

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3152
BURLINGTON-ROCK ISLAND RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR CORSICANA, TEX., ON
DECEMBER 28, 1947

SUMMARY

Railroad: Burlington-Rock Island
Date: December 28, 1947
Location: Corsicana, Tex.
Kind of accident: Derailment
Train involved: Passenger
Train number: 3
Engine number: Diesel-electric 9909
Consist: 6 cars
Speed: 65 m. p. h.
Operation: Timetable and train orders
Track: Single; tangent; 0.69 percent ascending grade southward
Weather: Clear
Time: 6:18 p. m.
Casualties: 1 killed; 177 injured
Cause: Broken rail

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3152

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

BURLINGTON-ROCK ISLAND RAILROAD COMPANY

February 10, 1948

Accident near Corsicana, Tex., on December 28, 1947,
caused by a broken rail.

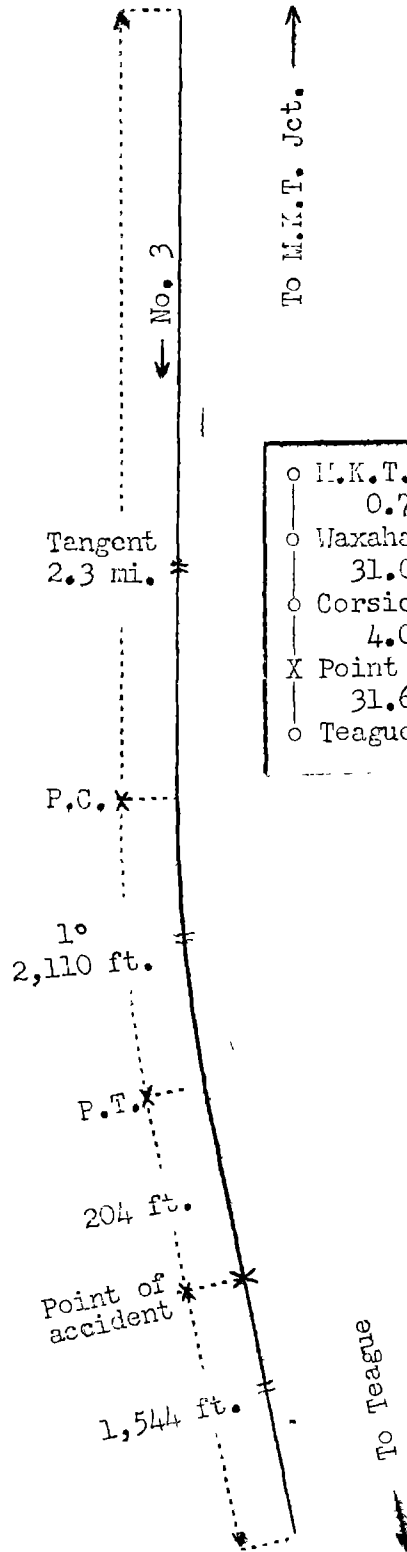
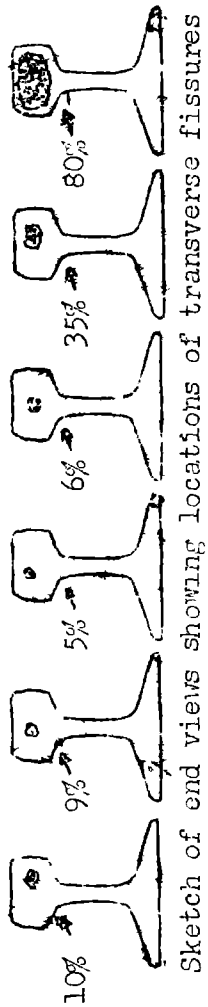
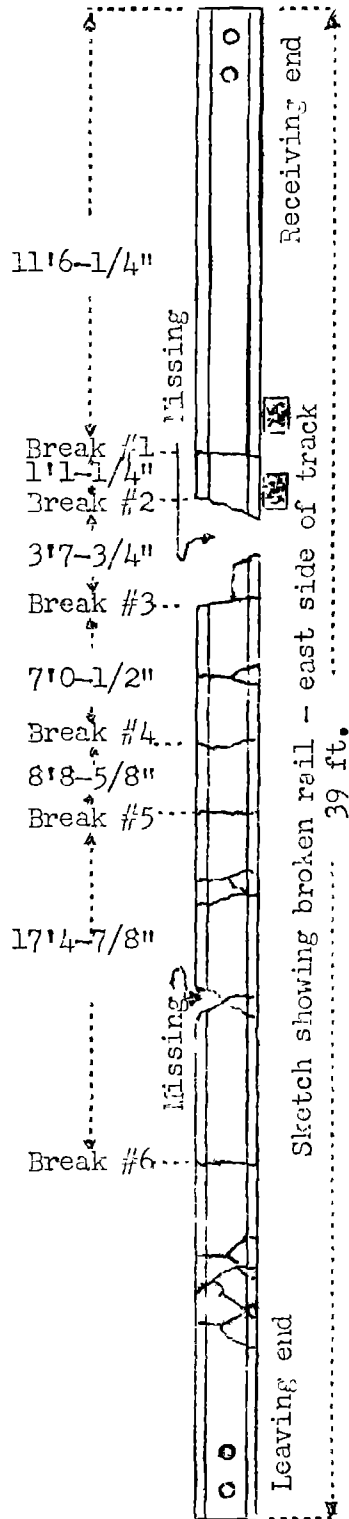
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 28, 1947, there was a derailment of a passenger train on the Burlington-Rock Island Railroad near Corsicana, Tex., which resulted in the death of 1 passenger, and the injury of 171 passengers, 5 dining-car employees and 1 baggageman.

