

LANCASHIRE AND YORKSHIRE RAILWAY.

Ministry of Transport,
Public Safety and General Purposes Department,
28, Abingdon Street,
Westminster, S. W. 1.

12th December, 1919.

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order of the 13th November, the result of my Inquiry into the circumstances of a collision between a light engine and a goods train, which occurred at about 5.54 a.m. on the 10th November, at Wakefield, on the Lancashire and Yorkshire Railway.

The light engine was running tender first from Wakefield to Normanton, and came into collision, opposite Turner's Lane Signal-box (about half a mile west of Wakefield Station) with the centre of a Great Northern goods train, which was at the time setting back across the road on which the light engine was running. As a result of the collision, 10 wagons of the G. N. goods train were damaged, 5 of them considerably; 4 of the latter were derailed. The light engine was also slightly damaged, but there was no damage to the permanent way, nor were there, fortunately, any personal injuries.

The goods train at the time consisted of 19 wagons (11 empty), belonging to various Railway Companies and private owners, drawn by G. N. engine No. 640, 0-6-0 type, with a six-wheeled tender, fitted with the vacuum automatic brake operating blocks on all wheels, and with a hand brake operating blocks on the tender wheels; weight of engine and tender, in working order, 76 tons.

The L. and Y. light engine was No. 1617, 0-8-0 type, with eight-wheeled tender, fitted with similar brake equipment. Total weight of this engine in working order is approximately 107 $\frac{3}{4}$ tons.

The morning was dark, and a strong and gusty wind was blowing at the time.

Description.

The Normanton road between Wakefield and Turner's Lane signal-box runs approximately straight and level from West to East, and the formation is at ground level. The two lines of road concerned in this case are the down loop and the down main, which run alongside and parallel to one another, the former being north of the latter. The relevant connections in the neighbourhood of Turner's Lane signal-box, which lies North of the running roads, starting from the east, are as follows:

(a) A cross-over road, No. 21 points, between the down main and down loop lines, in the facing direction on the former.

(b) A trailing junction connection on the down main, No. 25 points, between the main line and the down road of the Crofton Branch. This latter road crosses the up lines, of which there are two south of the down main line (the up main and the up loop) and there is a trailing connection from this branch line, south of the up loop line, to a group of sidings known as No. 1 Exchange, which lies parallel to and some 30 yards south of the running roads.

The next block post in the Wakefield direction is the Goods Yard box.

Measured from the centre of Turner's Lane signal-box, the approximate distances to the various points, signals, etc., concerned, are as follows:—

No. 21 cross-over points on down main line ..	25 yds. East
No. 25 junction points, on down main line ..	9 " "
Fouling point between Crofton Branch and Down	
Main line—point of collision	30 yds. West
Turner's Lane down home signals	70 " "
Goods Yard signal-box	540 " "
Goods Yard down home, and Turner's Lane down	
distant, signals	614 " "

Turner's Lane down distant signal is carried on the same post as the Goods Yard home signal. The Turner's Lane down home signals are carried on a double bracket post, on the right being the down main home signal, under which is carried the distant signal of the next box in advance (Park Hill), and on the left, the down main to down loop signal, applicable to No. 21 cross-over road, in the facing direction.

There are the usual shunting signals applicable, among other roads, to the backing movement No. 21 cross-over and No. 25 junction points.

Conclusion.

The Great Northern goods train travelled from Wakefield along the down loop line, and arrived at Turner's Lane signal-box at about 5.46 a. m. After the brake van had been detached and left upon the loop line, this train drew forward, so as to clear the cross-over road points (No. 21) on the loop line. Signalman Newton, on duty at Turner's Lane box, then proceeded to set the road for the backing movement from the down loop to the exchange sidings, over No. 21 cross-over and No. 25 junction points. This movement had just begun when the light engine was offered to Newton from the Goods Yard box; it was accepted at once by him, under full line clear. This acceptance was clearly irregular, since the distance between the home signal and the fouling point of the branch crossing is not more than 40 yards. Newton, in his evidence, admitted that he was wrong, and that he should have accepted under the "warning" which is here authorised on the down main line, in the case of light engines or goods trains, but not in the case of passenger trains. Immediately afterwards, at 5.52, the light engine was sectioned, and a minute or two later over-ran the home signal at danger, and collided with the centre of the goods train as the latter was backing over the branch-crossing.

2. Blakey, the driver of the light engine states that he first observed the Turner's Lane down signals, and the Park Hill distant carried on the same post (which were all at danger) as he passed the Goods Yard home signal, some 544 yards away. All three lights appeared to him to be then burning correctly. His account of the sequel is somewhat confused. Although, in his first description of the run, he made no mention of any such incident, he subsequently stated that, when he was about half way between the Goods Yard and Turner's Lane boxes, his gauge glass burst, and that when, after closing the cocks, he was free again to observe the road, he was some 10 yards from Turner's Lane home signals, travelling at 10 to 15 miles an hour. He then observed that the down main home signal was not shewing any light, and fully applied his brakes, which were in good order. He first stated that he applied sand at once, but later said that he did this only when his wheels picked up, which they "seemed" to do when the brakes were first applied. However this may be, the effect of the brakes appears to have been normal. Immediately after taking this action, he saw the goods train across the road in front of him, and the collision occurred. Blakey estimated that, at the moment of impact, he was travelling at a "fast walking speed." From the weight of his engine and the effect of the collision, it is probable that this is substantially correct, and that his speed did not exceed some 4 miles an hour.

