

LANCASHIRE AND YORKSHIRE RAILWAY.

Public Safety and General Purposes Department,

Ministry of Transport,

7, Whitehall Gardens, London, S.W. 1.

7th June, 1921.

Sir,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order of the 1st April, the result of my Inquiry into the circumstances of a collision which occurred at about 7.58 p.m. on the 30th March, at Dobbs Brow Junction, near Daisyhill, on the Lancashire and Yorkshire Railway.

In this case, the 6.25 p.m. up express passenger train from Blackpool to Manchester, when passing through Dobbs Brow Junction, collided with the end vehicles of an empty special goods train, which was being shunted clear of the junction to permit the express to pass.

125 passengers in the express subsequently complained of shock and minor injuries. Fortunately, the front coach of this train was running on trial, and was therefore empty. The engine, tender and four coaches of the express were derailed; the engine and the two front coaches being badly damaged. The remaining stock of the train, with the exception of the last vehicle, was also damaged. There was no telescoping.

Three of the goods vehicles were wrecked and one was derailed. Considerable damage was caused to the permanent way.

The passenger train engine was No. 1409, 4-4-2 type, with 6-wheeled tender; weight in working order, 89 tons 8 cwt. It was fitted with the vacuum automatic brake, working blocks on the coupled, trailing, and tender wheels. The passenger train comprised ten 8-wheeled bogie vehicles, of which the first, a corridor first class vehicle, was empty. It was fitted throughout with the vacuum automatic brake, working blocks on all wheels, and weighed, unloaded, 242 tons 14 cwt. The total weight of the engine and loaded train was, therefore, some 335 tons, and its length 208 yards. The goods train was composed of one loaded vehicle marshalled next to the engine, 64 empty vehicles and a brake-van. It was drawn by engine No. 1357, 0-8-0 type, with 8-wheeled tender; weight in working order, 108 tons 5 cwt. The total length of this train was some 480 yards.

It was a dark but clear evening.

Description.

The general direction of the main line at Dobbs Brow Junction is East (up to Manchester) and West (down to Liverpool). It consists of four roads; the up and down slow pair being situated on the north side of the up and down fast pair.

The branch line from Blackpool is double and approaches the main line from the north-west. Before reaching the main line it bifurcates, by a double junction, into two pairs of roads, which, corresponding to the fast and slow main line roads, join the main line in the neighbourhood of Dobbs Brow signal-box, as a pair of double junctions.

The box is situated on the south side of the main line and just to the west of the junction points. Trailing crossovers between each pair of roads are located immediately to the east of the junctions, and there are trailing connections leading from both the down roads to Eatoock's Colliery sidings, situated south of the line and further to the east.

The branch line is in cutting and curves northwards from the junction. A road over-bridge crosses this line a few yards west of the double junction, and beyond this bridge are two others. The curve extends to the second of these over-bridges, and from that point onwards, beyond the third bridge, where the up distant signals are located, the line is straight.

The next boxes, to the west of Dobbs Brow Junction, are, on the branch line, Hindley and Blackrod Branch Junction; and, on the main line, Crow Nest Junction. On the east side, the next post is Eatoock's sidings box, but this was closed. The post beyond, some $2\frac{1}{2}$ miles from Dobbs Brow, is Atherton Goods Yard box.

Measured from the centre of Dobbs Brow signal-box, the approximate distances to the relevant signals and connections are as follows :—

| | |
|--|----------------|
| Up fast starting signal | 225 yards East |
| Trailing crossover points No. 27 in the up slow road, and those of similar crossover in the up fast road | 113 yards " |
| Corresponding crossover trailing points in the down slow and fast roads | 40 yards " |
| Trailing junction points No. 23, up branch to up slow main | 37 yards " |
| Facing junction points No. 24, down slow main to down branch | 30 yards " |
| Trailing junction points No. 16, up branch to up fast main | 22 yards " |
| Facing junction points No. 18, down fast main to down branch | 17 yards " |
| Catch points No. 24, in the down slow branch line | 80 yards West |
| Centre of diamond crossing of branch line double junction (approximately the point of collision). | 110 yards " |
| Up facing points No. 15 of branch line double junction | 164 yards " |
| Dobbs Brow branch line up home signals for fast and slow lines (on bracket post), with distant signal arms for Eatock box below each ... | 177 yards " |
| Down trailing points No. 17 of branch line double junction | 187 yards " |
| Centre of first over-bridge | 214 yards " |
| Centre of second over-bridge | 437 yards " |
| Centre of third over-bridge | 934 yards " |
| Dobbs Brow branch line up fast and slow distant signals on bracket post | 945 yards " |

Report.

