

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
DETROIT UNITED LINES AT FRISCO, MICH., ON DECEMBER 21, 1919

January 19, 1920

On December 21, 1919, there was a rear-end collision between two electric motor cars on the Detroit United Lines at Frisco, Mich., which resulted in the death of 1 employee and the injury of 2 passengers. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Detroit, Jackson & Chicago Division of the Detroit United Lines, on which this accident occurred, is a single-track line extending from Addison, Mich., a suburb of Detroit, to Jackson, Mich., a distance of 71 miles. Trains are operated over this line by time-table and train orders, no block system being in use. At Frisco, 16 miles east of Jackson, there is a passing track 373 feet in length located on the north side of the main track. There is a telephone booth located about midway of this passing track on the south side of the main track, the accident occurred on the main track about 6 feet east of the telephone booth.

Approaching the point of accident from the west the track is tangent for a distance of about 2,500 feet, followed by a 1-degree curve to the right 125 feet in length, the track then being tangent for 450 feet to the point of accident. The point of accident may be seen from a point more than 3,000 feet west thereof. The grade approaching from the west is undulating and at the point of accident is slightly ascending for eastbound trains. The weather at the time of the accident was clear and frosty.

Eastbound passenger train No. 174, involved in this accident, is a regularly scheduled train running between Jackson and Detroit and on the day of the accident was running in two sections. The first section consisted of electric passenger car No. 7091, in charge of Conductor Wallace and Motorman Prieskorn. It left Jackson at 6.00 p.m., on schedule time, and stopped at Frisco at 6.32 p.m., one minute ahead of schedule leaving time. Frisco is the regular meeting point for train No. 174 with westbound passenger train No. 171. Not finding train No. 171 at this point, Conductor Wallace called the dispatcher from the telephone booth and was copying an order when his car was struck by train 2d No. 174.

Eastbound train 2d No. 174 consisted of electric passenger car No. 7793, in charge of Conductor Graham and Motorman Webb. It left Jackson at 6.03 p.m. and at about 6.36 p.m., while traveling at a speed variously estimated at from 15 to 25 miles per hour, collided with train 1st No. 174 at Frisco.

Both cars came to rest upright with all wheels on the rails. The rear end of car 7091 telescoped the front vestibule of car 7793, and broke through the partition between this vestibule and the smoking compartment. The rear bumper iron of car 7091 was equipped with an anti-climbing device but on account of the difference in the heights of the platforms of these two cars, this device was useless, as the bumper iron and platform of the head car, about 16 inches higher than the bumper iron of car 7793, engaged the front end of that car at least 6 inches above its bumper iron and platform and at a point where there was nothing but the super-structure of the car to receive the impact. The roof over the rear platform of car 7091 was broken down and the rear dash was demolished. Motorman Webb of car 7793 was so seriously injured that he died shortly afterwards.

Motorman Prieskorn, of train 1st No. 174, stated that on arrival of his car at Frisco the train he was scheduled to meet at that point had not arrived and he stopped in order to permit the conductor to call the dispatcher from the telephone booth. He first saw the second section of train No. 174 approaching when it was about 500 feet distant and saw sparks flying from the wheels indicating that the brakes were applied and immediately afterwards saw that the motorman had reversed the power. He stated that the headlight of car 7793 was burning and that the dimmer was on in accordance with the general practice approaching meeting points. He also stated that while the atmosphere was slightly hazy on account of the frost he himself had no difficulty whatever in distinguishing the signal lights approaching Frisco and he did not believe that Motorman Webb should have had any difficulty in seeing the lights on the rear of the car ahead. Motorman Prieskorn further stated that after the accident he heard Motorman Webb of the second section say "I could not stop," but heard him make no remark that would indicate why he could not stop. He said that car 7793 was considered one of the best cars on the line and that he had never had any trouble with the braking apparatus. He also said that approaching Frisco and all other meeting points he has land marks at which he shuts off the power and that his land mark for the Frisco siding is about 1,000 feet from the siding. He said that he has always found 1,000 feet sufficient space in which to stop a car running at a speed of 55 miles per hour.

Conductor Wallace of train 1st No. 174 stated that on arrival of his car at Frisco siding he went into the telephone booth, called the dispatcher and was copying an order when he heard Motorman Prieskorn, who was outside the booth, say, "Look out, he is coming." The conductor stated that he then stepped out of the booth and saw the second section about at the west passing track switch, running at a speed of about 20 miles per hour. The headlight had been dimmed, while fire was flying from the wheels. He stated that three red lights were burning on the rear end of his own car--an electric bullseye and two markers; white lights were also burning in both the body and vestibules of his car and he was sure that Motorman Webb could have seen his car had there

been no red lights burning on the rear end. After the accident Motorman Webb said, "I could not stop," and then made some remark about not being able to get his door open and also something about his headlight not working. Conductor Wallace further stated that under the operating rules of the company it is not necessary to protect the rear end of trains by flag at regular meeting points.