Blakey's fireman, Ellis, gave similar evidence in respect of the broken gauge glass, but stated that this happened just after his engine passed the Goods Yard box. Ellis was firing at the time, and when the breakage occurred, according to his own account, he stepped back and looked along the road, but could not observe the signals, owing to the cloud of steam resulting from the broken gauge glass, until his mate had closed the cocks. Blakey, on the other hand, said that Ellis continued firing, and that neither man was observing the road during the time occupied in closing the cocks. After the steam had cleared, Ellis saw the home signal bracket, and also observed that the main line signal light was out. He thinks that his mate noticed this at the same moment, and applied the brakes. Ellis did not confirm Blakey's statement regarding the picking up of the wheels, or the application of sand.

3. From the evidence, there appears to be no doubt that the signal light in question was out when Blakey passed it. There is no evidence however to shew exactly when the light failed. Newton observed the back light shewing correctly after the passage of the Wakefield—Normanton passenger train at 5.20 a.m. Hill, the driver of the G.N. goods train, did not notice the signal in question (which did not apply to him), when he passed it about 25 minutes later, and Newton admits that he did not look at the light when he accepted the light engine; he did not in fact know that it was out until his attention was drawn to the fact by the driver, who came into the box after the accident.

Blakey in his evidence stated that when he first observed these signals he thought they were all three showing lights. He said later that he thought he must have mistaken the light of the Park Hill down home for that of the Turner's Lane down home, but it is quite possible that the Turner's Lane signal lamp was burning when he first observed the lights on this post, and that it went out during the run between the two boxes.

As regards the incident of the broken gauge glass. No mention of this was made by Blakey, either to Newton, Hill, or Wallis, the guard of the goods train, with all of whom he had some conversation after the accident; nor did he say anything of the occurrence to Mr. Grafton, the District Locomotive Superintendent, who questioned him about the accident soon afterwards. Blakey stated in evidence that he replaced this glass, after drawing away from the goods train, immediately after the collision.

4. Signalman Devonport Newton, and driver Thomas Blakey must share the responsibility for this accident. Newton admittedly accepted the light engine irregularly; he could give no reason for his very serious mistake, beyond saying that he was engaged at the time in work connected with signing on duty, which he took up at 5.0 a.m., and that his mind was therefore somewhat distracted from his duties in the box. In regard to the defective signal light, I think that, since such evidence as there is on this point admits at any rate the possibility that the light may have gone out after Newton had accepted the light engine, little blame can be attached to him under this head.

As regards Blakey, the driver of the light engine, there is no doubt that he passed his signal at danger. He was not, nor does he claim to be, in any way misled by the absence of the light, since there are other signals on the same post, both of which were admittedly shewing red lights. In regard to the alleged breaking of the gauge glass, from my examination of the glass in question, I think that, having regard to the hardness of the water at Wakefield, it has not been long in use, and that there is nothing in its appearance which necessarily conflicts with Blakey's statement. His engine was returned to the Wakefield shed after the accident, and has not, I understand, been in steam since. On the other hand, there are, as related above, certain discrepancies between the accounts given by Blakey and his fireman, both in regard to the place where the gauge glass is stated to have broken, and as to the fireman's subsequent action. However, whether or no this breakage occurred between the two signal-boxes in question, had Blakey been seriously embarrassed by the incident, it is hardly credible that he should have renewed the glass immediately after the collision, particularly as these engines are fitted with two gauge glasses, and made no mention of the occurrence until the later stages of his evidence at my Inquiry. For these reasons, I cannot accept the alleged breakage as extenuation of Blakey's action in passing his signal at danger. He stated in evidence that he "intended in any case to stop at Turner's Lane signal-box" to find out whether the guard of the coal train, which he was to take from Normanton, was in the box, as he apparently sometimes is. This piece of evidence is significant, and it is my opinion that Blakey, in view of the fact that the box is only a few yards beyond the signal, had already applied his brake in such a manner as to stop at the box, without regard to the condition of the signal, when the goods train came into sight. The night was dark, and I accept his statement that his view of the goods train, entirely unlighted, was very restricted. He was not warned at the Goods Yard box, and he therefore would have no reason to expect to meet an obstruction between the home signal and Turner's Lane box. Nothing however absolves a driver from his duty in connection with obedience to signals.

5. In regard to the incident of the defective signal light, this was of the long burning type, of which there are some 200 in use, with the large running signals, at Wakefield. It was last cleaned and refilled on the 6th of the month. John Lyon, the station master at Wakefield, who examined it after the accident, stated that no fault could be found in regard to quality or quantity, either of the oil or wick, nor could he discover any inherent cause for the failure of the light. It is highly probable that it was blown out by the high and gusty wind that prevailed at the time, but I do not think there is anything in the design which renders lamps of its type unduly liable to failure from this cause, nor do the records of failures from all causes shew an unduly high proportion. As I have already stated, the failure was not, in my opinion, a contributory cause of this particular accident.

I have etc.,
G. L. HALL,
Major, R.E.

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