MINISTRY OF TRANSPORT

RAILWAY ACCIDENT

Report on the Collision that occurred on 5th December 1969 at Waterloo Station

IN THE
SOUTHERN REGION
BRITISH RAILWAYS

LONDON: HER MAJESTY'S STATIONERY OFFICE
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MINISTRY OF TRANSPORT,
ST. CHRISTOPHER HOUSE,
SOUTHWARK STREET,
LONDON, S.E.1.

7th August 1970.

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order dated 8th December 1969, the result of my Inquiry into the collision between a propelled empty coaching stock train and a stationary parcels train that occurred at Waterloo Station in the Southern Region of British Railways at 14.25 on 5th December 1969.

Shortly after 14.00 eight coaches that had formed the 10.15 Exeter (St. David's) to Waterloo passenger train were standing at platform 14. The train locomotive was next to the buffer stops and in order to release this locomotive it was necessary to draw the empty coaches out of the platform line. For this purpose a diesel locomotive was brought from the North Sidings at Waterloo and coupled to the empty train. The shunter in charge of the movement then telephoned the Waterloo signalbox and arranged with one of the s gnalmen for the empty coaches to be drawn out. It was intended to propel the empty coaches back into No. 14 platform line, where they were to form the 15.10 Waterloo to Exeter passenger train, once the train locomotive had been released. The move was a normal one, carried out every weekday.

A train drawn out from platform 14 can be routed to any one of a number of lines, but the movement was normally made via the Up Main Relief line or the Down Windsor Local line, depending on traffic conditions at the time. During the week in question the moves had been mainly via the Up Main Relief but on the day of the accident the signalman routed the train on to the Down Windsor Local.

With the shunter riding in one of the passenger coaches the train was drawn out on to the Down Windsor Local line at about 14.20, and the released train locomotive departed for Stewarts Lane via the Down Windsor Through line. All that remained to be done was for the signalman to operate two shunting signals to allow the train to be propelled back to platform 14. Unfortunately he operated a points lever in mistake for one of the signal levers and in consequence set a route leading to platform 12. As soon as the first of the two signals controlling this route cleared to a proceed aspect the train was started, and thereafter none of the train crew noticed that the second signal was still at danger. The train passed this signal and took the route towards platform 12, where it collided heavily with a train of 17 parcels vans, eight of which were derailed or lifted off their bogies. Three of these vans struck coaches of the 14.30 Waterloo to Weymouth passenger train which was standing at platform 13 ready to depart. The time was approximately 14.25.

Immediately after the accident the driver and guard of the passenger train went to see if anyone had been injured, and they were joined on the platform by the Station Manager. An ambulance was requested at 14.31 and arrived at 14.35. Only one of the coaches in the 14.30 Weymouth train was seriously damaged, and most of the damage to this coach was to the luggage compartment. Although the train was well filled only one passenger received injuries, and these were fortunately slight. The ambulance was not needed.

Slight delays were caused to trains generally and two passenger and three parcels trains were cancelled as a result of the accident. Rerailing of the parcels vans and repairs to the permanent way, which had suffered slight damage, were not started until after the evening peak period. The lines were cleared and repaired by 06.15 on 6th December.

Derailment of the parcels vans tripped the circuit breakers in the Waterloo Substation feeding traction current to No. 12 to 15 Platform lines (inclusive).

At the time of the accident the weather was cold and dry with clear visibility.

DESCRIPTION

The Site

1. Waterloo Station is the London terminus of the South Western Division of the Southern Region and it has 21 platforms. Between Vauxhall, approximately one mile to the south, and Waterloo there are four Up and four Down lines. Those concerned in this accident are the Down Windsor Through, Down Windsor Local, Up Main Relief, and Up Main Through lines. Approaching the terminus the lines are sharply curved and those leading to Platforms 12, 13, and 14 take a long left hand curve, the latter part of which is of 17 chains radius, followed by a short right hand curve of 12 chains radius before curving left and right again into the station. Details of the layout and the position of relevant signals and other features are shown on the Plan at the back of the Report.

The Signalling

2. The lines between Vauxhall and Waterloo are fully track circuited and the signals are 3-aspect or 4-aspect colour light. They and the electrically operated points are controlled from an electrically interlocked frame with 309 miniature levers, 273 of which are working levers, situated on the upper floor of the two storey signalbox at Waterloo: the relay room, battery room, transformers, rectifiers, and the linemen's rooms are on the ground floor. The position of the signalbox is shown on the Plan.

