



MINISTRY OF TRANSPORT

RAILWAY ACCIDENTS

REPORT ON THE COLLISION

which occurred on

21st December 1951 at

PIERSHILL JUNCTION

EDINBURGH

in the

SCOTTISH REGION

BRITISH RAILWAYS

LONDON : HER MAJESTY'S STATIONERY OFFICE

1952

SIXPENCE NET

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order dated 29th December, 1951, the result of my Inquiry into the collision which occurred, at about 25 m.p.h. between a passenger train and a stationary light engine at 5.5 p.m. on 21st December, 1951, at Piershill Junction, Edinburgh, in the Scottish Region.

Twelve passengers and three railway servants received minor injuries. A local doctor, and some qualified ambulance men from the nearby St. Margarets' Motive Power Depot, came quickly to the assistance of the injured; the first ambulance arrived at 5.25 p.m., and all the injured had reached Edinburgh Royal Infirmary by 6.05 p.m.

The train concerned, which was the 5.0 p.m. Outer Circle passenger train from Leith Central, was drawn by 2 6-2 Class 4 Tank engine No. 67630. The total weight of train and engine was 214 tons, and the brake power was 135 tons, or 63%. Vacuum brakes were fitted throughout.

There were five vehicles on the train, all of which had steel underframes; body frames were of wood. Two coaches had steel body panelling, and the remainder were wood.

The light engine, No. 60018, was a 4-6-2 Class 8 passenger tender, Type A.4, weighing in working order 163 tons. It was equipped with vacuum brakes working on all coupled and tender wheels.

The collision occurred chimney to chimney, and the stationary light engine, which was in forward gear with its brakes off, was forced back about 35 yards. Both engines were badly damaged. The buffers of the leading coach over-rode the buffer beam of the train engine, and the leading bogie of the coach was derailed; in addition, the rear bogie of the rear coach was displaced from its centre pin, and all the coaches of the train received some damage. The track also was slightly damaged, but no other running lines were obstructed.

The evening was fine and clear, but very dark.

#### DESCRIPTION

##### *The Line*

A sketch of Piershill Junction is given on page 3. For clarity, only the signals mentioned in the text are shown.

The signal box contains 46 working levers, and is normally operated by two men. Block sections, on which Absolute Block Regulations are in force, extend, in the Down direction, to St. Margarets (561 yards) on the main line and to Lochend Junction (944 yards) on the branch, and, in the Up direction, to Craightinny (766 yards) on both fast and slow lines. Block instruments are Tyer's 3-position needle type.

The Up Main siding between St. Margarets and Piershill Junction, known locally as the "Bell Lye", is worked in both directions under the "No Block" system.

There were no track circuits through the junction, but the starting signals for the Up Main and Up Branch to Craightinny, the Down Main to St. Margarets, and the Down Branch to Lochend Junction required their appropriate block instruments to be at "Line Clear" before they could be taken off.

