

INTERSTATE COMMERCE COMMISSION

WASHINGTON

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REPORT NO. 3693

SOUTHERN PACIFIC COMPANY

IN RE ACCIDENT

AT STANWIX, ARIZ., ON

MAY 5, 1956

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## SUMMARY

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Date: May 5, 1956

Railroad: Southern Pacific

Location: Stanwix, Ariz.

Kind of accident: Derailment

Train involved: Freight

Train number: Extra 6208 West

Locomotive number: Diesel-electric units 6208, 8128, and 5685

Consist: 95 cars, caboose

Speed: 53 m. p. h.

Operation: Timetable, train orders, and automatic  
block-signal system

Track: Single; tangent; level

Weather: Clear

Time: 1:40 a. m.

Casualties: 1 killed; 1 injured

Cause: Broken truck side-frame

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3693

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

SOUTHERN PACIFIC COMPANY

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July 27, 1956

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Accident at Stanwix, Ariz., on May 5, 1956, caused by a  
broken truck side-frame.

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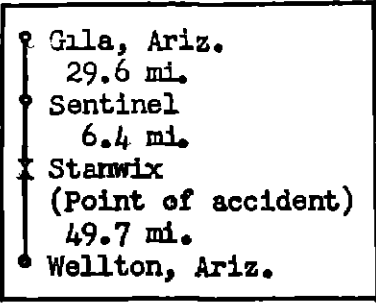
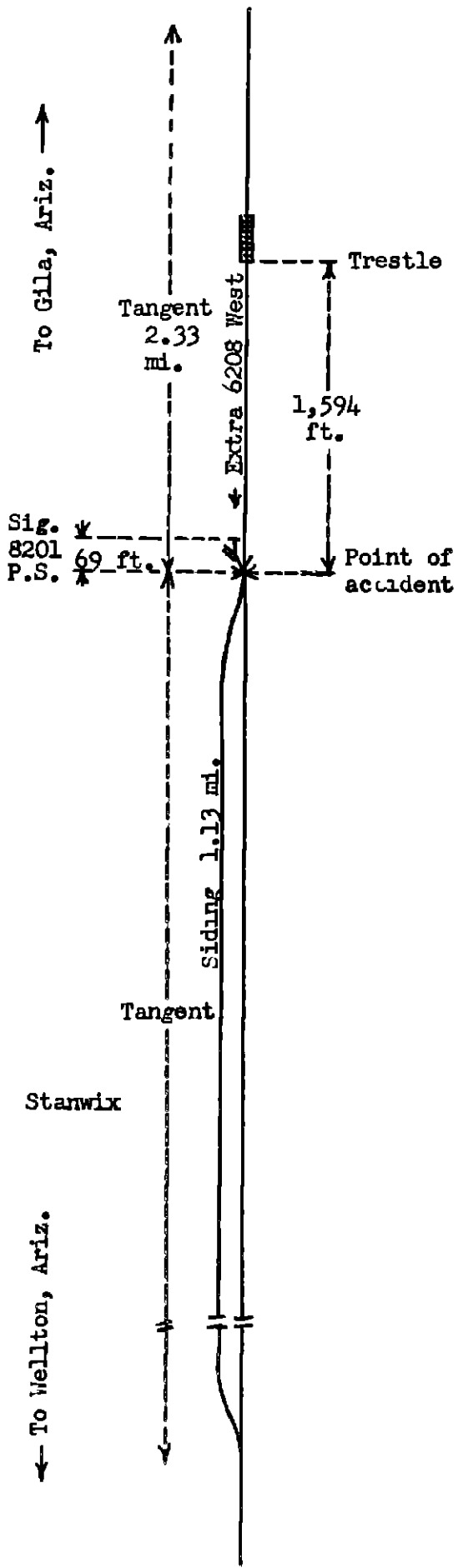
REPORT OF THE COMMISSION<sup>1</sup>

CLARKE, Commissioner:

On May 5, 1956, there was a derailment of a freight train on the line of the Southern Pacific Company at Stanwix, Ariz., which resulted in the death of one trespasser, and the injury of one trespasser.

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



Report No. 3693  
 Southern Pacific Company  
 Stanwix, Ariz.  
 May 5, 1956

### Location of Accident and Method of Operation

This accident occurred on that part of the Tucson Division extending between Gila and Wellton, Ariz., 85.7 miles, a single-track line, over which trains are operated by timetable, train orders, and an automatic block-signal system. At Stanwix, 36.0 miles west of Gila, a siding 1.13 miles in length parallels the main track on the north. The accident occurred on the main track at the east siding-switch at Stanwix. The main track is tangent throughout a distance of 2.33 miles immediately east of the point of accident and a considerable distance westward. The grade is level at the point of accident.

In the vicinity of the point of accident the track structure consists of 113-pound rail, 39 feet in length, laid new in 1941 on an average of 24 treated ties to the rail length. It is fully tieplated with double-shoulder canted tie plates, and is provided with 4-hole 28-inch joint bars and an average of 10 rail anchors per rail. It is ballasted with 6 inches of broken rock and 4 inches of slag below the bottoms of the ties. There is a No. 10 turnout at the east end of the siding at Stanwix.

