INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3503

INTERNATIONAL-GREAT NORTHERN
RAILROAD COMPANY

IN RE ACCIDENT

NEAR BELT JCT., TEX., ON

FEBRUARY 6, 1953

SUMMARY

Date:	February 6, 1953	
Railroad:	International-Great Northern	
Location:	Belt Jct., Tex.	
Kind of accident:	Collision	
Equipment involved:	Passenger train	: Motor-truck
Train number:	122	:
Engine number:	Diesel-electric units 8017 and 8032	:
Consist:	11 cars	:
Estimated speeds:	63 m. p. h.	: 15 m. p. h.
Operation:	Signal indications	
Track:	Single; tangent; level	
Highway:	Tangent; crosses track at angle of 79°; 0.60 percent ascending grade eastward	
Weather:	Clear	
Time:	4:21 p. m.	
Casualties:	2 killed	
Cause:	Motor-truck occupying rail-highway grade crossing immediately in front of approaching train	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3503

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

INTERNATIONAL-GREAT NORTHERN RAILROAD COMPANY

March 31, 1953

Accident near Belt Jct., Tex., on February 6, 1953, caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On February 6, 1953, there was a collision between a passenger train on the International-Great Northern Railroad and a motor-truck at a rail-highway grade crossing near Belt Jct., Tex., which resulted in the death of two train-service employees.

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[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

To SY Jct.
Highway stop sign
P.T.
300 ft.
P.C.
150 ft.
46 ft.
250 ft.
Direction of motor-truck
Building
350 ft.
Point of accident
Little York Road
22 ft.
14 ft.
East Hardy Street
East 23rd Street
Railroad crossing sign
271 ft.
80.5 ft.
1,335 ft.
Report No. 3503
Intermarginal-Grant Harbison Railroad
Belt Jct., Tex.
February 6, 1953
To Houston
No. 224
Crossbuck whistle sign
Tenneco to Belt Jct. 3.4 mi.
SY Jct., Tex. 124.4 mi.
Point of accident 3.4 mi.
Belt Jct. 5.0 mi.
Houston, Tex.

Location of Accident and Method of Operation

This accident occurred on that part of the Palestine Division extending between Belt Jct., and SY Jct., Tex., 146.8 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by signal indications. The accident occurred on the main track at a point 3.4 miles north of Belt Jct., where the railroad is crossed at grade by Little York Road. The track is tangent for a distance of 3.4 miles immediately south of the point of accident and a considerable distance northward. The grade is practically level. Little York Road intersects the railroad at an angle of 79 degrees. This highway is 22 feet in width and is surfaced with bituminous material. From the west there are, in succession, a tangent 300 feet in length, a 4°30' curve to the right 150 feet, and a tangent 250 feet to the crossing and a considerable distance eastward. The grade for east-bound vehicles is 0.60 percent ascending for a distance of 300 feet immediately west of the crossing. The crossing is 50 feet in width and is surfaced with bituminous material to the level of the tops of the rails. In the vicinity of the point of accident West Hardy Street parallels the railroad on the west and East Hardy Street parallels the railroad on the east. The center-lines of these streets are, respectively, 271 feet west and 80.5 feet east of the crossing.

A standard cross-buck railroad-crossing sign is located 26.5 feet south of the center-line of Little York Road and 14 feet east of the center-line of the track. This sign is mounted on a mast 6 feet 6 inches above the level of the highway, and bears the words "RAILROAD CROSSING" in black on a white background. A crossing-whistle sign for north-bound trains is located 1,335 feet south of the crossing.

A standard highway stop sign, governing east-bound traffic on Little York Road, is located in the southwest angle of the intersection of Little York Road and East Hardy Street. This sign bears the word "STOP", and is 46 feet east of the center-line of the track.

This carrier's operating rules read in part as follows:

14. Engine Horn or Whistle Signals. * * *

NOTE.--The signals prescribed are illustrated by "o" for short sounds; "__" for longer sounds. * * *

SOUND.	INDICATION.
* * *	
(1) ——.—— o ——	Approaching public crossings at grade. (Standard sign will designate point at which signal must begin.) To be prolonged or repeated until crossing is occupied by engine or car. * * *

* * *

17. Headlights.--The standard white headlight must be displayed brightly to the front of every train by day and by night.

* * *

30. Ringing Bell. * * * the engine bell must be rung * * * while approaching and passing public crossings at grade * * *

Regulations of the Department of Public Safety of the State of Texas governing commericial vehicles provide in part as follows:

ARTICLE XI

SPECIAL STOPS AND RESTRICTED SPEEDS REQUIRED

* * *

Sec. 89. Certain vehicles must reduce speed at all railroad grade crossings. (a) The driver of any vehicle carrying explosive substances or flammable liquids as its principal cargo before crossing at grade any track or tracks of a railroad, shall if travelling in excess of twenty (20) miles per hour, reduce the speed of such vehicle to twenty (20) miles per hour before approaching within two hundred (200) feet from the nearest rail of such railroad and shall listen and look in both directions along such track for any approaching train, and for signals indicating the approach of the train, except as hereinafter provided, and shall not cross such track until he can do so safely. After reducing speed as required herein and upon proceeding when it is safe to do so the driver of any said vehicle shall cross only in such gear of the vehicle that there will be no necessity for changing gears while traversing such and the driver shall not shift gears while crossing the track or tracks.

