

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHESAPEAKE & OHIO RAILWAY NEAR MUNCIE, IND., ON AUGUST 21, 1922

September 11, 1922.

To the Commission:

On August 21, 1922, there was a derailment of a freight train on the Chesapeake & Ohio Railway near Muncie, Ind., which resulted in the death of 1 employee.

Location and method of operation

The Miami District, Chicago Division, on which this accident occurred, extends between Cincinnati, Ohio and Peru, Ind., a distance of 162 miles, and is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred about 5 miles east of Muncie, approaching the point of accident from the east, the track is tangent for about half a mile. The grade is descending for about 4,000 feet, varying from 0.3 to 0.9 per cent, followed by 700 feet of level track, and nearly 300 feet of 1 per cent ascending grade to the point of accident. The track is laid with 90-pound rails, 33 feet in length, with 19 or 20 oak ties to the rail-length, single-spiked and ballasted with about 14 inches of gravel; no tie plates are used. The general maintenance was good. The weather was clear at the time of the accident, which occurred at about 12.30 p.m.

Description.

Westbound freight train No. 83 consisted of 17 cars and a caboose, hauled by engine 601, and was in charge of Conductor Clark and Engineman Fuqua. It passed Blountsville, 12.7 miles east of Muncie and the last open office, at 12.08 p.m., 3 hours and 15 minutes late, and was derailed near Muncie while traveling at a speed estimated to have been from 20 to 25 miles an hour.

The engine and first car were not derailed, but the following eight cars and the forward truck of the 10th car were derailed and more or less badly damaged. The second car came to rest on the left side of the track about 150 feet beyond the point of derailment, while the third and fourth cars were on the right side of the track, 285 and 315 feet, respectively, beyond the point of derailment. The fifth, sixth and seventh cars were on the left side of the track, the forward truck of the second car being found near the head end of the fifth car. The employee killed was a brakeman riding on one of the derailed cars.

Summary of evidence.

The first indication the engine crew had of anything wrong was when the air brakes were applied from the rear and on looking back they saw the cars being derailed. The members of the train crew who were in the caboose could see the entire length of the train when rounding curves, but none of them noticed any unusual rocking of the cars. The members of the crew were unable to determine what was the cause of the accident; the flagman said that while on his way back to flag, after the accident, he looked for marks such as would have been made by anything dragging, but did not find any.

The first mark of derailment was a flange mark about 20 inches in length across the running surface of the left rail, following which there was a flange mark about $3\frac{1}{2}$ inches in length on the west edge of a tie on the inside of the right rail. There was a flange mark across the top of the next tie, on the inside of the right rail, and a corresponding mark on a spike on the outside of the left rail. These marks led toward the left and appeared on the nine succeeding ties, after which the left wheel dropped off the ends of the ties. About 5 feet beyond this point another pair of wheels passed over the left rail and beyond this latter point the track was torn up for a considerable distance.

Examination of the trucks of the second car showed the leading wheels of the forward truck of this

springs and side bearing rollers were missing, but they had evidently been thrown out in the derailment, as there was ample evidence that they had been in their proper positions. It was, however, impossible to ascertain what the side bearing clearance or lateral motion had been. The flanges and treads of all wheels under this car were found to be in good condition.

Tool Car Foreman Phillips had inspected this car when it was set off at Losantville on August 19, and the side-bearing clearance was all right at that time. He expressed the opinion that the car started to rock on account of the speed, and that this, coupled with possibly a little too much side-bearing clearance, resulted in its derailment. Two days previous to this accident another car of the same type had been derailed and he thought that derailment was due to excessive side-bearing clearance. He further stated that during the 7 years he had been tool car foreman, he knew of only these two derailments of this type of car.

The car which was first to be derailed was a high-side steel hopper car, equipped with Andrews trucks and manufactured in 1921. It was equipped with roller side bearings, spaced $24\frac{1}{2}$ inches from center of the side bearings to center of the center pin. This car had a capacity of 110,000 pounds, and at the time of derailment was loaded with coal, having an estimated weight of 106,000 pounds.

Conclusions.

The cause of this accident was not definitely ascertained.

Examination of the damaged truck showed it to have been in good condition, except that on account of the damage sustained, and also on account of the side bearing rollers being missing, it was impossible to tell definitely the extent of the side-bearing clearance or lateral motion at the time of the accident. The track was in good condition, and there is no evidence to indicate that the speed of the train was in excess of the maximum of 25 miles per hour permitted for freight trains on tangent track.

All the members of the crew were experienced men, at the time of the accident they had been on duty

about 7 hours, previous to which they had been off duty 17 hours or more.

Respectfully submitted,

W. P. Borland,

Chief, Bureau of Safety.