The goods train was booked from Aintree sorting sidings to Eatock's Colliery sidings. It arrived at Dobbs Brow from Crow Nest Junction on the up slow main line at 7.22 p.m. Driver Robinson stopped at the box and received verbal instructions, from signalman Shufflebotham, to draw his train ahead clear of the crossover trailing points No. 27 in this road, to unhook, to proceed to Atherton, and to return on the down slow line.

Shufflebotham's intention was to shunt this train back via crossover No. 27 on to the down branch line, where it was to wait (until 8.0 p.m.) clear of the branch junction points No. 17 till the 6.25 p.m. up express from the branch, and following up and down stopping trains (due respectively at 7.53 p.m. and 7.58 p.m.) on the slow main lines, had passed. The train was then to be propelled into Eatock's Colliery sidings. Shufflebotham sent the "blocking back" signal to Hindley and Blackrod Branch Junction at 7.24 p.m., and driver Robinson left for Atherton at 7.27 p.m. There was no unnecessary delay in crossing the engine to the down slow line there, and it arrived again, on this line, at Dobbs Brow at 7.46 p.m. According to Robinson's evidence, he then backed his engine on to the train, via No. 27 crossover, and about two minutes later received instructions from guard Bolton, who had already been advised by Shufflebotham, to draw clear on to the branch line. The shunting signal at the crossover was cleared for this movement, and, judging from the evidence, at about 7.49 p.m. Robinson commenced drawing the train on to the down slow line and so through the junction on to the down branch.

Shufflebotham watched the train pass his box, but lost sight of it at about the catch points No. 24, 80 yards from the box, viz., 107 yards short of the junction points No. 17. No tail light had been fixed on the last vehicle. He further stated that he could not see the outline of the bridge, 20 yards beyond points No. 17.

The catch points are 193 yards from points No. 27 in the up slow main line. The length of the train was about 480 yards. At shunting speed, it may be assumed that the last vehicle would take some five minutes to reach the catch points, say, at 7.54 p.m. In another minute it might have been expected to have cleared the junction points No. 17. Shufflebotham had been advised by telephone of the situation of the express at 7.40 p.m., and knew that it was being held up and that he was short of time. He also had to deal with the two stopping trains immediately after the express. He stated

that he pulled No. 17 point lever, "and found no difficulty in doing so." He added, that "to make sure, I put the lever right back again in the frame and pulled it once more, and found it came over quite easily. I therefore assumed that the train was clear."

He stated that he sent the "out of section" signal to Atherton box at 7.54 p.m. when the train had cleared points No. 27 in the up slow line, that he cancelled the "blocking back" signal, and also accepted the express at the same time. The booking of the "blocking back" signal at 7.58 p.m., he stated, was a clerical error.

The above times and those mentioned subsequently refer to Dobbs Brow. In comparing the relative times at Atherton and Hindley and Blackrod Junction boxes, it would appear that the clocks at these two posts were about two minutes slower than that at Dobbs Brow. The clearance of the "blocking back" signal, however, and the acceptance of the express are booked at 7.53 p.m. at Hindley and Blackrod Junction. I am therefore led to think that the corresponding Dobbs Brow timing should be nearer 7.55 p.m. than 7.54 p.m.

According to the calculation of the time the goods train passed the catch points, I should say it cleared points No. 27 about 7.52 p.m. This does not accord with Shufflebotham's corrected statement as to when the "blocking back" signal was cleared. His booking of this time as 7.58 p.m. confirms my impression that he was not keeping up his book properly at the time, and his evidence in this respect is therefore open to some doubt. I do not think, however, that the evidence reveals any disregard of rules pertaining to the proper acceptance of the express.

Having pulled No. 17 points, he set the road, Nos. 15 and 16 points, and cleared his signals for the express. The goods train was not clear of the junction, and, according to guard Bolton's estimate, only 54 wagons had passed over points No. 17. The last wagon (the only loaded one) of the remaining 12 would then be standing on the diamond crossing. From the results of the accident I should say that this was the position at the time (7.58 p.m.) of the collision. The passenger engine, after derailment occurred, carried this one wagon in front of it, for about 160 yards, the distance the passenger train ran derailed.

Jeffrey, the driver of the express, stated that he was brought to a stand at Hindley and Blackrod Junction home signal, and was permitted to proceed to the starting signal which was cleared as he drew up to it. He observed the Dobbs Brow signals clear, and was travelling at about 15 miles per hour when the collision occurred. He did not see the vehicles in front of him; in fact, owing to the curvature of the line, this would have been impossible, I think. He applied his brake after the collision. He stated that had he not been checked at Hindley and Blackrod Junction, his normal speed through Dobbs Brow would have been 25 miles per hour. Having regard to the falling gradient here, I think it not unlikely that his speed would have been considerably more than this, and the results of the accident might have been very serious indeed.