3. The frame in the signalbox is arranged to form three sides of a rectangle. There are four illuminated diagrams each covering all the tracks between Vauxhall and Waterloo. Each of the two side sections of the frame is surmounted by one diagram and the long central section by two diagrams. The occupation of a track circuit is indicated by the illumination of two red lights on the corresponding section of the diagram. All the aspects of signals are repeated above the levers except that, when a signal is controlled by more than two levers, the repeater lights are provided only above the two end levers. In the case of running signals the actual aspect is shown: for shunting signals an indication shows whether they are "ON" or "OFF". There is also an indicator light with the letter "F" above each running signal lever: when illuminated this indicates that the route is correctly set and locked and that all the detection circuits are made and that, consequently, the lever is free to be reversed. When the lever has been reversed and the aspect of the signal has cleared, another light above the lever becomes illuminated and shows the route that has been set up. There are finally two indicator lights above each lever controlling points in a running line, with the letter "N" (normal) in one, and "R" (reverse) in the other. When illuminated they indicate the position of the points and also prove that the detection circuit is complete.

4. There are no block instruments and trains are described, using magazine type train describers, between Waterloo and Loco. Junction signalbox which is located about two miles to the south.

5. From 08.30 until 23.00 the signalbox is manned by a Traffic Regulator and five signalmen and from 23.00 to 00.30 by three signalmen. After 00.30 the number of signalmen is reduced to two. Signal and Telecommunication technicians are on duty throughout the 24 hours.

6. Signals No. 224 and No. 227 which control shunting movements towards Platforms 12, 13 and 14, are solenoid operated floodlit disc ground signals located immediately to the left of the line to which they refer.

7. The signalling equipment at Waterloo was brought into use in 1936.

The Trains

8. The empty coaching stock train was formed as follows:

Class 42 diesel-hydraulic locomotive No. 807

Second Corridor	W 25932
Corridor Composite	W 15810
Second Open	W 4133
Brake Second Corridor	W 35402
Brake Second Corridor	W 34912
Restaurant (Unclas.)	W 1948
Second Open	W 5028
First Corridor	W 13288

9. The parcels train standing at platform 12 consisted of 17 vans. Types of van and the marshalling of the train are shown on the Plan.

10. The passenger train standing at platform 13 was formed of 4 TC, 4 REP, and 3 TC units.

Evidence

11. On the afternoon of 5th December, *Signalman F. G. W. Cudlipp* was one of two signalmen working the Windsor Line frames in Waterloo signalbox. His duty was to look after the outward services; his companion, Signalman Waylett, handled the inward services. Cudlipp was aged 56 years and had been employed as a signalman in the Waterloo box since October1967. He told me that on 5th December he was in good health, with no worries, and that he was properly rested and ready for duty when he booked on at 14.00. He had worked the same turn of duty on the previous three days. He normally wore bifocal spectacles when on duty but these gave him no trouble when he was operating the miniature levers.

12. At about 14.15 Cudlipp received a telephone call from the shunter in charge of the movement of empty coaching stock that had formed the 10.15 Exeter to Waterloo train to say that he was ready to make the move to release the train locomotive from Platform 14. At about the same time a shunt movement that involved putting empty stock into No. 21 Platform line was in progress, and a route was required for the 14.26 Waterloo to Teddington passenger train which was ready to start from Platform 17. Signalman Waylett had temporarily left the room so Cudlipp had to deal with all these movements, but he told me that he would probably have done so even had Waylett been present. Although he described conditions as fairly busy he said that the pressure of work was well below that experienced during the morning and evening peak periods. The levers controlling the movement of the empty coaching stock train from Platform 14 were at the extreme right hand end of the long central section of the frame and those concerned with the other empty stock train and the 14.26 Teddington train were some distance away, so that he had to move several times to deal with the three movements.

