



MINISTRY OF TRANSPORT

RAILWAY ACCIDENTS

REPORT ON THE COLLISION
which occurred on the
17th September, 1947, at
BURTON AGNES LEVEL CROSSING
on the
London and North Eastern
Railway

LONDON: HIS MAJESTY'S STATIONERY OFFICE

1947

TWOPENCE NET

LONDON AND NORTH EASTERN RAILWAY

MINISTRY OF TRANSPORT,
Berkeley Square House,
London, W.1.

29 October, 1947

SIR,

I have the honour to report for the information of the Minister of Transport, in accordance with the Order of 17th September, 1947, the result of my Inquiry into the accident which took place at about 6.42 a.m. on that day at Burton Agnes, on the Hull-Scarborough line of the London & North Eastern Railway (North Eastern Area).

When the 5.55 a.m. down passenger train from Hull to Bridlington, travelling under clear signals, was approaching the station level crossing at about 55 m.p.h. an Army lorry carrying 26 German prisoners of war from No. 250 P.O.W. camp to the station broke through the gates and came to a stand on the line. The lorry was demolished and I regret to report that two British non-commissioned officers and seven prisoners travelling in it were killed; ten prisoners were seriously injured, three of whom died later in hospital, and nine received minor injuries. There was no damage of importance to the engine or train and the train crew and passengers were unharmed.

Doctors and ambulances reached the scene about half-an-hour later, assistance to the injured having been given meanwhile by the railway staff and other prisoners waiting to entrain; the last of the injured left by ambulance at 8.0 a.m.

The accident occurred at sunrise; the weather was fine and clear.

DESCRIPTION OF SITE

2. At Burton Agnes the line is straight, running through flat country more or less at the level of the fields on either side; the train was travelling from south to north on a gentle rising gradient (1 in 944).

There are no other buildings near the station, which has staggered platforms separated by the level crossing, the down platform lying south of the road. The crossing gate equipment is of standard type, with four gates interlocked with the signals and worked by wheel from the adjacent signal box, west of the line, at the south end of the up platform. The colour of the gates may best be described as dirty white; each has a square red target and two of the four carry red lamps. Road width between the gates is about 25 feet. The signalman has an excellent view towards the west of the road from Burton Agnes village, the direction from which the lorry came, as far as a bend about 150 yards away.

Approaching the crossing from the village there is an easily visible standard "Gated Level Crossing" sign on the near side of the road; this sign is part way round the easy left-hand bend, 202 yards from the gates and at a point from which they cannot be seen. The first glimpse of them, at a distance of 130 yards, is obtainable while still rounding the bend, over a post and rail fence on the left of the road. Thereafter the road is straight and the gates become clearly visible, when across it, at a distance of about 105 yards. The gradient of this stretch of road is negligible, first 1 in 400 falling, followed by 1 in 250 rising, then 1 in 50 rising for the final 30 yards to the gates. To the right of the road the view of the railway towards the south, the direction from which the train approached, is rather obstructed by trees. On entering the straight stretch leading to the crossing the line is visible here and there between trees up to a range of about half-a-mile but near the gates visibility of the line towards the south is poorer.

PARTICULARS OF TRAIN AND DAMAGE

3. The train consisted of a four-wheeled van (next to the engine) and five bogie coaches, drawn by 4-4-0 type tender engine No. 2772; its total weight including the engine and tender (116½ tons) was about 255 tons. All wheels except those of the engine bogie were braked; the brakes on both engine and train were specially tested after the accident, and found to be properly adjusted and in good order.

Damage to the engine and train was not serious, and mainly confined to undergear and fittings below floor level. Buffer locking took place at the rear of the leading four-wheeled van, and one pair of its wheels left the rails a short distance beyond the crossing, re-railing themselves about 90 yards further on at a diamond crossing, some components of which were broken and bruised.

Only one of the four gates, that on the left as seen from the lorry, was smashed. Other damage to signalling and permanent way equipment, and to structures, was unimportant.

PARTICULARS AND CONDITION OF LORRY

4. The lorry was a Bedford three-tonner (No. L.1760191) with canvas covered body, four-wheeled, fitted with a 27.9 h.p. engine and weighing 2½ tons unloaded. It was completely wrecked, the body being crushed against a building and a dwarf wall on the left of the line. The rear axle assembly, torn from the chassis, was found between the down line cess rail and an end loading dock, about 60 yards from the crossing.

This type of lorry has both Lockheed hydraulic and vacuum servo brakes, actuating a single set of brake shoes in each of the four brake drums; there is a vacuum storage reservoir large enough to provide for some 25 brake applications after the engine has stopped. The Lockheed master cylinder is worked directly by the brake pedal, which is also connected to the Dewandre vacuum servo apparatus from which the front and rear brake shoes are actuated by mechanical linkage. Thus if the Lockheed system should become ineffective through a burst or leaky pipe the mechanical brake will still be available, and there is a corresponding safeguard against failure of the mechanical linkage. The hand brake also works the rear brake shoes through an independent cable mechanism.

5. The lorry had had its regular monthly routine overhaul at the R.A.S.C. workshops at York on the day before the accident. It was tested on arrival by Sergt. Manley, who found nothing needed attention except adjustment of the hand brake and repairs to the silencer. No defects had been reported by the unit in whose charge it was; the Vehicle Inspection Report and Workshops Job Card relating to the repairs showed that it was in good condition and had been properly maintained.

