

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3517
ILLINOIS CENTRAL RAILROAD COMPANY
IN RE ACCIDENT
NEAR GARYVILLE, LA., ON
MAY 16, 1953

SUMMARY

Date:	May 16, 1953
Railroad:	Illinois Central
Location:	Garyville, La.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	35
Engine number:	1521
Consist:	6 cars
Estimated speed:	55 m. p. h.
Operation:	Timetable, train orders and automatic block-signal system
Track:	Single; tangent; 0.06 percent ascending grade southward .
Weather:	Cloudy
Time:	6:10 a. m.
Casualties:	2 killed; 1 injured
Cause:	Inadequately maintained track

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3517

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

ILLINOIS CENTRAL RAILROAD COMPANY

June 18, 1953

Accident near Garyville, La., on May 16, 1953, caused by
inadequately maintained track.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On May 16, 1953, there was a derailment of a passenger train on the Illinois Central Railroad near Garyville, La., which resulted in the death of two train-service employees, and the injury of one railway-express messenger.

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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.

- o M. P. Jct., La.
- | 31.5 mi.
- o Burnside
- | 23.7 mi.
- X Point of accident
- | 0.5 mi.
- o Garyville
- | 26.0 mi.
- o Orleans Jct., La.

To M. P. Jct. →

No. 35

Tangent
2.08 mi.

Point of accident

2,674 ft. = Tangent

Garyville V...

← To Orleans Jct.

Report No. 3517
Illinois Central Railroad
Garyville, La.
May 16, 1953

Location of Accident and Method of Operation

This accident occurred on that part of the Vicksburg Division extending between M. P. Jct. and Orleans Jct., La., 81.7 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the main track at a point 55.2 miles south of M. P. Jct. and 2,674 feet north of the station at Garyville. The track is tangent throughout a distance of 2.08 miles immediately north of the point of accident and a considerable distance southward. The grade is 0.06 percent ascending southward at the point of accident.

In the vicinity of the point of accident the structure of the main track consists of 90-pound rail, 33 feet in length, laid new in 1923 on an average of 18 treated ties to the rail length. It is fully tieplated with single-shoulder tieplates, single-spiked, and is provided with 4-hole 24-inch joint bars and an average of eight rail anchors per rail. It is ballasted with slag to a depth of 6 inches below the bottoms of the ties over a sub-base of gravel 9 inches in depth. In the immediate vicinity of the point of accident the track is laid on a fill about 6 feet in height.

The maximum authorized speed for passenger trains is 30 miles per hour.

Description of Accident

No. 35, a south-bound first-class passenger train, consisted of engine 1521, one baggage car, one baggage-mail car, three coaches, and one sleeping car, in the order named. All cars were of all-steel construction. This train passed Burnside, 23.7 miles north of the point of accident and the last open office, at 5:40 a. m., 2 minutes late, and while moving at an estimated speed of 55 miles per hour the engine and tender, the first four cars, and the front truck of the fifth car were derailed at a point 2,674 feet north of the station at Garyville.

The engine stopped on its left side. The front end was 448 feet south of the point of accident and 35 feet east of the track, and the rear end was about 25 feet east of the track. The cistern of the tender was separated from the frame. It stopped on its left side with the front end against the cab of the engine and the rear end 35 feet east of the track. Separations occurred between the tender and the first car and between the first and second cars. None of the derailed cars overturned. The first car stopped against the rear end

of the cistern of the tender, with the front end 60 feet east of the track and the rear end on the track structure. The other derailed cars stopped approximately in line with the track. The engine and the first three cars were considerably damaged, and the fourth car was somewhat damaged.

The engineer and the fireman were killed.

The weather was cloudy at the time of the accident, which occurred at 6:10 a. m.

Engine 1521 is of the 2-2-2 type. The total weight in working order is 308,500 pounds, distributed as follows: engine truck, 27,000 pounds; driving wheels, 235,400 pounds; and trailing truck, 46,100 pounds. The specified diameters of the engine-truck wheels, driving wheels, and trailing-truck wheels are, respectively, 30 inches, 63-1/2 inches, and 46 inches. The driving wheelbase is 16 feet 6 inches long, and the total wheelbase is 35 feet 2 inches long. The total length of the engine and tender, coupled, is 86 feet 11-7/16 inches. The tender is rectangular in shape and is equipped with two four-wheel trucks. Its capacity is 13,000 gallons of water and 16 tons of coal. The total weight when fully loaded is 213,500 pounds. The center of gravity of the engine is 72 inches above the tops of the rails. The center of gravity of the tender with the estimated amount of coal and water remaining at the time the accident occurred was calculated as 71 inches above the tops of the rails.

