MINISTRY OF TRANSPORT

RAILWAY ACCIDENTS

REPORT ON THE COLLISION which occurred on 11th July 1951 near FISHGUARD and GOODWICK in the WESTERN REGION BRITISH RAILWAYS

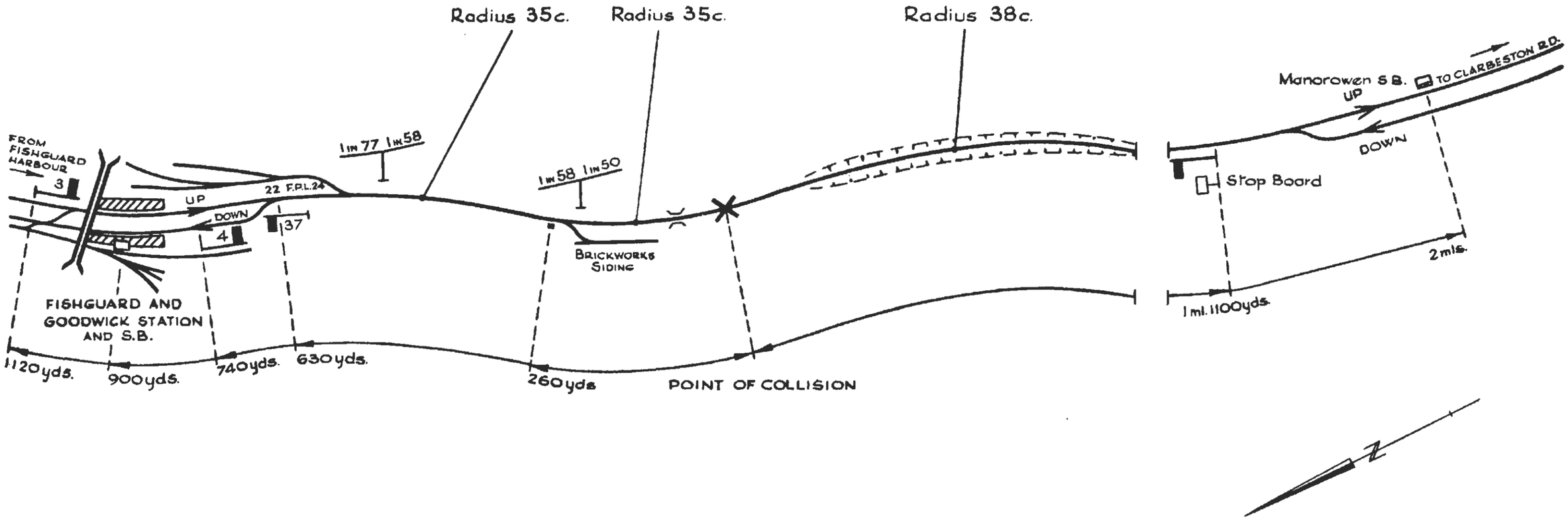
LONDON : HIS MAJESTY'S STATIONERY OFFICE
1951

SIXPENCE NET

WESTERN REGION

HEAD — ON COLLISION AT FISHGUARD & GOODWICK

11th JULY, 1951



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Relevant information only shown.

WESTERN REGION
BRITISH RAILWAYS

MINISTRY OF TRANSPORT,
Berkeley Square House,
London, W.1.
2nd October, 1951.

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order dated 19th July 1951, the result of my Inquiry into the head-on collision which occurred at 6.48 p.m. on 11th July near Fishguard and Goodwick, on the single line section of the main line to Fishguard Harbour in the Western Region, British Railways.

The 6.40 p.m. Up passenger (push-and-pull) auto-train, from Fishguard Harbour to Clarbeston Road, left Fishguard and Goodwick Station without the train staff, passed the starting signal at danger, and collided head-on with the 12.35 p.m. Down freight train from Llandilo to Fishguard Harbour about half a mile from the station. The auto-train stopped just before the collision, and the driver of the freight train, having seen the obstruction ahead, had reduced speed to about 20 m.p.h. The force of the impact drove the auto-train back for 110 yards.

