

LANCASHIRE AND YORKSHIRE RAILWAY.

Ministry of Transport,
Public Safety and General Purposes Department,
7, Whitehall Gardens,
Westminster, S. W. 1.

17th November, 1920.

Sir,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order of the 28th September, the result of my Inquiry into the circumstances of the accident which occurred at about 8.50 a.m. on the 25th September, at Whitehouse South Junction, Preston, on the Lancashire and Yorkshire Railway.

In this case, the 8.10 a.m. Blackburn to Preston down passenger train, travelling at considerable speed on the main line, collided with a light engine which was standing on that line. Twelve passengers received shock and various injuries, which were not of a serious character. Nine of these passengers were boys travelling to school in the rear compartment of the front coach. The driver of the passenger train was seriously injured, and the fireman severely shaken.

The passenger engine, which was running bunker leading, parted from the train on coming into contact with the light engine (chimney end). Both were considerably damaged. Fortunately neither engine was completely derailed, and, becoming locked together, they travelled for a distance of 218 yards from the point of collision.

The train consisted of four 8-wheeled bogie coaches, with a 4-wheeled milk truck in rear. The front coach was completely demolished, and the three other bogie coaches were damaged and left the road. The vehicles travelled 76 yards after the collision.

The light engine was No. 625, 0-6-0 type with a 6-wheeled tender; weight in working order 72 tons 12 cwt. The passenger train engine was No. 1157, 2-4-2 radial tank type; weight in working order 55 tons 19 cwt. It was fitted with the vacuum brake working blocks on the coupled wheels, and on all wheels of the train, which weighed approximately 153 tons.

Judging from the evidence as a whole, the fog, to which this accident was partly attributable, was low lying, of varying density and drifting in character. There was no rain.

Description.

The general direction of the main line at Whitehouse South Junction is north (Preston) and south (Preston Junction and Blackburn). The down line, on which the accident occurred, lies to the west of the up line. The double line branch to Hutton and Southport takes off in a westerly direction. Both the main line and the branch line are on bank.

The junction signal-box is located on the west side of the main line some 30 yards south of the junction points. This box has recently been shifted from the east side of the line to the present site, and was brought into use on the 13th September. No alterations were made in the locking or levers, but the change much improved the view from this post. A trailing crossover is located just south of the box. The main line falls from the direction south to north, through Whitehouse South Junction, on a gradient of 1 in 110.

The light engine was standing on the down main line just clear of the junction at a point 127 yards north of the box. The passenger train was running under clear signals at about 30 miles per hour when the collision occurred, with the result already described.

The relevant signals, points, etc., and their distances from the centre of Whitehouse South Junction signal-box are approximately as follows:—

| | | |
|--|----------|---------|
| Final position of the engines | 345 yds. | North |
| Front coach of passenger train after accident | 191 | " " |
| Point of collision | 127 | " " |
| Rear of passenger train after accident | 109 | " " |
| Junction crossing of up branch line with down main line | 82 | " " |
| Double junction points; down road set normally for the branch, and the up road for the main line | 30 | " " |
| Trailing crossover (No. 9) points in down line | 67 | " South |
| " " " " " up " " " " | 122 | " " |
| Main line (No. 2) and branch line (No. 5) home signals on bracket posts on west side of main line | 132 | " " |
| Main line (No. 1) and branch line (No. 4) distant signals on bracket posts on west side of main line | 992 | " " |

Conclusion.

1. The case is, in the main, quite clear. Light Engine No. 625, Driver Clarkson, travelling on the up branch line, South-bound for Lostock Hall, arrived at Whitehouse South Junction at about 8.30 a.m. Signalman Fletcher had offered the engine forward to Preston Junction, but it was not accepted, and as it arrived at the box on the up main line he gave Clarkson instructions to run via the crossover and back on to the branch line. He wished to effect this movement in order to clear the up main line for the 8.0 a.m. train from Southport off the branch. He could not shunt the engine back on the up main line in the wrong direction, as he had a following train on this line from Preston. No train was due on the down branch line till 10.7 a.m., so, in view of the fact that he would have to deal later with the 8.10 a.m. Blackburn train on the down line, the action Fletcher proposed taking was in order.

