

RAILROAD ACCIDENT INVESTIGATION

Report No 3767

NORTHWESTERN PACIFIC RAILROAD COMPANY

GEYSERVILLE, CALIF

JULY 6, 1957

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

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DATE	July 6, 1957
RAILROAD	Northwestern Pacific
LOCATION	Geyserville, Calif
KIND OF ACCIDENT	Derailment
TRAIN INVOLVED	Freight
TRAIN NUMBER	87
LOCOMOTIVE NUMBER	Diesel-electric units 5281 and 5292
CONSIST	89 cars, caboose
SPEED	38 m p h
OPERATION	Timetable and train orders
TRACK	Single, tangent, 0 26 percent ascending grade westward
WEATHER	Clear
TIME	6-23 p m
CASUALTIES	1 killed
CAUSE	Broken journal due to overheating

INTERSTATE COMMERCE COMMISSION

REPORT NO 3767

**IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER
THE ACCIDENT REPORTS ACT OF MAY 6, 1910**

NORTHWESTERN PACIFIC RAILROAD COMPANY

November 20, 1957

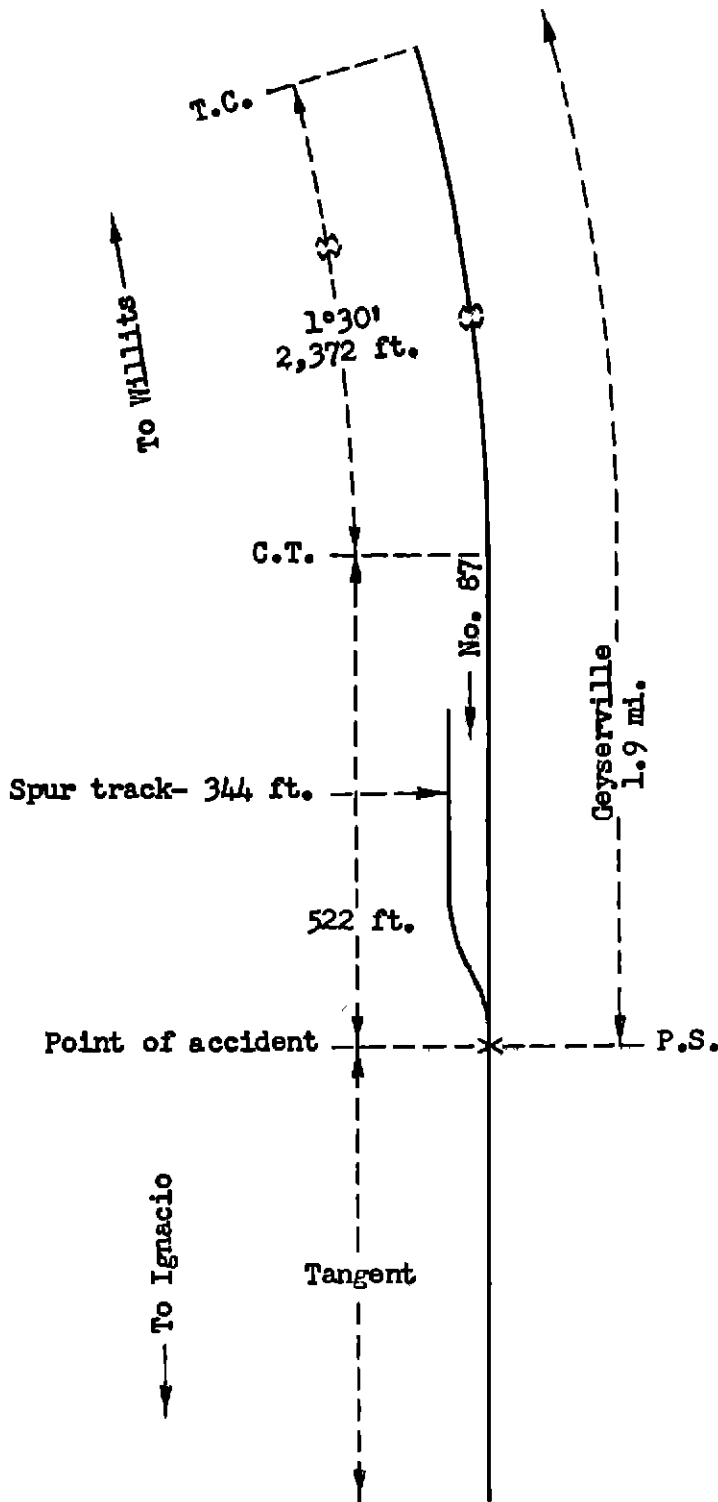
Accident near Geyserville, Calif , on July 6, 1957, caused by a broken journal due to overheating

