

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, Railway Department,
28, Abingdon Street,
London, S.W. 1.
10th February, 1919.

SIR,

I have the honour to report, for the information of the Board of Trade, in accordance with the order of the 15th January, the result of my inquiry into the cause of the collision which occurred on the 7th January, about 9.37 a.m. near Cornholme, on the Lancashire & Yorkshire Railway.

In this case the 7.55 a.m. passenger train (from Preston to Todmorden) collided with the rear of the 7.15 a.m. goods train from Rose Grove to Healey Mills. The guard of the goods train unfortunately had a leg broken, but only minor injuries resulted to two passengers and to the guard of the passenger train.

The goods train comprised 59 wagons and a 20-ton brake-van, and was drawn by goods engine No. 697, type 0-8-0, with 8-wheeled tender. The latter was fitted with the vacuum brake (pressure 25 in.), working blocks on all engine and tender wheels, and the brake-van was sand-fitted.

The passenger train included radial side-tank engine No. 653 (Type 2-4-2), with the following 8-wheeled bogie stock:—

No. 2884 third-class brake.
No. 476 third-class coach.
No. 807 composite coach.
No. 955 third-class brake.

This train was fitted throughout with the vacuum continuous brake, working blocks on the four coupled engine and all passenger wheels.

The engine and leading vehicle of the passenger train, and 6 wagons and the brake-van of the goods train, were derailed. One goods wagon was completely broken up, whilst the brake-van and 8 other wagons were more or less seriously damaged. The permanent way was badly wrecked, and both up and down lines blocked.

Description.

The collision took place between Portsmouth and Cornholme Stations on the Company's main line between Burnley (Manchester Road) and Todmorden. In the vicinity, the general direction of the double line is from west to east.

The block sections concerned, taking them from west to east, and the intervals between them, are as follows:—

Copy Pit to Portsmouth	..	..	..	1 mile	144 yards.
Portsmouth to Cornholme	..	..	..		1558 "
Cornholme to Stansfield Hall	..	..	..	2 miles	84 "

There is an intermediate signal-box at Stubble Siding, between Portsmouth and Cornholme, which was closed at the time.

In addition to the up and down lines at Portsmouth, there is an up running loop, which terminates by a trailing connection with the up main line west of the station platforms.

Portsmouth signal-box is placed south of the railway and west of the station. The distances to the under-mentioned signals, etc., are approximately as follows:—

Portsmouth up starting signal	..	..	..	..	201 yds. E.
Stubble Sidings box	..	..	..	..	620 " E.
Up outer distant for Cornholme	..	..	..	..	641 " E.
Up inner distant for Cornholme	..	..	..	..	951 " E.
Point of collision	..	..	..	..	1177 " E.
Up home signal for Cornholme	..	..	..	..	1505 " E.

The gradient between Portsmouth and Cornholme in the up direction falls sharply at an inclination of 1 in 65. From Stubble Sidings box the railway eastward is laid on a tangent for 437 yards, and thence on a curve southwards with a radius of $34\frac{1}{2}$ chains. Between Stubble Sidings and the up inner distant signal for Cornholme, the railway is on embankment. Thence to the site of the collision it is half in cutting, on the north side, and half in bank. The enginemmen of a down train have a good view, in fair weather, of a vehicle standing at the spot where the collision took place from a distance of at least 200 yards.

Conclusion.

On the night of the 4th January, the overhead wires at several points on the Company's system were brought down, in consequence of a heavy fall of snow. Block telegraph and telephone communication was thereby interrupted between Portsmouth and Cornholme, as well as on other sections in the neighbourhood. Westward to Copy Pit and Towneley, telegraph and telephone communication was maintained. From about 8.30 p.m. on the night of the 4th January, therefore, traffic between Portsmouth and Cornholme was worked under Double-line Block Telegraph Regulation No. 25 (*vide* Appendix). Outdoor fixed signals were in operation, as the wires were not affected.

The up traffic dealt with at Portsmouth after 8.55 a.m. on the 7th January was as follows:—

Goods train arrived on up loop, left for Cornholme 8.58 a.m.

7.10 a.m. passenger train (Preston to Leeds) arrived on main line 9.16, left for Cornholme 9.17.

Rose Grove goods train arrived on up loop 9.2 a.m., left for Cornholme 9.26 a.m.

7.55 a.m. passenger train (Preston to Todmorden) arrived on main line 9.34, left 9.35 a.m.

Light engine arrived on the up loop 9.28. left 9.39 a.m.

At Portsmouth the minimum intervals between the despatch of following up trains, under Regulation 25 (*b*) are, three minutes after a passenger and seven to eight minutes after a goods. The departure times of the above-mentioned trains show that due effect was given to this regulation in this respect.