2. It is difficult to say definitely whether the goods train was moving at the time of the collision or not. From the fact that the signalman was able to manipulate No. 17 points lever, and that there were no marks on the blades indicating that these points had been run through in the trailing direction, I think the train had come to a stand. Guard Bolton was definitely of opinion that this was so, whereas driver Robinson stated that he had almost stopped when the express passed him. Guard Meace, in the express, also said that he observed that the train was moving slightly, as he particularly took notice of it because his train had been held up at Hindley and Blackrod Junction. Had the train been moving, I cannot think that Shufflebotham would not have felt it while pulling his lever over twice, in spite of the fact that the points are 187 yards from the box. The Company's officials subsequently experimented with these points, and, I understand, they found that with an interval of 10 feet 6 inches between wheels, the points could be shifted.

Guard Bolton stated that when signalling to driver Robinson he was standing between points No. 17 and the first bridge. He found that the train had stopped short of these points, so he "followed up to a few yards short of the next bridge." He could not say whether the driver could see him. The line is on a curve here, and the distance between the first and second bridges is some 210 yards. The line beyond the second bridge is straight and the engine must have been standing about 125 yards beyond this bridge. Bolton stated that Driver Robinson whistled in acknowledgment of his signal to draw further ahead, but that before the train moved forward again, the collision occurred. Bolton was in the six-foot way between the two trains as the express passed.

Driver Robinson stated that after drawing up the branch line a considerable distance at walking pace, he lost sight of Bolton's hand signal. He then observed the signals cleared for the express and stated that he "felt satisfied that we were clear, and therefore brought the train to a stand." Apparently some two minutes then elapsed before the express passed Robinson, and I assume that it was during this interval that Robinson again, for a brief moment, saw the guard's signal, and, contrary to the guard's statement, he said he again drew forward a short distance.

Conclusion.

3. It is difficult to connect up, in any certain sequence, precisely what did happen in the later stages of this shunt. Undoubtedly, driver Robinson lost sight of guard Bolton's signal, and pulled up with his train foul of the junction points. Bolton realised this, but evidently was not sufficiently far enough round the curve to regain proper signalling communication with Robinson before the arrival of the express. Bolton had made no signal to Shufflebotham in the box, and the latter admits this and that he assumed that the goods train was clear.

Signalman James Shufflebotham is, I consider, primarily and seriously to blame for this accident. The shunting movement was not a usual one, and I think, on account of the length of the train and the fact that the engine had to run to Atherton and back, the movement took longer to carry out than he anticipated. No doubt he wished to avoid delaying the express, and this led him to take undue risks. The responsibility, however, clearly rests upon him. He should have waited to receive advice by signal from Bolton that the goods train was clear before acting in regard to the express.

He gave it as his opinion that some of the wagons of the goods train had become uncoupled and had stopped foul of the junction. Bolton, however, was satisfied that this was not the case, and, having regard to all the circumstances, I certainly think that Bolton was in a better position to judge of this, and his evidence on this point may be accepted. Signalman Shufflebotham is 31 years of age. He joined the Company's service in 1915 as a point cleaner, becoming signalman in 1916, and has served as such at Dobbs Brow for 18 months.

In regard to guard John Bolton, I cannot credit his statement that he followed up the goods train to a point a few yards short of the second bridge; even if he had followed up to a point half-way between the bridges, I think there is little doubt that his signals could have been seen by his driver. In a case of this kind, it is of first importance that a guard should retain signalling touch with his driver. The location of the branch line on a curve and the intervening bridges made this difficult, but I do not think that the circumstances should have rendered this co-operation impossible had the guard's duties been actively performed. I think Bolton was leaving matters too much to chance. For this reason I hold that he must also accept a measure of responsibility for this accident. I do not think, in the circumstances, that he could have been expected to display a danger signal to the express, or if he had, that such signal would have prevented the accident. He is 55 years of age and has been a guard for 35 years.

I do not consider that any responsibility attaches to either driver.

4. For the reason that the movement of the goods train was looked upon purely as a shunting operation, I understand that the Company do not consider that a tail light should have been fixed on the vehicle next the engine, after the engine had left the train. It should be remarked, however, that the train was occupying the main line for half an hour, and that subsequently, after further occupation of the branch line, it was the intention to propel it back through the junction into the Eatock sidings. Undoubtedly, a tail light would have given the signalman a better indication of the position of the train, and, in spite of the fact that the provision of such a light is not provided for in the Railway Clearing House Rules and Regulations, I think that, in the special circumstances of this case, it is a matter for the Company's further consideration.

The junction is not fitted with fouling bars. One or more are necessary to safeguard similar movements in future, and I understand that the Company have this matter under consideration. They should be asked to report what action they propose taking.

I have the honour to be, Sir,
Your obedient Servant,

A. MOUNT, Major, R.E.

The Director General,
Public Safety and General Purposes Department,
Ministry of Transport.