

LONDON MIDLAND AND SCOTTISH RAILWAY

MINISTRY OF WAR TRANSPORT,

Berkeley Square House,

London, W.1.

28th May, 1945.

Sir,

I have the honour to report for the information of the Minister of War Transport, in accordance with the Order of the 21st April, 1945, the result of my Inquiry into the accident which occurred at about 9.37 a.m. on the 19th April at Dale Lane, near Kirkby, on the Manchester - Liverpool Exchange (old L & Y) line of the London Midland and Scottish Railway.

The 6.15 a.m. express passenger train, Bradford - Liverpool Exchange, running under clear signals at about 60 m.p.h. collided with a goods brake van and engine standing on the main line at the exit from the West Park connection to Kirkby Factory. I regret to state that the drivers of both engines, two additional drivers who were travelling on the express engine to learn the road, and a shunter in the goods brake van were killed; 19 passengers, the firemen of both engines, and the guard of the passenger train, were taken to hospital, and 30 passengers suffered from minor injuries and shock.

The passenger train consisted of 6 bogie coaches, all having timber framed bodies on steel underframes and all fitted with special shock absorbing buffers with a total weight of 167 tons; it was drawn by engine No. 5210, type 4-6-0 with 6 wheeled tender, weighing 126 tons in working order. The combined brake power of engine and train was approximately 75% of the total weight.

The standing vehicles consisted of engine No. 12117, type 0-6-0 with 6 wheeled tender, weighing 70 tons, and a 4 wheeled goods brake weighing 20 tons; the engine chimney was leading towards Liverpool so that the impact came on the trailing end of the brake van.

The collision reduced the goods brake to matchwood; the goods engine, having been driven forward for a distance of about 80 yards, was turned end for end, coming to rest on its side leaning against the left hand side of the cutting. The engine of the express came to rest on its side to the right, on and beyond the up track, its bogie having been torn off and left underneath its tender. The trailing corner of this tender penetrated and crushed in the leading compartment of the leading coach which was derailed all wheels and suffered a good deal of other damage; the second coach and the six leading wheels of the third coach were also derailed, and these together with the remaining three coaches suffered minor damage. There was extensive damage to the permanent way over a length of about 120 yards.

After the collision prompt measures were taken to obtain ambulances and medical assistance and valuable help was given by the staff of the Kirkby Factory, the Liverpool and Ormskirk Police, a detachment of United States Forces in the vicinity and the occupants of some adjacent farms and houses. A guard who was travelling passenger in the rear brake van of the express arranged with the woman guard of the train, Mrs. Barnett, that he would protect the train while she took the first aid equipment from the van, and, although considerably bruised and shaken, gave what assistance she could to injured passengers.

There was thick morning mist at the time, visibility being estimated at between 20 and 30 yards.

Description.

The double track line from Manchester via Wigan to Liverpool Exchange runs at this point in a direction approximately westerly; it is in shallow cutting and gradients are falling gently for a considerable distance prior to the site of the accident, the immediate approaches being at 1 in 318 and 1 in 247; the line is straight for some miles.

South of the line lies Kirkby Factory, the sidings of which are connected to the Main Line by two double track connections, known as East and West Forks respectively; these, with the main line, form a triangle of which the main line is the Northern side. Dale Lane No. 1 signal box is located on the South side of the main line between the two fork connections, both of which it controls, while Dale Lane No. 2 Box is at the Southern apex of the triangle and controls movement between the Factory sidings and both the fork connections.

At the junctions of the down West fork with the down main line, and of the up East Fork with the up main line, there are trap points running into sand drags. Almost opposite Dale Lane No. 1 box there is a trailing crossover between up and down main lines. Opposite to the East fork junction are the connections for Simonswood Inland Sorting Depot on the North side of the line. There is a road overbridge immediately to the East of Dale Lane No. 1 box.

The exit from the West fork is in low cutting and a man standing on the track at the branch starting signal has his head and shoulders visible from Dale Lane No. 1 box; the East fork is in much deeper cutting and cannot be seen from the signal box. Exit from both West and East forks is controlled by semaphore starting signals, both of which have to be released by the relevant block circuit, as do also the main line signals adjacent to the junctions in either direction, i.e., the ordinary starting signals of Dale Lane No. 1 box. At the main line starting signals for either direction there are firemen's call boxes, which notify to the signalman the presence of a train standing at the signal and lock the signal in rear; a similar firemen's call box is provided at the branch starting signal of the up East fork, but not at the branch starting signal of the down West fork, having regard to the proximity and visibility of any vehicles standing on the line at this point as compared with the East Fork.

