

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

23 September 1869

BoT Report into Accident at
Sowerby Bridge.

(2 Pages).

reduced from 35 miles an hour to 10 or 12 miles an hour at the collision, which occurred, as before stated, 100 yards north of the signal, or about 250 yards from the point at which the driver acknowledged that he first observed it at danger. The front guard had not time to get his break applied, as he was sorting parcels when the driver whistled; but the rear guard, who was in his breakloft, applied his on seeing the signal at danger, and on passing under the bridge his set of breaks and the last of the three loose carriages broke away from the remainder of the train, and no passengers were injured in this rear part. The driver and fireman both stuck to their engine, and were neither of them seriously hurt. The front wheels of the engine left the road; its smoke-box and buffer-beam were broken, and it sustained other injuries, but it was able to go to the shops under steam. Many causes contributed to the occurrence of this accident, which may perhaps be placed as follows in the order of relative importance:—

1. The faulty position of the down distant signal from the sidings. This signal, which has to protect shunting operations, often extending (as on the present occasion) to the crossover road close by it, although visible near the junction down distant signal, is then lost sight of for a considerable distance, not being again visible until the junction has been passed, and the distance from it reduced to about 150 yards; it is thus next to impossible that a train, running at a speed which enables it to keep its time as laid down in the tables, can, if necessary, stop at this signal, which may be put to danger (as it probably was on this occasion) during the time it is lost sight of. Its position would be improved by extending its wire to the junction cabin, and making it and the down junction signal to

Bolton the same signal. This improvement the company, I believe, intends at once to carry out.

2. The conduct of the guard of the empty train in acquiescing in the driver's moving along the down or wrong road just at the time when he knew a down passenger train was due, and this more particularly when there was nothing to have prevented his getting round his train by using No. 1 siding instead of the main down line. The guard is also to blame for having made up his train on the main up line, when it could have been just as well done in No. 1 siding, in which case the driver would have been almost certain to have used the up or proper road for getting round his train.

3. The conduct of the driver in unnecessarily using the down or wrong road for getting round his train, when he could have done so by means of No. 1 siding.

In addition to the alteration of the position of the signal alluded to above, the following improvements at these sidings are very desirable, viz., the sidings should end in blind sidings, and be provided with siding signals, those at the south end and the crossover road being controlled from the junction cabin, and interlocked with the junction signals, and those at the north end being interlocked with the distant signal. There should also be a gong communication between the north end of the sidings and the junction cabin. Locking apparatus is about being provided at the junction, and the present would, therefore, be a favourable opportunity for effecting the improvements now suggested.

I have, &c.,
C. S. HUTCHINSON,
The Secretary, Railway Department, Board of Trade. *Lieut.-Col., R.E.*

A copy of the above report was sent to the company on the 30th September 1869.

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR, *Sowerby Bridge, 20th October 1869.*

IN compliance with the instructions contained in your minute of the 25th September, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which attended the collision that occurred on the 23rd September at the Sowerby Bridge station of the Lancashire and Yorkshire Railway.

The passenger platforms at this station are not opposite to one another, the down-line or north platform being on the east of the up-line or south platform. The south platform is 120 yards long, and 120 yards to the west of it there is a tunnel. At 60 yards east of the tunnel, and the same distance west of the south platform, there are a pair of points leading from the up to the down line. The gradient at the station falls to the eastward.

On the day in question a return excursion train, on its way from Scarborough to Manchester, reached Sowerby Bridge at 5.33 p.m., consisting of an engine and tender, 12 carriages, and two vans, of which two carriages and one van were for Halifax. This train stopped, in the first instance, opposite the south platform; but it was shortly afterwards taken forward into the tunnel, in order that the Halifax portion might be shunted back from the up to the down main line, through the points above referred to. The van attached to the two Halifax carriages was fitted, as well as the carriages, with Newall's continuous break, so that when the break was applied in the van, the breaks of the carriages ought to have been put in action at the same time. But this van had been employed as a luggage-van only between Scarborough and Sowerby Bridge; no guard having ridden in it from Scarborough, and the two guards in charge of the return excursion train having ridden in two other vans from Scarborough to Thornhill, where the

Dewsbury and Bradford portion of the train had been detached.

When the train reached Sowerby Bridge the van for Halifax was at the tail of it, and a porter at Sowerby Bridge was ordered by the inspector at that station to join it, and to take the Halifax portion of the train across from the up to the down line. This porter had been lighting the lamps at the entrance to the tunnel, and was returning from that duty when he met the train moving forward from the down platform towards the tunnel. He uncoupled the Halifax portion from the remainder, under the orders of the inspector, and mounted the break-van as the engine driver backed the train, intending to apply the break and to stop the van and the two carriages as they approached the down platform on the down line.

A return special train from Blackpool stood at that time on the down line, with its hind van 30 yards east of the west end of the down platform, and the inspector intended that the Halifax portion of the train from Scarborough should be joined to the train from Blackpool, with a view of their returning together to Halifax.

The Halifax portion of the Scarborough train was pushed back accordingly at a speed of about six miles an hour towards the Blackpool train, and as it approached the latter train the porter in the van attempted to apply the break. He found, however, at the critical moment, that the break was out of order and would not work. He was thus unable to check the speed of the van and carriages, and they came into collision at the above speed, or perhaps rather greater speed, with the tail of the train from Blackpool. Neither the van nor the carriages for Halifax were damaged, nor were they thrown off the rails, any more than the vehicles in the train from Blackpool. The porter in the van from Scarborough was not hurt, but three of the pas-

sengers in the carriages from Scarborough, and three others in those from Blackpool, have since complained of contusions.