13. Cudlipp described the normal procedure for shunting the Exeter train stock. Much depended on which signalman received the telephone call from the shunter. If the call was taken by one of the main line signalmen the move would be made via the Up Main Relief line, unless traffic conditions prevented this, in which case the move would be offered, by the main line signalman, to the man in charge of the Windsor lines. The converse could also apply. On this occasion Cudlipp himself received the call and knowing that the Down Windsor Local line was available he started to set the movement via this line. To do this he operated shunt route lever No. 258, followed by shunt signal No. 259, which allowed the train to be drawn out on to the Down Windsor Local as far as Signal No. 252. The train moved out promptly and he replaced levers 259 and 258. He next operated point lever 234 and signal 262 to release the train engine via the Down Windsor Through en route to Stewarts Lane. The time was then about 14.23. As soon as the train locomotive cleared the track circuits locking the points he replaced levers 262 and 234. All that then remained to complete the movement of the empty stock back into No. 14 Platform line was to operate shunt signals 224 and 227, the points at this stage being correctly set for Platform 14. Unfortunately, in operating the levers he missed No. 227 lever and instead operated the next lever to it, No. 228, which controls the crossover connecting the Down Windsor Local and No. 12 Platform lines. He remembered seeing the correct indication above No. 224 lever, but admitted that although he saw some movement in the indication above lever No. 228 he did not notice that this was a "Reverse" indication and took it for the shunt signal indication above No. 227 lever. Whilst he was making these moves he noticed the light come on to show that the 14.26 Waterloo to Teddington train was ready to start, so he moved away to set the route and operate the signals for this train. As he was doing this Signalman Oatway, who was operating the Main line frame, called out to him and said "Jack, you have done it now!". He looked at the frame and saw immediately what had happened. There was nothing he could do and seconds later he heard the noise of the collision. He left the signal and point levers in the positions they occupied at the time of the collision. Shortly afterwards Traffic Regulator Sims entered the room and took charge.

14. I asked Cudlipp whether the coincidence of the three shunting movements could have led to his being under pressure and thus have caused him to make the mistake with lever 227. Whilst he agreed that this was possible he said that he did not remember being rushed and considered that he had plenty of time to cope with the various moves.

15. At the time of the accident, *Signalman C. F. Dowsett* was acting as Traffic Regulator in the Waterloo signalbox. He was qualified to carry out this duty. He confirmed that it was not the normal practice for the Traffic Regulator to influence shunting movements such as that connected with the empty stock from the Exeter train, unless overall traffic conditions made his intervention necessary. Such moves were normally left to the discretion of the individual signalman. On this occasion the train service was not running exactly to timetable and he was directing certain moves connected with the main line trains, but he had no cause to intervene in the moves being made on the Windsor lines. At about 14.25 the track circuit lights on the diagram showed that the empty stock train was moving incorrectly towards platform 12 but it was then too late to prevent the collision, which occurred almost simultaneously. At 14.26 he advised Control of the accident, and then went to the Windsor lines frame to look at the position of the levers. He saw that signal 224 was "OFF", Signal 227 was "ON", and points lever 228 was reversed. He was relieved by Traffic Regulator Sims at 14.35.

16. *Traffic Regulator H. Sims* was due on duty in the Waterloo signalbox at 15.00. At 14.25 he was making his way towards the box from the North Sidings when he heard the sound of a collision. He saw what had happened and went immediately to the signalbox. There he found Signalman Dowsett already reporting the accident to Control so he spoke to Signalman Cudlipp, who he described as looking pale. Cudlipp assured him that be was fit to carry on, and at once admitted that he had operated points lever 228 in error. Sims looked at the levers concerned and saw that points lever 228 was reversed, shunt signal 227 was "ON", and shunt signal 224 was "OFF". He then took over responsibility from Signalman Dowset and telephoned the Area Manager's office, Electrical Control, the Signal Engineers technicians and finally Control at Woking. Sims confirmed Signalman Dowsett's description of the circumstances in which the Traffic Regulator would influence shunting movements. He also confirmed that there were five signalmen on duty (i.e. the normal complement) at the time he arrived in the box, in addition to Signalman Dowsett.

17. The senior S & T technician on duty at Waterloo at the time of the accident was *Technician-in-Charge J. R. Skelton.* At 14.25 he was in the lower part of the signalbox when he heard the sound of a collision. After going outside and seeing what had happened he went directly to the operating floor of the box where he noted that lever 224 was reversed, 227 normal and 228 reversed. He then checked the position of the two shunt signals and the points on the ground and confirmed that they corresponded to the position of the levers. Next he took possession of shunt signals 224 and 227 and points No. 228 and tested the insulation of the cables, the results being satisfactory. The levers were also checked for correct indication when normal and reversed, and this too was found to be satisfactory. The next morning Skelton was directed to retest the insulation of the cables connecting signals 224 and 227 and points 228 with the signalbox. These tests showed the cables to be well within the tolerance laid down for electrical insulation. Skelton described the signalling system connected with signals 224 and 227 and points 228 as in good condition.

