

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
WABASH RAILWAY

WORTH, ILL.

FEBRUARY 22, 1938

INVESTIGATION NO. 2255

SUMMARY

Inv-2255

Railroad: Wabash
Date: February 22, 1938
Location: Worth, Ill.
Kind of accident: Derailment after striking motor truck
Train involved: Passenger
Train number: 24
Engine number: 662
Consist: 6 cars
Speed: 70 to 78 m.p.h.
Track: Tangent; 0.05 percent descending grade
Weather: Cloudy
Time: 1:40 p.m.
Casualties: 1 killed and 46 injured
Cause: Motor truck driven on railroad crossing
at grade directly in front of approaching
train, in disregard of signals indicating
approach of train.

Inv-2255

March 24, 1938.

To the Commission:

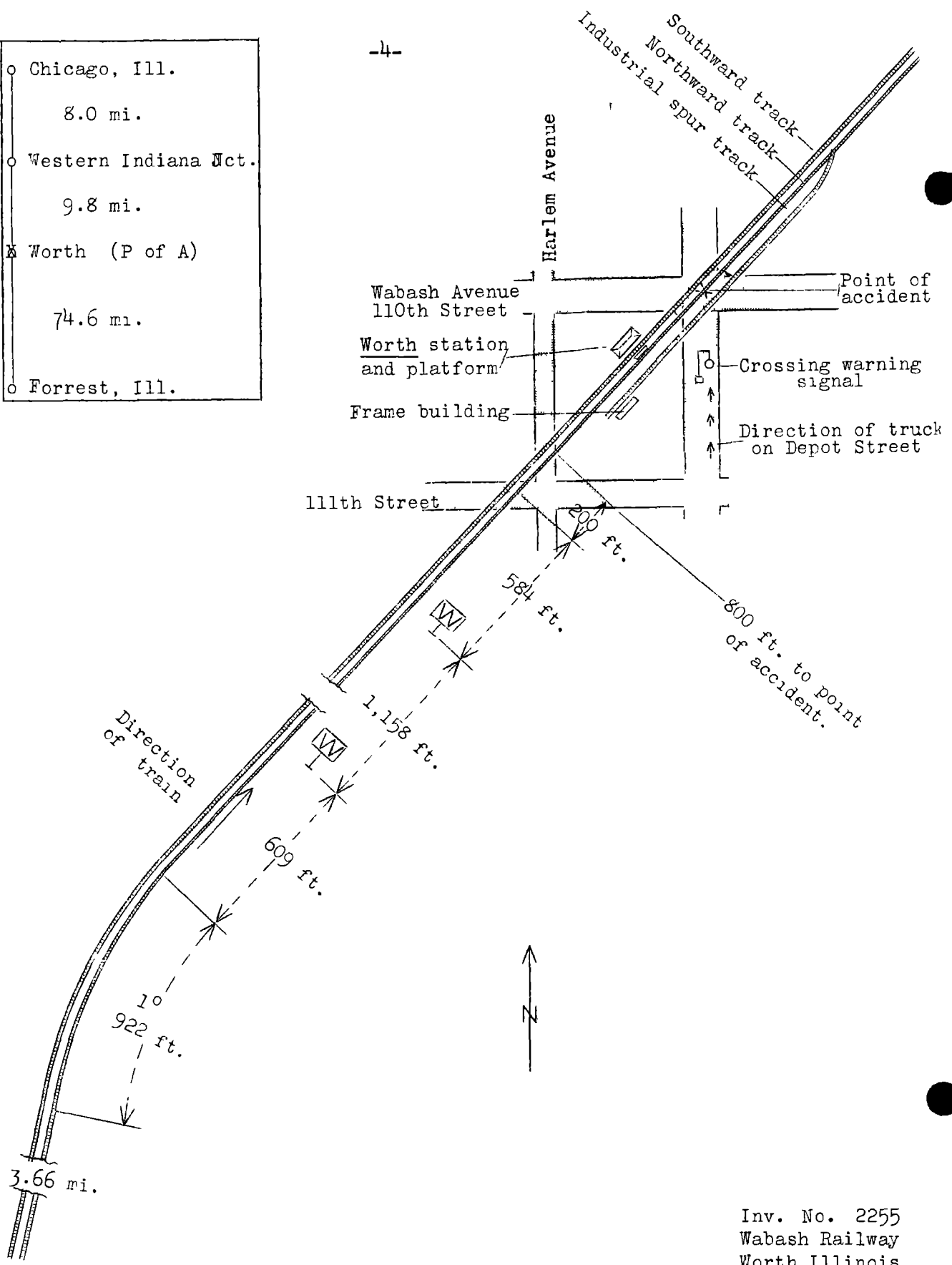
On February 22, 1938, there was a collision between a passenger train and a motor truck at a highway grade crossing on the Wabash Railway at Worth, Ill., which resulted in the derailment of the passenger train and caused the death of the truck driver, and the injury of 42 passengers, 1 Pullman employee, and 3 railroad employees on duty. The investigation of this accident was made in conjunction with a representative of the Illinois Commerce Commission.