Signalman Ford at Portsmouth stated that all these trains were brought to a standstill at his post, and the drivers duly warned, and advised of the circumstances, in accordance with the Regulation. At 9.20 he inquired from Copy Pit as to the whereabouts of the 7.55 a.m. passenger train, and was told it had not reached Towneley, about 5 miles distant. Communication west of Towneley had been interrupted. He therefore decided to allow the Rose Grove goods train, which had been waiting on the up loop, to proceed in front of the 7.55 passenger train, which was sectioned at 9.32, and arrived at 9.34.

Signalman Wood, at Cornholme, after authorising the 7.10 a.m. passenger train to proceed towards Stansfield Hall, allowed the Rose Grove goods train to draw forward from his up home signal. This train came to rest with the engine and six front vehicles east of his post, and waited authority to go forward. The train stood for about 8 minutes before the clearance signal for the 7.10 passenger was received from Stansfield Hall. About the same time, i.e., 9.37 a.m., Wood looked out along the railway towards Portsmouth, and saw the 7.55 passenger train approaching. He had barely time to shout a warning to the driver of the goods before the collision took place.

All witnesses agreed that the weather was fine and clear. The evidence of the enginemmen of the Rose Grove goods train was that, though the rail was bad, it was not necessary to stop to pin down wagon brakes, and that they had no difficulty in controlling the train without this assistance.

Driver Park drove the 7.55 a.m. passenger train, Preston to Todmorden, from the left of the footplate, and was travelling chimney first. He admitted that his train was stopped at the inner home signal for Portsmouth, and again by a red flag at the Portsmouth Signal-box. He did not himself hear what the signalman said, but was told by his fireman (Wyke), who was nearest to the box, that the block was out of order, and they were to proceed with caution. Park declared that after leaving Portsmouth he did not allow the speed of the train to exceed 10 miles an hour. In the vicinity of Stubble Sidings, the smoke and steam from the safety valve, was hanging badly in front of the engine and over the glasses. For this reason he did not see any obstruction in front of him until his fireman

called out to him to stop. He immediately applied the brakes, but was too late to prevent the collision. Although his glasses were obscured by steam, he did not look outside the framing of the cab, to secure a better view of the line before him. He estimated he would not take more than 30 yards to stop a train travelling at the speed he was going.

His fireman, Wyke, who was also occupied in observing the signals, did not see the brake-van of the train before them until 20 yards distant. After shouting to his mate and opening his sanders, he jumped from the footplate before the collision took place.

The evidence of driver Knowles, who was in charge of the light engine, which followed the passenger train from Portsmouth, was to the effect that he saw the rear of that train at a distance of 350 yards and stopped his engine.

The evidence makes it clear that Regulation 25 was properly carried out in this case by signalman Ford, both as regards stopping and warning the driver of the passenger train, and in respect of the prescribed time interval. Driver Park admitted having received through his fireman the warning, and knew that he was proceeding into a section without the protection of the usual block signals, and that he must proceed cautiously in order to stop short of any obstruction. The weather was clear, and there was nothing in the general atmospheric conditions to prevent Park, if he had been exercising due caution and observing the line properly, from seeing the brake-van of the goods train in ample time to stop his train before striking it.

I am forced therefore to the conclusion that the responsibility for the collision rests with Driver Park. He had been on duty about $5\frac{1}{4}$ hours, and had had an interval of rest of about $12\frac{1}{2}$ hours before coming on duty.

I have, etc.,

J. W. PRINGLE.

The Assistant Secretary,
Railway Department,
Board of Trade.

APPENDIX.

Block Telegraph, &c., Regulation No. 25

25. *Failure of Instruments or Bells.*—(a) In the event of any failure of the Instrument or Bells, so that the necessary signals cannot be forwarded and received, no train must be allowed to pass a signal-box into that Section of the Line where the failure exists, without having been previously brought *to a stand*, and the Engine Driver and Guard or Guards advised of the circumstance. The Engine Driver must then be instructed to proceed cautiously, in order to stop short of any obstruction there may be on the Line. Where there are no Speaking Instruments or when the Speaking Instruments have failed, the Engine Driver of the first train thus warned must be instructed to stop at the Signal Box in advance, and inform the Signaller there that the Bell or Instruments have failed at the Signal Box in the rear.

(b) No train may be allowed to follow another train until the time usually taken by the preceding train to clear the Section has elapsed (in no case with a less interval than *three minutes*). When a tunnel intervenes in a Block Section, an interval of not less than *ten minutes* must be allowed between two trains unless the Signaller can satisfy himself that the Tunnel is clear ; in every case the Engine Driver must be stopped and cautioned as above directed. Steps must be immediately taken to have the Telegraphic Apparatus put into working order, and when the failure has been remedied, and the instruments are again in working order, the Engine Driver of the last train allowed to proceed through the Section cautiously must be supplied with a written notice to that effect, and instructed to stop at the next Signal Box then open, and hand the notice to the Signaller. The Signaller receiving this notice must give the "train out of section" Signal to the Signal Box in the rear, and the signalling must then be recommenced in accordance with these regulations.