18. *Driver S. G. McCaughie,* who had been a driver for over 13 years, was at the controls of Class 42 diesel-hydraulic locomotive 807. He had carried out the shunting of the empty stock from the 10.15 Exeter to Waterloo train on each of the previous four days, and told me that the move was made either via the Down Windsor Local or via the Up Main Relief. He could not remember which line had been used on any particular day, but thought that the move had been made on the Down Windsor on two previous occasions that week.

19. At about 14.15 McCaughie worked the locomotive from the North Sidings to No. 14 Platform line and it was attached to the empty stock. He said that as far as he could recollect a brake test was carried out, and that when signal 259 had been cleared he received the "right away" from the shunter. At this stage the shunter, who had been standing on the platform, joined the passenger coach next to the locomotive (Second Corridor W 25932) and the train moved out. McCaughie was driving from his position on the left of the cab in the direction of travel. After stopping the train at signal 252 he saw the locomotive that had hauled the 10.15 Exeter train pass by on the adjacent Down Windsor Through line. After he had been stationary at the signal for some two or three minutes his second man, *Second Man P. Lewis*, who was on the left side of the cab in the direction of the propelling movement called across to him "the Dummy is off". Assuming that Lewis had also been given clearance to proceed by the shunter he started the train in the direction of the station. Describing how he handled the train during the move he said that the locomotive was already in reverse. He released the straight air brake, opened the controller into Notch 2 position and after a few seconds went down into Notch 1 with the speed about 5 or 6 m.p.h. After a further few seconds he closed the controller and did not open it again until the collision occurred at a speed he estimated as about 5 m.p.h. After the impact he made a full application of the vacuum brake. During the propelling movement he had been looking out of the cab window on his side but had not noticed that the train was being propelled into No. 12 platform line. Signals 224 and 227 were on the opposite side of the train to his driving position and thus he was unable to observe either of them. Three or four minutes after the collision, he got down from the locomotive and went to look at signal 227, which was then at danger.

20. McCaughie was questioned about the brake test. He agreed that the shunter could not have made a brake test from the coach next to the locomotive. The nearest coach with a brake compartment was marshalled fourth from the locomotive. After coupling the locomotive to the train the shunter went to the gantry and telephoned the signalbox and then joined the front coach of the train.

21. At the time of the accident McCaughie was under the impression that with signal 224 "OFF" signal 227 would also be "OFF". This, he said, was based on his previous experience of shunting moves at Waterloo where clearance of the outer signal was normally preceded by clearance of the inner one. He realised the significance of shunting signals in allowing short signal-to-signal movements, but it had been his experience at Waterloo when shunting trains that with the outermost shunting signal "OFF" he was clear into the station.

22. McCaughie had been issued with his own copy of the Sectional Appendix and was conversant with Table F, the special rules relating to propelling movements. (Relevant extracts from these rules are reproduced as Appendix "A").

23. *Second Man Lewis* confirmed his driver's description of events up to the point at which the train came to a stop at Signal 252, except that he did not think that a brake test was made before departing from Platform 14. With the train stationary at Signal 252 he saw the released train locomotive pass by on the Down Windsor Through line, and then saw shunt signal 224 operated to the "OFF" position. At the same time the shunter, who was travelling in the coach next to the locomotive, looked towards the shunt signal and then towards him. No handsignal or words were exchanged and Lewis called across to Driver McCaughie "the Dummy is off". He then drew his head back into the cab and did not look out again until the collision. He estimated the speed of the train at the time of collision as about 5 m.p.h.

24. Lewis had only limited experience of shunting at Waterloo, but he was familiar with the Rules and instructions relating to propelling movements. He had assisted with the shunting of the 10.15 Exeter train stock during the week in question, and remembered the move being carried out via the Down Windsor Local line on one or two days. On those occasions the shunter had travelled in the coach next to the locomotive and on at least one occasion had given a hand signal to proceed after the first shunt signal had cleared. Lewis also remembered observing shunt signal 227 during a move earlier in the week and remarked that it was impossible to see it until the locomotive was nearly alongside.