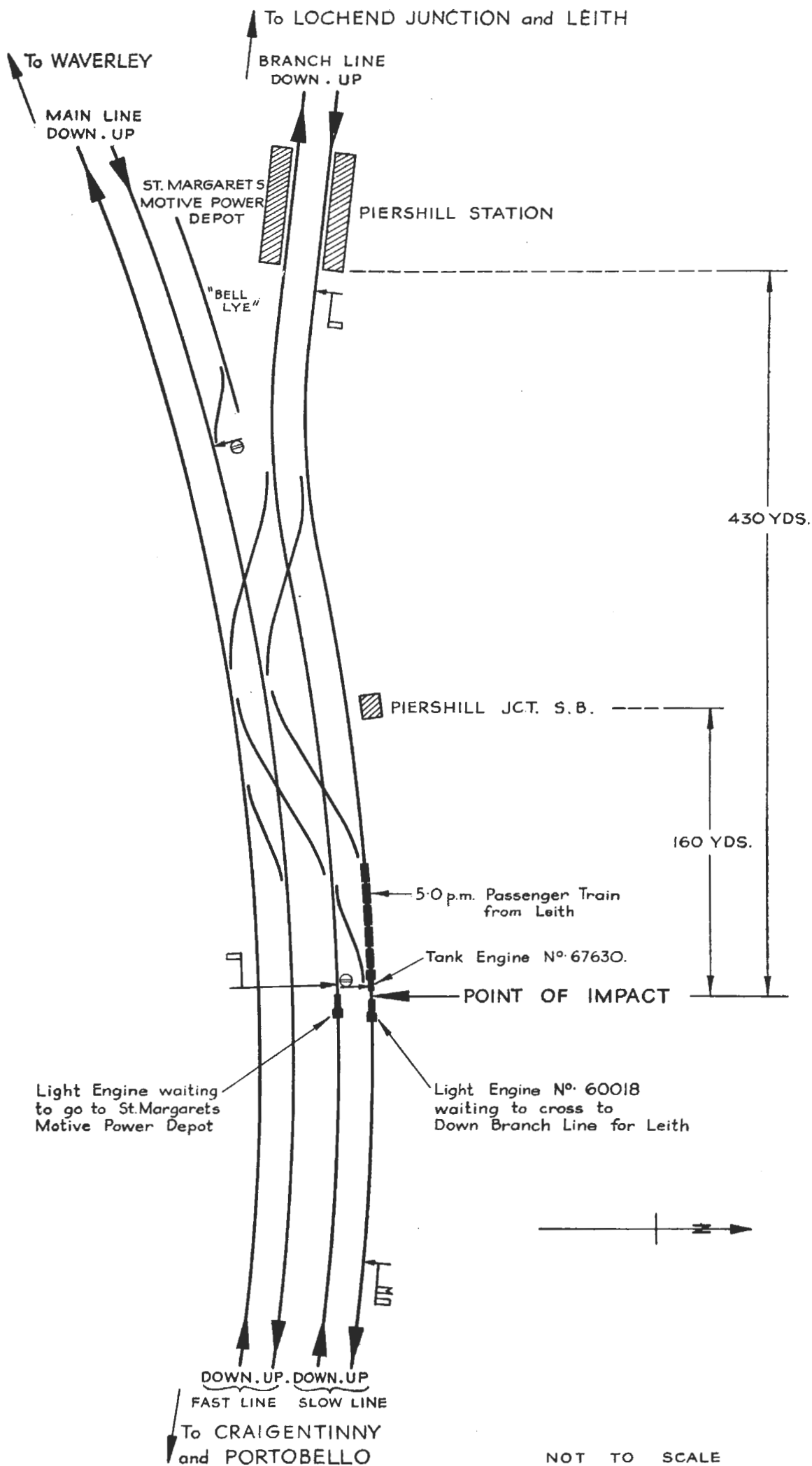
The Up Branch line, on which the passenger train was travelling, is on a left hand curve of 20 chains radius for 194 yards after leaving Piershill Station, and then curves at 60 chains radius past the point where the collision took place. The gradient falls generally at about 1 in 300 through the junction and towards Craightinny.

##### *The Accident*

When the accident occurred, one signalman was working the signalbox while the second man was having his tea; this was the normal procedure at the time of day.

The light engine, No. 60018, was crossed from the "Bell Lye" to the Up Slow line at about 4.55 p.m. The intention was that it should then be reversed and proceed on the Down Branch line through Lochend Junction after the passage of the next Down train on that line. This was expected to be about 5.0 p.m., and so the engine was held in the meantime at the disc signal for the crossover from the Up to the Down Slow line.

The signalman, J. Thomson, accepted two movements on the Up Main line from St. Margarets, at 4.57 p.m. and 4.59 p.m. respectively, and at 5.1 p.m. he was offered by the signalman at Lochend the train which was involved in the collision. He refused it, as the Junction was occupied, but one minute later, forgetting the light engine standing on the Up Slow line, he accepted the train and cleared the signals for it. He then offered it to Craightinny at 5.3 p.m., where it was also accepted. Finally it left Piershill Station at 5.4 p.m., after a booked stop at that station, and collided with the light engine as previously described.



NOT TO SCALE

The mistakes which the signalman made were that he failed to send the "Blocking back inside Home signal" to Lochend Junction, and that he omitted to put collars on his Up Main to Slow, and Up Branch to Slow Home signal levers. Thus, when he forgot the light engine, there was nothing to prevent a train being offered from Lochend Junction, or to prevent him accepting and pulling off the signals for it.