None of the passengers was injured, though one afterwards complained of shock; four railway servants were hurt but only the driver of the auto-train was detained in hospital. The line was blocked until 9.43 p.m., when normal services were resumed. During the intervening period a motor car and bus service was arranged between Fishguard and Goodwick Station and Clarbeston Road.

The auto-train consisted of one coach, drawn by an 0-6-0 type tank engine, which was travelling chimney first and was driven from the right hand side. The coach was of the special vestibule type used on the Western Region for auto-train services, with a central entrance lobby where the guard travelled, and a driver's compartment at the trailing end for use when the car was being propelled. On these coaches the guard gives the starting and stopping signals to the driver by means of bells which ring in the engine cab and the driver's compartment.

The overall length of the auto-train was 104 feet and its total weight was 73 tons. The vacuum brake operated on the coupled wheels of the engine and all wheels of the coach, with a force equivalent to 67% of the total weight. The freight train comprised six empty vacuum-fitted vans next to the engine, followed by fifteen loose coupled wagons and a brakevan. The train was hauled by a 4-6-0 type tender engine with right hand drive which weighed 114 tons in working order. The overall length of the train, including the engine, was 672 feet and its total weight was 427 tons. The vacuum brake on the coupled and tender wheels of the engine and on the wheels of the six vacuum-fitted vehicles gave a force of 158 tons, equivalent to 37% of the total weight.

The frames of both engines were bent and the leading buffer beams were badly distorted. The solebar and leading headstock of the trailing passenger coach were bent, the bodywork was damaged slightly and seats were displaced. The first two vans of the freight train were buffer-locked, and these and the next two vehicles were damaged.

There was no derailment, though a rail at the point of collision was buckled by the force of the impact. The switch blade and lock of the facing points leading to the Down Main line at the south end of the station were broken when the auto-train trailed through them.

The weather was fine and the rails were dry.

DESCRIPTION OF SITE.

1. The main line to Fishguard Harbour has two or more tracks, except for the short length of single line which begins at Manorowen Junction and runs in a northerly direction for 2¼ miles to Fishguard and Goodwick Station whence there are three running lines to Fishguard Harbour half-a-mile further ahead. The single line falls steeply towards Fishguard and Goodwick Station with a ruling gradient of 1 in 50 for 1½ miles; it is also curved for most of its length, and a speed restriction of 40 m.p.h. is in force. The general layout and the position of the relevant signals etc., is shown on the accompanying drawing.

Approaching Fishguard and Goodwick from the south the line is in a deep cutting on a 38 chain left hand curve, which is followed by a short length of straight and then a 35 chain right hand curve, at the south end of which the collision occurred. This curve is approximately 300 yards long, after which the line curves again to the left and then to the right through the station.

There is a "stop" board at the top of the falling gradient 375 yards beyond the Manorowen Junction points at which all Down freight trains must stop to pin down brakes when necessary. Another board, at the foot of the incline, is fixed just south of the Fishguard and Goodwick Down Home signal.

2. Distances from the point of collision are :—

Manorowen :—	
Signal box	2 miles South
"Stop" board	1 mile 1,100 yards South
POINT OF COLLISION	—— —— ——
Fishguard and Goodwick :—	
Ground frame at entrance to brick works siding	260 yards North
No. 22 facing points	630 ,, ,,
No. 4 Up starting signal	740 ,, ,,
Front of auto-train engine before leaving station	890 ,, ,,
Signal box	900 ,, ,,
No. 3 Up home signal	1,120 ,, ,,

3. The points and signals at Fishguard and Goodwick are worked from the signal box on the Down platform. There are no special features, except that No. 3 Up Home is not interlocked with No. 22 Down facing points but only with their facing point lock No. 24. There are no trap points or sand drag protecting the single line from movements in the Up direction.