Location and method of operation.

This accident occurred on the Sixth District, Decatur Division, which extends between Forrest and Western Indiana Junction, Ill., a distance of 84.4 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by timetable, train orders and a manual block-signal system.

At the crossing involved the railway extends in a southwest-northeast direction and intersects Wabash Avenue, an east-west street, and Depot Street, a north-south street. Over this crossing the main tracks are paralleled by an industrial spur track 964 feet in length, which lies about 15 feet east of the northward main track and connects with the northward main track by means of a trailing-point switch located 627 feet north of the point of accident. Approaching the crossing from the south the track is tangent for a distance of 3.65 miles, followed by a 1° curve to the right 922 feet in length, and again tangent 3,351 feet to the point of accident and for a considerable distance beyond. The grade for northward trains varies from 0.44 to 0.05 percent descending, being 0.05 percent at the point of accident. Worth station is located on the west side of the southward main track and 52 feet south of the crossing involved. Between the industrial spur and the northward main track there is a platform 5 feet wide, 24 feet long, and 4 feet high, the north end of which is immediately adjacent to the south side of the crossing. A building 40 feet long by 70 feet wide and 14 feet in height, occupied by the Morgan Park Coal and Material Company, is located 6 feet east of the industrial spur and about 175 feet south of the center of the crossing. Whistle posts for northward trains are located 2,742 feet and 1,584 feet south of the point of accident. The first governs the sounding of the whistle for the crossings

○ Chicago, Ill.	
	8.0 mi.
○ Western Indiana Dct.	
	9.8 mi.
⊗ Worth (P of A)	
	74.6 mi.
○ Forrest, Ill.	



Inv. No. 2255
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at 111th Street and Harlem Avenue, 1,000 feet and 800 feet, respectively, south of the point of accident, and the second governs the sounding of whistle signals for the crossing on which the accident occurred.

The main tracks are laid with 112-pound rails, 39 feet in length, and with an average of 24 creosoted hardwood ties and 6 rail anchors to the rail length. It is single spiked, fully tie-plated, and ballasted with crushed rock to a depth of 12 inches under the ties. The track is well maintained.

Approaching the crossing from the south on Depot Street, the grade is slightly descending for approximately 550 feet and then ascends about one foot in a distance of 95 feet to the northward main track. The streets in this vicinity are surfaced with macadam. The crossing is 83 feet in width at the industrial track on the east side and 107 feet in width at the southward main track on the west side. Its surface is gravel, with a plank on each side of each rail.

This crossing is protected on the east side by a wigwag signal located approximately in the center of Depot Street and 9.6 feet east of the east rail of the industrial track, 23.1 feet east of the east rail of the northward main track. The wigwag banner is 18 inches in diameter, electrically lighted, and is suspended from the end of a 6-foot horizontal arm attached to a mast 19 feet high. The center of this banner is 16 feet above the rail level. A bell is located at the top of the mast. On the northward track the contact points for the operation of this signal and bell are located approximately 3,414 feet south of the signal. Approaching the crossing from the south on Depot Street the view of the track to the south is obstructed by the Morgan Park Coal and Material Company building from 95 feet to 32 feet south of the crossing, but at the latter point a north-bound train can be seen for a distance of about 3,350 feet.

Rule 14 (1) of the railway company specifies that approaching a highway crossing the engineman shall sound two long, one short, and one long blasts of the engine whistle, the last blast to be continued until the engine reaches the crossing.

The maximum authorized speed for passenger trains in this vicinity is 80 miles per hour.

The weather was cloudy but the visibility good at the time of the accident, which occurred at 1:40 p.m.

Description

No. 24, a north-bound passenger train, consisting of one combination baggage-passenger car, one coach, one diner, one Pullman-parlor car, and two Pullman-sleeping cars, in the order named, all of all-steel construction, hauled by engine 662, of the 4-6-2 type, was in charge of Conductor Kimberlin and Engineman Filbert. This train passed Orland Park, the last open office, 5.4 miles south of Worth, at 1:34 p.m., according to the train sheet, 25 minutes late, and was derailed at Depot Street and Wabash Avenue crossing at Worth, after having collided with a motor truck, while traveling at a speed estimated to have been between 70 and 78 miles per hour.