There are from time to time, as happened on this occasion, movements from the West Fork which are not running forward through the next block section, but are intended to back over the trailing crossover on the main line and move in an Easterly direction along the up main line to Simonswood Sorting Depot. For such movements no shunt ahead signal is provided at the exit from the down West fork, so that the driver has to be instructed by the signalman to pass the starting signal at danger before he can move out on to the main line; when he has got on to the down main line there is a shunt signal adjacent leading back through the crossover on to the up main line.

Dale Lane No. 1 box is a new 2 storey box containing 35 levers, all in use, the frame being away from the line; the box is constructed of brick and the working floor is provided with windows all along the north side and along both East and West ends. There is no window obscuration, blackout having been provided by blinds. The box has all modern equipment with 3 position block instruments, the block circuit being provided with home normal contacts and interlinked with the distant arms; there is sequential locking between home and starting signals, and there are track circuits in rear of the up and down main home signals and on the up line at the junction for Simonswood sorting depot. There are two levers for detonator placers.

Distances from Dale Lane No. 1 Box.

Dale Lane Outer Distant Signal	1,707 yards East.
Simonswood Box	1,486 " "
Dale Lane Distant Signal	1,408 " "
" " Inner Distant Signal	892 " "
" " Home Signal at East Fork Junction	348 " "
" " Starting signal on West Fork at Junction	186 yards West.
Toe of Points	271 " "
Presumed point of impact.	279 " "
Kirkby Station Box (closed)	1 mile 313 yards West
Fazakerley Sidings East Box.	2 miles 329 " "

The distance from Dale Lane No. 1 from Dale Lane No. 2 at the Factory exit of the triangle, is, as the crow flies, approximately 500 yards.

REPORT.

On the morning of April 19th Signalman Broadfoot, who was due to take the morning shift at Dale Lane No. 1 Box at 5.30 a.m. failed to do so, having forgotten to set his alarm clock the night before. As a result of this box not being opened no movements were possible into Kirkby Factory, and by about 6.20 a.m. there were two workmens trains for the Factory from the Liverpool direction and one from the Wigan direction held up at adjacent block posts; not only was this hold up delaying the day shifts from getting to work in the Factory, but the same trains were scheduled to take home the employees who had been working the previous night shifts.

Signalman Tanner was going to take duty at Kirkby station box, and, his train being held up at Fazakerley for some time, he heard that the delay was due to Dale Lane No. 1 box not being open. He went to Fazakerley East Box and, ascertaining the position from Signalman Howarth, he offered to go to open Dale Lane No. 1 instead of to his normal duty at Kirkby Box; delay in opening the latter box would be comparatively unimportant. He spoke on the telephone to Manchester Control to this effect, saying that he had been in Dale Lane No. 1 for two days and felt himself competent to work it, and the Controller decided that in the circumstances this was the best solution and authorised Tanner to proceed accordingly.

Dale Lane No. 1 having been opened Tanner dealt normally with the waiting trains and other movements, and at about 8.50 a.m. an engine and brake van from Simonswood traversed the East Fork line to Dale Lane No. 2 and made one or two shunts in the Factory sidings. Thereafter Driver Sadler of this engine told Signalman Cummings at No. 2 Box that he wanted to go back to Simonswood via the West Fork and the main line crossover, so as to have his engine chimney leading for his subsequent return from Simonswood towards Liverpool. Cummings obtained Line Clear from Tanner at Dale Lane No. 1 about 9.0 a.m. and the engine and brake left a minute or two later along the West Fork line.

At this time there was a thick morning mist, visibility being about 20 to 30 yards; fogmen had not been called out as it was expected that it would clear shortly, and pending this, boxes affected were working double block.

There is conflicting evidence as to the times of subsequent events and the times entered in Dale Lane No. 1 Block Register are unreliable; the following account is my appreciation of what actually happened, based on all the evidence available.

