



MINISTRY OF TRANSPORT

RAILWAY ACCIDENT

REPORT ON THE COLLISION

that occurred on

8th February 1963

at

DRAYTON

in the

SOUTHERN REGION
BRITISH RAILWAYS

LONDON: HER MAJESTY'S STATIONERY OFFICE
1963

NINEPENCE NET

MINISTRY OF TRANSPORT,

ST. CHRISTOPHER HOUSE,

SOUTHWARK STREET,

LONDON, S.E.1.

19th June, 1963.

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order dated 12th February 1963, the result of my Inquiry into the collision between two electric passenger trains that happened at about 8.46 a.m. on 8th February 1963 at Drayton, in the Southern Region, British Railways.

In dense fog the 7.50 a.m. Up Portsmouth Harbour to Brighton electric passenger train, which had been wrongly admitted into the section, collided at about 25 m.p.h. with the 7.37 a.m. Up Portsmouth Harbour to Bognor Regis electric passenger train which was moving slowly after having been stopped at Drayton Up home signal.

There were about 210 passengers in the two trains; 17 were injured, fortunately none very seriously, and the driver of the second train and the guard of the leading train were also hurt. The West Sussex County Police, ambulances and the Fire Brigade reached the site shortly after 9.0 a.m., and all injured passengers had left for hospital by 9.20 a.m. The Chichester branch of the Women's Voluntary Service were also quickly on the scene with tea and refreshment.

Special bus services were arranged promptly and were used through the day to replace the disrupted rail service until normal working was resumed at 4.30 p.m.

DESCRIPTION

The Line and Signalling

1. The double track coast route from Portsmouth towards Brighton, which is electrified on the third rail system, runs eastwards in the Up direction through Chichester, Whyke Road, Drayton and Barnham, which is the junction for Bognor Regis. At the site of the accident it is more or less at ground level and there is a small goods yard on the Up side of the line.

2. The distance from Chichester East signalbox (close to Chichester station) to Whyke Road signalbox is nearly $\frac{3}{4}$ mile, thence to Drayton box $1\frac{1}{4}$ miles, from Drayton to Woodgate crossing box nearly 3 miles, and over $1\frac{1}{2}$ miles thence to Barnham. There is an intermediate box called Portfield between Whyke Road and Drayton which was closed at the time of the accident with all signals at clear. Whyke Road, Drayton and Woodgate boxes are maintained primarily for the working of the gates at the fairly busy level crossings at each; they also serve as block posts.

3. Train movement between Whyke Road and Drayton signalboxes is controlled with the aid of standard three-wire, three-position, block instruments, on which the indicator points to "NORMAL" when the line is free, "LINE CLEAR" when permission has been given for a train to enter the block section, and "TRAIN ON LINE" when the train has done so. The indicator is moved to the appropriate position by the signalman in the box ahead turning the commutator of his instrument. At the despatching signalbox, the instrument is electrically interlocked with the starting signal which can not be pulled off until Line Clear has been received: before the starting signal can be pulled a second time, the block instrument must pass through the TRAIN ON LINE position. Interlocking also ensures that, at the receiving signalbox, the distant signal arm must be in the "on" position before Line Clear can be given.

4. The signals are upper quadrant semaphores. The Up home signal at Drayton is 325 yards on the approach side of the signalbox, and the Up distant signal about $\frac{3}{4}$ mile, and therefore $\frac{1}{2}$ mile from Whyke Road box.

5. The signalmen at Chichester East and at Whyke Road are not required to book trains, but booking is carried out at Drayton.

The Trains

6. The 7.37 a.m. Portsmouth Harbour to Bognor Regis electric passenger train consisted of two 4-coach corridor sets, 176 yards long over buffers; it weighed 320 tons. There was a motor coach at each end of each set. The 7.50 a.m. electric train from Portsmouth Harbour to Brighton consisted of one 4-coach set of similar design to the Bognor Regis train. The coaches were of 1937/38 type with wood-framed bodies, steel-panelled, on steel underframes. All coaches were screw-coupled. The trains were fitted with the Westinghouse compressed air brake.

