about two per day, so I do not consider that Robertshaw's duties were excessive in any way.

His unfortunate lapse of memory appears to have been caused by the call to the telephone to transmit a message, and to guard Dewis not having gone to the signal-box to remind him of the train waiting to be let into the sidings.

I have, &c.,
E. DRUITT,
Lt.-Col., R.E.

The Assistant Secretary,
Railway Department, Board of Trade.

APPENDIX.

Damage to Permanent Way and Works.

One set of switches damaged; one crossing damaged; about 36 yards of rails badly bent; crossing timbers and sleepers damaged; about 140 chairs broken.

Damage was also done to two of the signal posts and to the cast-iron parapet of Clairroyd occupation under-bridge.

Damage to Engine 1,145 working the Hull Train.

Both engine main frames bent at front end; engine buffer-plate bent; both sand-boxes, buffers, cylinder taps, vacuum cylinder and brake pipes, brake gear, right-hand driving spring, feed pipes, anchor links of valve gear, and head lamps broken; both outside coupling rods and left-hand connecting rod bent; footplating badly bent at the front.

Damage to Tender of above Engine.

Two bearing springs and one intermediate buffer broken; hole made in back of the water tank; one footstep broken.

Damage to Waggon Stock.

No. 23,685, Lancashire and Yorkshire, covered goods*; No. 28,545, Lancashire and Yorkshire, covered goods*; No. 16,130, Lancashire and Yorkshire, covered goods; No. 6,684, Lancashire and Yorkshire, covered goods; No. 18,129,

Lancashire and Yorkshire, covered goods; No. 29,268, Lancashire and Yorkshire, waggon, long side doors*; No. 3,527, Lancashire and Yorkshire, waggon, long side doors; No. 10,220, Lancashire and Yorkshire, timber; No. 8,971, Lancashire and Yorkshire, low goods; No. 15,864, Lancashire and Yorkshire, low goods*; No. 1,099, Lancashire and Yorkshire, low goods*; No. 21,960, Lancashire and Yorkshire, low goods; No. 14,910, Lancashire and Yorkshire, low goods; No. 19,383, Lancashire and Yorkshire, low goods; No. 21,928, Lancashire and Yorkshire, low goods; No. 8,751, Lancashire and Yorkshire, low goods; No. 11,087, Lancashire and Yorkshire, low goods; No. 20,814, Lancashire and Yorkshire, low goods; No. 7,913, Lancashire and Yorkshire, low goods; No. 10,587, Lancashire and Yorkshire, 20 ton locomotive coal; No. 24,783, Lancashire and Yorkshire, high goods; No. 26,041, Lancashire and Yorkshire, high goods; No. 28,362, Lancashire and Yorkshire, low goods; No. 24,432, Lancashire and Yorkshire, goods brake van*; No. 66,930, North-Eastern, van; No. 7,007, Great Central, covered goods; No. 37,291, Great Northern, high goods; No. 8,564, Great Northern, covered goods; No. 102, Hull and Barnsley, high goods; No. 3,056, Hull and Barnsley, high goods; No. 2,513, Hull and Barnsley, high goods; No. 3,482, Hull and Barnsley, high goods; No. 1,548, Hull and Barnsley, van; No. 923, Buxton Lime Firms, Buxton; No. 310, Low Laithes Colliery, Flashdyke; No. 446, Transaram Colliery.

Those marked with an * were on the Bradford to Wakefield train, the remainder on the Salford to Hull train.

Printed copies of the above Report were sent to the Company on the 31st January, 1905.
