

**IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE HOUSTON & TEXAS CENTRAL RAILROAD AT
HAMMOND, TEXAS ON JANUARY 14, 1918.**

March 12, 1918.

On January 14, 1918, there was a derailment of a passenger train on the Houston & Texas Central Railroad at Hammond, Texas, resulting in the death of 17 persons and the injury of 19 persons. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The portion of the Houston & Texas Central Railroad on which this accident occurred is a single-track line, over which train movements are governed by the train order and dispatching system. The track extends generally north and south on this division but trains are designated on the time card as eastbound or westbound. By time card rule passenger trains must not exceed a speed of 45 miles an hour.

The derailed train was westbound passenger train No. 17, en route from Hearne, Texas to Ennis, Texas. It consisted of 1 baggage car, 1 coach, 1 chair car and 4 Pullman sleeping cars, all of steel construction, hauled by locomotive 704, and was in charge of Conductor Morgan and Engineman Hyneman. This train arrived at Calvert, the first station east of Hammond and 3.5 miles distant therefrom, at 2.35 a.m., at which point it met eastbound passenger train No. 18, and the crew received an order directing them to wait at Hammond until 3.45 a.m., for eastbound extra 465. Train No. 17 left Calvert at 3.34 a.m., 24 minutes late, and was derailed at a crossover switch leading to the side-track at Hammond, at about 3.50 a.m., while running at a speed estimated to have been 38 or 40 miles an hour.

At the time train No. 17 was derailed, eastbound extra 465, in charge of Conductor Bengs and Engineman Kins, was standing on the side-track, with the locomotive about 250 feet west of the crossover switch. The locomotive, tender and the forward pair of trucks of the baggage car of train No. 17 passed safely over the switch points. The rear trucks of the baggage car, together with all the following wheels on the left hand side of the train, entered the opening made by the damaged switch point, and the chair car in train No. 17 collided with locomotive 465, shoving it back about 60 feet and derailed the en-

gine drivers, together with the front trucks of a caboose behind the locomotive. The front end of the boiler of locomotive 465 came in contact with the left side of the chair car about the level of the window sills, and the entire superstructure of that side of the car above the window sills was torn away. The force of the collision tore off the running board on the left side of locomotive 465 and pulled out the bracket studs. The air pump and its steam connection to the boiler, as well as the blower pipe, were broken off, permitting steam and scalding water to flow into the wrecked chair car, all of the killed and nearly all of the injured being in this car. The derailed train parted between the second and third car behind the locomotive. The rear truck of the baggage car, immediately behind the engine, was derailed but remained on the ties, with wheels about 7 inches from the main track rails; the rear truck of this car stopped 1,007 feet west of the crossover switch. The rear truck of the second car was derailed, with the left wheel off the ties and about 2-1/2 feet from track, and the car body was leaning toward the side-track. The four sleeping cars behind the chair car remained coupled, but were derailed, with the exception of the rear truck of the rear car, which remained on the rails just east of the crossover switch. These cars followed in general line behind the chair car. The front truck of the chair car was torn loose from the car and jammed against the rear truck, which was in place under the car and astride the south rail of the main track.

Approaching the point of accident from the east there is a tangent 3,300 feet in length, followed by a 1-degree curve to the left 579 feet in length and extending to point of accident. The first 1,500 feet of this tangent is on a descending grade of about 1%, the next 1,400 feet is practically level, and the next 400 feet is on an ascending grade of about 1%. The first 400 feet of the curve is on an ascending grade of about 1%, and the remainder of the track to point of accident is level. The track consists of 80-pound steel rails, 33 feet in length, with about 19 pine and cypress ties under each rail, and ballasted with about 6 inches of gravel. The track is tie plated, continuous rail joints are in use, the gauge is about uniform, and is fairly well maintained. There is a passing track 2,992 feet long located on the south side of the main track at Hammond, and also a crossover leading from the main track to the passing track, through a facing point switch for westbound trains, this crossover switch being located about 1,100 feet west of the east passing-track switch. The weather at the time was dark and misty.

The first indications of derailment were flange marks

on the ties near the base of and to the left of the main line rails, about 17 feet west of the crossover switch, at which place the wheels on the left hand side of the train dropped off the stock rail between the south switch point and the stock rail. These flange marks increased in number and diverged to the south until a point about 48 feet west of the crossover switch was reached; the main track was then torn up for a distance of about 170 feet, with the exception of the north rail which remained intact on the ends of the broken ties. Leaving the crossover switch, the first two rails on the south side of the main track were intact, but the following six rails were torn up and shoved toward the side track. The first two rails on the north side of the crossover were not disturbed, but the other rails were torn up to the passing-track switch and shoved toward the main track.

The crossover switch involved in this accident was the common standard 15-foot split switch with high switch stand, connected to bridle bars by 1-1/2 inch connecting rod. Both bridle bars were 3/4 X 2-1/2 inch steel, and after the accident were found intact except that No. 1 bridle bar was bent toward the east a distance of about 5-3/4 inches, and the stock rail switch point stood open about 3/4 inch. The switch point showed that apparently it had been struck by a wheel flange, and for a distance of about 1-1/4 inches it was bent to the north about 1/2 inch.

Engineman Ryndman, of train No. 17, stated that when he approached Hammond he saw the switch target and it indicated that the switch was set for movement on the main line, noted that the switch point on the engineman's side was properly set, but could not see the switch point on the fireman's side. He said the speed of his train at the time was 35 or 40 miles an hour, and after the locomotive passed the switch the brakes automatically applied and he thought the train had broken in two. Sometime after the accident he examined the switch and found that the bridle bar was bent in such manner as to make him think it was bent by something dragging under a train. He also noticed that the west switch point stood about 3/4 inch away from the rail. In his opinion the accident was caused by the condition of the switchpoint, and thought the reason the locomotive passed over the switch without being derailed was on account of being on the curve it crowded away from the switchpoint, and also that the flanges were good.

