



MINISTRY OF TRANSPORT

RAILWAY ACCIDENTS

REPORT ON THE COLLISION

which occurred on

21st January 1952 at

CLYDEBANK STATION

in the

SCOTTISH REGION

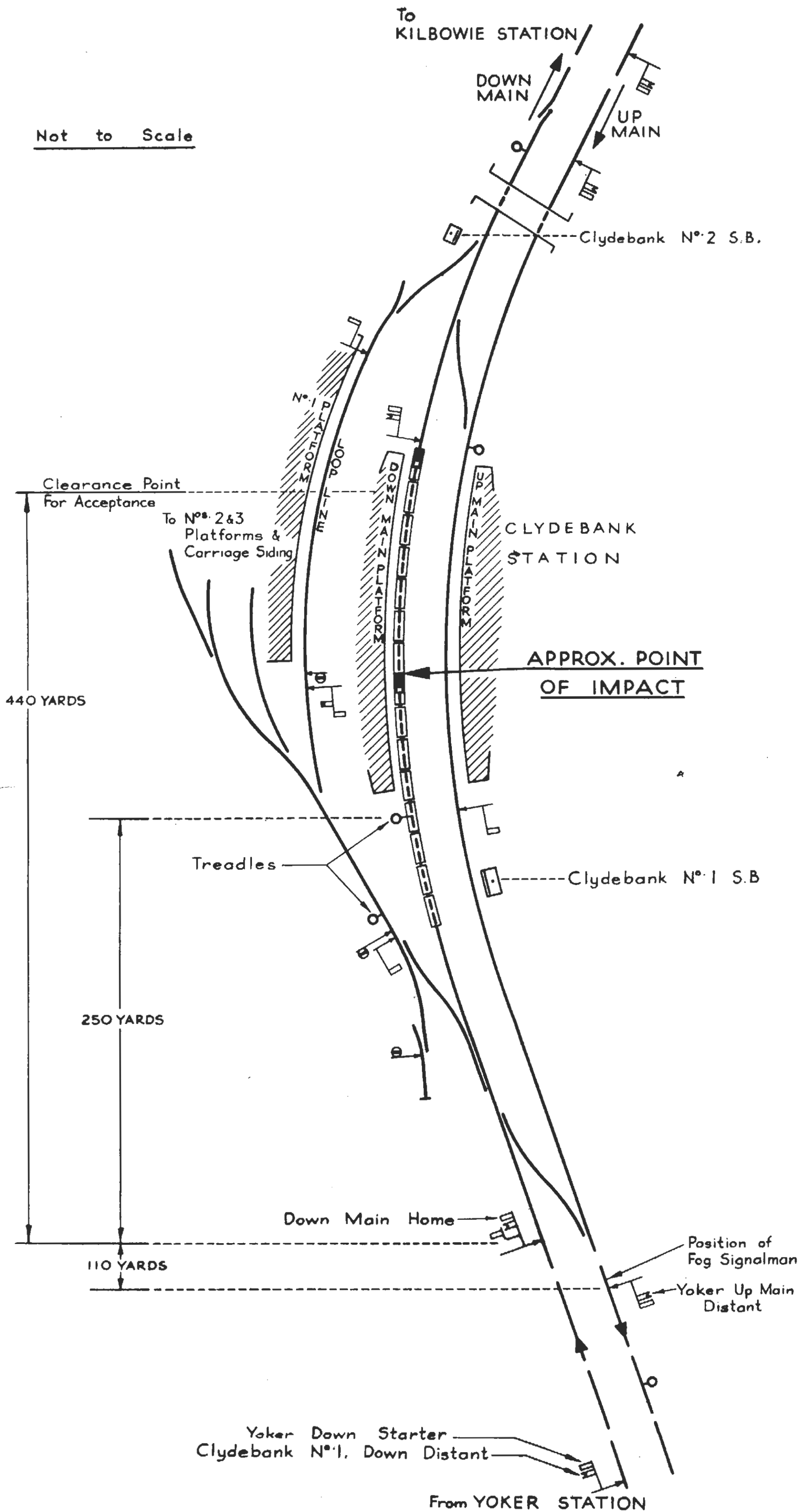
BRITISH RAILWAYS

LONDON : HER MAJESTY'S STATIONERY OFFICE

1952

SIXPENCE NET

Not to Scale



30th August, 1952.

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order of 22nd January, 1952, the result of my Inquiry into the collision which took place between two passenger trains at Clydebank Station in the Scottish Region at 7.56 a.m. on 21st January, 1952.

