INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3726

THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY

IN RE ACCIDENT

NEAR HARTFORD, CONN., ON

DECEMBER 15, 1956

SUMMARY

Date:	December 15, 1956
Railroad:	New York, New Haven and Hartford
Location:	Hartford, Conn.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	66
Locomotive number:	Diesel-electric units 1610 and 1609
Consist:	13 cars
Speed:	70 m. p. h.
Operation:	Signal indications
Tracks:	Four
Weather:	Clear
Time:	12:06 p. m.
Casualties:	41 injured
Cause:	Loose wheel

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3726

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

THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY

January 31, 1957

Accident near Hartford, Conn., on December 15, 1956, caused by a loose wheel.

REPORT OF THE COMMISSION[1]

TUGGLE, Commissioner:

On December 15, 1956, there was a derailment of a passenger train on the New York, New Haven and Hartford Railroad near Hartford, Conn., which resulted in the injury of 30 passengers, 4 dining-car employees, 4 employees not on duty, and 3 train-service employees. This accident was investigated in conjunction with a representative of the Connecticut Public Utilities Commission.

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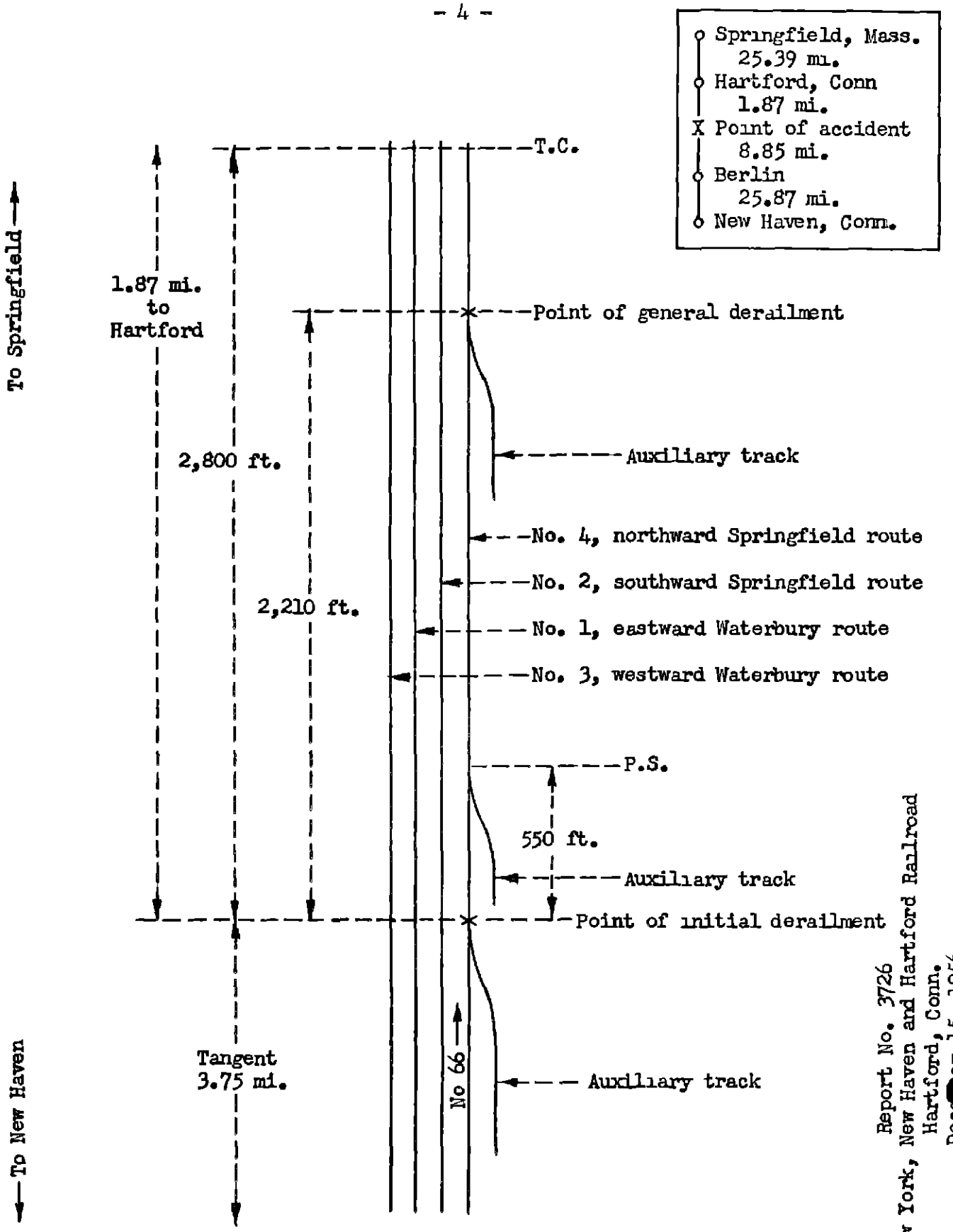
1 Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Tuggle for consideration and disposition.



Report No. 3726
The New York, New Haven and Hartford Railroad
Hartford, Conn.
December 15, 1956

Location of Accident and Method of Operation

This accident occurred on that part of the New Haven Division extending between New Haven, Conn., and Springfield, Mass., 61.98 miles. In the vicinity of the point of accident this is a four-track line, over which trains moving with the current of traffic are operated by signal indications. From east to west the main tracks are designated as No. 4, northward Springfield route; No. 2, southward Springfield route; No. 1, eastward Waterbury route; and No. 3, westward Waterbury route. The initial derailment occurred on track No. 4 at a point 34.72 miles north of New Haven and 1.87 miles south of the station at Hartford, Conn., and the general derailment occurred 2,210 feet farther northward. The main tracks are tangent throughout a distance of 3.75 miles immediately south of the point of initial derailment and 2,800 feet northward. The grade is 0.14 percent descending northward at the point of initial derailment and 0.38 percent descending northward at the point of general derailment.