The engine and brake arrived at the West Fork Junction between 9.5 and 9.10 a.m. and stood there, the points being set for the sand drag. About 9.25 a.m. Guard Wilson in the brake van saw that the points had been shifted to set the road from the Fork to the down main line, and he said that his driver then moved forward, on his own initiative but with Wilson's concurrence, on to the main line and came to a stand just clear of the points blowing two pips on his whistle. Wilson maintains that before this movement he heard a whistle from the signalman which he took to be equivalent to a green flag as an indication to pass the starting signal at danger. After coming to a stand on the main line he went to the signal box in accordance with Rule 55 and signed the book at 9.30 a.m.

When Signalman Tanner had "Entering Section" for engine and brake from Dale Lane No. 2 he thought that he could arrange the necessary crossing movement on to the up main line and thence to Simonswood fairly soon, and he set the points, Fork to down main, as soon as he had had "Out of Section" for the preceding train on the down main, at a time which I estimate at about 9.20 a.m. But at this time the up main line was still occupied by an up passenger train, for which he did not give "Out of Section" to Fazakerley box until 9.26 a.m. and he had to wait for this up train to clear before he could set the crossover for the subsequent Easterly movement of engine and brake to Simonswood. In the meantime, he had "Is Line Clear" for the down express and accepted this about 9.25, setting the down road junction to the East Fork line so as to obtain the regulation $\frac{1}{4}$ mile overrun.

Shortly after this Tanner felt some doubt as to whether he would have time to carry out the crossing movement without delaying the express, and, thinking the engine and brake were still on the West Fork, he reversed the points, setting them again to lead to the sand drag; he says that it was after doing this that he whistled and shouted to Guard Wilson to come to the box, in order that he might tell him what he proposed to do, and that he would have to wait till the express had passed.

Fireman Davies of the shunting engine, interviewed in hospital, was, not unnaturally, rather vague in his recollection of the circumstances, but thought that they could see the signal box while standing at the signal on the Fork, and that he saw a flag waved by the signalman but could not identify its colour. In view of the consensus of evidence as to a much lower range of visibility, I think his recollection must be at fault in respect of these two points.

When Wilson arrived at the box he found therein, besides Signalman Tanner, two welders and their flagman who were waiting for the mist to clear enough to enable them to start work on the track nearby. There is again a conflict of evidence as to what Wilson and Tanner said to one another. According to Wilson's statement he (Wilson) said "Did you whistle for me to drop down? We are over the points ready to set back" to which Tanner replied "Yes; All right". Tanner on the other hand maintains that Wilson said "Were you right for us before" and that he (Tanner) replied "Yes, but we will wait for the express now".

The evidence of the other three men in the box is generally to the effect that Guard Wilson said something like "What are you going to do with us" and they are all three agreed that Tanner replied substantially "I cannot deal with you now you must wait for the express". None of them heard any statement in so many words by Wilson that his engine and brake were standing on the main line.

Wilson said that when going to the box it had occurred to him that he should remind the signalman to put a lever collar on the signal in rear, but later he thought that, this being a new box, there was probably track circuit or similar protection and that a lever collar was unnecessary, and he, therefore, made no mention of this. Wilson remained in the box for about 6 or 7 minutes during which period Tanner lowered his signals for the express, but it was not until the express actually passed the box that he (Wilson) appreciated the position and said "We are landing on the down main", by which time it was, of course, too late to do anything.

CONCLUSION

Apart from the absence of Signalman Broadfoot, the primary cause of this accident is clearly misunderstanding between Guard Wilson and Signalman Tanner, resulting in the latter assuming, wrongly, that the engine and brake were still standing on the West Fork. A contributory cause was lack of experience of Signalman Tanner. For the misunderstanding I think Guard Wilson must be held mainly responsible; he should have stated clearly that his engine and brake were standing on the down main and Tanner's mention of an express, of which I think there is no doubt, should in itself have aroused suspicion in Wilson's mind. Further he should have reminded Tanner to apply a lever collar to the signal in rear; I cannot accept his excuse that he thought in a new box there was other equipment which made a lever collar unnecessary, in view of the fact that he claimed at my inquiry that he knew so little about a signal box that he did not realise that the levers being pulled by Tanner, while he was waiting in the box, were those for the signals for the express on the down main.