25. At the time of the accident Lewis, like his Driver, was unaware that shunt signal 224 could be cleared with signal 227 at Danger. In answer to questions he admitted that during shunting movements the train was normally started on the clearance of the first shunt signal and without any clear understanding between the footplate crew and the shunter. During propelling it was his practice to look out of his cab window only "now and again".

26. *Senior Railman F. C. Burgeman* was the shunter in charge of the movement of empty stock from Platform 14. He did not attend my Inquiry as he was in hospital receiving treatment for an injury to his foot sustained before the 5th December 1969, but I interviewed him subsequently. On the 5th December one of his duties was to shunt the empty stock from the 10.15 Exeter train to release the train locomotive, and then to replace the stock in No. 14 Platform line. He recalled (correctly) the formation of the train and the position of the two brake vehicles which were 4th and 5th from the shunting locomotive. At about 14.20, having uncoupled the train locomotive and coupled up locomotive 807 (the shunting locomotive), he telephoned the signalbox and said that all was ready for the shunt. Soon afterwards signal 259 was cleared and he boarded the second coach from the shunting locomotive. He was surprised to see that the move was on to the Down Windsor Local line, since the Up Main Relief had been used on the previous three days. The train stopped at signal 252 and after the released train locomotive had passed he watched for the clearance of shunt signal 224. This came almost at once, and he signalled to Second Man Lewis to commence propelling. As soon as the train started he began to walk through the coaches towards the first brake vehicle and, arriving in this

vehicle, he opened the door on the left hand side in the direction of travel and at once saw that the train was approaching Platform 12. He had no time to do anything save hold on and wait for the collision. Afterwards he went to the Traction Foreman's Office on Platform 11 and tried to telephone the Area Manager's Office. He did not go to look at signal 227.

27. In answer to questions Burgeman said that he had carried out this, or similar, shunting movements at Waterloo for over three years and that the shunt out and back into No. 14 platform line was "routine". It had always, to the best of his knowledge, been carried out by one shunter. On the day of the accident he did not carry out a brake test (indeed, he said that he never did when shunting empty stock), and did not look at the brake vacuum gauge reading in the brake coach as was his normal practice. He maintained that he gave a correct hand signal to Second Man Lewis at the start of the propelling move, but said that "the second man drew his head in so quickly that he might not have seen it". At no time did he look for signal 227 and by the time he opened the door in the brake coach he was well beyond it. The injury to his foot, mentioned in para. 26, did not interfere with the performance of his duties on 5th December 1969.

28. Finally, Burgeman, claimed that he was not familiar with Table F of the Sectional Appendix and that the Rule Book was his only guide when shunting. (I think here that he may have been confused regarding the titles of the various regulations and tables: he had been examined during the previous twelve months by the Assistant Area Manager (Movements) in the relevant Rules and Instructions (including Table F), and a copy of the Sectional Appendix was available before and at the time of the accident in the Shunters Lobby at Waterloo). When I asked him how he had controlled this movement on previous occasions he said that he normally tried to ride in front in order to see the signals, and then to move back to where he could communicate with the locomotive crew.

29. Evidence on the damage to the trains involved in the collision was given by *Mr. K. Weatherley*, Divisional Traction Engineer, South Western Division, who also gave his opinion, based on the nature and extent of the damage, that the speed of the empty stock train at the moment of collision was not less than 10 m.p.h.

30. Sighting tests made after the accident with a train similar in composition to the empty stock train involved in the collision were described by *Mr. W. O. J. Willmott*, Divisional Movements Manager, South Western Division. The result of these tests may be summarised as follows and should be read in conjunction with the plan at the back of the report:

a. From the locomotive (second man's side)—Signal 224 visible from the commencement of the propelling movement. Signal 227 not seen until approximately 33 ft away.

b. From the second vehicle from the propelling locomotive (C. K. W 15810)—Signal 224 and the locomotive visible from the left hand side of the coach. Signal 227 not visible at the start of the propelling movement.

c. From the fourth vehicle from the propelling Locomotive (B.S.K. W 35402)—Signal 224 level with the left hand side of the coach at the start of the propelling movement. Signal 227 visible from the right hand side of the coach. The locomotive visible from the left hand side of the coach.

d. From the Seventh vehicle from the propelling locomotive (T.S.O. W 5028)—Signals 224 and 227 both visible (224 reverse side only), but the locomotive not in view.

e. From the leading vehicle (F.K. W 13288)—Signal 227 only seen.

