

BUREAU OF SAFETY

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REPORT NO. 2010

Railroad: Yazoo & Mississippi Valley  
Date: September 14, 1935  
Location: West Monroe, La.  
Kind of accident: Derailment  
Train involved: Freight  
Train number: No. 272  
Engine number: 1954  
Consist: 45 cars and caboose  
Speed: 20 - 30 m.p.h.  
Track: Tangent; slightly descending grade  
Weather: Clear  
Time: 12:15 a.m.  
Casualties: 4 killed; 7 injured  
Cause: Broken journal

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN  
ACCIDENT ON THE YAZOO & MISSISSIPPI VALLEY RAILROAD,  
ILLINOIS CENTRAL SYSTEM, NEAR WEST MONROE, LA., ON  
SEPTEMBER 14, 1935.

December 5, 1935.

To the Commission:

On September 14, 1935, there was a derailment of a freight train on the Yazoo & Mississippi Valley Railroad, Illinois Central System, near West Monroe, La., which resulted in the death of 4 trespassers and the injury of 7 trespassers.

Location and method of operation

This accident occurred on the Shreveport District of the Vicksburg Division, extending between Shreveport, La., and Junction Switch, (Vicksburg) Miss., a distance of 171.6 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table and train orders, no block-signal system being in use. The accident occurred about 1.45 miles west of the station at West Monroe; approaching this point from the west, the track is tangent for nearly 13 miles, followed by a  $0^{\circ}40'$  curve to the left 5,760 feet in length, and the accident occurred on the tangent track at a point 408 feet from its eastern end. The grade is generally descending for east-bound trains, being 0.086 percent at the point of accident.

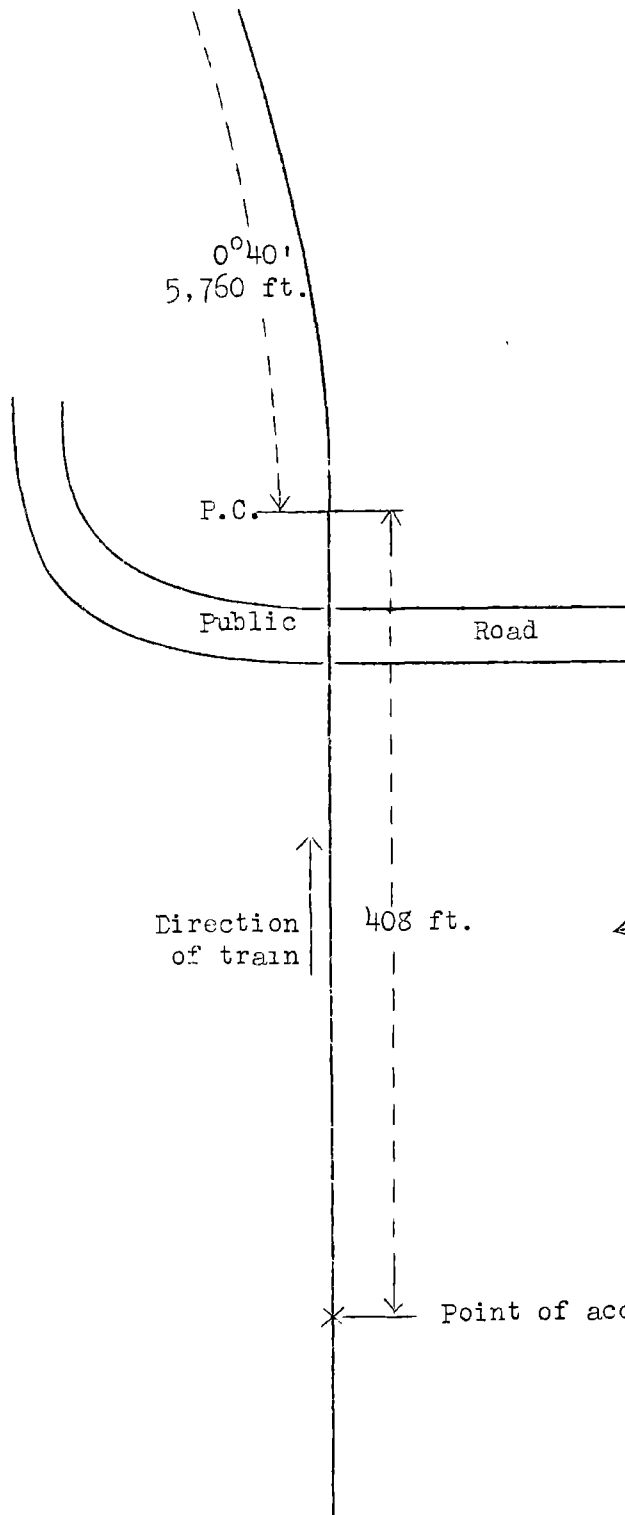
The track is laid with 90-pound rails, 39 feet in length, with an average of 22 ties to the rail length, single-spiked, fully tieplated, and ballasted with gravel to a depth of about 10 inches; the track is well maintained. The maximum authorized speed for freight trains is 40 miles per hour.