In addition, Driver J. Haston of the light engine, failed to carry out Rule 55(b) promptly (See Appendix), with the result that the signalman was not reminded of the position of the engine, as he should have been. Haston said in his evidence that, having stopped beyond the crossover on the Up Slow line, he gave three short blasts on the whistle, and he thought that the engine was then standing for two or three minutes before his fireman left to carry out Rule 55. Fireman T. Smith said the same, and added that he was on his way to the signalbox and had just reached the front of the engine when he saw the oncoming train about 200 yards away. Both driver and fireman knew the provisions of Rule 55, and that the fireman should have gone to the signal box immediately the engine stopped and was detained at the crossover.

#### CONCLUSION

The accident was brought about by the combined mistakes of the signalman and the crew of the light engine. The enginemmen of the passenger train could not have been expected to see the light engine or to take effective action in time to avoid the collision.

#### REMARKS

All the men concerned had good reputations, clear records, and were experienced ; also, they gave their evidence in a straightforward manner.

Signalman Thomson's error is plain ; he simply forgot the light engine when he accepted the passenger train. There was no excuse or good reason for this, although the fact that the junction was busy at that time in the evening, that trains were running "out of course", and that he was working single handed, no doubt had something to do with it.

The failure of the enginemmen to observe Rule 55 is important.

In this particular case the fireman was on his way to the signal box when the accident occurred, but the driver failed in not sending him immediately they were detained at the crossover. Although both driver and fireman thought they were only standing for two or three minutes, judging from other movements which were taking place at the time, it is probable that they were, in fact, at the crossover for about eight minutes. Furthermore, although not directly concerned with this accident, the evidence showed that another engine had been standing beside them on the Down Slow line for no less than twenty minutes, and had not carried out the rule.

During 1951, failure to carry out Rule 55 caused or contributed to 14 accidents reported to the Ministry of Transport. The importance of carrying out the rule strictly and literally cannot be over emphasised, for the lives and safety of both passengers and railway staff may well depend upon it, as this accident demonstrates. There are, no doubt, occasions when it is a somewhat unpleasant duty, so that there may be the temptation to put it off, in the hope that the signal will be cleared in the meantime. This must be resisted.

The faithful observance of the Rule 55, however, rests almost entirely in the hands of enginemmen, and it is only their good sense and discipline which will ensure that it is carried out.

It is satisfactory to report that track circuiting, which would have prevented this accident, will shortly be installed at Piershill Junction.

I have the honour to be,

Sir,

Your obedient Servant,

R. J. WALKER,

Colonel.

The Secretary,  
Ministry of Transport.

## APPENDIX

### EXTRACT FROM RULE BOOK

#### "DETENTION OF TRAINS ON RUNNING LINES

55. (a) When a train has been brought to a stand owing to a stop signal being at Danger, the Driver must sound the engine whistle, and, if still detained, the Guard, Shunter or Fireman must (except as shown in the following paragraph, or where printed instructions are given to the contrary) go to the signal box and remind the Signaller of the position of the train, and, except as provided in clause (f), remain in the box until permission is obtained for the train to proceed. In clear weather, except as shown in clause (g), a train must not stand more than two minutes at a stop signal before the man goes to the signal box. During fog or falling snow, unless the stop signal is lowered immediately after the engine whistle has been sounded, the man must at once proceed to the signal box.

\* \* \* \* \*

(b) When a train or vehicle has passed a stop signal for the purpose of being crossed to another line, or to be let into a siding, or has been shunted on to the opposite running line, or placed on either a main or branch line at a junction, or when a train or vehicle has been shunted from a siding on to a running line for the purpose of being crossed to another line, the Guard, Shunter or Fireman must (except where printed instructions are given to the contrary), when the train or vehicle comes to a stand, and is detained, proceed immediately to the signal box and remind the Signaller of the position of the train or vehicle, and, except as provided in clause (f), remain in the box until the Signaller can give permission for it to proceed or to be shunted clear of the running lines".

\* \* \* \* \*