The truck involved was an International 1932 model A-3 truck, owned by William N. Jadro and bearing Illinois 1938 license number D-7-617; it was being driven by Frank S. Gregson, sole occupant. It departed from a point 735 feet south of the crossing and was being driven northward on Depot Street; while on the northward main track making a left turn into Wabash Avenue, its front end was struck near the driver's seat by No. 24.

The truck was demolished and thrown to the east of the track. The engine truck and the forward tender truck were derailed by some part of the motor truck wreckage. The engine and tender, becoming separated from the train, stopped 2,715 feet north of the first mark of derailment. The pilot was demolished, while the forward piping and the engine truck were badly damaged. The five rear cars were derailed to the east at the trailing-point switch of the industrial track and stopped in various positions approximately in line with the track; the first car became separated from the other cars and stopped on its side 378 feet farther north. Beginning at the trailing-point switch the track was demolished for a distance of 273 feet. The employees injured were the baggageman, the dining-car steward, and a dining-car cook.

Summary of evidence

Engineman Filbert stated that the brakes were tested at Decatur, 154.6 miles south of the point of accident, and a running test was made just after leaving that point; two stops were made en route and in all instances the brakes functioned properly. He sounded the station whistle signal about three-fourths mile south of Worth and immediately followed it with two separate highway crossing whistle signals, the last of which was still being sounded at the time of the accident. The engine bell was ringing and the headlight was shining brightly approaching the scene of the

accident. He noticed a motor truck approaching from the south side about 15 or 20 feet from the northward main track. He realized that the speed of the truck was such that it would not be able to stop south of the northward main track, nor would it be able to pass over that track prior to the arrival of the train at the crossing. He made an emergency application of the brakes, and they remained applied until the engine stopped. There was no apparent increase or decrease in the speed of the truck from the time he first noticed it until the time of the accident, which occurred at 1:40 p.m. At that time the speed of the train was between 75 and 78 miles per hour. The visibility was good, and it was his opinion that had the truck driver stopped on the south side clear of the crossing he could have seen the approaching train a distance of 250 feet. Engineman Filbert explained that on the fast runs he always keeps the headlight burning brightly approaching busy points in the daytime as an additional warning to motor traffic.

Fireman Daniels corroborated the statement of the engineman concerning events up to the time of approaching Worth, at which time he was looking out the left-front cab window. He said he did not see the truck until after it was struck. He estimated the speed to have been about 70 miles per hour at the time of the accident.

Conductor Kimberlin also corroborated the statement of the engineman with respect to events up to the time of approaching Worth, and stated that the train was about 200 or 250 feet from the crossing when he felt an emergency application of the brakes, at which time the speed was between 70 and 75 miles per hour. He was in the leading car, which became derailed shortly after the emergency application of the brakes was made.

Brakeman Short, who was in the rear car approaching the scene of the accident, estimated the speed to be between 72 and 75 miles per hour at the time of the accident. His statement concerning the whistle signals corroborated that of the engineman.

Signal Maintainer Law stated that the bell and banner of the crossing signal operate independently of each other and that the contact points on the northward track are located 5,414 feet south of the signal. The circuits are so arranged that the banner and bell operate continuously from the time a northward train passes the initial contact points until the rear of the train has passed a point 20 feet north of this crossing. He inspected this signal on February 9, and again at 2:30 p.m., February 22. On both occasions he found it to be operating normally.

Edward Bishop, of Worth, Ill., stated that just prior to the time of the accident he was on Depot Street at a point 400 or 500 feet south of the crossing. The truck involved in the accident passed him at a speed of about 10 or 15 miles per hour but he paid no particular attention to it until he heard the train whistle and then looked around and saw this truck pass on the right side of the wigwag signal. The truck continued to move toward the crossing, angling off to make a left turn into Wabash Avenue, but it did not stop and it was apparent the driver was not aware of the approach of the train as he proceeded immediately in front of it. The engine whistle was being sounded when the truck was struck, at which time he thought the train was being operated at regular speed. The sun was shining although not brightly. He said that there was considerable snow on the ground but none was falling at that time; the surface of the street was slippery. There were no cars on the industrial track south of the crossing.

John Hanus, of Worth, Ill., stated that he was located approximately 320 feet south of the crossing on Depot Street when he saw the truck pass northward at a speed of 10 or 12 miles per hour; at that time the crossing signal was operating. The truck passed to the right of the signal mast and stopped near it, then crossed over the industrial track and was making a left turn into Wabash Avenue, when it again stopped, at which instant he saw the train strike the front of the truck. He thought the train was about 50 feet from the platform when the truck stopped on the crossing in front of the train. He estimated the speed of the train at approximately 75 miles per hour. He said it was very bright at the time of the accident.

