

The fact that the brake block of No. 248 third class carriage was not found to be broken for more than two days after the derailment, tends to show that the examination of carriage stock is not conducted in so searching a manner as is desirable.

I have also to point out that, after the train came to a standstill, the driver and fireman were both in fault for leaving their engine at the same time to go back to Mosstowie Station.

The guard appears to have applied his automatic brake with promptitude, and the Company are to be congratulated on the couplings having held. The accident might have had more serious consequences had the couplings parted. As it was, the footboards of some of the derailed carriages were broken by having come into contact with the north parapet wall of an underbridge about 100 yards short of the point where the train came to a standstill.

The Assistant Secretary,  
Railway Department, Board of Trade.

I have, &c.,  
J. W. PRINGLE,  
Major, R. E.

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#### APPENDIX.

##### *Damage to Permanent Way.*

126 chairs broken.  
500 sleepers split and broken.  
3,000 spikes split and broken.  
300 keys split and broken.

##### *Damage to Carriage Stock.*

Brake van No. 43.—Centre axle bent; foot-board broken, etc.  
Third class carriage No. 82.—Brake block broken; foot-board broken.  
Third class carriage No. 248.—Brake block broken.

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Printed copies of the above Report were sent to the Company on the 20th October.

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### LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),  
8, Richmond Terrace, Whitehall, London, S.W.,  
23rd October 1900.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 31st August, the result of my enquiry into the causes of the collision which occurred on the 25th August at Sandhills No. 2 cabin, near Liverpool, on the Lancashire and Yorkshire Railway.

In this case while the 7.10 p.m. Lancashire and Yorkshire Company's passenger train from Leeds, due in Liverpool at 9.35 p.m., was standing on the west down main line at the home signal of No. 2 cabin Sandhills, with the rear vehicle 180 yards beyond the home signal of No. 3 cabin Sandhills, it was run into at the rear by the 6.40 p.m. Midland Company's excursion train from Hellifield, due in Liverpool at 8.50 p.m.

Complaints of injury have been received from 22 passengers, 16 of whom were in the Lancashire and Yorkshire and 6 in the Midland train; but it is stated that none of the cases are of a serious nature.

The Lancashire and Yorkshire Company's train consisted of a 10-wheeled engine (with a leading bogie, four coupled driving wheels and a pair of radial trailing wheels), a six-wheeled tender, and four bogie composite carriages, the last having a brake compartment at the rear end. This vehicle was seriously damaged; a list of the damage to it and to the vehicles in front of it is given in the Appendix.

The Midland Company's train consisted of an eight-wheeled bogie engine with four coupled wheels, and a six-wheeled tender, two bogie, eight-wheeled carriages, four six-wheeled carriages, and a four-wheeled brake van, seven vehicles counting as eight. The engine and tender were fitted with a steam brake applying to the four coupled wheels of the engine and to all the tender wheels, the automatic vacuum-brake being fitted to 36 out of the 44 wheels of the vehicles. A list of the damage to this train is also given in the Appendix.

The collision occurred at 10.4 p.m.

### Description.

This collision occurred about 85 yards on the up side of the home signal (one of four in line with each other) for the west down main line worked from No. 2 Sandhills signal cabin, which again is about 150 yards on the down side of the signal, or about 235 yards from the point of collision. It contains 79 working levers, and 10 block instruments, and is situated on the down side of all the lines, of which there are four running lines (two up and two down lines) opposite to the cabin, and no less than 10 (five up and five down lines) on the up side of it where the junctions of the four lines to and from Southport, and of two loop lines, with the main lines take place. The adjacent signal cabins are Sandhills No. 1 on the down or Liverpool side, about 230 yards, and Sandhills No. 3 on the up or Manchester side, about 390 yards distant from No. 2 cabin; Kirkdale Station being about 600 yards on the up side of Sandhills No. 3 cabin.

The down home signals of No. 3 cabin are about 265 yards on the up or Manchester side of those of No. 2 cabin, the down distant signals of the latter being underneath and slotted by them. About midway between the down home signals of the two cabins, and about 70 yards from the point of collision is Stanley Road over-bridge, which is constructed with three openings each for two lines of rails; smoke and steam, when occasionally hanging about these openings, cause obstruction to the view of the signals, which otherwise can, as this part of the line is practically straight, be well seen.

The gradients of the line between Kirkdale and Sandhills No. 1 cabin are easy, the worst being 1 in 304.

A signalman, an assistant signalman, and a train booker are employed in No. 2 cabin.