The trains concerned were the 6.40 a.m. Rutherglen to Old Kilpatrick, and the 6.50 a.m. Rutherglen to Dalmuir. The Old Kilpatrick train consisted of an engine and six coaches, and weighed 245 tons; all brakes were off at the time. The Dalmuir train comprised a 2-6-4 Class 4 M.T. tank engine, No. 42172, and seven coaches, weighing altogether 284 tons. The engine was fitted with steam and the coaches with vacuum brakes; the brake power of the train, including engine, was 176 tons or 62% of the total weight.

The Dalmuir train, travelling at about 15 m.p.h., ran into the rear of the Old Kilpatrick train, which was stationary. In the former, the engine alone received minor damage, but in the latter, telescoping occurred between the trailing end of the fifth vehicle and the leading end of the sixth, and one compartment of each coach was destroyed. Except for this, there was no other damage of any account. All coaches of both trains were constructed with steel underframes and timber body framing.

Twenty passengers complained of slight injury and were attended on the platform of the station by railway staff and by local doctors. Three of the passengers elected to go to the Western Infirmary for further examination, but they were not detained.

The weather was frosty and foggy, with visibility restricted to twenty or thirty yards; day was just breaking. The condition of the rail surfaces was greasy.

DESCRIPTION

The line and signalling.

A diagram of the line and of the lay out at Clydebank Station is given opposite.

Approaching the station, the Down main line falls at 1 in 120, and is on a right hand curve of 18½ chains.

Between Yoker, Clydebank No. 1, and Clydebank No. 2 signalboxes, the line is worked in accordance with the former L.M.S. Absolute Block Regulations, as modified for the Tyer's two-position Lock and Block system. Contact treadles are placed 250 yards in advance of the Down Home signal on the main line, and 203 yards in advance of the same signal on the Down loop line. When operated by the leading wheels of a train, the treadle releases the Lock and Block instrument for the acceptance of a following train.

The Down Home signal at Clydebank No. 1 controls the entrance into the block section to Clydebank No. 2.

Relevant extracts from the block working regulations and instructions are as follows:—

“The bell signals and regulations for train signalling on double lines of railway also apply to the Electric Lock and Block (Tyer's) system except where modified or added to as shown below:

4. *Line clear or giving permission for a train to approach (First paragraph of clause (a) modified):—*

(a) Except where special instructions are issued to the contrary, the line must not be considered clear, nor must a train be allowed to approach from the box in rear, in accordance with Regulation 3, until the preceding train has passed over the rail contact (where provided) or at least a quarter of a mile beyond the Home signal, nor until all the points necessary for the safety of the approaching train have been placed in their proper position, and the line is clear for at least a quarter of a mile ^{a head} of the Home signal.

10. *Train out of Section (Clause (a) modified):—*

(a) except where special instructions are issued to the contrary, trains must not be considered out of section and the train out of section signal must not be sent until the train with tail lamp attached has passed at least a quarter of a mile beyond the home signal or has been shunted clear of the main line, nor where a rail contact is provided, until the train has reached the contact. At junctions when a train has been brought to a stand ahead of the junction the Train out of Section signal must not be given until the facing points have been set for another line and that line is clear.

The following is an extract, relating to fog working, from the card of instructions to signalmen in Clydebank No. 1 signalbox:—

Regulation 4(e)

“When Clydebank No. 2 box is open, before the fog signalman is on duty at the Down Distant signal the Is Line Clear signal for a train on the Down main line must not be acknowledged until it has been passed forward to and acknowledged by repetition by the box in advance”.

The accident.

The fog was thick and trains were running late. The 6.40 a.m. Down train arrived at Clydebank at 7.47 a.m. As soon as it arrived, Signalman McGrory at Clydebank No. 1 signalbox gave the "Train out of Section" signal to Yoker, who at once offered him the 6.50 a.m. Down train, and obtained acceptance for it. This was done, firstly, while the 6.40 a.m. was standing in the station within the 440 yards clearance distance of the Down Main Home signal, and secondly without pulling the points for the loop, where, alternatively, the necessary clearance could have been obtained. In addition, double block working should have been in operation in the fog, requiring the receipt of acceptance from Clydebank No. 2 signalbox before accepting from Yoker. This also was not done. McGrory, however, did not pull off his Down Main Home and Distant signals, which remained at Danger and Caution respectively.

The 6.40 a.m. train was then held in the station for about 9 minutes awaiting acceptance from the next station ahead, Kilbowie.