In the vicinity of the point of accident the track structure of track No. 4 consists of 112-pound rail, 39 feet in length, laid new in 1939 on an average of 24 treated ties to the rail length. It is fully tieplated with double-shoulder canted 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 trap rock to a depth of 12 to 18 inches below the bottoms of the ties.

In the vicinity of the point of accident the maximum authorized speed for passenger trains is 70 miles per hour.

Description of Accident

No. 66, a north-bound passenger train, consisted of Diesel-electric units 1610 and 1609, coupled in multiple-unit control, one mail car, one baggage-express car, one refrigerator express car, one box express car, one combination baggage-lounge car, one smoking car, six coaches, and one dining car, in the order named. The fifth and the eleventh cars were of light-weight construction, and the other cars were of conventional all-steel construction. This train departed from Berlin, 25.87 miles north of New Haven and the last open office, at 11:56 a. m., 11 minutes late, and while it was moving on track No. 4 at a speed of about 70 miles per hour the front wheels of the rear truck of the eleventh car were derailed at a point 34.72 miles north of New Haven and 1.87 miles south of the station at Hartford. The rear wheels of this truck were derailed at a point 1,145 feet north of the point of initial derailment, and the twelfth and thirteenth cars were derailed at a point 1,065 feet farther northward.

Separations occurred between the ninth and tenth cars and between the twelfth and thirteenth cars. The derailed equipment stopped upright and approximately in line with the track. The front ends of the ninth and the thirteenth cars were, respectively, 387 feet and 72 feet north of the point of general derailment. The appurtenances below the floor level of the derailed cars were considerably damaged.

Two ticket collectors and the flagman of No. 66 were injured.

The weather was clear at the time of the accident, which occurred at 12:06 p. m.

B.& M. 4804, the eleventh car of No. 66 at the time of the accident, is an all-welded steel coach built in July 1947. It is 85 feet in length between the pulling faces of the couplers and weighs 121,700 pounds. It is provided with four-wheel trucks spaced 59 feet 6 inches between truck centers. Each truck has a wheelbase of 8 feet 6 inches and is equipped with 5-1/2-inch by 10-inch journals and multiple-wear 36-inch steel wheels. The journals are equipped with roller bearings.

Discussion

As No. 66 was approaching the point where the accident occurred the enginemen were in the control compartment at the front of the locomotive. The conductor and the front brakeman were in the sixth car, the flagman was in the twelfth car, and a ticket collector was in the rear car. The flagman said that when the car in which he was riding was in the vicinity of a rail-highway grade crossing 930 feet north of the point of initial derailment he heard a severe pounding under the car and the car began to lurch. He immediately opened the conductor's valve. One ticket collector was injured in the accident to the extent that he could not be questioned during this investigation. The other members of the crew, with the exception of the flagman, said that until the brakes became applied in emergency they were unaware that anything was wrong. The engineer said that as the train approached the crossing he made a brake application which had reduced the speed of the train from about 70 miles per hour to about 60 miles per hour when the brakes became applied in emergency.

Examination of the track structure after the accident occurred disclosed that the derailment had been caused by a loose wheel. Throughout a distance of 6 feet 4 inches marks on the top of the head of the east rail which appeared to have been made by the rim of a wheel indicated that the wheel had been moving inward toward the gage side of the rail. Immediately north of these marks, marks on the gage side of the head of the rail indicated that the rim of a wheel had dropped slightly below the top of the head. When this occurred, the resulting lateral thrust apparently forced the flange of the companion wheel over the top of the west rail. A flange mark on the top of the head of the west rail extended diagonally from the gage side to the outside of the rail within a distance of 10 feet 6 inches. North of this flange mark, marks on the ties indicated that a pair of wheels had become derailed to the west. The marks indicated that the gage of the wheels was 53 inches at the point at which they first dropped to the ties, and that the gage varied between 52 inches and 56-1/2 inches throughout a distance of 515 feet immediately north of the point of initial derailment. The east wheel had then struck the rail of a trailing-point turnout at which an auxiliary track converges with track No. 4 from the east, and the gage of the wheels had narrowed to 40 inches. Between the auxiliary-track switch and a point 630 feet north of the switch the gage of the wheels varied between 40 inches and 56 inches. Marks on the ties indicated that a second pair of wheels had become derailed at the latter point. The general derailment occurred at a trailing-point turnout at which another auxiliary track converges with track No. 4 from the east.

Examination of the equipment after the accident occurred disclosed that the right front wheel of the rear truck of B.& M. 4804, the eleventh car, had moved inward on the axle. This wheel was at location L-3. The appearance of the wheel seat indicated that the wheel had been working on the wheel seat a short time before the accident occurred, but there was no indication that the wheel had rotated on the wheel seat. There was no abnormal wear on either wheel.

The pair of wheels involved was mounted new at the Billerica shops of the Boston and Maine Railroad on July 2, 1954. The wheel press diagram indicates that a mounting pressure of 110 tons was used at the time the wheel which later became loose was pressed on and that the fit was acceptable. This pair of wheels was applied to Maine Central car 540 on July 10, 1954, and was removed on March 7, 1956, because of high flanges. The wheels were turned at the Waterville shop of the Maine Central Railroad and were applied to B.& M. 4804 on April 3, 1956. Before this accident occurred the owners had no record of either of these cars having been derailed while the wheel involved was under the car.

This accident was caused by a loose wheel.

Dated at Washington, D. C., this thirty-first day of January, 1957.

By the Commission, Commissioner Tuggle.

(SEAL)

HAROLD D. McCOY,

Secretary.