

Inv-2302

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
CENTRAL OF GEORGIA RAILWAY

HOLT, GA.

OCTOBER 21, 1938

INVESTIGATION NO. 2302

SUMMARY

Inv-2302

Railway: Central of Georgia
Date: October 21, 1938
Location: Holt, Ga.
Kind of accident: Derailment
Train involved: Mixed
Train number: 78
Engine number: 523
Consist: 28 freight cars, 1 express
car, 1 coach and 1 baggage-
mail car
Speed: 30 m.p.h.
Operation: Timetable and train orders
Track: Tangent; 1.14 percent
ascending grade eastward
Weather: Clear
Time: 10 p.m.
Casualties: 1 killed; 5 injured
Cause: Broken rail

November 26, 1938

To the Commission:

On October 21, 1938, there was a derailment of a mixed train on the Central of Georgia Railway near Holt, Ga., which resulted in the death of one employee and the injury of five passengers.

Location and method of operation

This accident occurred on that part of the Macon Division designated as the Florala District which extends between Lockhart, Ala., and Albany, Ga., a distance of 153 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders, no block-signal system being in use. The accident occurred about one-half mile west of Holt; approaching this point from the west the track is tangent about 6 miles to the point of accident, and about 18 miles beyond. The grade is 1.14 percent ascending eastward at the point of accident.

The initial derailment occurred in a low cut, the sides averaging about 2 feet in height and extending about 125 feet eastward, where it merges into a fill about 600 feet in length, with a maximum depth of about 8 feet. The track structure consists of 90-pound rail, 33 feet in length, laid on an average of 18 treated pine ties to the rail length; it is single-spiked, about 30 percent tieplated, and has about 4 inches of cinder ballast; the maintenance is fair. The speed of mixed trains is restricted to 30 miles per hour.

The weather was clear at the time of the accident, which occurred about 10 p.m.

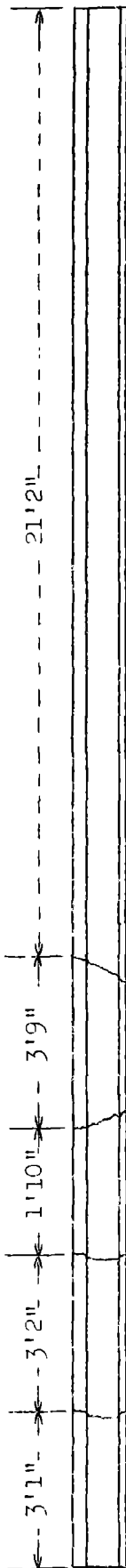
Description

No. 78, an east-bound mixed train, consisted of 23 loaded and 5 empty freight cars, 1 all-steel express car, 1 coach and 1 baggage-mail car with wooden bodies and part steel underframes, in the order named, hauled by engine 523, and was in charge of Conductor McGrady and Engineman Roby. This train left Lockhart at 2:20 p.m., according to the train sheet, on time, left Dothan, the last open office, 70.3 miles beyond, at 7:15 p.m., on time, and when approaching Holt, 63.6 miles farther east, was derailed while traveling at a speed estimated to have been about 30 miles per hour.

The engine, tender and first 23 cars were not derailed and this portion of the train stopped with its west end about 1,000 feet east of the initial point of derailment. The twenty-fourth to thirtieth cars, inclusive, and all but the rear pair of

East

West



Broken Rail
South side of track



Transverse Fissure 20%



Transverse Fissure 40%

○ Albany, Ga.
19.1 mi.
○ Holt
X Point of accident
3.8 mi.
○ Learv, Ga.
59.8 mi.
○ Dothan, Ala.
70.3 mi.
○ Lockhart, Ala.

Point of accident
M.P. 316 + 2428 ft.

Direction
of train

18 miles
Tangent

6 miles
Tangent

1/2 mile to Holt

Inv. No. 2302
Central of Georgia Ry.
Holt, Georgia
Oct. 21, 1938

wheels of the thirty-first or last car, were derailed to the south, the cars being separated at several points; the twenty-fourth car was upside down, the twenty-fifth to twenty-ninth cars, inclusive, were on their right sides, and the thirtieth and thirty-first cars were upright. The employee killed was the flagman.

Summary of evidence

Engineman Roby stated that the air brakes were tested and functioned properly; he observed nothing unusual about the track conditions; the headlight was burning properly. He sounded the station whistle signal for Holt and looked back for a signal from the coach as to whether there were any passengers to be discharged there. The train was running all right and nothing seemed to be down or dragging, but when within about 10 car lengths of Holt and traveling at a speed of about 30 miles per hour, there was a jerk, the air brakes became applied in emergency and the forward portion of the train stopped. He sent the head brakeman back to ascertain what had happened. The brakeman returned to the engine and informed him of the derailment, after which the forward portion of the train was moved to Albany, 19.1 miles east of Holt.

The statements of Fireman Lee and Brakeman Williams corroborated those of Engineman Roby.