The break-van from Scarborough was examined after the collision, and it was then found that two of the teeth of a cast-iron cog-wheel, by means of which the break is worked, were fractured; and that the fractured portions of them had jammed in the rack which works on the wheel, so as to make it impossible to turn the break-handle, and thus to render the break useless. The break-van had been used, it appears, between Halifax and North Dean Junction on the previous day, on its way to Scarborough, and had then been in good order; but it had not been in use at all between North Dean and Scarborough, or, as already stated, between Scarborough and Sowerby Bridge. It would hardly have been used at Scarborough, because it was at that place in the middle of a long train; and there is no evidence to show how the fracture could have occurred, which, by preventing the employment of the break at Sowerby Bridge, led directly to the accident. The sections of fracture were bright, and

the mischief appeared to have been done that day. It is supposed that the apparatus might possibly have been tampered with by some one at Scarborough who was not acquainted with the actions of breaks of this particular description, and who might, by turning the handle forcibly in the wrong direction, have fractured the cog-wheel. After the break has been taken off, the handle, on being released, turns round suddenly, and the break flies on of itself, by the pressure of a spring from which its action is partly derived; and if it is then turned in the wrong direction the cog-wheels may be fractured; and these will occasionally give way, under rough usage, even when applied in the proper way. This particular wheel does not appear to have been much worn, and it would no doubt be better if such wheels were constructed of steel instead of cast iron, or if they were made somewhat stronger, even in iron.

R. G. W. Herbert, Esq.,
Board of Trade,
Whitehall.

I have, &c.,
H. W. TYLER.

A copy of the above report was sent to the company on the 5th November 1869.

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR,

Preston, 21st Oct. 1869.

IN compliance with the instructions contained in your minute of the 8th instant, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which attended the accident that occurred on the 30th September at the Lostock Junction station on the Lancashire and Yorkshire Railway.

At the Lostock Junction, which is 13 miles to the north-west of Manchester, the line from Southport and Liverpool on the west joins the line from Preston on the north. The junction was formed 20 years ago, and the junction cabin has not yet been supplied with modern improvements in the shape of locking apparatus for working the points and signals. But the junction is protected by the usual home semaphore signals, and by distant signals in each direction, the distant signal towards Liverpool being 800 yards from the cabin. The station, which is situated between the cabin and the distant signal, is about 350 yards from the former and 550 from the latter, and there are platforms at the station for the lines to and from Liverpool and Preston.

The Liverpool line falls for rather more than a mile on a gradient of about 1 in 70 towards the junction, but further westward it rises to the summit at Chewmoor, on a gradient of 1 in 94, for several miles past the West Houghton Station, which is 1½ miles from the junction.

On the day in question, an excursion train left Staleybridge for Southport at 6.50, and reached Southport at 9.45 a.m.; and left Southport on its return journey at 6.30 p.m., punctually, according to the excursion time-bill. It consisted of an engine and tender, 12 carriages, and two vans, with a guard in each, and contained about 450 passengers. The engine driver, fireman, and guards, were all well acquainted with the line. The train did not stop anywhere from Southport until it approached the Lostock Junction station, but it was intended to draw up at that station for collecting tickets. In rounding the curve on the approach to the distant signal from Lostock Junction, the engine-driver saw, as he was looking out for the signal at 7.30 p.m., the three side and tail lamps of a goods train, about 200 yards ahead of him, and outside of that signal. He was then travelling, as he says, at 12 miles an hour, and he had, after ascending the above gradient of 1 in 94, just commenced the descent of the gradient of 1 in 70, which runs down upon the junction. His steam was already shut off, and he whistled

for the tender and guard's breaks, which were at once applied. He also reversed his engine, and turned on his steam, and reduced his speed, as he believes, to four or five miles an hour before he struck the van of the train before him 400 yards outside of the distant signal.

The engine and carriages of the excursion train all remained on the rails, and the buffer-plank only of the engine was broken, but six of the passengers have complained of injury. The vans of this train were coupled each to two carriages with Newall's continuous breaks, and it was, no doubt, owing to this good arrangement that no greater damage was done.

The goods train which was thus in the way of the excursion train was a special train, not included in the company's time tables. It left Wigan at 6.50 p.m. for Bolton, with slate and slag; and consisted of an engine and tender, 16 loaded and one empty waggons, and a break-van. It was not intended to stop at Lostock Junction, but was detained in approaching that junction, in consequence of other trains being in front of it. It passed West Houghton, according to the guard, at 7.10, and approached the distant signal from Lostock Junction about 7.15. It was pulling up, in obedience to the distant signal, which was at danger, when the van was struck by the engine of the excursion train, at 250 yards, according to the belief of the guard, or 400 as measured by the engine driver of the excursion train, outside of the distant signal. The guard in the goods van only saw the excursion train approaching when the engine was, as he thought, about 50 yards from him, and he had just time to jump out of his van before the collision occurred. He states that his train was proceeding forward as he left it at a speed of six or seven miles an hour, and that he fell, by reason of that speed, in jumping from his van. His impression was that the excursion train was travelling at 20 miles an hour when he first saw it, and nearly the same speed when his van was struck.

The buffers of the goods van were broken, and the wheels were jammed so that they would not revolve. Four of the waggons were damaged in their buffers and ends, but none of the wheels of the goods train were thrown off the line.

In front of the above special goods train from Wigan, there was a special timber train from Liverpool to Manchester, which had been stopped by the Lostock Junction signals, while a passenger train from Preston to Manchester was standing on the Preston line for the collection of tickets at the junction sta-