The weather was clear at the time of the accident, which occurred about 12:15 a.m.

Description

Train No. 272, an east-bound freight train, consisted of 45 cars and a caboose, hauled by engine 1954, and was in charge of Conductor Griggs and Engineman Hale. This train left Tremont, 19.3 miles west of West Monroe, about 11:35 p.m., September 13, according to members of the crew, 1 hour 47 minutes late, and

Inv. No. 2010  
Yazoo & Mississippi Valley R.R.,  
West Monroe, La.  
Sept. 14, 1935.



• Vicksburg, Miss.	
	76.6 mi.
• West Monroe, La.	
✕ Point of accident	19.3 mi.
• Tremont, La.	
	49.6 mi.
• Sibley, La.	
	27.4 mi.
• Shreveport, La.	

was approaching West Monroe when it was derailed while traveling at a speed estimated to have been between 20 and 30 miles per hour.

The engine and first nine cars were not derailed; the train parted behind the ninth car and the tenth to the twenty-third cars, inclusive, and the forward truck of the twenty-fourth car, were derailed and scattered in various positions. Six of the derailed cars were demolished, five others were destroyed by fire, and the balance of the derailed equipment was more or less damaged.

#### Summary of evidence

Engineman Hale stated that he looked back along the train several times, the last time at a point about 2 miles west of the point of accident, but noticed nothing wrong. The train was approaching West Monroe at a speed of about 25 or 30 miles per hour, with the brakes applied for the purpose of reducing speed for yard limits and a bridge, when the air gauge dropped suddenly, shortly after the brake application had been made, the train parting and traveling about two telegraph pole lengths before the forward portion stopped. A short time afterwards, in company with Head Brakeman Webb, he found a broken journal on the south side of the track, the broken journal still being in the arch-bar journal box, and the stub from which it was broken also was found. They turned over the arch bars and got the broken journal out of the box; the journal was warm but he was able to turn it on end with his bare hands. He also felt the wheel on the axle from which the journal was broken and it was warm, while a piece of broken brass about 6 inches in length was found which had been burned black. The journal box which housed the broken journal was filled with dirt and the engineman did not inspect it closely enough to see if there was any packing in the box. Engineman Hale further stated that the brake application which he made just prior to the accident was the first one he had made since passing Watts Spur, located about 3 miles west of the point of accident. The statements of Fireman Cyrus added nothing of importance.

Head Brakeman Webb stated that he looked back along the train on every curve and at stations, from both sides of the engine, but noticed nothing wrong. He assisted in picking up cars at various points, and at Tremont, 19.3 miles from West Monroe and the last point where cars were picked up, he was close to the tenth car, K.C.S. box 15329, and he thought that if there had been a hot box on the car at that time he would

have seen it or else smelled the odor of burning waste. He was riding in the left side of the engine cab approaching West Monroe and the first indication he had of anything wrong was after the engineman applied the brakes, and while rounding the curve to the left he looked back and saw sparks flying; he warned the engineman accordingly, but before the engineman had time to do anything the derailed cars began to turn over.

Conductor Griggs stated that he was concerned about a tank car that had been picked up at Sibley and while en route he looked out of the caboose window every few minutes; he was looking out when the derailment occurred, but although either he or the flagman had been watching the train constantly, they had not seen any blazing journal box prior to the accident, which occurred at 12:15 a.m. About 2 hours afterwards the engineman showed him the broken journal, and at that time it was warm but not hot enough to blister his hand; he did not think that the box became hot enough to burn off the journal, otherwise it would have blazed and undoubtedly would have been seen; however, there was some burned waste in the box.