There was a fogsignalman on duty at the Yoker Up Distant signal which, as will be seen from the diagram, is 110 yards in rear of the Clydebank No. 1 Down Home signal. No other fogsignalmen were on duty in the vicinity. The 6.50 a.m. train approached Clydebank No. 1 Down Home signal slowly, and the driver was prepared to stop, when the fireman, from the right hand side of the engine told him that he had seen a green light. This was, in fact, the light from the fogsignalman's hand lamp at the Yoker Up Distant signal, and it was, properly, on the cess side of the Up line. Upon hearing this information the driver concluded, without any justification, that the green light referred to the Down Home signal, that this signal had failed, and that he was intended to pass it at Danger. He therefore continued past the signal into the station, and collided at a speed of about 15 m.p.h. with the rear of the 6.40 a.m. train which was still standing at the platform. The driver caught sight of the tail-lamp of this train through the fog when about 20 yards away, and he applied his brakes fully, but there was no time for them to take effect.

EVIDENCE

Signalman J. McGrory, who was on duty in Clydebank No. 1 signalbox, was 21 years old, and had been a signalman since 1948. He admitted that he had accepted the 6.50 a.m. train when the 6.40 a.m. train was still standing in the platform within the 440 yards clearance distance of the Down Home signal, and also that he had not pulled the points for the loop. He also admitted that he had done this before, and that he knew it was wrong.

So far as the fog was concerned, McGrory said that it had been thick since 6.20 a.m., when he came on duty. He knew that in these circumstances he should have called out the fogsignalmen, and should have worked "double block" until they arrived at their posts, but he admitted that he had taken neither action.

Lengthman James Ferris said that on the morning of the accident, the weather was freezing and the fog was very thick, with visibility less than 30 yards. He therefore came on duty of his own accord at 6.0 a.m. in order to salt the points and keep them free, and also to take up fog signalling duties. At about 7.25 a.m. he took up his position close to the Yoker Up Distant signal. Ferris said that he was lighting his brazier, which was about 15 yards in rear of the signal, when the latter changed to the "Clear" position. He then changed the shade of his lamp to green and walked with it to pick up the detonator which he had placed a short distance farther down the line. As he was walking to this detonator, with his back towards Yoker, and his face towards Clydebank, the 6.50 a.m. train passed him on the other line, so that when it passed him his green lamp was facing towards Clydebank. Having picked up his detonator he returned to the Up Distant signal, and he said that, while he was doing so, his green lamp would have been showing in the direction of Yoker. He was quite certain, however, that the 6.50 a.m. train had already passed by this time.

Driver A. Roney of the 6.50 a.m. train said that he was approaching the Clydebank Down Home signal with the regulator closed and the brakes partially applied. He had practically stopped, when the fireman, who was on the right hand side of the engine, said that he had seen a man exhibiting a green lamp. Roney, who did not see the man nor the lamp, concluded from this that the signal was defective and that he was intended to pass it at Danger, so he released his brakes and continued into the station. He said he did this to save time, and that he thought he would be given further information when he reached the station, which was immediately ahead. Roney said that he knew that, in order to pass a defective signal, he should be stopped by a man posted at the signal, be informed that it was defective, and be instructed, with a green lamp, to pass it at Danger.

Fireman H. Semple confirmed that he told Driver Roney that there was a man with a green lamp on his side. He did this because he always informed his driver of any hand signal displayed on the line.

CONCLUSION AND REMARKS

This accident was caused, as already described, by the combined mistakes of two men—Signalman J. McGrory in the Clydebank No. 1 signalbox, and Driver A. Roney of the 6.50 a.m. train.

Signalman McGrory was not a good witness; his evidence was vague and unsatisfactory, and it appeared from it that his understanding of his duties was remarkably indistinct. I am not prepared, however, to accept his evidence at its face value, because I think that he was conversant with his duties, even if he did not fully understand the reason for them, and that his action and omissions on this occasion were simply due to carelessness. He has now been relegated to other work.

The action of Driver Roney, a man of 51 years of age, with 5 years experience in the grade of driver, in passing the Down Home signal at Danger is difficult to understand. He was well aware of the rules for passing a defective signal at Danger. How, therefore, he could take the word of his fireman that he had seen a green light on the wrong side of the line, nearly 110 yards before he reached the Down Home signal, as an indication that the latter had failed, and that he was to pass it at Danger, cannot be explained.

Although the ignorance professed by McGrory was exaggerated, I think that there was some genuine confusion in his mind about the purpose of the treadle and its relation to the 440 yards clearance distance, and he may have come to regard the one as an alternative to the other. Any confusion in this respect would not, in my opinion, have been removed by the somewhat complicated wording of the Regulations quoted earlier in this Report; in fact I think that, unless very carefully read, it might even be taken to confirm the misapprehension.

The importance of wording instructions and regulations so that they have but one meaning, and can be clearly and easily understood by those who have to put them into effect is obvious. I have no doubt that the Authorities have this well in mind, and that when such confusing words come to light, as in this case, they are suitably altered.

I have the honour to be,

Sir,

Your obedient Servant,

R. J. WALKER,

Colonel.

The Secretary,

Ministry of Transport.