The last class repairs to engine 1521 were completed in January, 1952. The accumulated mileage since class repairs was 53,754 miles. The engine received an annual inspection in February, 1953. At that time all wheels were dropped, tires were turned, and necessary repairs were made to driving boxes, shoes, and wedges. The accumulated mileage since this inspection was approximately 8,000 miles. The last monthly inspection and repairs were completed on April 24, 1953, and the last trip inspection and repairs were completed on May 15, 1953.

Discussion

As No. 35 was approaching the point where the accident occurred the enginemen were on the engine and the members of the train crew were in various locations in the cars of the train. The members of the train crew estimated that the speed was between 50 and 55 miles per hour. These employees said that prior to the time of the derailment the cars had been

riding smoothly and they were not aware of any condition of defective track or equipment. The railway-express messenger, who was in the first car, said that the brakes became applied and the car became derailed simultaneously.

Examination of the engine after the accident occurred disclosed no condition which could have caused or contributed to the cause of the accident. The engine-truck, driving-wheel, and trailing-truck assemblies were in good condition. The flanges and treads of all wheels were of full contour, and there was no appreciable tread wear. The driving-box shoes and wedges were well lubricated and moved freely. The lateral motion in the engine-truck wheels, the driving wheels from front to back, and the trailing-truck wheels, successively, was $7/16$ inch, $1/4$ inch, $1/2$ inch, $7/16$ inch, $3/8$ inch, and $5/8$ inch. The buffer castings between the engine and the tender were well lubricated and in good condition. There were numerous indentations, ranging in depth from $1/16$ inch to $1/3$ inch, on the wheels of the engine which apparently resulted from contact with track fastenings. The indentations on the left wheels were on the flanges, and those on the right wheels were on the outside edges of the counterbalances and tires.

Examination of the track after the accident occurred disclosed no indication of an obstruction having been on the track. At a point approximately 100 feet north of the first mark of derailment the east rail was shifted outward on the ties a distance of $1/2$ inch. Approximately 50 feet farther south the west rail was shifted outward a distance of $3/4$ inch. Immediately north of the point of derailment a rail on the east side of the track was canted outward. The leaving end of the rail was canted at an angle of about 40 degrees and was moved outward from its normal position. Two rail anchors located 7 feet 10 inches and 1 foot 2 inches north of the leaving end of this rail had been displaced. The inside joint bar and the ends of the bolts on the gage side of the leaving end of the rail were battered. The next three rails to the south also were canted outward. Each of these rails bore flange marks on the gage side of the web. The third rail was separated from the fourth rail at the joint. Marks on the ties indicated that a wheel had become derailed on the gage side of the west rail at a point 13 feet south of the point at which the first rail anchor was displaced. South of this point other wheel marks appeared on the gage side of the west rail.

Throughout a distance of 600 feet immediately north of the point of derailment the gage varied $5/16$ inch, with the exception of the two points at which the rails were shifted outward. The cross level varied considerably. The east rail was higher than the west rail at five different points. Between these points the west rail was higher than the east rail. At one point the cross level varied 1 inch within a distance of 33 feet, and at another point it varied $7/8$ inch within the same distance. The maximum variation was $1-3/8$ inches. Throughout a distance of approximately 1,000 feet immediately north of the point of derailment there were 518 spikes which could be moved laterally by hand and 27 of these spikes could be withdrawn without the use of tools.

The fact that both the east and the west rails were shifted outward at alternate points north of the point of derailment indicates that the engine of No. 35 was thrusting heavily from side to side. Apparently the train was moving at a speed at which the variation in the cross level of the track caused the engine to roll and thrust laterally which caused the east rail to be canted and forced outward from normal position. During a considerable period of time Diesel-electric locomotives have been used in passenger service on this district, and it has been unusual to operate an engine of the type used on No. 35 on the day of the accident in passenger service.

The track in this vicinity was inspected by the track supervisor from the rear of a train on May 14. At that time he observed two low spots in the track at points approximately 175 feet and 930 feet north of the point of accident. This condition was corrected by the section force on May 15. The section foreman said that after this work was completed there was no condition of the track which in his judgment required immediate attention. About 35 minutes before the accident occurred a south-bound freight train passed the point of derailment at a speed of between 35 and 40 miles per hour. The crew of this train noticed no defective condition of the track.

Cause

It is found that this accident was caused by inadequately maintained track.

Dated at Washington, D. C., this eighteenth day of June, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,
Acting Secretary.