Flagman Dilliard stated that after leaving Tremont he rode on the left side and the conductor rode on the right side of the caboose, with the windows open; he frequently looked ahead, especially when rounding curves, but did not see any indication of hot boxes; had there been one, undoubtedly the odor of burning waste would have been detected.

Track Supervisor Greer arrived at the scene about 1 a.m., and about 1:30 a.m. he learned that a journal was broken and upon making an examination he found it still in the journal box, but did not see any brass in the box; at this time the broken journal was hot. After examining the track he returned about 2:30 a.m. and at that time the broken journal was lying on the ground, and it still was so hot that he could not handle it. Examination of the track disclosed one rail to be bent, the ties marked for a distance of 460 feet, and the track torn up an additional distance of 287 feet. At the initial point of derailment there was a mark on the ties, 10 inches south of the south rail, this being a gouged mark and not an ordinary flange mark, while the first mark on the north side of the track was on the eighth tie farther east, 13 inches inside of the north rail; these latter marks continued diagonally across the track for a considerable distance until a point about 15 inches from the gauge side of the south rail was reached, where the marks straightened out and extended parallel to the rail a distance of 258 feet 4 inches to the point where the track was destroyed. Subsequently Supervisor Greer made an examination of the track westward

for a distance of nearly 1 mile; there was no indication of dragging equipment, and it was his opinion that the accident was caused by the broken journal and that it came from K.C.S. box car 15329.

General Foreman Schlottman stated that K.C.S. 15329 was received from the Kansas City Southern Railway at Shreveport on August 31, the car being bad-ordered by the joint interchange inspector on account of a cut journal at the L-3 location. On September 2 the car was placed on the Y. & M. V. repair track and on September 3 the R-3 and L-3 wheels were removed, being replaced with second-hand I.C. wheels 37854 and 40452, with second-hand 5 x 9-inch journals. The car then was moved to West Monroe, on September 3, and on September 8 it was moved back to Sibley, where it was delivered to another road on September 10; it was received back at the same point, loaded, on September 12, and was picked up by Train No. 272 at 8:18 p.m., September 13, destined to West Monroe. After examining the broken journal, which was at the L-3 location, he concluded that it became heated enough to cause it to break off, and that this heating occurred while the train was moving from Sibley to the point of accident.

Lead Car Repairer Milburn stated that on September 3 he removed one pair of wheels from under K.C.S. 15329 and installed a pair of second-hand single-plate wheels on a second-hand axle at the R-3 and L-3 locations, and renewed the brasses, dust guards and box bolts, as well as the packing. The journals of the wheels that were installed were thoroughly cleaned and appeared to be in good condition, there being no dents or other evidence of damage, and neither of these journals showed signs of having been previously overheated.

Car Inspector Stampley stated that he inspected K.C.S. 15329 at Sibley on September 10, and again when the car was returned on September 12, and that he lifted the journal box lids and inspected the boxes; he did not take any exceptions to the condition of the car.

General Car Foreman Rippberger stated that he made an examination to ascertain the cause of the accident and found a journal broken from K.C.S. 15329, but did not find the brass or wedge; the journal had the appearance of having been hot at the time it failed. Since the accident the journal was cleaned and on making a thorough examination he found it crystallized from 1 to  $1\frac{1}{2}$  inches throughout its entire circumference, and the center portion had twisted off, about a  $\frac{1}{2}$ -inch twist. In his opinion the heat was caused by the journal cracking, and he also thought that this journal had been crystallized from a

former heating, but that its condition could not have been detected by ordinary inspection of the car. Foreman Rippberger also said that the journal boxes involved were of pressed steel, with cast-steel collars. The trucks were of the arch-bar type and apparently all of the bolts were tight at the time of the accident.