REPORT OF THE COMMISSION¹

TUGGLE, Commissioner

On July 6, 1957, there was a derailment of a freight train on the Northwestern Pacific Railroad near Geyserville, Calif , which resulted in the death of one trespasser

¹Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Tuggle for consideration and disposition



- Willits, Calif. 17.4 mi.
- Redwood Valley 8.1 mi.
- Ukiah 28.8 mi.
- Cloverdale 9.4 mi.
- Geyserville 1.9 mi.
- X Point of accident 5.9 mi.
- Healdsburg 43.1 mi.
- Ignacio, Calif.

Northwestern Pacific Railroad
 Geyserville, Calif.
 July 6, 1957

Location of Accident and Method of Operation

This accident occurred on that part of the Southern Division extending between Willits and Ignacio, Calif., 114.6 miles, a single-track line over which trains are operated by timetable and train orders. There is no block system in use. Near Geyserville, 63.7 miles west of Willits, a spur track 344 feet in length parallels the main track on the north. The spur-track switch, which is trailing-point for west-bound movements, is located 1.9 miles west of the station at Geyserville. The accident occurred on the main track at the spur-track switch. From the east there are, in succession, a 1°30' curve to the right 2,372 feet in length, and a tangent 522 feet to the point of accident and a considerable distance westward. The grade for west-bound trains is 0.26 percent ascending at the point of the accident.

The track structure consists of 110-pound rail, 39 feet in length, relaid in 1945 on an average of 24 ties to the rail length. It is fully tieplated with 10-inch tie plates, single-spiked, and is provided with 4-hole, 24-inch joint bars and an average of 12 rail anchors per rail. It is ballasted with gravel to a depth of 10 inches below the bottoms of the ties.

This carrier's operating rules read in part as follows:

827 * * *

Rolling inspection of running gear and brakes of as much of the train as is practicable must be made when starting from the initial station and intermediate stops, * * *

Trainmen must be in position to observe their trains while running, particularly while rounding curves * * *

Unless otherwise provided, when conditions are favorable and in the judgment of the conductor it is safe, freight trains need not stop for train inspection * * *

Inspection should include running gear, bearings, brake and draft rigging * * *

* * *

Both the locomotive and the caboose of No. 87 were provided with two-way radio equipment.

The maximum authorized speed for freight trains in the vicinity of the point of accident is 40 miles per hour.

Description of Accident

No. 87, a west-bound second-class freight train, consisted of diesel-electric units 5281 and 5292, coupled in multiple-unit control, 89 cars, and a caboose. This train departed from Willits at 3:05 p. m., 1 hour 5 minutes late, passed Ukiah, 25.5 miles west of Willits, the last open office, at 4:55 p. m., 1 hour 21 minutes late, and while moving at a speed of 38 miles per hour, as indicated by the tape of the speed-recording device, the rear truck of the 76th car, and all trucks of the 77th to the 89th cars, inclusive, and the caboose were derailed at the switch of the spur track near Geyserville.

Separations occurred between the 79th and 80th cars, and at both ends of the 82nd car and the 85th car. The train stopped with the front end approximately 3,915 feet west of the spur-track.

switch. The derailed cars stopped in various positions on or near the track. All derailed cars were heavily damaged.

The trespasser who was killed was riding in one of the cars that was derailed.

The weather was clear at the time of the accident, which occurred about 6:23 p. m.