4. The section between Manorowen and Fishguard and Goodwick is worked with an electric train staff in accordance with the regulations for train signalling on single lines by the Electric Train Staff System. The staff instruments are not interlocked with either of the starting signals. Although acceptance of Up trains at Fishguard and Goodwick Station is governed by the Double Line Absolute Block regulations, there is an additional instruction permitting acceptance in accordance with Clause (*a*)(ii) of Regulation 4 of the Electric Train Staff System which reads as follows :—

> "4.—*Line Clear or giving Permission for a Train to approach.* (*a*) Except where instructions are issued to the contrary, the line must not be considered clear, nor must a train be allowed to approach from the TOKEN STATION in rear, in accordance with Regulation 3 (i.e. UNWARNED) until all the necessary points have been placed in their proper position for the safety of the approaching train and the line is clear as under :—
>
> (i) * * * * * * *
>
> (ii) *At a terminal station*, if the line on which the approaching train has to run be clear TO THE POINT TO WHICH THE TRAIN USUALLY RUNS and the facing points are set for that line."

Report and Evidence

5. The booked times of the two trains were :—

Auto-train	—Fishguard Harbour	dep: 6.40 p.m.
	Fishguard and Goodwick	dep: 6.43 p.m.
	Manorowen Junction	pass 6.50 p.m.
Freight train	—Manorowen Junction	pass 6.0 p.m.
	,, stop board	dep: 6.5 p.m.
	Fishguard and Goodwick stop board	arr. 6.21 p.m.
	Fishguard Harbour	arr. 6.27 p.m.

6. The freight train was running late and Signalman W. M. Lee, who was on duty in the Fishguard and Goodwick box, accepted it at 6.30 p.m. He explained that he had heard from Manorowen that the train would not have to stop at the "stop" board and he hoped therefore that he could get it clear of the single line before the departure time of the auto-train, which he accepted from Fishguard Harbour at 6.38 p.m. One minute later he received "Train Entering Section" for the freight train and at 6.40 p.m. the auto-train left Fishguard Harbour. Lee unbolted No. 22 facing points by replacing lever No. 24 in the frame, although the Down train was approaching the station at the same time, and thus he was able to lower No. 3 Up Home.

The auto-train arrived at about 6.42 p.m. and was stopped with the coach opposite the station building and the engine a few yards ahead of the signal box. It stood at the platform for five or six minutes and when it left a number of detonators were exploded by it and frequent blasts were sounded on the engine whistle, which were accompanied by blasts from engines in the motive power shed close by. It transpired that a wedding party was seeing off a newly-married couple and that it was the local custom to speed them on their journey by exploding detonators and blowing whistles.

Lee realised the train had started without the staff and he tried to attract the driver's attention by shouting, blowing his whistle and waving a red flag. There was, however, so much noise and other distractions that neither the driver, the fireman, nor the guard heard the warning and the train entered the single line section, passing No. 4 Starter at Danger and bursting No. 22 points, which had been relocked by Lee as soon as he had returned the Up Home to normal. About a minute or so later Lee saw smoke coming from a stationary engine near the brickworks ; he assumed there had been a collision and sent the "Obstruction Danger" signal to Manorowen and Fishguard Harbour boxes at 6.48 p.m.

Lee said that it was his normal custom personally to hand over the train staff to the driver either by crossing the Down line and giving it to him or by throwing it from the Down platform. Sometimes, when he had time he walked over to the Up platform and handed the staff to the fireman. He never gave it to any member of the station staff.

7. Porter I. J. Griffiths and Clerk B. Hale, both of Fishguard and Goodwick Station, described how a wedding party had arrived about a quarter of an hour before the train was due. They confirmed the signalman's evidence regarding the exploding of detonators and blowing of whistles, but neither could say who placed the detonators on the line. They agreed that the "send-off" on this occasion was in accordance with the usual custom.

8. Guard B. P. Tudor of the auto-car said that he did not notice the aspect of the starting signal as he was busy attending to the passengers, and he sounded the starting bell when he was ready. He heard the detonators explode as the train drew out of the station but he neither heard nor saw the signalman shouting and waving to the driver. Shortly afterwards he felt the brakes being applied, and on looking out of the carriage window he saw a train approaching in the opposite direction. The auto-car had just come to a stand when the collision occurred. Tudor shouted to the passengers to "Hold tight" and fortunately none of them was injured.