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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.



Inv. No. 3152
Burlington-Rock Island Railroad
Corsicana, Tex.
December 28, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the Joint Texas Division extending between M.K.T. Jct., near Waxahachie, and Teague, Tex., 67.3 miles, a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track 35.7 miles south of M.K.T. Jct. and 4 miles south of the station at Corsicana. From the north there are, in succession, a tangent 2.3 miles in length, a 1° curve to the left 2,110 feet and a tangent 204 feet to the point of accident and 1,544 feet southward. The grade is 0.69 percent ascending southward.

In this vicinity the track structure is laid on a 14-foot fill, and consists of 90-pound rail, 39 feet in length, laid now during July, 1929, on an average of 23 treated ties to the rail length. It is single-spiked, fully tieplated, provided with 4-hole joint bars, and an average of 10 rail anchors per rail length. It is ballasted with gravel to a depth of 22 inches. The rail at the point of derailment was manufactured by the Colorado Fuel and Iron Company during 1929. The brand was Colorado 902 RA-A, OH; heat number 11226-D.

In the vicinity of the point of accident the maximum authorized speed for the train involved was 90 miles per hour.

Description of Accident

No. 3, a south-bound first-class passenger train, consisted of Diesel-electric engine 9909, one baggage car, four coaches, and one dining-lounge car, in the order named. All cars were of lightweight all-steel construction. This train departed from Corsicana, the last open office, at 6:13 p. m., 3 minutes late, and while it was moving at a speed of 65 miles per hour the six cars of the train were derailed.

Immediately after the derailment a separation occurred between the second and third cars. The engine and the first two cars stopped with the front end of the engine and the rear end of the second car, respectively, 1,843 feet and 1,620 feet south of the point of derailment. The first and second cars remained upright and in line with the track. The third to sixth cars inclusive, stopped east of the track and down the embankment, with the front end of the third car

on the roadbed and 1,039 feet north of the rear end of the second car, and the rear end of the sixth car 44 feet east of the track. The third, fifth and sixth cars leaned to the east at angles varying between 45 and 60 degrees. The fourth car stopped on its left side. The derailed equipment was considerably damaged.

The engine and the cars of No. 3 were equipped with tightlock couplers. The separation between the second and third cars occurred when the coupler and the draft gear attachments at the rear end of the second car were torn from their fastenings as a result of failure of a draft-sill lug.

The weather was clear at the time of the accident, which occurred at 6:18 p. m.

Discussion

No. 3 was moving at a speed of 65 miles per hour, as indicated by the speedometer of the engine, in territory where the maximum authorized speed was 30 miles per hour, when the derailment occurred. The headlight was lighted brightly. The enginemen were maintaining a lookout ahead from their respective locations in the control compartment at the front end of the Diesel-electric engine, and the conductor and the brakeman were in the second car. Prior to the time the accident occurred, the engine and the cars had been riding smoothly, and there was no indication of defective equipment or track, nor of any obstruction having been on the track. The first that any member of the crew knew of anything being wrong was when the engineer heard an unusual noise under the engine, then the brakes became applied in emergency and the derailment followed. The brakes of this train had been tested and had functioned properly en route.

After the accident a broken rail was found on the east side of the track. The rail was broken into many pieces, 18 of which were recovered. The first break occurred between two ties at a point 11 feet 6-1/4 inches south of the receiving end of the rail, and breaks Nos. 2, 3, 4, 5 and 6 occurred at points, respectively, 1 foot 1-1/4 inches, 3 feet 7-3/4 inches, 7 feet 1/2 inch, 8 feet 8-5/8 inches and 17 feet 4-7/8 inches south of break No. 1. At breaks Nos. 1, 2, 3, 4, 5 and 6, there were transverse fissures which covered, respectively, 80 percent, 35 percent, 6 percent, 5 percent, 9 percent and 10 percent of the cross-sectional area of the head of the rail. None of these fissures extended to the surface of the rail.

The failure of the rail at the first and second breaks occurred when the wheels of the front truck of the engine passed over it, then the other breaks occurred, and the broken pieces became displaced.

The track in this vicinity was last inspected by the section foreman four days prior to the day of the accident. The track supervisor passed over this track on a motor-car about 5 hours before the derailment occurred, and no defective condition was observed. A rail-detector car was last operated over this territory on July 3, 1947. During this test a defect at the location of the first break in the rail in question was indicated on the tape, and also when a re-run test was made. However, no hand test was made, as it was thought the indication was caused by the presence of grease on the rail, and the tape was stamped accordingly.

Cause

It is found that this accident was caused by a broken rail.

Dated at Washington, D. C., this tenth day of February, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.