As a part of the routine overhaul it had been again inspected and tested by Mechanist Staff Sergt. Ayres after the repairs had been carried out. He drove it for about four miles round a recognised test route and found nothing amiss with the brakes, which were working perfectly; he found no fault in the exhaust system which might have affected the driver temporarily.

6. After the accident the remains of the lorry were examined by Capt. (Mechanist Officer) E. J. Robinson, R.A.S.C., who dismantled such parts of the brake system as were undamaged. He found the brake drum and its interior mechanism in one front wheel complete and effective; the other front wheel was so badly damaged that it was impossible to say if the brake on it had been working properly or not. His examination of the rear axle assembly showed that the shoe linings in both brake drums were free from oil and not far worn, and that the actuating mechanism was in good order and properly adjusted.

NARRATIVE

7. Arrangements had been made for 50 prisoners-of-war from No. 250 P.O.W. Camp to leave Burton Agnes by the 7.9 a.m. train. The lorry was detailed to carry their baggage to the station, to which it made its first trip soon after 5.0 a.m. It then returned to the camp, took a batch of prisoners to the station at about 5.50 a.m., returned to the camp again, and was making its third trip with the rest of the prisoners when the accident occurred. The three occupants of the driving cab, Staff Sergt. Wadey, Sergt. Cramer and Hans Graf, a prisoner, were killed. Wadey, an interpreter, whose duty it was to be present when the prisoners and their baggage left the camp, was driving at the time, though Graf was the authorised driver allocated to the lorry; Cramer was in the charge of the escort party.

It was explained by Warrant Officer (Class I) Lee, the Transport Officer at No. 250 P.O.W. Camp, that Wadey had no authority to drive the lorry and that there was no reason why he should have been doing so. He was in possession of a military licence to drive motor cycles only, and Mr. Lee had never heard of him driving a lorry previously, though one of the prisoners said he had known him do so occasionally.

8. According to the evidence of Private Adams, one of the escort who saw the accident, of two prisoners, Hoermann and Reichenbach, already at the station, and of two, Schlupper and Jungblut, travelling in the lorry, Wadey went to the station in the lorry on each of its three trips. Graf drove it on the first trip, with the baggage party. He also drove as far as the station on the second trip, when Wadey and Adams travelled in the driving cab with him, but after Adams and the prisoners had alighted Wadey changed places with Graf, drove back to the camp, and again to the station on the third trip.

Schlupper and Jungblut said that Wadey drove unusually fast on the way from the camp, and that the prisoners were thrown about when rounding bends in a way which caused comment; they remembered no sensation of braking just before the accident. Adams and Reichenbach watched the lorry approaching the station, unexpectedly fast, and said that it hardly slowed down at all as it reached the gates, which it hit at 15-20 m.p.h. according to the former. Adams, Schlupper, Hoermann and Reichenbach all remembered hearing its engine racing at the last moment, as if the driver was changing into a lower gear.

9. The accident was also witnessed at close range by a motor cyclist, Stanley Mackenzie, who has 20 years' driving experience and is now employed driving a similar type of lorry for the R.A.F. He was waiting at the crossing, on the west side of the line, with his machine in the middle of the road, a yard or two from the gates. He did not see or hear the lorry approach, and his attention was first drawn to it by the sound of its engine racing, as it passed on the near side of his machine and forced its way through the gates; there was no skidding or sound of a brake application, so far as he could remember. He was sure that the lorry was struck by the train immediately it came to a stand, foul of the nearer track.

10. Evidence substantially to the same effect was given by Porter John, who had a good view of the accident from the porters' room close to the crossing where he was engaged on clerical work, and by Signaller Gray whose attention was attracted by the noise of the lorry breaking through the gates. He had closed them across the road seven minutes earlier, at 6.35 a.m., for the passage of an up train, and had not reopened them subsequently, for when it passed his box the Hull-Bridlington train was already approaching.

Driver Stephenson, of the latter train, said he had no opportunity of checking its speed for his engine was already part way along the down platform, say, 60 yards at most from the crossing, when he first saw the lorry from his position on the left of the footplate, and it was then breaking through the gates. A similar statement was made by Fireman Robinson, who was on the driver's side of the footplate at the time, standing behind Stephenson.

CONCLUSION

II. There can be no criticism of the railway arrangements at the crossing and it is clear that this accident, which might well have had even more serious consequences, if, for instance, the couplings of the train had not held and the derailment of the leading van had been followed by that of the coaches behind it, was due to careless handling of the lorry by an unauthorised and apparently inexperienced driver, Staff Sergt. Wadey.

In this connection I was informed by Capt. Robinson that the arrangement and spacing of the control pedals of the Bedford three-tonner is such that if a driver is unfamiliar with the vehicle it is easy for his right foot to slip from the brake pedal to the accelerator close alongside, or for him to apply the brake and depress the accelerator at the same time. This might well account for the racing of the engine at the last moment, especially if the engine were declutched at the same time, an instinctive action on the driver's part. Capt. Robinson added that though the driver's seat is movable, it takes a little time to adjust it. It transpired that Wadey was some inches taller than Graf, and he thought that an uncomfortable or inconvenient driving position would make slipping of the driver's foot from the brake pedal to the accelerator more likely.

This explanation accords with the facts established by the evidence. I am in entire agreement with it, and I should like to place on record my appreciation of the assistance given to me in conducting my Inquiry by Headquarters, Northern Command, and the military witnesses.

I have the honour to be,

Sir,

Your obedient Servant,

E. WOODHOUSE,

Lieut.-Colonel.

The Secretary,
Ministry of Transport.

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