### Evidence.

*G. H. Boothroyd*, signalman, stated: On August 25th I came on duty in Sandhills cabin No. 3 at 2.0 p.m. to work till 10.0 p.m. I had a train-booker with me in the cabin, in which there are 57 working levers. The 7.10 p.m. Leeds to Liverpool train passed my box at 9.57 p.m., having been acknowledged by the box in advance at 9.56 p.m. I received "Train out of section" signal from No. 2 at 10.0 p.m., and on receiving this "cleared" back to Kirkdale West. I had not to stop the train as I had got "Is line clear" signal acknowledged by No. 2 box a minute before it passed. At 10.0 p.m. I received the "Is line clear" signal from Kirkdale West for No. 184 Midland special, which I acknowledged immediately, and at the same time gave "Is line clear" signal forward to No. 2, which signal was acknowledged at 10.0 p.m. I at once lowered my west down home signal for the train to approach. I had seen the train at Kirkdale Station, and it was nearly halfway between Kirkdale West and my home signal when I lowered the latter. I cannot say at what speed the train passed my cabin. I looked forward towards No. 2 cabin but saw nothing of the train standing at the home signal there, owing to smoke under Stanley Road bridge. "Train out of section" signal from No. 2 cabin for the 7.10 p.m. train from Leeds to Liverpool was given without any enquiry on my part; I sent no message on the telephone in regard to it. I heard the collision, which occurred at about 10.1 p.m., at which time the tail of the Midland train stopped a short distance beyond my cabin. The east up line was fouled by the collision. The train-booker records the times of the trains in his book from what he sees and hears and not from any information received from me, although I am responsible for the entries he makes.

*Francis Moran*, signalman, stated: I am 41 years of age. I have been in the Lancashire and Yorkshire Company's service for 20 years, 19 years as a signalman, for eight of which I have

worked in Sandhills No. 2 box. On the night of the 25th August I came on duty a few minutes before 10.0 p.m. to work until 6.0 a.m. on the 26th. Signalman Foley, the man I relieved, explained to me that a passenger train from Blackpool had just drawn into Sandhills Station, and I saw him place the signals to "danger" behind it. I then commenced to change my boots; and, although I was not paying great attention, I heard Foley acknowledge the "Is line clear" for the Leeds express. He then left the cabin and I took charge. Shortly after Foley left the box I gave "Train out of section" to No. 3 box for the Leeds express, before the Midland train was offered. I can only account for my mistake in giving "Train out of section" for the Leeds express by saying that if I had accepted this train myself I should not have forgotten it. When I "cleared" to No. 3 I took the block off thinking that the Leeds train had gone. I had looked towards my home signal but could not see anything standing at it. Immediately afterwards my train-booker said "The Leeds train has not gone," and telephoned to No. 3 to say that a mistake had been made, but it was too late, and in a few seconds the collision occurred. I immediately gave "Obstruction danger" signal for the east down main line which was, I thought, fouled by the collision. I freely admit that the mistake was mine and I take full responsibility for the collision.

*Squire Lord*, train-booker, stated: On August 25th I came on duty in Sandhills No. 2 box at 2.0 p.m. to work till 11.0 p.m. Signalman Foley in charge and assistant signalman Peasley took duty at the same time as I did, but left at 10.0 p.m., being relieved by signalman Moran and assistant signalman Barlow. The relief took place exactly at 10.0 p.m. At 9.57 p.m. the signalman at No. 3 gave "Is line clear" for the 7.10 p.m. train from Leeds to Liverpool, which was acknowledged by Foley at 9.57, at which time "Train entering section" signal was also



received, but the signals were not lowered for the train to pass, as No. 1 box was not ready to receive it. I saw the train arrive at the home signal at 10.0 p.m., and the "Is line clear" signal was not acknowledged by No. 1 until given by Moran at 10.3 p.m. At 10.2 the "attention" signal was received from No. 3 box, and on receipt of this signalman Moran gave "Train out of section" signal for the Leeds to Liverpool train; upon this the "Is line clear" signal for No. 184 Midland Special was offered, and on hearing Moran acknowledge this I knew he had made a mistake, and told him the Leeds train was still standing at the home signal. I also at once rang up No. 3 box on the telephone to advise the signalman that a mistake had been made. The instrument was attended to at once, but it was too late to prevent the accident. Moran told me he had made a mistake and instructed me to book "Train out of section" signal having been given for the Leeds train at 10.2, and also remarked that he had "cleared" the train on the wrong block, from which I think he meant that, in intending to clear for an empty passenger train on the Southport line, he, by mistake, gave "Train out of section" signal on the west down line. The assistant signalman was working at the other end of the cabin at this time. On leaving duty Foley told Moran that the Leeds train was between Kirkdale and Sandhills.