The 76th car was NP 60330, a steel flat car built in August 1952. It is 53 feet long, and 10 feet 3 inches wide. The trucks are spaced 39 feet 6 inches between centers. The lightweight, nominal capacity, and the load limit are, respectively, 47,400 pounds, 100,000 pounds, and 121,600 pounds. When the accident occurred the car was loaded with lumber. The weight of the lading was 96,900 pounds. The trucks are of the four-wheel type with 5-1/2-inch by 10-inch journals, 33-inch cast-iron wheels, and cast-steel side frames with integral journal boxes.

Discussion

As No. 87 was approaching the point where the accident occurred the enginemen and two brakemen were in the control compartment at the front of the locomotive, and the conductor and the flagman were in the caboose. The conductor said that he observed grass burning on the right side of the train adjacent to the track and that as he was taking action to operate the conductor's brake valve in the caboose, he called to the flagman to instruct the engineer by use of the train radio to stop the train. He said that the brakes became applied in emergency before he could operate the brake valve. The members of the crew on the locomotive said that the first they became aware of anything being wrong was when they heard the flagman's warning over the radio and at the same time the brakes became applied in emergency as a result of the derailment.

Examination of the track structure after the accident occurred disclosed that there were light marks on the tops of the outside joint bars of the north rail throughout a distance of about 160 feet immediately east of the spur-track switch. These marks apparently resulted from contact with the bottom of a truck side frame. The spring wing-rail was torn from the frog of the spur-track turnout. The north stock rail of the turnout and the north rail of the main track were forced outward approximately 5 inches near the switch point. The general derailment occurred at that point. Beginning at a point 120 feet west of the point of general derailment the track was destroyed throughout a distance of about 900 feet westward.

Examination of the equipment after the accident occurred disclosed that the right front journal of the rear truck at Location L-3 of NP 60330, the 76th car, had broken, and the truck side had dropped sufficiently to be in contact with the track structure. The stub of the journal had been in contact with the journal box and had worn through its top. The truck became derailed when the side frame came in contact with the track structure at the spur-track turnout, damaging the frog and wedging the north stock rail and the north rail of the main track outward. The detached portion of the failed journal was hot when found after the accident occurred. The waste-type journal-box packing was destroyed by fire. The bearing of the failed journal had disintegrated. The journal-bearing wedge had been cut through from contact with the stub end of the journal. The other journal boxes of the car were inspected and found to be in good condition with sufficient lubrication.

The broken surface of the failed journal was located at a distance varying from 7 inches to 8 inches from the collar. The specified dimensions of the journal were 5-1/2-inches by 10-inches. The actual diameter adjacent to the collar was 5-5/16 inches and at the point of failure was 4-7/8 inches indicating a taper of 7/16 inch.

The wheels at locations L-3 and R-3 on NP 60330 were cast on January 16, 1957. The journal boxes were last repacked on January 30, 1957. The car was loaded at Carlotta, Calif., on July 5, 1957, and was moved to Willits on July 6, 1957, where it was inspected and the journal boxes serviced. No exceptions were taken. The car was then assembled in train No. 87. After departing from Willits, members of the crew observed the train as it moved on each curve en route. The south side of the train was inspected by an assistant trainmaster while the train was moving at Redwood Valley, 48.2 miles east of the point of accident. One side of the train was inspected by the operator and the other side by members of a train crew while the train was moving at Ukiah. None of these employees observed any defective condition.

When operators are not on duty at Cloverdale, 9.4 miles east of Geyserville, west-bound freight trains are required by a trainmaster's bulletin to be inspected at that point by a member of the crew while the train is moving. There was no operator on duty when No. 87 passed Cloverdale. The members of the crew received instructions by radio to set cars off at Healdsburg, 17.2 miles west of Cloverdale. They said that they were aware of the instructions contained in the trainmaster's bulletin. However, since observations made en route did not disclose any defective equipment, they decided to inspect the train at Healdsburg instead of Cloverdale.

Cause

This accident was caused by a broken journal due to overheating.

Dated at Washington, D. C., this twentieth day of November, 1957.

By the Commission, Commissioner Tuggle

(SEAL)

HAROLD D. McCOY,

Secretary