7. The damage to the trains was not serious except at the colliding ends; the rear of the leading train over-rode the front of the second train, wrecking completely the driver's cab and the brake compartment behind it. The motor bogies underneath the two ends were badly damaged, and the one under the leading end of the second train was derailed causing a short circuit which cut off electric power. Elsewhere in the trains a few side windows and mirrors were broken, and some seats and supports were displaced.

REPORT

8. The 7.37 a.m. train passed Whyke Road box under clear signals, but *Driver J. E. Gibbs* saw through the fog the Up Drayton distant signal at caution, and he stopped at the Up Home signal at danger and sounded the whistle. After a few minutes *Guard G. A. Mitchell* walked up the train from his position in the fourth coach to the driver's cab whence he got down to the ground and began walking towards Drayton signalbox. When he had got about halfway to the box, the home signal was lowered. Driver Gibbs whistled again and started his train slowly forward intending to accelerate after the guard had rejoined the train. The tail of the train was about 70 yards past the home signal, and the guard had climbed into the driver's cab and had opened the door from it into the brake compartment to walk back to his position in the train, when the collision happened.

9. Mitchell thought that he had not been unduly slow in getting down from the train to go to the box (the Rules require the guard to go to the box at once if the train is stopped at such a signal in fog). He said that as he walked forward through the four coaches to the driver's cab he was delayed a little by the passengers, but he started from his compartment as soon as the train stopped. Driver Gibbs, when pressed, agreed that he thought the guard had taken a rather long time to get to his cab.

10. *Driver E. J. Chivers* of the 7.50 a.m. train said that he saw the arm of Drayton Up distant signal rise to the clear position as he approached at moderate speed. He did not accelerate fully because of the fog so as to be sure of not missing the home signal, and the train was travelling at about 30 m.p.h. only when he suddenly saw the train ahead. He put his brake handle in the lap position and let go the deadman's handle; he then opened the side door of the cab and got on to the foot board whence he was thrown clear when the collision happened. He fractured his wrist when he fell but was able to go to the box to report to Control.

11. Driver Chivers was asked why he did not make a full Westinghouse brake application instead of putting the handle in the lap position and waiting for the deadman's control to operate. He said that he thought the one method of application was as quick as the other and he appeared not to realise that there is delay of about five seconds before the brakes are applied when the deadman's handle is released. The delay is incorporated in the design of the equipment to allow a driver to move momentarily from the controls when the train is running without causing an immediate brake application.

12. *Signalman J. Wilson*, in Whyke Road box, obtained Line Clear for the 7.37 a.m. train from *Signalman T. Sketchley* in Drayton box at 8.29 a.m., according to the time recorded by the latter. Wilson pulled off his signals for the train which, he estimated, passed 5-6 minutes later. He thought that he had given Train Entering Section for the train, though Sketchley denied this, and Wilson admitted that he did not watch his block instrument to see that the indicator was turned to TRAIN ON LINE. A few minutes later Wilson accepted the 7.50 a.m. train from Chichester East, found that his starting signal lever was locked and that the block instrument to Drayton was at LINE CLEAR, and gave the cancelling signal to Drayton box so that he could get another Line Clear in order to release the signal lever. This was accepted by Sketchley at 8.45 a.m., according to the entry in his Register, as was the "Is Line Clear" block message which immediately followed it. Wilson was thus able to pull off his starting signal for the 7.50 a.m. train, which passed his box at moderate speed. He gave Train Entering Section for this train and it was acknowledged at 8.46 a.m. according to the entry in the Drayton box Register. "Obstruction Danger" was entered as sent at 8.47 a.m.