9. Driver H. Rees had been stationed at Goodwick for the last 32 years ; he had booked on duty at 3.0 p.m. on the day of the accident and had worked the auto-train from Fishguard Harbour to Clarbeston Road and back before leaving Fishguard Harbour again on the 6.40 p.m. service. He stated that the evening was fine and clear, and on approaching Fishguard and Goodwick Station he saw the Up Home signal was " off ", so that he had a clear run into the platform. After waiting for a few minutes, he received the bell for "Right away" from the guard, on which he opened the regulator and started on the journey. He heard about six detonators explode and his fireman sounded the whistle two or three times. He knew that a wedding party was going by the train as he had seen them on the platform when he arrived. The fireman told him that he had placed four detonators on the line and therefore Rees took no notice of the explosions. He admitted that he had started without the train staff, and that he did not observe the starting signal. When he had reached the brickworks siding ground frame he realised his mistake and he stopped his train as quickly as he could. It had just stopped and was on the point of moving backwards with the brakes off when the collision occurred.

Rees explained that on leaving Fishguard Harbour he found the glasses of his lubricator blurred and he told the fireman to bring him two spanners from the tool box at the front of the engine as soon as they reached Fishguard and Goodwick. He was thus able to remove the two screws at the top of the glasses, which he cleaned while he was waiting at the station, and he had just got them back in position when the guard's starting bell sounded. He said he was not distracted in any way by the wedding party and he thought the reason why he forgot the staff was because his attention had been taken up in cleaning the lubricator glasses.

Rees stated that he had never before been given a clear signal to enter the station when a Down train was approaching. He was usually stopped at the Home signal until the Down train had cleared the single line section, though sometimes he had been called forward to the platform by a green flag from the box after the other train had come to a stand.

10. Fireman K. J. A. Phillips confirmed his driver's evidence regarding their arrival at the station and the cleaning of the lubricator glasses. He agreed that he had sounded the engine whistle and had placed detonators in front of the train but said he had only put down two. He did not check that the driver had the staff before the train left and he did not observe the starting signal because he was helping his mate with the lubricator and then began firing. He thought the train was about 40 yards away from the actual point of collision when he and his driver both realised that they had left without the staff. His driver immediately applied the brake and the train stopped ; it might even have moved back a yard by the time the collision occurred. He jumped from the engine and escaped without injury.

11. Signalman F. W. Payne, of Manorowen box, confirmed Signalman Lee's evidence regarding acceptance of the freight train and said that it passed his box at 6.41 p.m. He handed the train staff to the fireman and watched the train proceed into the section ahead. It slowed down as it approached the "stop" board but he could not see whether it actually stopped or not.

12. Driver T. C. Phillips, of the freight train, said that after leaving Clarbeston Road, he stopped at Letterston Junction, where the train was made up with six vacuum fitted vans in front and fifteen goods wagons and a 20 ton brakevan behind. He tested the brakes and found them satisfactory, with 25 inches of vacuum showing on his gauge. The home and starting signals at Manorowen were " off " and he was travelling at about 10 m.p.h., when he passed the box where the fireman received the staff for the single line section ahead. He stopped the train at the "stop" board, but with the vacuum brake on the vans it was not necessary to pin down any brakes, and he started down the incline after exchanging signals with the guard. On entering the left hand curve in the cutting his speed was between 25 and 30 m.p.h. and the train was well under control. Just as they were leaving the cutting the fireman shouted that there was a train on the line ahead, so he immediately applied the brakes and opened the sand cocks whilst the fireman put on the hand brake. The distance was too short to stop and the collision occured at about 15 m.p.h. Both he and the fireman jumped clear just before the impact.

13. Goods Guard T. W. Rowe who was travelling in the brakevan of the freight train, confirmed that the vacuum pipes of the six leading vehicles were coupled through to the engine and the brakes were tested before leaving Letterston Junction at 6.36 p.m. The train passed through Manorowen Junction and came to a stand at the "stop" board. He did not have to pin down any brakes and therefore gave the signal to the driver to proceed. He applied the hand brake slightly as soon as the train reached the steep incline and it was well under control, travelling at about 20–25 m.p.h. when the collision occurred just as they emerged from the cutting. He did not feel the emergency application of the brake.