Apart from the question of this misunderstanding Wilson failed in two other respects, viz. he neglected to comply with Rule 55 earlier when he was standing for 10 minutes or more at the starting signal on the Fork, and I do not think he should have permitted his driver to move forward over the points past the starting signal at danger without a more precise authorisation from the signalman than a somewhat problematic whistle in fog; I hesitate however, to blame him too seriously in this respect as the shifting of the points in front of the engine after some minutes waiting might to some extent be regarded as an indication that the signalman was ready for the movement to be carried out.

Signalman Tanner's failure originated in his change of mind about crossing the engine and brake before the express, firstly setting the points from the Fork to the main line, and then replacing them without making certain of the position of the engine and brake, which might for all he knew be actually passing through the points when he replaced the lever. It is sometimes unavoidable that a signalman should change his mind as to priority of movements, but in such cases it is doubly necessary for him to assure himself, without any possibility of doubt, of the actual position of all movements concerned, above all in fog.

Apart from this, Tanner was not permitted by signal box instructions to accept the express and temporarily obtain the necessary overrun by setting the road for the East Fork.

Goods Guard Wilson is 41 years of age and has been with the Company for about 5 years, of which he has been a goods guard for 4 years; he has a good record.

Signalman Tanner is 3 months under 20 years of age, and has been with the Company 5½ years, for the first 4 years as a signal box booking boy and for the last year as a temporary signalman, about 6 months at Dale Lane No. 2 and six months at Kirkby. The two shifts when he had experience of Dale Lane No. 1, assisting the regular signalman, were Factory holidays when Dale Lane No. 2 was closed, so that on these days he had no experience of movements on either of the Factory Fork lines. He has a good record.

Although Tanner's lack of experience was undoubtedly a contributory cause of this accident, it would be unfair to overlook the circumstances of his offer to help to keep traffic moving in emergency, by taking up a duty for which he felt himself competent though not officially qualified. Dale Lane No. 1 box is the same class as the adjacent Dale Lane No. 2, in which he had been regularly employed.

In the circumstances, and having regard to the acute shortage of skilled staff under which the Railways are labouring, I do not think that there are grounds for criticising the decision of the Manchester controller to permit Tanner to take duty in Dale Lane No. 1 Box.

The two welders and their flagman had no business to be in the signalbox, access to all signalboxes being by regulation strictly limited to those who have duty to perform therein. They had on the previous evening left their equipment underneath the box to save carrying it some distance from and to work, and they went up into the box to make tea while waiting to start work. On the evidence available I do not think that there was any appreciable amount of conversation or other cause of distraction of the signalman from his duty, nor that their presence had any bearing on the accident.

The express was about 15 minutes late and, running at about 60 m.p.h. under clear signals, the driver would have had no chance in existing conditions of visibility to avoid or even minimise the collision.

Recommendations and Remarks.

The justification for the provision of additional protective equipment at the West Fork Junction depends mainly on the frequency of movements Eastbound from that point, such as the intended movement of the engine and brake in the case of this accident. For an ordinary running movement in the Westbound direction the existing starting signal and trap points provide all necessary safeguards; no difficulty or delay is involved in the guard going to the signal box to comply with Rule 55, and in any case a train is not likely to come to any harm while standing on the Fork at this signal.

But for a shunting movement out on to the down main line and then back across the crossover towards Simonswood, conditions are different; this crossover was provided as part of the works in connection with Simonswood Depot, which were

undertaken some 18 months later than the two connections to serve Kirkby Factory, so that when the signalling for the latter was originally decided there was no prospect of such Eastbound movements from the West Fork junction.

Recent records shew that such movements are very infrequent, but the future traffic conditions to and from this factory are, of course, uncertain. I understand that the Company have now decided to provide a shunt ahead signal below the West Fork starting signal, which will obviate the necessity for the signalman giving a hand signal to authorise a driver to pass this starting signal at danger; they are also providing a telephone from this signal to the box, and a short track circuit on the down main line just ahead of the junction points, occupation of which will be indicated in the box and will lock the relevant signals in rear. Having regard to this decision on the part of the Company, I have no recommendations to make in connection with this accident.

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

A. C. TRENCH,
Colonel.

The Director General,
Ministry of War Transport.