13. Wilson, who had worked in Whyke Road box for the past six years, said that he had had a full rest period before his turn of duty and was in good health. He could not account for his failure to carry out the proper procedure for block working, and could give no reason why, when he found the starting signal lever locked and saw the block instrument at LINE CLEAR, he should have simply asked for a cancellation from Drayton without thought. He was aware of the Regulation which requires the two signalmen concerned to come to a clear agreement about the state of the line before cancelling a Line Clear. He agreed, when asked, that the permanent way ganger had been in the box for about 6 or 7 minutes before the cancellation, testing a lever which worked crossover points. He had allowed him to work the lever though, in fact, he should not have done so. He did not, however, suggest that this work had distracted him, nor did he suggest that Line Clear cancellations were frequent; he said that they were done very rarely.

14. Sketchley maintained that he had no reason for concern over the long period of 16 minutes that elapsed after giving Line Clear without receiving a Train Entering Section message, as the rule on this stretch of line was that each signalman asked for Line Clear ahead as soon as he had received it from the box in rear. He said that he was on the point of asking Whyke Road box about the train for which the first Line Clear had been asked when he received the cancelling message. He spoke on the telephone to Whyke Road box before acknowledging the cancellation and turning the commutator to TRAIN ON LINE and NORMAL, but did not get a clear reply. He did not thereafter persist and gave the cancellation and the subsequent Line Clear without further question. Sketchley did not hear the whistle given by Driver Gibbs at the home signal but the home signal is at a good distance from the box, and the windows were closed on account of the weather.

15. The length of time that the 7.37 a.m. train stood at Drayton Up home signal before it was lowered at about 8.46 a.m. was not directly established, but the train was not unduly delayed on the journey, though it was running steadily behind time on account of the fog, and the railway officers estimated that it should have passed Whyke Road about 6 or 7 minutes after the signalman had given

Line Clear for it to Chichester East box and had received Line Clear from Drayton. It should therefore have passed Whyke Road at about 8.36 a.m. and have stopped at Drayton Up home signal say 3 minutes later at 8.39 a.m. This estimate is confirmed by the guard's journal on which he recorded the departure from Chichester station, two miles from Drayton, as 8.35 a.m. It is fairly certain therefore that it stood for about 7 minutes.

CONCLUSION

16. I am satisfied that Signalman J. Wilson did not send the Train Entering Section block message for the 7.37 a.m. train, for, if he had, he should have looked at the indicator on the instrument to watch it turn to TRAIN ON LINE. Prime responsibility for this accident rests on him for his irregular block working which culminated in his sending the cancelling message to Drayton and obtaining the second Line Clear. Wilson showed himself to be very conscious of his grave mistake.

17. Signalman T. Sketchley failed to take the proper action to confirm with Wilson that there was no train in section, as required by the Instructions, before accepting the cancellation message and giving another Line Clear, and I consider that he is responsible to a lesser degree for the collision.

18. I consider also that Guard G. A. Mitchell failed to carry out Rule 55 promptly; this requires the guard to go at once to the signalbox if the train is detained at a signal in fog. I am satisfied that the train must have been standing at the Drayton Up home signal for about 7 minutes before the signal was lowered and the train began to move forward. If he had started for the box at once, and walked there briskly, he should have arrived in time for the signalman to realise that a mistake had been made and to keep the distant signal at caution and replace the home signal to danger before the 7.50 a.m. train reached it.

REMARKS

19. The system of asking Line Clear ahead for a train before Train Entering Section is received from the box in rear, in order to avoid delays to trains where signalboxes are closely spaced, is well recognised and is provided for in the Regulations. But it makes the block working procedure less significant. On this portion of line it is applied at six consecutive signalboxes on either side of and through Chichester, where trains may be held for various reasons. I suggest that the arrangement might be reviewed so as to reduce the number of consecutive signalboxes to which it is applied.

20. Driver Chivers' failure to make a full application of the Westinghouse brake in the emergency and his lack of appreciation of the delay element in the deadman's control application suggest to me that this latter may not be emphasised sufficiently in the training of drivers. I am sure that the necessary emphasis will be given to it in future.

I have the honour to be,

Sir,

Your obedient Servant,

W. P. REED,

Colonel.

The Secretary,
Ministry of Transport.