INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3694

TEXAS AND NEW ORLEANS RAILROAD COMPANY

IN RE ACCIDENT

AT COOK'S POINT, TEX., ON

JUNE 16, 1956

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SUMMARY

Date:	June 16, 1956	
Railroad:	Texas and New Orleans	
Location:	Cook's Point, Tex.	
Kind of accident:	Derailment and collision	
Trains involved:	Freight	: Freight
Train numbers:	Second 250	: Second 247
Locomotive numbers:	Diesel-electric units 949, 533, and 381	: Diesel-electric units 326, 944, 500, and 348
Consists:	82 cars, caboose	: 65 cars, caboose
Speeds:	40 m. p. h.	: Standing
Operation:	Timetable and train orders	
Track:	Single; tangent; level	
Weather:	Clear	
Time:	6:20 p. m.	
Casualties:	3 killed	
Cause:	Broken journal, and derailed cars striking locomotive of opposing train standing on adjacent siding	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3694

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

TEXAS AND NEW ORLEANS RAILROAD COMPANY

August 1, 1956

Accident at Cook's Point, Tex., on June 16, 1956, caused by a broken journal, and derailed cars striking the locomotive of an opposing train standing on an adjacent siding.

REPORT OF THE COMMISSION[1]

CLARKE, Commissioner:

On June 16, 1956, there was a derailment of a freight train on the Texas and New Orleans Railroad at Cook's Point, Tex., and derailed cars struck the locomotive of an opposing freight train standing on an adjacent siding. This accident resulted in the death of three trespassers.

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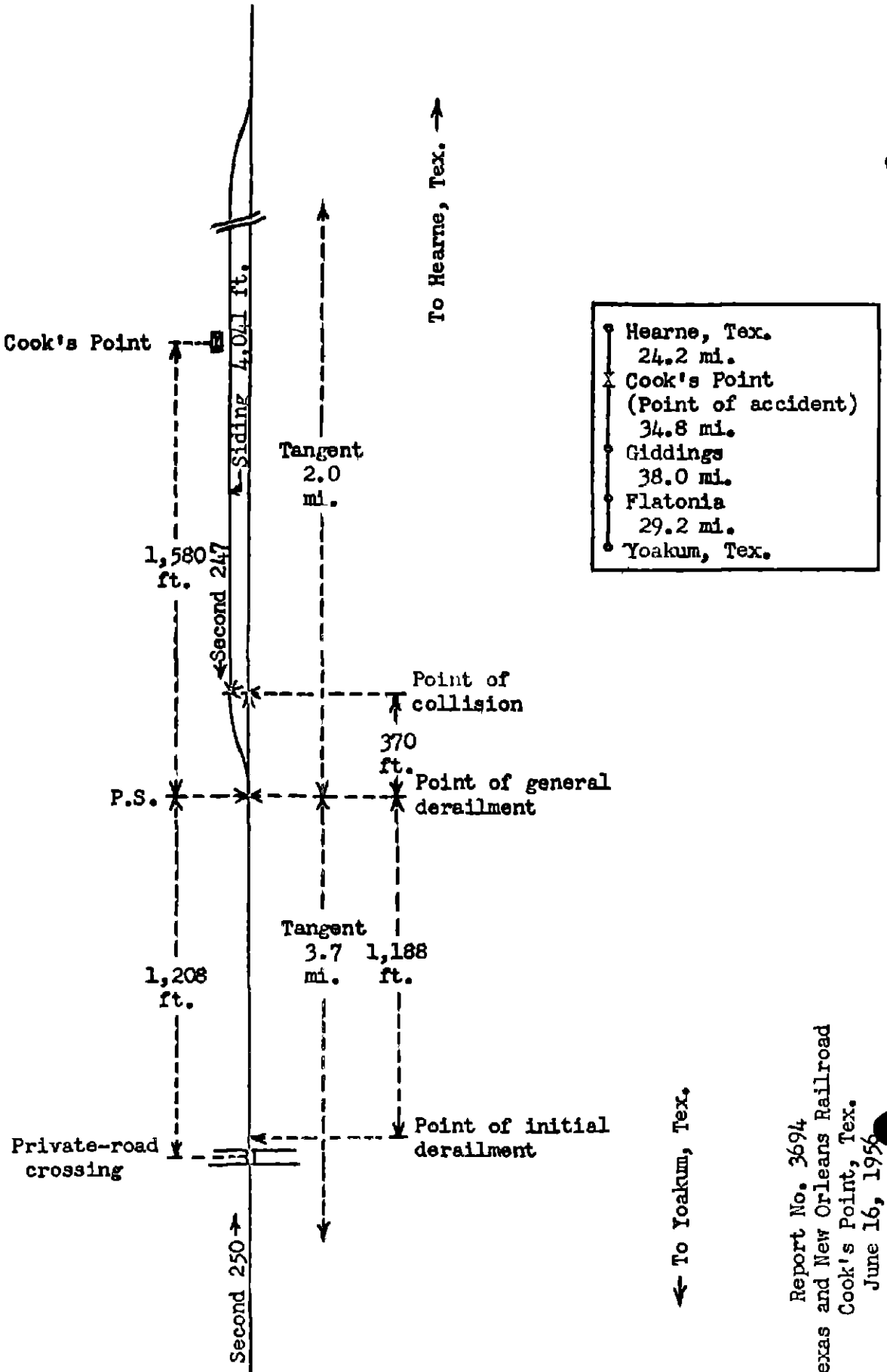
[1] Under authority of section 17(2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Clark for consideration and disposition.