Examination of the track by the Commission's inspectors disclosed that the first mark of derailment was a light scuff mark on the east edge of a tie on the south side of the track, followed by a deep gouge mark on the next two ties; these marks were 10 inches south of the gauge side of the rail and apparently were made by the end of a journal-box bolt. The fourth to the ninth ties, inclusive, were gouged and broken off on the south ends, and the eleventh to the fourteenth and the twentieth to the twenty-seventh ties, inclusive, were scuffed on the extreme south ends, the tenth, and the sixteenth to the nineteenth ties, inclusive, being free of any marks south of the rails. Beginning at the south end of the twenty-second tie, a furrow was plowed in the gravel shoulder, ranging from 6 to 12 inches in depth and extending to a highway crossing about 350 feet east of the point of derailment. There was a corresponding flange mark on the opposite side of the track, on the eighth tie, 13 inches south of the gauge side of the north rail; this mark continued to the thirteenth tie, but the fourteenth tie was free of this mark. On the fifteenth tie there were two flange marks, located 17 and 11½ inches south of the gauge side of the north rail; these two flange marks continued diagonally toward the south for a distance of 94 feet, to the sixty-eighth tie, where they were 15 and 18 inches, respectively, north of the gauge side of the south rail, following which these marks straightened out and extended parallel to the rail, over the highway crossing, and on the ties for a distance of 15 feet beyond the crossing, to where the track was torn up. At the initial point of derailment a rail on the south side of the track was slightly bent. Examination of the track west of the scene of accident for a distance of about ¾ mile disclosed it to be in good condition and there was no indication of anything dragging.

Inspection of the truck parts involved, by the Commission's inspectors, indicated that the truck had been in good condition prior to the accident. Journal box bolts L-5 and L-6, column bolts L-5, L-6 and L-7, and all of the journal-box bolts and column bolts on the right side of the truck were comparatively new, indicating that the truck had been overhauled within the last few months. The wheels on the axle involved were 700-pound single-plate wheels, manufactured by the New Orleans Car Wheel Company, on July 26, 1929, and October 2, 1929,

respectively. These wheels bore the stamp mark "VB 1-30", signifying that they were mounted at Vicksburg, Miss., in January, 1930, by the Yazoo & Mississippi Valley Railway. The axle, which bore no identification mark, had the following dimensions: center,  $5 \frac{7}{16}$  inches; wheel seat,  $6 \frac{7}{16}$  inches; good journal,  $4 \frac{15}{16} \times 9 \frac{1}{8}$  inches; collar,  $\frac{5}{8}$  inch. On the end where the journal failed the stub was ground down to a rounded end  $3 \frac{5}{8}$  inches in length, measuring from the shoulder of the axle, the stub end being lengthened from heating while grinding through the top of the journal box, which was fabricated of pressed steel, with a cast-steel top. The journal showed evidence of having been very hot, as all around it near the collar there was brass brazed into it. There were numerous dents in the journal and it was not known whether these dents were in the journal prior to its having run hot on the trip in question, or created during the last heating, or made after the journal failed and was jostled around in the box when the truck came in contact with the ties. The journal had broken to a depth of from 1 to  $1 \frac{3}{8}$  inches around the entire circumference, representing approximately 75 percent of the cross-sectional area, and the remaining center portion of the journal had the appearance of having been twisted off. It was evident that prior to heating on this occasion there were longitudinal cracks in the journal and several small pieces had flaked loose in the break, indicating that the metal was brittle. The brass and wedge from the journal box were lost in the wreckage.

It could not be determined on what date the car involved was built, or the date on which the journal boxes were last repacked, as the entire south side of the car was torn off, and the bottom portion of that section of the north side between the side door and the west end also was torn out, obliterating all stenciling except that which related to the capacity, load limit and light weight of the car.

#### Discussion

The journal which broke was the journal at the L-3 location of the rear truck of the tenth car in the train, K.C.S. box car 15329, resulting in the derailment of this truck and in damage to the track which in turn caused the other cars to become derailed. The car involved was loaded with not more than 56,000 pounds of pulp wood, whereas it had a capacity of 80,000 pounds and a load limit of 95,200 pounds. Apparently the journal cracked around its entire circumference as a result of a former heating causing the box to run hot, and after it had heated sufficiently for the brass to adhere



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to the journal it twisted off the center portion of the journal. When the journal broke, it left a stub only  $2\frac{1}{2}$  inches in length, minus the fillet, to contact the brass, which probably slipped off the stub and thus allowed it to cut through the top of the box.

Conclusion

This accident was caused by a broken journal.

Respectfully submitted,

W. J. PATTERSON,

Director.