Automatic signal 8201, governing west-bound movements on the main track, is located 69 feet east of the east siding-switch at Stanwix.

The maximum authorized speed for freight trains in the vicinity of the point of accident is 55 miles per hour.

### Description of Accident

Extra 6208 West, a west-bound freight train, consisted of Diesel-electric units 6208, 8128, and 5685, coupled in multiple-unit control, 95 cars, and a caboose. This train departed from Gila at 12:40 a. m. and departed from Sentinel, 6.4 miles east of Stanwix and the last open office, at 1:29 a. m. It passed signal 8201, which indicated Proceed, and while it was moving at a speed of 53 miles per hour the thirteenth to the forty-fifth cars, inclusive, were derailed at the east siding-switch at Stanwix.

The locomotive and the first 12 cars stopped with the front end approximately 1 mile west of the switch. The derailed cars stopped in various positions on or near the tracks throughout a distance of approximately 525 feet immediately west of the switch. A number of the derailed cars were destroyed, and the others were considerably damaged.

The trespassers who were killed and injured were riding in the train of Extra 6208 West.

The weather was clear at the time of the accident, which occurred about 1:40 a. m.

S.P. 26999, the thirteenth car of Extra 6208 West, was an all-steel box car built new in 1919 and rebuilt in the shops of the carrier in 1949. It was 42 feet 1-1/2 inches in length over the end sills, 10 feet 3/8 inch in width, and 14 feet 11 inches in height. The light weight and load limit were, respectively, 51,100 pounds and 117,900 pounds. The trucks were provided with Andrews channel section cast-steel side frames, 5-1/2-inch by 10-inch journals, and cast-iron wheels. The wheelbase of each truck was 5 feet 6 inches, and the trucks were spaced 31 feet 1-1/2 inches between centers. At the time of the accident the lading consisted of bulk sulphur billed from New Gulf, Tex., to Lodi, Calif. The gross weight was 159,840 pounds.

### Discussion

As Extra 6208 West was approaching the point where the accident occurred the speed was 53 miles per hour, as indicated by the tape of the speed-recording device. The enginemen and the front brakeman were maintaining a lookout ahead from the control compartment at the front of the locomotive. The conductor, the swing brakeman, and the flagman were in the caboose. The members of the crew had inspected both sides of the train as it moved on curves at various points en route, and they had detected no defective condition. They first became aware that anything was wrong when the brakes became applied in emergency as a result of the derailment.

Examination of the track structure after the accident occurred disclosed that spikes and bolts on the north side of the north rail had been marked by dragging equipment throughout a distance of 2,390 feet immediately east of the east siding-switch at Stanwix. The north guard timber of an open-deck trestle 1,594 feet east of the switch was gouged to a depth of 3 inches and a width of 2-1/2 inches. An adjustable rail brace opposite the north switch point had been struck and broken off. The bolt which connects the connecting rod to the No. 1 switch rod had been struck a heavy blow, and the switch rod was broken through the bolt hole at which the rod was attached to the transit clip on the north switch point. When the switch was examined after the accident occurred the north switch point was open approximately 1/4 inch. The top of the switch point had been struck by some object, and a piece of metal about 3 inches

in length was broken out of the end. The switch stand was lined and locked in normal position. The first flange marks on the ties appeared inside the south rail at a point 10 feet 10 inches west of the point-of-switch.

Examination of the equipment of Extra 6208 West after the accident occurred disclosed that the right truck side-frame of the front truck of the thirteenth car, S.P. 26999, was broken through both the top and bottom sections. The primary fracture occurred in the bottom member at a point approximately 8 inches in front of the center-line of the side frame. Approximately 52 percent of this break was a progressive fracture on the inner side of the frame. The remainder of the fracture was new. The fracture in the top member occurred approximately 5 inches behind the center-line of the frame. This fracture was new. After the breaks occurred the bottom of the side frame was lowered sufficiently to come in contact with the track structure. Marks and splinters on the bottom of the frame and the marks on the track structure indicate that this occurred 2,390 feet east of the east siding-switch and that the derailment occurred when the car reached the switch.

The records of the carrier indicate that the side frame which failed was the original side frame on S.P. 26999. It was manufactured by the United States Steel Corporation in December 1918 and was applied to the car in 1919.

The progressive fracture in the bottom member of the side frame occurred on the inner side of the frame in a location in which it would not be detected by routine inspection. This car was received in interchange from the Texas and New Orleans Railroad at El Paso, Tex., on May 4, 1956, and was last inspected by members of the mechanical force of the carrier at Tucson, Ariz., 164.2 miles east of the point of accident. No exception was taken to the condition of the car.

#### Cause

This accident was caused by a broken truck side-frame.

Dated at Washington, D. C., this twenty-seventh day of July, 1956.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY

Secretary.