Conductor Graham, of train 2d No. 174, stated that his car left Jackson at 6.03 p.m., and that Motorman Webb handled the car properly between that point and Frisco, making a safety stop at Grass Lake, 4.3 miles from Frisco, and also slowing down around curves in that vicinity. He expected the motorman to stop the car at Frisco, on account of its being a meeting point, and when 300 or 400 feet from the siding and while the car was running 35 or 40 miles an hour, the motorman started to reduce the speed and at the time of the collision had reduced it to 25 or 30 miles an hour. Conductor Graham stated that he did not know whether the brakes were applied or whether the current was reversed, but the car began to skid when about 125 feet from the car ahead. He further stated that he had seen the red lights burning on the rear end of the car ahead. As far as he knew his motorman had had no trouble with the headlight at any point on the trip and he knew of no trouble with the air brake system. After the accident he heard his motorman say, "Oh, if I could only have got my door open," and also something about his headlight. In Conductor Graham's opinion, Motorman Webb's failure to stop before the collision was due to his running at too high speed approaching the meeting point and not applying the brakes until too close to the car ahead.

Motorman Salesbury of westbound train No. 171 stated that his train arrived at Frisco at about 7.00 p.m., between 25 and 30 minutes late, and that he took Motorman Webb to Jackson on his car. Before carrying him into the car, however, he had a little conversation with Motorman Webb, in which he said, "I could not stop, I could not stop," and then said, "That is what you get for not having your headlight working." Motorman Salesbury stated that he then asked Motorman Webb if he did not misjudge the distance, to which Motorman Webb replied, "Well I might have." At Jackson Motorman Salesbury asked him again why he was unable to stop and he replied that his headlight bothered him. Motorman Salesbury was of the opinion that Motorman Webb misjudged the distance in which he had to stop and said that the slightly descending grade approaching Frisco makes it hard to judge the distance required to stop a car. He thought it possible that if Motorman Webb had used sand and air instead of reversing, he would not have struck train 1st No. 174 with as much force, he said that he looked at the rails after the accident and they indicated that Motorman Webb had not used any sand.

The air brake equipment of car 7793 was tested after the accident by employees of the company and nothing was found that would indicate a possibility of anything having been wrong with the air brakes. Car 7793 is equipped with a hand brake and what

is known as the storage air brake system, consisting of two main storage reservoirs 16 inches by 126 inches and one auxiliary air reservoir 16 inches by 62 inches, a reducing valve, a straight air brake valve, a duplex air gauge and a brake cylinder, with the necessary piping. The storage reservoirs are charged from stationary compressed air plants. The auxiliary reservoir is charged from the main reservoir through the reducing valve which is set at the predetermined pressure that it is desired to use in the brake cylinder. A straight air brake valve is used, which, when placed in service position, allows the pressure to flow from the auxiliary reservoir to the brake cylinder, and when placed in release or running position, to flow from the brake cylinder to the atmosphere.

The electric headlight on this car was of the combination arc and incandescent type, having two incandescent globes which are used when it is desired to dim the light, in place of the arc. This headlight was totally demolished in the accident and it was impossible to ascertain its condition at the time of the accident.

This accident was caused by the failure of Motorman Webb to have his car under control approaching Frisco, a scheduled meeting point for his train.

In the absence of any testimony from Motorman Webb, who died as a result of the collision, no reason can be definitely stated for his failure to stop his car before the collision occurred. It is believed, however, that he either allowed his headlight, or something else, to divert his attention from the track ahead, or else he erred in his judgment of the distance from his car to car 7091 or the distance in which his car could be brought to a stop.

Rule 316 of the book of operating rules of the Detroit United Lines reads as follows.

"On approaching car house, yards, junction and meeting points, steam railroad crossings and bridges, motorman will test the air brakes 1500 feet ahead. Should they not be working properly, there is then sufficient time to stop the car by using the hand brake or, if absolutely necessary, the reverse. Hand brakes must be tested at least once on each trip."

While there is no evidence of anything having been wrong with the air brakes on car 7793, had there been anything wrong and had Motorman Webb complied with this rule, he would have been able to have stopped his car in time to have avoided the accident.

Motorman Webb entered the service on the Detroit, Jackson and Chicago Division of the Detroit United Lines as motorman on April 11, 1919, and he had a good record. At the time of the accident the crew of train 2d No. 174 had been on duty about 3 hours, previous to which Motorman Webb had had an off-duty period of 11 hours and 25 minutes and Conductor Graham an off-duty period of 10 hours and 40 minutes.