Conductor McGrady stated that the last stop prior to the accident was made at Leary, 3.8 miles west of Holt, and when departing from that point he was in the coach; the speed was about 30 miles per hour and the first knowledge he had of anything wrong was when the derailment occurred. Shortly after the accident the conductor made an inspection of the track and wreckage and found a broken rail, which he concluded had caused the accident. Most of the cars in the train had been picked up en route; they were thoroughly inspected and the air brakes functioned properly. There was nothing wrong with the riding quality of the train, and track conditions seemed all right.

Section Foreman Pritchett, assigned to the section involved, stated that his section is 24 miles long, and he has four men in his crew. During the afternoon of the day of the accident he passed over this piece of track four times, either on foot or by motor car, and the track was in good condition. He arrived at the scene of the accident about 15 minutes after its occurrence; the rear eight cars were derailed, the track was torn up and rails were out on the south side. There was no indication of dragging equipment. He saw the rail which was broken and stated that the fractures were apparently due to

transverse fissures, one of which extended over part of the ball through the web and well into the base of the rail. He had been on the Holt section since September 6, 1938, and this was the first broken rail he had seen during that time.

Track Supervisor Waters arrived at the scene of the accident about $3\frac{3}{4}$ hours after its occurrence. He stated that he made a detailed examination of the track from a distance of $1\frac{1}{2}$ miles west to the point of the accident; he found no indication of dragging equipment or other condition that would have caused the accident, but at the point of the accident he found a broken rail which in his opinion was responsible for the derailment. He said that the rail was broken into five pieces, measuring from west to east as follows: 3 feet 1 inch, 3 feet 2 inches, 1 foot 10 inches, 3 feet 9 inches and 21 feet 2 inches. He thought that the initial fracture occurred at a large fissure which was nearest the receiving end of the rail and directly over the center of a new tie which was tieplated. This fissure extended over an area of 40 percent of the ball of the rail and the fracture extended down through the web and into the base. Apparently the next broken piece jumped out of the track, and there was a smaller fissure at the second break covering about 20 percent of the area. There was a batter mark at the end of the second break, but none at the first break; the batter on the small fissure indicated that the wheel had mounted from a lower level. He was last over this track on the day prior to the accident, going over it about 11:10 a.m. by motor car and returning about 1:50 p.m. the same day, but saw nothing wrong. No work had been performed on this piece of track since March or April, 1938, and the ties were in good condition. He considered the track good for the speed limit permitted. He had been in charge of this district since January 15, 1938, and this was the first transverse fissure to occur in this territory since that time.

General Foreman Walden and Car Foreman Howell arrived at the scene of accident about 11:30 p.m. They saw the broken rail under the baggage-mail car. The brake rigging was torn off the freight cars, but all brake rigging on the passenger cars was intact. Examination was made of the track, but no evidence was found of anything having been dragging. Although they did not closely examine the broken rail they concluded that it was the cause of the accident. When the cars were brought to Albany they were inspected, but nothing about them was found that would have caused the accident.

Car Inspectors Thomaston and Farmer inspected the forward portion of No. 78 on its arrival at Albany, after the accident and nothing about the cars was found that would have caused the accident.

Assistant General Manager Cummins stated that a detector car had been operated over the more important lines of this railroad each year since 1930; it is rented on a contract basis and approximately 500 miles per year are tested. This was the second derailment to his recollection that had occurred on the Florala District in 20 years which had been caused by a broken rail and it was his experience that operating the detector car over branch lines did not justify the expense involved.

Observations of the Commission's Inspectors

Inspection of the equipment and track was made by the Commission's inspectors and there was no defective equipment that would have caused or contributed to the accident, and there was no indication of anything having been dragging. Examination of the broken rail as to fissures and fractures supported in detail conditions previously described. The rail involved was a 33-foot, 90-pound, O. H., ARA "A" rail, manufactured by the T.C. & I. Co., rolled June, 1919, bore rail letter and heat number A27547, and was relaid at this location in 1932.

Traffic on the Florala District consists of one train daily, and one train tri-weekly, in each direction.

Discussion

The locomotive and first 23 cars were not derailed but the last 8 cars were derailed. After the accident a rail broken in four places was found. A fissure at the first fracture, located 5 feet 1 inch from the receiving end of the rail, covered 40 percent of the area of the ball of the rail; a fissure measuring 20 percent of the area of the ball was indicated at the second fracture which was located 3 feet 2 inches further east; no fissure was indicated at either of the other two fractures. No batter marks appeared on the first fracture but there were batter marks on the second fracture, which appeared as though a wheel mounted the rail from a lower level. There was no defective condition found about the train that would have caused or contributed to the cause of the accident, and there was nothing about the track conditions except the broken rail that had any bearing on the cause of the accident. Apparently the accident was caused by the rail breaking under the train.

The rail involved was rolled in 1919 and was relaid at the point of accident in 1932. According to the evidence only one other accident due to a broken rail had occurred on the Florala District within the past 20 years. Since the year 1930

this railroad has operated a rail detector car over approximately 500 miles of its more important lines but this service has not been used on the Florala District as the traffic consists of only one train daily and one train tri-weekly in each direction which the assistant general manager deemed not sufficient to justify the expense of rail detector car service.

Conclusion

This accident was caused by a broken rail.

Respectfully submitted,

W. J. PATTERSON,

Director.