Conclusions

31. The collision occurred as a direct result of the empty stock train being propelled past Shunt Signal No. 227 at Danger. Prime responsibility for this must rest with Senior Railman Burgeman who, as the shunter in charge of the movement, failed to observe the position of this signal and to maintain effective control of the movement. It is true that the circumstances of the move, in particular the combination of line curvature, signal location, and train composition made it extremely difficult, if not impossible, for Burgeman to observe signals and at the same time to communicate properly with the locomotive crew, but this does not absolve him from his responsibilities since he was the man in charge. I am satisfied that he knew and understood the rules relating to propelling movements at Waterloo, and since circumstances made it all but impossible for him to comply with these rules it was his duty to represent this to someone in authority, and not to have continued making as a matter of routine, a move that he must have realised was potentially dangerous every time he made it. At the same time it is regrettable that no one in authority seems to have realised that the movement of this empty stock was being made, almost daily, in circumstances that made it virtually impossible for the requirements of the Regional Sectional Appendix to be met.

32. A second factor contributing to the accident was the casual behaviour of the locomotive crew. Second Man Lewis failed to keep a proper lookout, as required by British Railways Rule Book, Rule 128, and to work to proper handsignals in accordance with Rule 108. Driver McCaughie failed to ensure that his second man performed his duties in a satisfactory manner, and also failed to keep a proper lookout, otherwise he would have seen, well before the collision, that his train was being routed towards platform 12.

33. Finally, the accident would not have happened if Signalman Cudlipp had not mistakenly operated points lever No. 228, instead of signal lever No. 227, and then failed to observe correctly the repeater indication for Signal 227, as he was required to do under Rule 65.

34. Although it had no direct bearing on the accident I feel that the admission by Senior Railman Burgeman that brake tests were seldom if ever carried out when shunting empty coaching stock adds to the impression that familiarity had bred some contempt for the rules so far as these shunting movements at Waterloo were concerned.

Remarks

35. On 10th December 1969 the Area Manager, Waterloo, issued an Instruction to all Station Managers, Station Supervisors, Chargemen, Senior Railmen (Shunting) and Leading Railmen (Shunting) concerned with shunting in the Waterloo Area. The first paragraph reminds all staff that flags must be used when shunting coaching stock during daylight hours. The second paragraph lays down that Chargemen are to ensure that an additional man is provided whenever the number of vehicles being shunted is of such a length that the shunter in charge of the movement cannot simultaneously observe the aspect of the relevant signals and relay information by hand signals to the driver or secondman. In these cases the shunter in charge must position himself in a brake vehicle in order that he may in emergency quickly bring the movement to a stand, and must arrange for the additional man to take up a suitable position in the train either to relay to him aspects of signals, or to transmit to the driver or second man on the locomotive the relevant hand signals.

36. There is no suggestion that the signalling concerned in this accident was in any way at fault. The aspects displayed by the two shunting signals, Nos. 224 and 227, were not disputed, and the tests carried out immediately afterwards showed that everything connected with these signals, and the associated points, was in order. Concerning the assertion made by Driver McCaughie (see para. 21) that clearance of the outer signal was normally preceded by clearance of the inner signal this is indeed the case when the outer signal is a main signal. Clearance of such a signal must be preceded by clearance of the necessary subsidiary signals, but this does not apply when the outer signal is itself a subsidiary. I am also satisfied that nothing in the arrangement of the miniature levers in the signalbox, or the associated repeater lights and indications, could be criticised. The installation at Waterloo is undeniably "old-fashioned", having been in use for over 30 years, but it has a high degree of reliability, and mistakes of the kind made by Signalman Cudlipp are very rare indeed. Nevertheless, it is also true that this kind of human error, always a possibility when very rapid co-ordination between hand and eye is required, becomes very much less likely with the modern type of switch or button operated panel.

I have the honour to be,

Sir,

Your obedient servant,
C. F. ROSE,
Major.

The Secretary,
Ministry of Transport.

