

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: August 9, 1979

Forwarded to:

Mr. N.M. Lorentzen
President and Chief Executive
Officer
Burlington Northern, Inc.
BN Building
176 East 5th Street
St. Paul, Minnesota 55101

SAFETY RECOMMENDATION(S)

R-79-59

Mr. A.S. Boyd
Chief Executive Officer
National Railroad Passenger Corporation
400 North Capital Street, N.W.
Washington, D.C. 20001

About 5:50 p.m. on March 28, 1978, Amtrak train No. 8, The Empire Builder, operating on Burlington Northern track, derailed nine cars at Lohman, Montana. Forty-eight persons were injured in the derailment and the property damage was estimated to be \$333,500. 1/

Train No. 8 was moving through a 1°34' curve just west of Lohman at approximately 75 mph. About 6,737 ft west of the east siding switch at Lohman, the right rear wheel on the trailing truck of the fourth car moved inward off its axle seat. This caused a decrease in the wheel-to-wheel gage, and it allowed the wheel to derail inside the south rail. It continued inside the south rail causing minor track damage until it struck the frog at the east switch. When the wheel struck the frog, a portion of the wheel broke out. Immediately following this, a general derailment occurred. The last four of the nine derailed cars overturned.

The two car inspectors who inspected train No. 8 at Havre, Montana, said they discovered that the car on which the cracked wheel was found--Amtrak baggage car No. 1248--arrived at Havre with the brakes cut out. They also noted that a number of the composition-type brakeshoes needed to be replaced. However, reportedly because they feared criticism or a reprimand if they delayed train No. 8 for repairs, they did not report to their supervisor the brakeshoe condition or the fact that the brakes were cut out.

1/ For more detailed information read "Railroad Accident Report -- Derailment of Amtrak Train No. 8, The Empire Builder, on Burlington Northern Track, Lohman, Montana, March 28, 1978" (NTSB-RAR-79-7).

During the postaccident inspection and testing of car No. 1248, it was discovered that two of the brake cylinders had no visible lubrication. This condition could have contributed to sticking brakes. When the D-22 control valve was examined, a piece of brass was found imbedded in the seat of the supply reservoir charging check valve of the service portion. Whether the effect of this foreign body could have been detected during a bench test before the valve was installed on car No. 1248 is questionable, but it was determined that with this condition existing at the time of the accident, it could have caused the brakes to stick.

The next scheduled cleaning, oiling, testing, and servicing (COTS) for car No. 1248 (each 2 years) was August 3, 1979. The Safety Board does not believe that the car was thoroughly checked at the last COTS, because of the lack of lubrication in the brake cylinders. Also, 11 condemnable brakeshoes out of a total of 16 is indicative of improper maintenance.

Therefore, the National Transportation Safety Board recommends that the Burlington Northern and the National Railroad Passenger Corporation:

Establish quality control over standards for the servicing of rolling stock maintained by contractual agreements or by Amtrak's own facilities, and correct any existing discrepancies. (Class II, Priority Action) (R-79-59)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, BURSLEY, Members, concurred in the above recommendation.



By: James B. King
Chairman