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The maximum authorized speed for passenger trains is 79 miles per hour.

Description of Accident

No. 122, a north-bound first-class passenger train, consisted of Diesel-electric units 8017 and 8032, coupled in multiple-unit control, one mail-baggage car, one coach-dormitory car, one coach, one dining car, six sleeping cars, and one business car, in the order named. The first 10 cars were of lightweight steel construction, and the eleventh car was of conventional all-steel construction. This train departed from Houston, 5 miles south of Belt Jct., at 4 p. m., on time, passed Belt Jct. at 4:17 p. m., on time, and while moving at a speed of 63 miles per hour it struck a motor-truck at the rail-highway grade crossing at Little York Road, 3.4 miles north of Belt Jct.

The vehicle involved was a White tractor and a semi-trailer owned by Robertson Transports, Inc., Houston, Tex. The tractor bore Texas license No. 9J935 and Railroad Commission of Texas No. S24291. A 3,400-gallon dual tank was mounted on the semi-trailer, which bore Texas license No. 7N-1227. Both the tractor and the semi-trailer were equipped with dual tires on the rear wheels, and both were equipped with air brakes. At the time of the accident the cargo of the semi-trailer consisted of casinghead gasoline. The total length of the vehicle was 32 feet, and the total weight of the vehicle and cargo was 37,400 pounds. The driver, who was the sole occupant, held Texas commercial operator's license No. 2275413. This vehicle was moving eastward over the crossing at a speed of about 15 miles per hour when the semi-trailer was struck by No. 122.

No. 122 stopped with the front of the locomotive 2,592 feet north of the point of accident. The front end of the first Diesel-electric unit was bent and torn. The cargo of the semi-trailer became ignited when the collision occurred, and the first Diesel-electric unit was badly damaged and the second unit was considerably damaged by fire. There was no damage to the cars of the train. The tractor and the semi-trailer became separated when the collision occurred. The tractor stopped in the northeast angle of the intersection of Little York Road and East Hardy Street. The semi-trailer was demolished. The tanks stopped about 200 feet north of the crossing and 50 feet east of the track.

The engineer and the fireman of No. 122 were killed.

The weather was clear at the time of the accident, which occurred at 4:21 p. m.

During the 30-day period preceding the day of the accident, the average daily movement over the crossing was 15.51 trains. During the 24-hour period beginning at 6:30 a. m., February 13, 1953, 5,709 automobiles, 1,877 trucks, 14 buses, and 5 self-propelled roadway machines passed over the crossing. Forty-two of the trucks were carriers of flammable cargoes.

Discussion

As No. 122 was approaching the point where the accident occurred the enginemen were on the locomotive and the members of the train crew were in various locations throughout the train. The brakes of the train had been tested at Houston, and the members of the train crew said that apparently the brakes functioned properly when used en route. The engineer and the fireman died as a result of injuries incurred in the accident and neither of them made a statement concerning the accident. A witness to the accident said that the headlight was lighted as the train approached Little York Road and that the grade-crossing whistle signal was sounded for the first crossing south of Little York Road and also for the crossing at Little York Road. Members of the train crew said that there was a heavy application of the brakes in the vicinity of the crossing, but they were unable to fix the exact point at which the application was made. According to the tape of the speed recording device the train was moving at a speed of 63 miles per hour when the collision occurred. The brakes of the cars were tested after the accident occurred and were found to function properly.

The driver of the motor-truck said that the truck approached West Hardy Street at a speed of about 30 miles per hour. The driver looked in each direction for conflicting highway traffic and for approaching trains. He did not see a train. When the truck reached a point which the driver thought was 50 or 75 feet west of the crossing he observed No. 122 approaching at a distance of about 750 feet. At this time the speed of the truck had been somewhat reduced. The driver immediately applied the brakes. He then found that the truck could not be stopped short of the crossing. He

released the brakes and increased the speed in an attempt to cross the track ahead of the train. The semi-trailer was struck before it cleared the crossing. The driver said that he did not hear a grade-crossing whistle signal at any time before the collision occurred.

After the accident occurred observations and tests were made to determine the range of vision between a vehicle approaching the crossing from the west and a train approaching from the south. It was found that after an east-bound vehicle passed a building located south of Little York Road and 350 feet west of the crossing the driver had a view of the track throughout a distance of 1.02 miles immediately south of the crossing.

Cause

It is found that this accident was caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching train.

Dated at Washington, D. C., this thirty-first day of March, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,

Acting Secretary.