*John Lomax*, driver, stated: On August 25th I booked on duty at 1.30 p.m. at Newton Heath locomotive sheds, and expected to leave work about 12 midnight. I was working the Liverpool portion of the 7.10 p.m. Leeds to Liverpool train, and left Manchester at 9.15 p.m., 25 minutes late. My engine was one of the new type of passenger engines, viz.:—ten-wheeled, comprising leading bogie, four coupled driving wheels, 7 feet 3 inches in diameter, and a pair of radial trailing wheels, and a six-wheeled tender, together with a train of four bogie carriages, equal to six. The engine was fitted with a vacuum brake, applying to the four coupled wheels and trailing wheels of the engine, to the six wheels of the tender, and to the whole of the wheels of the carriages. The vacuum averaged 20 inches. We had a clear run to within about six miles of Liverpool, and were then checked by signals, but not actually stopped until we arrived at the home signals for the Sandhills No. 2 box, when we came to a stand at the west down main home signal at 9.59 p.m., and at 10.3 p.m. the rear of the train was run into by a Midland Special. I neither heard nor knew anything of the coming train until it struck the rear of my train. The brakes were all off when the collision occurred. The force of the collision drove my train forward about half an engine length, but no wheels were off the rails, and I am not aware that anything was fouling the up line. The rear van was damaged. The home signal at which I was standing was lowered immediately after the collision. The night was perfectly clear. After ascertaining the damage which was done to the train, removing the passengers from the rear vehicle to the three leading carriages of the train, and finding that the guard had jumped out and was uninjured, I took the three front vehicles into Liverpool, leaving the van on the line. I did not feel much of the collision on the engine, and neither the fireman nor myself was injured. I am confident I heard no whistling from the approaching train, although there was not much noise going on at the time.

*Charles Biglowe*, passenger guard, stated: On August 25th I signed on duty at 11 a.m. and

expected to sign off about 10 p.m. I was guard of the 7.10 p.m. Leeds to Liverpool train, which lost time by signal detentions between Leeds and Manchester, and left the latter place about 9.15 p.m., 25 minutes late. From Manchester my train consisted of four bogie carriages, equal to six vehicles, and I was riding in the last vehicle which had a brake compartment at the rear end. I was the only guard. I think there were about 200 passengers in the train, which was not booked to stop between Manchester and Liverpool. We had a clear run until we came to Kirkdale East, at which place we were checked by signals, as well as at Kirkdale West and Sandhills, No. 3, and then we came to a stand at Sandhills, No. 2, home signal at 9.59 p.m. I remained in my compartment and was looking out of the back window. After standing a few minutes I saw another train approaching, and at first was doubtful whether it was on the loop or main line. When I first saw it, it was about midway between Kirkdale West and where we were standing, and it was only when the train was coming under the Stanley Road bridge that I made sure it was on the line upon which my train was standing. I had just time to jump out before the engine struck the rear of my train and knocked it forward a short distance. I cannot say at what speed the Midland train was running when it struck the van in which I had been riding; I am quite sure that there were three red lights at the back of my train. The passengers who were injured were chiefly in the rear vehicle, which was very much damaged. None of the vehicles left the rails, but the buffers of the Midland engine were embedded in the rear vehicle. I had no opportunity of having any conversation with the driver of the Midland train. The collision occurred about 10.4 p.m., and after transferring the passengers from the rear vehicle into the three front carriages I went forward into Liverpool with the engine and the three vehicles referred to about a quarter of an hour after coming to a stand. I was a little shaken by jumping out. I had no time to give any signal to the driver of the Midland train after I knew he was approaching on the line upon which my train stood. As far as I know neither of the adjacent lines was fouled by the collision. I heard no whistling from the engine of the Midland train, which was carrying purple and white lamps as headlights.

*Frank Carlisle*, driver, stated: I have been 32 years in the Midland Company's service, and a driver 26 years. On August 25th I signed on duty at 3.5 p.m., and my first duty was to bank a train up from Hellifield to Hawes Junction. I started back from the latter place for Liverpool with an excursion train due to start at 5.59 p.m., but which left about 6.59 p.m. I was driving engine No. 1813, which is an eight-wheeled bogie engine, with four 6' 6" coupled wheels, and a six-wheeled tender. The train consisted of seven vehicles equal to eight, viz.: two bogie carriages, four six-wheeled vehicles, and a four-wheeled van. The engine and tender were fitted with a steam-brake applying to the four coupled wheels and the tender wheels; the automatic vacuum-brake (actuated by the same handles as the steam brake), applied to the wheels of all the vehicles, except to the middle wheels on each of the six-wheeled carriages. The only booked stops of the train were Blackburn, Burscough Junction, Ormskirk, and Sandhills. Nothing went wrong as far as Ormskirk, which we left about 65 minutes late, but we were afterwards stopped dead at Aintree for a few minutes. At