Clarkson understood his orders, and, after clearing the south-end crossover points, he whistled. He was then some 125 yards from the box and out of sight, owing to the fog. On seeing the crossover points set, he backed past the box on the down main line and came to a stand—again out of sight due to the fog—on this line clear of the junction. This movement was made at about 8.32 a.m., and Fletcher noted in his train book "Shunted on to branch right road." Fletcher said that Clarkson whistled on clearing the junction, and he was under the impression that the engine was standing on the branch line. In fact, he then placed a lever clip on No. 5. the branch line down home signal lever.

The down line junction points, No. 11, lie normally set for the branch road. The lever operating them was, therefore, in the normal position in the frame when Fletcher drew lever No. 12 operating the up line points for the passage of the light engine from the branch. Before the light engine shunt could be made Fletcher had to replace lever No. 12 and operate the crossover No. 9. In addition to this, he must have pulled lever No. 11 and therefore made his initial mistake.

Clarkson realised that he was in the wrong position, and immediately sent his fireman, Walker, back to the box "to tell the signalman that he had put us across on to the main line instead of on to the branch." Clarkson said that some eight minutes after his fireman left the footplate, he also got down to examine his axle box wedges, and soon after that he heard the 8.10 a.m. train approaching. He stood clear, and estimated that he first saw the train only 20 yards away and that it was travelling at 30 miles per hour. The train was booked as passing the box at 8.50 a.m., so that the light engine must have been standing in this position for nearly 18 minutes. Clarkson evidently underestimated the time.

Had it not been for the fog, Fletcher would, of course have seen the engine on the main line, and would have had plenty of time to correct his mistake. There were no track circuits locking the signals in rear, or giving him a visual indication in the box that the line was occupied.

Fireman Walker understood the situation, and arrived at the box at about 8.35 a.m. He stated that he gave the message to Fletcher, who replied "All right mate, I know." At 8.39 a.m. the up Southport to Accrington express from the branch line passed the box. This train necessitated the setting of points No. 12. If Fletcher had not already replaced lever No. 11 to the normal position after the passage of the light engine, he would have had to do so then, in order to draw No. 12 lever. This in itself should have reminded him of his error. If, however, as is more probable, he had immediately replaced points No. 11 and the crossover No. 9 to their normal position, after the passage of the engine, then, in view of the fact that he had already placed a clip on the branch line home signal, his action can only be explained by assuming that he had forgotten for the moment the normal lie of the branch line facing points.

At 8.42 a.m. the up main line Preston to Ormskirk passenger train passed. After the passage of the latter train Fletcher had to leave the box to attend to the detonator placer. The detonator had failed to explode under this train. He returned to the box at about 8.45 a.m. He then pulled off the signals for the down Blackburn to Preston train. It will be noted that Fletcher was fully occupied between 8.32 a.m. and 8.50 a.m. Walker's information as to the position of the engine, were it given, evidently left no impression of impending danger in Fletcher's mind.

Walker stated that he accompanied Fletcher from the box as he wanted "to see how the fog signal was attached to the machine." He did not notice if there were any clips on any of the levers, nor did he enquire of Fletcher if he had made use of one. Walker further stated that, after being in the box about 5 minutes, he left it in order to relieve

nature, and that as he was returning to the box, he met his driver proceeding to the cabin after the accident. On the other hand, Fletcher stated that Fireman Walker told him nothing in respect of the position of the engine, and he did not ask Walker where it was standing. Fletcher added that the only conversation they had, related to the "weather and the working of the fog instruments." He explained that the reason for this conversation was the failure of the detonator under the Preston Ormskirk train. He stated that Walker was still in the box when he returned after fixing the detonator, and that he "left the box just previous to the accident." If this were so, Walker must have been in the box for a matter of at least 10 minutes and not 5 minutes as Walker affirmed.