Arthur Plahm, of Worth, Ill., Manager of the Morgan Park Coal and Material Company, who was in the office of that company's building at the time of the accident, stated that he heard the approaching train whistling and that he heard the signal bell and saw the wigwag operating while the train was yet several blocks away. The truck was about 50 to 80 feet south of the main line, moving northward at about 10 to 15 miles per hour, when he first noticed it. The truck passed to the right of the signal mast and the brakes were then applied, the left wheel sliding possibly 2 or 3 feet. The truck appeared to be attempting a left turn when the train struck it, at which time the whistle was being sounded. The manager has crossed this crossing one or more times daily for the past six years and said that from a point 35 feet south of the main track there is an unlimited view to the southwest.

Richard F. Whalen, of Palos Heights, Ill., who was in the office with Manager Plaim at the time of the accident corroborated the statements of the letter in all essential details. He stated that the wigwag signal was operating when the truck passed it.

William N. Jadro, of Chicago, Ill., owner of the truck involved in the accident, stated that he was engaged in trucking by contract for the Peerless Paper Company. This truck was a 1 1/2 or 2-ton, 1932 Model A, International Truck, with engine number 63,602, and bore 1938 Illinois license number D-7-617. The brakes had been renewed about two months prior to the accident and the truck was in good operating condition. He purchased the truck in September, 1932, and Driver Gregson, who had a chauffeur's license, had been in his employ since that time. The driver's license, the procuring of which requires no physical examination, had been renewed on January 15, 1938, for the year 1938. He said that Gregson was in good physical condition and as far as he knew had no deficiency in hearing. He described Gregson as being temperate in his habits, and said that he was in good spirits and normal in every respect at 9:45 a.m. of the day of the accident, which was the last time he saw him. He said that Driver Gregson was familiar with the railroad crossings in this vicinity, having been on this route for the past five years.

Observations of the Commission's Inspectors

The first mark of derailment was a flange mark on the ball of the east rail 26 feet north of the south end of the crossing on the northward main track. This mark crossed over the rail and then the flange apparently traveled between the outside plank and the rail to the north end of the crossing, and then continued on the ties. Corresponding marks appeared on the planking on the east side of the west rail. The marks continued northward, then through the frog and switch points of the industrial track, beyond which the track was demolished for a distance of 273 feet, where the marks again appeared on the ties and continued to the point where the engine stopped.

The driver of a vehicle approaching from the south on Depot Street can see a north-bound train a distance of 4,000 feet when 18 feet east of the east rail of the northward main track; 3,350 feet when 32 feet east of the same rail; 1,000 feet when 95 feet east of it; and, 700 feet when 525 feet east.

A traffic check at this crossing for a 24-hour period disclosed that 110 vehicles and 14 trains passed over this crossing. The maximum hourly traffic was 13 vehicles between 1 p.m. and 2 p.m., and the heaviest train movement was between midnight and 1 a.m. when 3 trains passed. During this check it was observed that the wigwag signal and the bell operated continuously on the approach of trains from a minimum of 26 seconds to a maximum of 55 seconds, according to the speed of the approaching train, before the train reached the crossing. All trains sounded the whistle signals clearly and distinctly approaching and up to the point where the engine passed over the crossing.

The wreckage of the truck involved had been removed from the scene of the accident before the arrival of the inspectors.

Discussion

The truck departed from a point 735 feet south of the crossing and was driven northward on Depot Street at a speed of 10 to 15 miles per hour; it had passed to the right of the wigwag signal, which was functioning properly, and was apparently making a left turn into Wabash Avenue when the front end of the truck was struck by No. 24. One observer said that the truck stopped near the crossing signal and again stopped on the northward main track, but all other observers stated that the truck did not stop.

The train approached the crossing at a speed of between 70 and 78 miles per hour. The engine whistle was sounded almost continuously from a point three-fourths mile south of the crossing to the crossing itself. The engine headlight was burning brightly and the engine bell was ringing. The engineman saw the truck moving slowly upon the crossing when the train was about 250 feet from the crossing. He knew that an accident was inevitable and applied the brakes in emergency but there was then insufficient distance in which to appreciably reduce the speed.

It could not be determined why the truck driver failed to observe the approaching train as he was killed in the accident. He had a clear view of the railroad to the south. He had been driving a truck in this vicinity for several years. According to the evidence he was not physically handicapped.

Conclusion

This accident was caused by a motor truck being driven upon a highway grade crossing in front of an approaching train in disregard of signals indicating the approach of a train.

Respectfully submitted,
W. J. PATTERSON
Director.