Extract from the Southern Region (Western) Sectional Appendix Page 105

TABLE F—PROPELLING TRAINS OR VEHICLES (relevant paragraphs only are quoted)

When trains or vehicles are being propelled the undermentioned conditions must be complied with.

When coaching vehicles are propelled on a running line or loop, the guard, shunter or person in charge must ride in the leading vehicle when it is fitted with a brake valve. If not so fitted, he must ride in the next vehicle fitted with a brake valve from which he can obtain a satisfactory view of the line ahead. If, however, these conditions cannot be complied with, the guard, shunter or person in charge must ride in the leading vehicle or first vehicle in which he can travel and from which he can obtain a satisfactory view of the line ahead, provided he can keep in touch with the driver by hand signals.

Drivers will not be relieved of responsibility for observing fixed signals, but the guard, shunter, or person in charge must keep a sharp look-out, warn any person who may be on or near the line, observe fixed signals, and be prepared to give any necessary hand signal to the driver. Drivers must keep a sharp look-out and be prepared to act immediately upon any signal which may be given by the guard, shunter, or person in charge.

The speed must not exceed 20 m.p.h. and down inclines steeper than 1 in 200, through station platforms and over level crossings must not exceed 15 m.p.h.

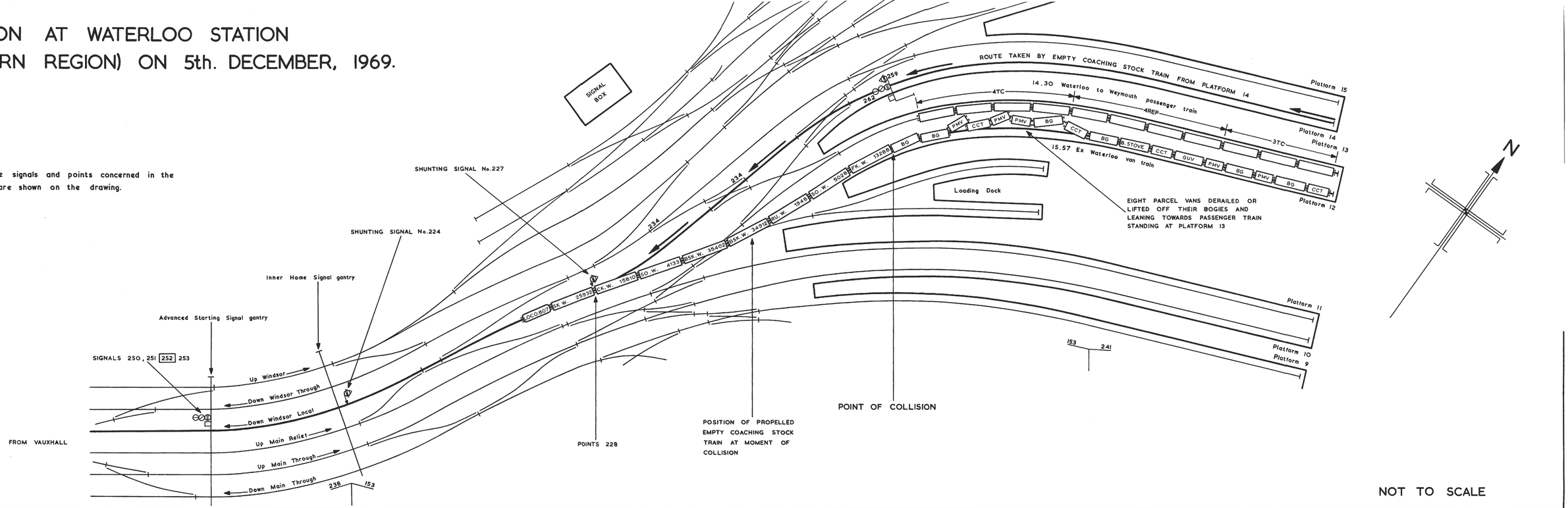
The engine whistle must be sounded when approaching stations and level crossings, also where there is not a good view of the line ahead.

In all cases where coaching stock or fitted vehicles are authorised to be propelled, the automatic brake must be connected and in use.

Dd. 501169 K9 10/70 (7683)

COLLISION AT WATERLOO STATION (SOUTHERN REGION) ON 5th. DECEMBER, 1969.

NOTE :- Only those signals and points concerned in the accident are shown on the drawing.



NOT TO SCALE

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