Walton Junction, the distant signal was on, but the home signal was lowered before I reached it. The distant signal for Kirkdale East was at "danger," but on getting through the tunnel I found the home signal was off. At Kirkdale West the home signal was kept on until we got about half way between Kirkdale West and Sandhills box, No. 3, but the home signal for the latter box was lowered, at which time we were running from 8 to 10 miles per hour with steam shut off. Steam and smoke hanging under Stanley Road bridge prevented me seeing anything ahead until I got through the bridge, and immediately on getting clear of it I saw a train in front, and said to my mate "I believe that train is on our line," and at the same time put the steam and vacuum-brakes full on. The brakes had just time to act, and reduced the speed to about 5 miles per hour, when my engine struck the standing train. I had no time to whistle. We drove the train forward a short distance, and the end of the rear vehicle mounted the front of my engine, and got as far as the smoke box. The buffers of the engine were not at all embedded in the rear vehicle. Neither the fireman nor I had time to jump off, but we escaped uninjured. The collision occurred about 10.0 p.m. The night was perfectly clear. I had about 20 inches of vacuum. Had the collision not occurred I should have had to stop at the home signal for Sandhills, No. 2, at which the Lancashire and Yorkshire train was standing, and which signal was at "danger." I had shut off steam at Kirkdale West and never put it on again.

*George Pearcy*, fireman, stated: I have been four years in the Midland Company's service, and two years a fireman. I was fireman to driver Carlisle on August 25th, but only for that day, when my hours were the same as his. My place was on the left-hand side of the engine. I joined No. 559 Midland Special at Hawes Junction. I have been on the line to Liverpool before, but am not well acquainted with it. After the last station stop we were checked by signals as we approached Liverpool, and I was not aware that a collision was imminent until we had passed through the bridge close to the tail of the train which we ran into. There was steam and smoke from a shunting engine hanging about the bridge, which prevented the sight being good. When we struck the train in front, the speed we were travelling at was not more than six or seven miles an hour. On seeing the standing train the driver said "We shall be into that train," at the same time putting on the brakes, and I opened the sand-box, which applied sand to the front driving wheels. The speed was slightly checked before we struck the rear of the other train. The body of the van mounted on to the front of our engine and got as far as the smoke-box. Neither the driver nor myself jumped off, and neither of us

was hurt. After the collision the fireman of the other train came back and said we must have taken their signals.

Driver *Carlisle*, recalled, stated: I did not see the home signal for Sandhills No. 2 Box before the collision, but after striking the other train I saw that it was off, and the fireman of the other train said something about our having taken their signal. There were three tail lights on the rear vehicle of the Lancashire and Yorkshire train.

*Harry Gower*, guard, stated: I have been 21 years in the Midland Company's service, and a guard 13 years. I commenced work at Carlisle at 3.0 p.m. on August 26th and was under-guard of a special train from Scotland to Liverpool and Manchester, due to leave Carlisle at 3.38; but it left late, and arrived at Hawes Junction 63 minutes late. The Liverpool portion consisted of two bogie thirds, four six-wheeled thirds, and a four-wheeled van, *i.e.*, seven vehicles equal to eight. We left Hawes Junction at 7.2 p.m., having to stop at Hellifield (special stop), Blackburn, Burscough Junction, Ormskirk, and Sandhills. All went right as far as Ormskirk, which place we left 78 minutes late, having lost 15 minutes by signals. We were stopped at Aintree and afterwards slackened at Walton Junction, Kirkdale East and West, and at Sandhills No. 3. The home signal for the latter box was off. Soon after I saw it, which was shortly after passing Kirkdale West, I felt the brakes go on, the speed then being ten miles per hour, and at this time the brake-van, in which I was riding, was between the home signal for Sandhills No. 3 and Stanley Road bridge. Before this I was not aware that anything was in the way, but thought the brakes had been applied in order to stop the train at Sandhills No. 2 home signal, and the collision took me entirely unawares, although the speed had been reduced to four or five miles an hour. I had risen from my seat when the collision took place and was knocked down, but was not injured. At the time of the collision there were about 70 or 80 passengers in the train, and some of these were shaken, but none seriously hurt. No wheels were knocked off the road in my train, but the couplings broke between the first and second vehicles; the side chains, however, held the vehicles together. There were four windows broken in the train. The collision occurred about 10.0 p.m. as near as I can remember. The night was perfectly clear. I had not seen the signal for Sandhills No. 2 before the collision. I did not see the fireman of the Lancashire and Yorkshire train when he came back. The body of the van of the Lancashire and Yorkshire train was mounted on the front of the Midland engine. I was alone in the van; I did not notice the amount of vacuum when approaching Sandhills No. 2 box.