There are further discrepancies between the three men's evidence as to whether their conversation after the accident did or did not take place in the signal-box, and as to what was actually said. Fletcher's account of the conversation shortly was that he spoke to Driver Clarkson, who was the first to arrive after the accident, from the cabin window. Clarkson informed him that the passenger train had come "full tilt into us, and we are on the main line"; and added that "I sent the fireman to tell you we were on the main line." Fletcher said he remarked the fireman had not told him, and added that the fireman, who was then present, replied "I did tell you." Fletcher's evidence therefore, sums up the position as between himself and Walker, and he pointed out that even if he had only realised the position of the light engine after Walker came to the box he would have had plenty of time to make another shunt.

2. Driver Calvert of the passenger train was not well enough to attend the Inquiry, but his fireman Toole gave evidence. It was the first time that he had been further than Preston Junction, so he did not know the road. He observed, however, that the signals were clear. He estimated that the speed of the train was 25 to 30 miles per hour. I gather that the train was running 8 minutes late, but Toole said they were not trying to make up time. Calvert apparently saw the light engine first and shouted to Toole who observed it, he estimated, at not more than 20 yards away. When he saw the engine, Calvert had shut off steam, but he does not remember when the brakes were operated. His opinion is that when Calvert shouted to him he had applied the brake. It may therefore be taken, that the regulator was closed and the brake applied when the collision occurred.

3. The course of the Inquiry naturally led me to investigate as carefully as possible, the fog conditions prevailing at the time. Fireman Toole said that during the run, Driver Calvert had referred to it, and that they were keeping a sharp look out. He estimated that they could only see their signals 20 to 30 yards ahead. He said that the only fog signal they passed over was on leaving Blackburn carriage sidings. At Hoghton the fog was clearer, and he thought it was going to lift, but it became worse again after leaving Hoghton. At Bamber Bridge it was, he thought, as thick as it was at Blackburn. He had forgotten what it was like at Whitehouse Junction, but his estimate of his view of the light engine here indicates to a certain extent the intensity.

Guard Rowkin's evidence was more definite. He booked the weather as a thick fog at Blackburn, but it was dispersing. At Bamber Bridge and at Preston Junction he could see about 60 yards, and at Whitehouse Junction 40 yards. After the accident, at about 8.35 a.m. the fog lifted and visibility was extended, apparently, to at least 100 yards.

The signalman at Whitehouse North Junction, the next box on the main line, recorded the weather as misty, and he could see the up and down home signals, 100 yards and 150 yards away respectively. He did not, therefore, consider it necessary to call out fogmen.

Conditions were recorded at 6.0 a.m. as foggy by the signalman at Whitehouse West Junction, the apex of the triangle and the next post on the branch line. It shewed improvement between 8.30 and 9.0 a.m., and was not bad enough to call for the services of fogmen, inasmuch as his "object" signal, at some 60 to 70 yards, was visible.

William Fisher, the driver of the 7.52 a.m. Blackpool to Accrington up passenger train, left Preston at 8.48 a.m., and in passing Whitehouse North Junction Box, noticed that the Whitehouse South Junction distant signal was at danger. He had shut off steam and was preparing to stop at the home signal, when he noticed some boys on the line in front of him "rushing across his buffer plank." He said that there was a very heavy mist, and that he could not see more than 20 yards from the footplate. He pulled up promptly with his engine driving wheels opposite the wrecked bogie coach, which actually fouled the right hand step.

Signalman Fletcher said in regard to the fog, that when he came on duty it was only a slight mist. At the time of the accident, it was drifting, and "one minute it would be up and another minute it was down." As already explained, he could not see the light engine when it was standing on the main line clear of the junction nor could he see his "object," the home signal, 130 yards away. He said, however, that he "thought every moment it would lift," and that "the sun would come out," and that "it would not be worth while calling out the fogmen." In fact, soon after the accident it did lift.