Report No. 3694
Texas and New Orleans Railroad
Cook's Point, Tex.
June 16, 1956

Location of Accident and Method of Operation

This accident occurred on that part of the Dallas and Austin Divisions extending between Yoakum and Hearne, Tex., 126.2 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. There is no block system in use. At Cook's Point, 102.0 miles east of Yoakum, a siding 4,041 feet in length parallels the main track on the north. The west switch of this siding is 1,580 feet west of the station. The initial derailment occurred on the main track at a point 1,188 feet west of the west siding-switch, and the general derailment occurred at that switch. The main track is tangent throughout a distance of 3.7 miles immediately west of the west siding-switch and 2 miles eastward. The grade is level in the vicinity of the point of accident.

A private-road grade crossing is located 1,208 feet west of the west siding-switch. This road crosses the track at right angles. Planking is provided on each side of each rail, and the remaining area of the crossing is surfaced with crushed stone.

The track structure of the main track consists of 115-pound rail, 39 feet in length, laid new in 1952 on an average of 22 treated ties to the rail length. It is fully tieplated with double-shoulder tie plates, spiked with 2 spikes per tieplate, and is provided with 4-hole 24-inch joint bars and an average of 12 rail anchors per rail. The main track is ballasted with gravel to a depth of 6 to 8 inches below the bottoms of the ties. The distance between centers of the main track and the siding is 15 feet 6 inches.

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

827. * * *

* * *

Trainmen must be in position to observe their trains while running, particularly while rounding curves and approaching or leaving stations. Enginemen and forward brakemen must frequently look back for, and comply with, signals given by other employes while train is running.

Unless otherwise provided, when conditions are favorable and in the judgement of the conductor it is safe, freight trains need not stop for train inspection. Where stops are made for other reasons, inspection of train must be made as often as practicable. * * *

829. When practicable trainmen, stationmen, train-order and signal operators * * * must observe passing trains closely, and must call any defects to the attention of trainmen and enginemen, * * *

The maximum authorized speed for freight trains is 49 miles per hour.

Description of Accident

Second 250, an east-bound second-class freight train, consisted of Diesel-electric units 949, 533, and 381, coupled in multiple-unit control, 82 cars, and a caboose. This train entered the Dallas and Austin Divisions at Flatonia, 72.8 miles west of Cook's Point, and departed from that station at 4:22 p. m., 9 hours 52 minutes late. It passed Giddings, 34.8 miles west of Cook's Point and the last open office, at 5:33 p. m., 10 hours 3 minutes late, and while it was moving on the main track at a speed of 40 miles per hour the front wheels of the rear truck of the forty-first car were derailed at a point 1,188 feet west of the west siding-switch at Cook's Point, and the thirty-ninth to the sixty-fourth cars, inclusive, were derailed at the turnout of this switch. Derailed equipment of this train struck the locomotive of Second 247, which was standing on the siding.

Second 247, a west-bound second-class freight train, consisted of Diesel-electric units 326, 944, 500, and 348, coupled in multiple-unit control, 65 cars, and a caboose. This train departed from Hearne at 5:20 p. m., 7 hours 40 minutes late, and entered the siding at Cook's Point about 6 p. m. It stopped with the front end of the locomotive 370 feet east of the west siding-switch. About 20 minutes later the locomotive was struck by derailed equipment of Second 250, and the first Diesel-electric unit and the front truck of the second Diesel-electric unit were derailed.

Second 250 stopped with the front end of the locomotive 2,815 feet east of the point of general derailment. The derailed cars stopped in various positions on or near the main track and the siding. Five cars were destroyed, four cars were badly damaged, and 11 cars were somewhat damaged as a result of the derailment and collision. The front end of the first Diesel-electric unit of Second 247 was moved northward approximately 10 feet by the force of the impact, and rails overturned under this unit and the front truck of the second unit. The first Diesel-electric unit was somewhat damaged.

The trespassers who were killed were in the fifty-fifth car of Second 250.

The weather was clear at the time of the accident, which occurred about 6:20 p. m.

