

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ILLINOIS CENTRAL RAILROAD AT CHICAGO, ILL., ON DECEMBER 14, 1921.

January 14, 1922.

To the Commission.

On December 14, 1921, there was a derailment of a passenger train on the Illinois Central Railroad at Chicago, Ill., the wreckage of which was struck by a passenger train running in the opposite direction on an adjoining track, resulting in the death of 1 passenger, and the injury of 18 passengers and 1 employee. This accident was investigated in conjunction with a representative of the Commerce Commission of the State of Illinois.

Location and method of operation.

This accident occurred on that part of the Chicago Terminal Division extending between Chicago and Matteson, Ill., a distance of 27.93 miles, at the point of accident this is an eight-track line over which trains are operated by time-table and an automatic block-signal system. The accident occurred at the foot of 30th street, approaching this point from either direction the track is tangent and practically level. The tracks are numbered, from west to east, 1 to 8 inclusive, and the accident occurred on tracks 5 and 6, which are the southbound and northbound express suburban passenger tracks, respectively. The weather was clear at the time of the accident, which occurred at about 5.46 p.m.

Description.

Southbound express suburban passenger train No. 379 consisted of 3 coaches, of all-steel construction, hauled by engine 1406, and was in charge of Conductor Darling and Engineman Gray. This train left Van Buren Street Station, about 2.8 miles from the point of accident, at 5.37 p.m., on time, made a crossing stop and two stops at block signals, and had reached 30th street, traveling at a speed of about 25 miles an hour, when the coupler at the rear of the tender pulled out, dropped to the track, and derailed the forward truck of the first car, this end of the derailed car fouled the northbound track and was struck by train No. 400.

Northbound express suburban passenger train No. 400 consisted of 6 coaches, of wooden construction, hauled by engine 1433, headed south, and was in charge of Conductor Butcher and Engineman Milligan. This train left Hyde Park, about 3 miles from the point of accident, at 5.41 p.m., 2 minutes late, and collided with the derailed car of train No. 379 while traveling at a speed of about 40 miles an hour.

Practically all of the damage to train No. 379 was confined to the first car, the forward end of which was considerably damaged, and the forward truck of this car was the only equipment that was derailed in either train. Marks on the ties of track 5 indicated that the truck traveled a distance of 372 feet after being derailed. Train No. 400 was scraped its entire length by the derailed car and traveled about 200 feet beyond the rear end of train No. 379 before it was brought to a stop.

Summary of evidence.

The statements of the employees of the crew of train No. 379 were to the effect that the first they knew of anything wrong was when the air brakes were applied in emergency. Engineman Gray said he looked back and saw the train had parted and that the first car was derailed, but before he had time to give a warning, train No. 400 had passed. He made an examination immediately after the accident and found that the coupler at the rear of the tender had been pulled out, due to a break in the plate extensions of the coupler shank under the tender frame, which was so located that it could not have been discovered even upon close inspection. Engineman Gray's statements were practically corroborated by those of Fireman Fioratti. Conductor Darling, who was riding in the second car at the time of the collision, stated that the cars were moving when struck by train No. 400, while Flagman Lenzen, who was riding on the rear end, thought that the cars had just come to rest when the collision occurred.

Fireman Mulvinill, of train No. 400, was sitting on his seat box and said the first he knew of anything wrong was when the accident occurred, he had not noticed any application of the air brakes. On account of injuries sustained, no statement could be obtained from Engineman Milligan.

Engine 1406 is one of the type known as double-enders or two-way engines, it is not turned at the end of a run and is usually headed south, being operated backing up when making a northbound movement. The engine and tender are on one frame, with pilots at the front and rear, a single pair of wheels under the front pilot, two pairs of driving wheels, and one four-wheel truck under the tender. The tender of engine 1406 was

equipped with a Pitt coupler, with a 5"x 5" shank, to which was attached an extension shank consisting of two wrought iron plates, 1 1/8" x 4" x 65 1/2", extending to the center plate of the tender-truck bolster, to which it was secured by a center pin. The plates were secured to the coupler shank by four rivets, 1 1/8" in diameter, extending through the plates and coupler shank. The rear of the tender is equipped with a 12-inch wooden end sill, channeled to take the coupler, which is also supported by a carrier iron underneath.

General Foreman Saunders stated that engine 1406 had been inspected on the day of the accident and that no defects were reported, that the break occurred at a point about 8 or 10 inches from the outside edge of the end sill and would not have been seen by inspection without removing the coupler, being concealed by the end sill and carrier iron. He further stated that the coupler was not applied in accordance with the standard blue-print practice, as the thickness of the plates should have been 1 1/2 inches.

Tank Foreman Becker stated that the couplers on this class of engine are removed, inspected, and new rivets applied, every 90 days, provided they are not reported defective in the meantime. The coupler on engine 1406 was removed at the regular inspection period, namely, August 8, 1931, and was reapplied. He said the coupler which failed was not the one which was reapplied, and the investigation did not develop when or where it was applied. It also appeared that the coupler was of an obsolete type, the existing instructions requiring that the plates of the extension shank be 1 1/2 inches in thickness. A portion of the surface of the metal at the point of fracture was dull and corroded, indicating that for some time there had been a crack extending entirely through the metal, less than 50 per cent of the metal was bright, indicating a new fracture.

Conclusions.

This accident was caused by the breaking of the plates composing the extension shank of the coupler. The fracture was located in the channel of the end sill, above the carrier iron, making it necessary to remove the coupler in order to detect the fracture. There had been an old fracture, but it was not determined when this took place. The investigation developed that the fractured plates were of smaller size than required by existing instructions, but there was no record showing where or by whom they were applied.

The evidence indicates that there was no opportunity of warning the crew of train No 400 in time to prevent that train from colliding with the car which fouled the northbound track.

None of the employees involved had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BOPLAND

Chief, Bureau of Safety.