Conductor Bengt, of eastbound extra 465, stated that his train pulled down the main line at Hammond, backed in

on the passing track to clear train No. 17 at about 3.30 a.m., and the brakeman lined the switch for the main line and locked it. He did not look at the switch after the brakeman closed it, but after the accident he examined it and found that the bridle bar was bent.

Engineman Kims, of extra 485, stated that after his train pulled in on the passing track at Hammond, the brakeman lined up the switch for the main line. He did not see the brakeman line up the switch so walked up and looked at the switchpoints and found them to be lined up all right, but did not examine them carefully. After the accident he examined the switch, found the bridle bar bent and the switchpoint moved away from the west rail about an inch. He also saw marks on the ties which were evidently made by something dragging from a train.

Brakeman Nlasky, of extra 485, stated that when his train arrived at Hammond he opened the switch and the train backed in on the passing track, after which he lined the switch up for the main line and locked it. He glanced down at the switchpoints after lining up the switch and by the light from the headlight, which was about 30 feet away at that time, saw both points plainly and they appeared to be all right, although he did not examine them carefully. He then went into the caboose of his train, remained there until he saw train No. 17 approaching, got out and walked up to the engine and was standing there when the accident occurred. The last train using this switch prior to the time extra 485 backed in on the passing track was eastbound extra 817, which train was on this siding for train No. 5.

Conductor Stegall, of eastbound extra 817, stated that his train arrived at Hammond and moved in on the passing track to permit train No. 5 to pass, which arrived there about 2.21 a.m. After train No. 5 passed, his train moved out on the main track, using the cross-over switch for that purpose, and after passing that switch about ten feet the train was stopped while the rear brakeman closed the switch, and his train left there about 2.30 a.m. He said he saw the brakeman look at the switchpoints, that the points were properly closed, and he was positive that the bridle bar was not bent when his train left there. Upon arrival at Calvert, 8.4 miles east of Hammond, the train was headed in on the passing track, and in looking over the train it was discovered that the brake beam on the nineteenth car from the caboose was hanging down and dragging, the hanger was missing on the east side of the car, while the hanger on the west side was bent. The safety chain permitted the brake beam to hang down low enough to allow the brake shoe to slide on the rail. He said he looked his train over at

Hammond, but as his train was at this point only a short time he did not have time to go over all of it.

Rear Brakeman McKee, of extra 517, stated that after his train moved from the passing track to the main track at Hammond he lined up the crossover switch for the main line and locked it. He then looked at the switch points and was very certain that they were all right. He further stated that the bridle bar was not bent for he would have noticed it if it was.

Section Foreman Youngblood stated that he examined the crossover switch after the derailment, found the bridle bar bent and a bright mark on it which indicated to him that it had recently been struck by something, and the switch points were open. He also found a piece of a brake shoe, key, hanger, and rigging on the passing track.

Assistant Superintendent Maintenance of Way Irby stated that he examined the crossover switch after the accident, found bridle bar No. 1 bent 5-3/4 inches, and when lined up for the main line the west switchpoint stood open about 3/4 inch. For about 50 or 60 feet north of bridle bar No. 1 he saw marks on the ties, 15 to 20 inches from the east rail, which might have been made by something dragging under a train.

This accident was caused by the switchpoint on the lefthand side of the crossover switch at Hammond being sufficiently open to allow the wheels on the lefthand side of train No. 17 to enter that opening and derail the train. After the accident No. 1 bridle bar of this switch was found to be bent to the east about 5-3/4 inches and the switch point on the lefthand side of this switch was about 3/4 inch away from the stock rail. While it could not be definitely ascertained just what caused this switch to be in the condition in which it was found, from the fact that the brake rigging on one of the cars of extra 517 was found dragging at the first siding after leaving Hammond, it is believed that some portion of this same brake rigging was dragging when it passed over this switch, and caught the bridle bar, thereby bending it and pulling the switch point away from the stock rail. This being a facing point switch for westbound trains, when westbound train No. 17 reached the open switch point the wheels on the lefthand side of that train entered the opening and derailed the train. The only reason that can be given why the locomotive was not derailed is that it was on the curve leaning to the right and crowded the righthand rail to such an extent as to make the lefthand wheels miss the open switchpoint.

Rule 104 of the operating rules of the Houston & Texas Central Railroad provides in part as follows:

*Switches must be left in proper position after having been used. Conductors are responsible

for the position of the switches used by them and their trainmen, except where switch tenders are stationed.

"Enginemen must know that switches are properly set before they pull in or out of sidings or other tracks. When a train backs in on a siding to be met by another train, the engineman, when his engine is clear, must see that the switch is properly set for the main track."

Had this rule been complied with by Conductor Stegall or Brakeman McKee of extra 817, Engineman Kline, or Brakeman Minsky of extra 465, they would have noticed the defective condition of this switch and the accident would have been averted.

Both of these brakemen who handled this switch were experienced men. Each of them state that they examined the switch points when closing the switch, and if their statements be true, it is inexplicable why its defective condition was not discovered. At the time of the accident the crew of extra 817 had been on duty 8 hours and 30 minutes, and the crew of extra 465, 12 hours and 40 minutes. The crew of train No. 17 had been on duty 4 hours and 50 minutes.

J.O.T.