

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE ATCHISON, TOPEKA & SANTA FE RAILWAY AT SIBLEY,
MO., ON MARCH 2, 1929.

June 10, 1929.

To the Commission:

On March 2, 1929, there was a derailment of a freight train on the Atchison, Topeka & Santa Fe Railway at Sibley, Mo., which resulted in the injury of two employees.

Location and Method of Operation

This accident occurred on the Second District of the Missouri Division, which extends between Marceline and Kansas City, Mo., a distance of 108 miles, and is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred just east of the station at Sibley; approaching this point from the east, beginning at the leaving end of a bridge spanning the Missouri River, there is a 6° curve to the right 1,874.1 feet in length and then the track is tangent for a distance of 839.8 feet, followed by a 3° curve to the right 1,289.4 feet in length, the accident occurring on this latter curve at a point near its leaving end. The grade at the point of accident is 0.30 percent descending for westbound trains, although just east of this point it is ascending for a considerable distance.

The weather was cloudy at the time of the accident, which occurred at about 3:15 p. m.

Description

Westbound freight train extra 4101 consisted of 122 cars and a caboose, hauled by engine 4101, and was in charge of Conductor Poe and Engineman Wise. This train left Marceline, 79.4 miles east of Sibley, at 2:15 p. m., and at Henrietta, 15.57 miles east of Sibley, some cars were set out and others picked up, among the latter being AT&SF 83673; this car was the first car in the train when it departed from Henrietta at 3:40 p. m. The train was approaching Sibley at an estimated speed of between 12 and 15 miles per hour when it parted between the engine and first car.

The shock caused by the slack running in as a result of an emergency application of the brakes broke the 103d car in two and derailed the forward truck and one pair of wheels of the rear truck. Eight other cars behind this car were also damaged to some extent but none of them was derailed. The employees injured were the conductor and flagman, who were riding in the caboose.

Summary of Evidence

Engineman Wise stated that the brakes were properly tested before leaving Marceline and that there was no unusual handling of the train en route, although when the cars were picked up at Henrietta it required two attempts in order to couple the engine to the leading car. When his engine had almost reached the station at Sibley, pulling steadily, the train parted between the engine and the first car; he permitted the engine to proceed until the cars came to a stop and later the engine was recoupled to the train without difficulty and the head portion pulled into clear. The engine then was cut off and he examined the coupler on the forward end of the first car finding that some of the parts showed indications of having been battered to a considerable extent, although the lock block appeared to be new. He estimated the speed of his train at the time of the accident at 15 miles per hour.

Head Brakeman Smith stated that when the first attempt was made to couple the engine to the train at Henrietta the lift pin of the coupler on the leading car would not drop. He then shook the knuckle and when the engine was again backed against the train the coupling was made successfully. He observed at the time that the lock block and pin were new, but the block was badly battered and apparently was a built-up block. As soon as the engine came to a stop after the accident he went back and examined the coupler and found the knuckle pin and lift pin down, the lock block in proper position and the knuckle open, it having slipped by the block. The statements of Rear Brakeman Gosmeyer, who assisted in **coupling up** the train at Henrietta, practically corroborated those of Brakeman Smith as to the condition of the coupler on the leading car and the difficulty in making the coupling.

Conductor Poe stated that only two stops were made prior to the accident including the stop at Henrietta, and at that point he looked over the train but noticed nothing wrong. He did not know of the difficulty in making the coupling at the head end of the train as he was not at that point at the time, neither did he examine the leading car subsequent to the accident, being relieved from duty immediately after its occurrence.

Roadmaster Klein stated that he inspected the track on the bridge after the accident and found about 20 ties slightly marked under both trucks of the derailed car, these marks indicating that the car did not move more than 2 or 3 feet after it was derailed.

Master Mechanic Eldridge stated that the "B" end of AT&SF car 33673 was equipped with a Simplex coupler and that it was this coupler that failed. This car was received in interchange at St. Joseph on February 21 and on February 25 some repairs were made to the car at that point, including the installation of a new lock block and block lifter and also the straightening of the uncoupling lever on the "B" end of the car. The car then was moved to Richmond, where it was loaded, and it arrived at Henrietta on March 1. Subsequent to the accident the knuckle, knuckle pin, lock block and lock lifter were removed from the "B" end of this car and inspected. This inspection developed that the lifter was bent, the horn of the knuckle was broken, and the block showed indications of a crushing strain on the end of the contact point. These parts were again applied to the same car at its destination, to determine if possible the cause of the trouble, and it was found that the block could be moved back in the coupler about 1-3/8 inches beyond its proper position and that this condition was due to the lock-block stop having been broken off. The result was that there was a contact of only 5/8 inch between the knuckle and the lock block. Mr. Eldridge said that the broken surfaces of the horn and the bottom part or large end of the block stop appeared to be new but that the top part or small end of the stop was an old break. Further inspection showed two badly battered points on the back end of the knuckle and on the front face of the lock block which had been caused by attempting to effect a coupling with the block down and the knuckle open, and apparently this had caused the stop to break off. There were also indications on the back of the block that several attempts had been made to couple up after the stop had been broken. He expressed the opinion that the coupler parts were broken after the car left the shops at St. Joseph. Master Mechanic Eldridge further stated that Henrietta is not a regular inspection point for cars moving over the line, although there are car inspectors located at that point whose primary duties consist of inspecting cars received in interchange.

Conclusions

This accident was caused by the train breaking in two, due to a defective coupler.

An examination of the coupler disclosed that it was broken in two places. One was the horn of the knuckle, which holds the lock block in proper position when the knuckle is open. Apparently when the knuckle was opened

the broken horn permitted the block to drop down directly in the path of the back end of the knuckle and when an attempt was made to couple to the car the block was driven back into the shank breaking off the stop. With the coupler in this condition it only allowed a contact of approximately ~~one~~-fourth of the surface between the knuckle and the lock block, and while the train was approaching Sibley the knuckle was pulled past the block resulting in the parting of the train. This coupler gave the train crew some trouble when the car was picked up at Henrietta but the brakemen who made the coupling did not discover the defects. They did notice, however, that parts of the coupler were considerably battered.

Henrietta is a car inspection and car repair point and the car remained in that yard from 7:50 p. m., March 1, until 5:40 p. m., March 2. The broken surface of the knuckle where the horn had broken off was in plain view and could have been seen readily on casual inspection. If the broken knuckle had been observed and removed from the coupler the inspector would have had an opportunity to inspect the portion inside of the shank, and if the lock block stop was broken at that time it could have been seen. If the stop was broken off when the car was picked up at Henrietta, as contended by the master mechanic, the removal of the defective knuckle at that point at the proper time would have avoided breaking the stop, and thus by the taking of proper action the accident would have been averted.

After the accident the removable parts of the coupler were taken out and others substituted, but the coupler body was left in the car and the car was allowed to remain in service, going to its destination, through a large terminal and through an interchange point, and being delivered to the consignee. By applying serviceable parts to the coupler and leaving the coupler body in the car, the visible defect was corrected, but it lessened the likelihood of the concealed and more serious defect being discovered before it caused another accident. This car was a menace to the safety of trains as long as it was being operated in a defective condition, and following the accident it should not have been returned to service until it had been inspected by a competent inspector closely enough to discover the defect in the shank.

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

J. P. BORLAND

Director.