The opinion I formed as to the character of the fog is already given. According to the distances of the "objects" from the three signal-boxes mentioned, there appears to be some likelihood of considerable divergence of opinion as to when the necessity for the services of fogmen arises. I was, however, assured by the Company's representatives that, taking the Preston district as a whole, their services on this particular morning were not really necessary. Moreover, it is unlikely that their presence would have prevented this accident, as the passenger train was running under clear signals. At the same time, Fletcher could not see his "object" the home signal, and by using his detonator, was taking the first step preceding the calling up of fogmen. It is largely a matter of knowledge of local conditions, and, having regard to the drifting nature of the fog, I think the case as to the necessity for the services of fogmen at this box on the morning in question, is a doubtful one.

4. Signalman John Fletcher, who gave his evidence in a straightforward manner, made the initial mistake and is, therefore, primarily responsible for this accident. There are, however, extenuating circumstances. His view, on account of the weather, militated against the prompt correction of his error. He was not reminded of the mistake by the manipulation of his levers in dealing with subsequent movements, and it can only be assumed that he had forgotten the normal lie of his junction points. The further opportunity to rectify matters failed largely, I think, because of his preoccupation with other trains, the failure of his detonator and because general conversation with the fireman was permitted to ensue. There is no doubt that the position of the engine—as being on the branch line—was firmly fixed in his mind, and his attention had become distracted.

He cannot, however, be relieved from his responsibility. He has had some 18 years service with the Company, of which he has been a pointsman and signalman for 10 years.

The efficient and intelligent interpretation of Rule 55 was of vital importance in this case. I think that possibly Fletcher cannot have paid sufficient attention to fireman Walker, and this is an aspect of the case which should be borne in mind in regard to the general observance of this rule; otherwise, I cannot conceive why Walker failed to impress upon Fletcher the position of the light engine. The Rule was not, however, properly observed by either man. Walker's journey to the box did not have the result desired by his driver. It did nothing to correct Fletcher's initial mistake. Walker understood the position, and his driver's instructions, but I doubt whether he understood the importance of this Rule. He stated that he "felt that the signalman understood my notification to him that we were standing on the main line, and not on the branch," but he was aware that the signalman's acknowledgment, if given, was not an assurance that the lever clip had been placed in position. In fact, he did not assure himself that the engine was protected.

I can, therefore, form no other opinion than that a proportion of the blame for the failure to carry out Rule 55 must fall upon Fireman Alfred Joseph Walker. He is 26 years of age, and entered the Company's service in 1913. He joined the Army in May 1915, returned to the Company in April of last year, and was promoted to fireman in July of this year.

In regard to Driver Clarkson, it has already been noted that he had been standing with his engine on the main line for some 18 minutes. He would not normally have expected his fireman to return to the engine, as he would have picked him up at the box when proceeding on his journey. In this case, however, he could not see the box, so would, presumably, have expected his fireman to come and tell him when to move. Clarkson, no doubt, thought he was secure, and felt that, with the fireman in the box, his engine was protected. He knew, however, that he was not in the position the signalman meant him to be in, and it was unfortunate, I think, that he did not take the precaution of whistling, say, at short intervals. This should have had the desired effect of making the signalman and fireman understand one another. I do not, however, think that any responsibility should be attached to Clarkson.

I do not hold Driver Calvert or Fireman Toole in any way to blame. Driver Fisher appears to have acted with promptitude and caution in pulling up his train when he saw the boys on the up line after the accident. Signaller Bamber of this junction box, who, with his wife, was travelling in the second coach of the passenger train, is also to be commended for promptly going forward to warn the on-coming up train, and for assuming charge of the cabin after the collision.

5. It is unlikely that the accident would have happened had track circuits existed. The case is a good example of the value of the protection they afford. The Company, in altering the position of this box had, I understand, decided to instal them here as part of an extensive programme of this type of work on the system. Difficulty, however, in obtaining material had delayed this work as it has elsewhere. The installation had been completed when I held the Inquiry.

The case is also evidence of the wisdom of locking the two front compartments of a passenger coach, if located next to the engine.

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.