14. Mr. J. H. Swann, Station and Quay Superintendent, Fishguard Harbour, said that he knew it was common practice to place detonators under trains when there were wedding parties on board and he had done everything he could to stop it. Locomotive Foreman W. H. Jones, in charge of the Goodwick motive power shed, also agreed that he had heard detonators being exploded on these occasions but he had never been able to find out who had placed them on the line.

15. Eleven recently exploded detonators were found lying alongside the Up line at Fishguard and Goodwick Station from 5 to 25 yards in front of the place where the auto-train engine had been standing. A large number of other exploded detonators of older origin were also found on the same length of line.

16. It was considered that the driver of the freight train would not have seen the stationary auto-train until his engine was approximately 200 yards from it and the fireman could have seen the obstruction from the left hand side of the footplate when the engine was 25 yards further away. After taking into consideration the falling gradient and the weight and braking power of the freight train, it is estimated that if it had been travelling at a speed of 25 m.p.h. when the driver applied the brake, the speed of collision would have been reduced to approximately 20 m.p.h., and the unobstructed stopping distance would have been about 500 yards ; the actual distance travelled after the application of the brake was approximately 300 yards including a movement of 110 yards after the impact.

Conclusion.

17. Primary responsibility for this accident rests on Driver Rees of the auto-train, who left Fishguard and Goodwick Station without the train staff for the single line section to Manorowen and then failed to observe the starting signal at danger, although it was in full view some 150 yards ahead of him. It was not until he had nearly reached the point of collision that he realised his grave mistakes and stopped the train. He is 54 years old with 32 years railway service and has been a driver for the last 11 years.

18. Fireman Phillips took no steps to help his driver by checking that the train staff was on the engine before it started. He admitted he had placed detonators on the line in front of the engine and it is clear that he was thinking more about the wedding party than his proper work. He is 28 years of age, with 11 years' railway service.

19. It was not Guard Tudor's duties to observe the Starter before ringing the starting bell, which only indicates to the driver that the station duties have been completed, but he should have looked out after the train had started and he should have seen the Starter at danger. If he had taken prompt action to warn the driver, the train might have been stopped sooner and the accident might have been avoided.

20. Driver Phillips had the freight train under proper control, and he and his fireman were keeping a good look-out. Phillips took prompt steps to avert a collision, but the available distance was too short and he was in no way responsible for the accident.

21. Signalman Lee did his best to attract the auto-train driver's attention, but it is hardly surprising that his shouts and whistles were not heard above the noise of the exploding detonators. He should not have unlocked No. 22 points in the face of the oncoming freight train, and in any event he should have checked or stopped the auto-train at the home signal so long as the starting signal was at danger.

Remarks.

22. This accident was due to the serious mistakes of an engine driver who broke the most fundamental rule of single line working by starting without the train staff, as well as passing a signal at danger. Trap points or a sand drag at the Up exit from Fishguard and Goodwick Station would have prevented the accident and I recommend provision of either of these safeguards if the practice is continued of accepting Up trains into the platform when the single line ahead is occupied by a Down train. It would also be desirable to fix a subsidiary signal under the Up Home so that the signalman could call trains forward without resort to hand signals or to unlocking facing points as occurred on this occasion. The present instruction in Fishguard and Goodwick box regarding acceptance, with its reference to working into a terminal single line station, is clearly inappropriate, and, as there does not appear to be any suitable general regulation to cover this case, I suggest that a special instruction be issued.

23. Apparently the practice of blowing whistles and exploding detonators at a wedding party "send-off" is a long standing custom, not confined to Fishguard and Goodwick Station. Everyone would wish to show goodwill on such occasions but detonators are expressly supplied to stop or warn trains in emergency and not to speed them on their way; instructions have now been issued to prohibit the light-hearted abuse of these valuable safeguards.

I have the honour to be,

Sir,

Your obedient Servant,

C. A. LANGLEY,

Brigadier.

The Secretary,
Ministry of Transport.

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