The forty-first car of Second 250 was P.R.R. 22509, an all-steel box car built in January, 1935, and rebuilt in January, 1956. It is 42 feet 3 inches long and 14 feet 6 inches high. The trucks are spaced 32 feet 3 inches between centers. The light weight, nominal capacity, and load limit are, respectively, 51,900 pounds, 100,000 pounds, and 117,100 pounds. When the accident occurred the lading consisted of 340 bars of blister copper, and the total weight of the car and lading was 159,840 pounds. The trucks are of the 4-wheel type with 5-1/2-inch by 10-inch journals, 33-inch 1-wear wrought steel wheels, and cast steel side frames with integral journal boxes.

Discussion

As Second 250 was approaching the point where the accident occurred the enginemen and the front brakeman were on the locomotive. The conductor and the flagman were in the caboose. The brakes of this train had been tested and had functioned properly when used en route. The fireman, a qualified engineer, was operating the locomotive. He said that as his locomotive closely approached the locomotive of Second 247, which was on the siding, a member of the crew of that train gave signals indicating a hot bearing. He immediately moved the brake valve to service position, but the brakes became applied in emergency as a result of the derailment before the speed of the train had been appreciably reduced.

Examination of the track after the accident disclosed that the planking outside the north rail at the private-road crossing west of the siding had been struck. Scraping marks which varied in depth from 1/4 inch to 3/4 inch extended throughout the length of the planking on the north side of the track. These marks apparently resulted from contact with the bottom of a truck side-frame. Flange marks on the track structure indicated that a wheel had become derailed inside the south rail at a point approximately 26 feet east of the west end of the crossing. These marks extended diagonally from a point adjacent to the base of the south rail to a point 17 inches from the gage side of the rail and 30 feet east of the first marks, and then

extended parallel to this rail throughout a distance of 1,158 feet to the west siding-switch. The general derailment occurred at the west siding-switch. The switch had been lined and locked for movement on the main track.

Examination of the equipment of Second 250 after the accident occurred disclosed that the left front journal of the rear truck of P.R.R. 22509, the forty-first car, had broken, and that the truck side-frame had dropped sufficiently to be in contact with the track structure. The stub of the journal had been in contact with the journal box and had worn through its top. Apparently after the journal failed, the concentration of weight on the companion journal had caused the right wheel to act as a fulcrum and the left wheel to be raised above the rail. The right front wheel then dropped inside the south rail. The detached portion of the failed journal was hot when it was found, several hours after the accident occurred. A quantity of packing was found in the bottom of the journal box of the failed journal. The bearing of the failed journal had disintegrated. The other journal boxes of the truck were inspected, and all were found well lubricated.

The failure of the journal involved consisted of a vertical break at a point 7-1/2 inches inward from the collar. The specified dimensions of the journal were 5-1/2 inches by 10 inches. The actual diameter adjacent to the collar was 5-9/32 inches, and at the point of failure it was 5-1/4 inches. The end of the journal remaining attached to the wheel assembly was worn and ridged by contact with the journal box. The records of the P.R.R. indicate that the axle involved received a magnetic particle test before the wheels and axle were applied to the car when it was rebuilt at the Altoona, Pa., shops during January 1956.

The engineer of tests of the carrier reported that the failure of the journal involved was due to thermal cracks which progressed to a depth of 1-1/2 inches before the journal failed. The laboratory examination, according to his report, disclosed intergranular cracks due to burning of the steel, copper penetration, and surface carburized, showing oil present on the journal when it overheated. Apparently, the thermal cracks which progressed inward until the journal failed originated as a result of a previous overheating. The overheating which immediately preceded the failure of this journal appears to have been secondary.

P.R.R. 22509 was loaded at Superior, Ariz., and delivered for movement June 12, 1956. It was destined to Nichols Siding, N. Y., via the S.P., T.N.O., S.S.W., A.L.& S., P.R.R., and L.I. railroads. The lading consisted of 340 bars of copper. This car was received in interchange from the S.P. at El Paso, Tex., approximately 770 miles west of the point where the accident occurred, at 6:50 a. m., June 16 and was dispatched the same day and inspected at Sanderson, Tex., at 6:15 p. m., and on arrival at Del Rio, Tex., at 11:15 p. m. No defective condition was observed during these inspections. On the day of the accident this car was inspected on arrival at San Antonio, Tex., at 6 a. m. and no defective condition was found. After it was assembled in the train of Second 250 the journal boxes were serviced and the train departed from this point at 1:35 p. m. San Antonio is approximately 160 miles west of the point where the accident occurred.

Members of the crew of Second 250 said that they made frequent observations of the equipment of their train throughout the trip. They were unaware of any defective condition in their train until signals indicating an overheated bearing were given as the locomotive closely approached the siding at Cook's Point a few seconds before the derailment occurred. No defective condition had been observed on the car involved when members of the crew set off a car at Flatonia. The operator at Giddings said that he had observed no defective condition in the equipment of this train when it passed his station, about 47 minutes before the accident occurred.

Cause

This accident was caused by a broken journal, and derailed cars striking the locomotive of an opposing train standing at an adjacent siding.

Dated at Washington, D. C., this first day of August, 1956.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,

Secretary.