#### Conclusion.

This collision was caused by a mistake on the part of signalman Francis Moran, in giving permission for the Midland train to approach the home signal of Sandhills cabin, No. 2, while the Lancashire and Yorkshire train from Leeds was still standing at it. Just before the collision occurred, Moran had taken up the night duty in Sandhills cabin, No. 2. When he came on duty a few minutes before ten o'clock, it was explained to him by Foley, the signalman he had come to relieve, that a train from Blackpool had just gone into Sandhills Station, and he saw Foley put the signals to danger behind this train. He next heard Foley acknowledge the "Is line clear" signal from No. 3 cabin for the Leeds express, and then took charge himself; he shortly afterwards gave "Line clear."



to No. 3 cabin for the Lancashire and Yorkshire Company's Leeds express, although this train was still standing at the home signal of the west down main line, and he did this before the Midland train had been offered to him. He could only account for his mistake by saying that if he had accepted the train himself he should not have forgotten it. On hearing Moran accept the Midland train, Lord, the train booker in the cabin, at once told him he had made a mistake, as the Leeds train was still standing at the home signal. Lord states that at the same time he called up Sandhills No. 3 signalman on the telephone, and though he at once obtained attention, it was too late to stop the Midland train. Lord also states that Moran told him that he had cleared the train on the wrong block, meaning probably that he had by mistake given "Line clear" for the Leeds train on the west down main line, instead of for an empty train on the line from Southport. Moran is an experienced man of 19 years' service as signalman, eight of which he had worked in Sandhills cabin No. 2. He made the best amends he could for the mistake he committed, by frankly acknowledging it, and by not attempting to screen himself at the expense of others.

The signalman in Sandhills cabin No. 3 states that, owing to steam and smoke hanging about under the openings of Stanley Road bridge, he was unable to see the tail lights on the rear of the Leeds train while standing at No. 2 down home signals only about 155 yards off.

The driver of the Midland train found the home signal of Sandhills cabin No. 3 "off" as he approached it, but owing to the smoke and steam under Stanley Road bridge (only about 70 yards from the tail of the Leeds train)—where he states his speed was from 8 to 10 miles an hour, steam having been previously shut off—he had but a very short view of the train, and although he applied the steam and vacuum-brakes, the speed on collision was reduced, he states, only to 5 miles an hour, though the force of the blow drove the other train forward a short distance, and caused the body of the rear vehicle of the Leeds train to mount the front of the engine of the Midland train. The speed of the Midland train was probably in excess of that stated by the driver, but he would no doubt have been able to stop at the down home signal of No. 2 cabin.

The guard of the Leeds train had just time to jump out of his brake compartment before the collision.

No blame is to be attached to any of the servants in charge of either of the two trains.

Considering the importance and busy nature of this part of the Lancashire and Yorkshire system, and the number of block instruments and signals to which the signalmen have to attend, particularly in Sandhills cabin No. 2, it is most desirable that special means (such as are now becoming common on many of the principal railways) should be adopted for, as far as possible, preventing a signalman from making such a mistake as led to the occurrence of the collision now reported on.

The Assistant Secretary,  
Railway Department, Board of Trade.

I have, &c.,  
C. S. HUTCHINSON,  
*Major-General.*

#### APPENDIX.

##### PARTICULARS OF DAMAGE TO STOCK.

###### *Lancashire and Yorkshire train.*

Bogie third van, No. 22.—One solebar, two diagonals, two cross bearers, two bogie bolsters, two bottom side rails, two long footboards, one headstock, two door panels, two projection panels, four roof sticks, one bogie headstock plate, and three axle boxes broken; two solebar plates bent; and van end and fittings damaged.

Bogie third van, No. 110.—One headstock broken.

Bogie composite, No. 634.—One headstock broken; and one headstock slightly damaged.

###### *Midland train.*

Engine, No. 1,813.—Smoke box and door, blast pipe, vacuum pipe, two furnace lubricators, two head lamps, two leading buffers, and one jet pipe badly broken.

Midland bogie third-class carriage, No. 31.—Three quarter lights broken.

Midland bogie third-class carriage, No. 188.—Screw coupling and shackle missing.

Glasgow and South-Western third-class carriage, No. 145.—One quarter light broken.

Printed copies of the above Report were sent to the Companies concerned on the 19th November.