

Log A-426  
SP-20

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

C O R R E C T E D

ISSUED: October 5, 1984

Forwarded to:

Honorable Diane Steed  
Administrator  
National Highway Traffic Safety  
Administration  
400 7th Street, S. W.  
Washington, D. C. 20590

SAFETY RECOMMENDATION(S)

H-84-75

At 11:45 a.m., on January 10, 1984, a G & D Auto Sales, Inc., tow truck was turning right from the company's driveway onto westbound State Route 44 in Rehoboth, Massachusetts, when the rear-facing passenger car in tow, a 1981 Oldsmobile, was struck by an eastbound tractor-semitrailer operated by Branch Motor Express Company. The 76,950-pound tractor-semitrailer continued eastbound; crossed the centerline of the damp, two-lane, two-way roadway; and struck the left front of a westbound Town of Rehoboth schoolbus carrying 15 students, ages 5 and 6. The 1979 schoolbus overturned and came to rest on its roof off the roadway. The driver of the tractor-semitrailer, the driver of the schoolbus, and one student were killed; 12 students were injured. The driver of the tow truck was not injured. 1/

The fire extinguisher on the schoolbus was located under the right side of the front instrument panel near the right front entrance door. This door was damaged and could not be opened. Also, the front of the roof had collapsed down into the area. The only access to the fire extinguisher would have been through the rear of the bus. A rescuer would have had to enter through the rear emergency exit door and would have had to proceed to the front of the damaged bus where he would have had to crawl on hands and knees to retrieve the fire extinguisher, if he was aware of the location of the fire extinguisher. Consequently, the fire extinguisher was not readily accessible.

In some accidents involving schoolbuses, it may not be possible to retrieve a fire extinguisher from a nearby business or another vehicle. A fire extinguisher located at the rear emergency exit door of the schoolbus would have been easily noticed by anyone using the door. Since the rear of the schoolbus in this accident was not damaged, a fire extinguisher mounted by the rear emergency door would have been readily available for use.

As a result of its investigation of a schoolbus accident on March 25, 1983, near Newport, Arkansas, the Safety Board recommended to all the States, the District of Columbia, and the NHTSA that fire extinguishers be placed at both the front and rear of schoolbuses, that signs be posted in schoolbuses on the location and use of emergency equipment, and that passengers be briefed on the location and use of emergency

1/ Highway Accident Report—"Collision of G & D Auto Sales, Inc., Tow Truck Towing Automobile, Branch Motor Express Company Tractor-Semitrailer, and Town of Rehoboth Schoolbus, State Route 44, Rehoboth, Massachusetts, January 10, 1984" (NTSB/HAR-84/05).

equipment, both periodically and before beginning activity trips. <sup>2/</sup> To date, the NHTSA has not included a requirement for installation of fire extinguishers at both the front and rear exits of schoolbuses as part of the "Program Manual" of Highway Safety Program Standard 17--"Pupil Transportation Safety." The Safety Board reiterates part 5 of its 1983 recommendation to the National Highway Traffic Safety Administration:

Include in the "Program Manual" of Highway Safety Program Standard 17--Pupil Transportation Safety: 5. Requirements to place fire extinguishers at the front and rear of schoolbuses, post signs in schoolbuses on the location and use of emergency equipment, and brief passengers on the location and use of emergency equipment, both periodically and before beginning activity trips. (Class II, Priority Action) (H-83-45)


One undesirable crashworthiness factor noted in this accident was that a number of seat cushions came loose from the seats during the bus rollover. FMVSS Standard 222 requires that ". . .the seat cushion shall not separate from the seat at any attachment point when subjected to an upward force of five times the seat cushion weight. . . ." In this accident, the seat cushions came free because the movable clips at the rear of the cushion were free to rotate and, therefore, did not secure the cushion to the rear of the seat frame. It is possible that some of the seat cushion clips were not secured onto the seat frames before the accident, or that the clips rotated to the unsecured position during the rollover.

Loose seat cushions are a hazard during a crash. As the bus rolled over, the loose 13-pound cushions became missiles and may have contacted and injured some of the passengers. In addition, the loose cushions could have concealed small unconscious passengers and prevented them from being readily observed by rescuers. The Safety Board believes that an improved method of fastening the seat cushion to the frame is required to prevent seat cushion separation during impacts or rollovers.

Therefore, as a result of its investigation, the National Transportation Safety Board recommends that the National Highway Traffic Safety Administration:

For newly manufactured vehicles, revise Federal Motor Vehicle Safety Standard 222 to include a requirement that schoolbus seat cushions be installed with latching devices which ensure they remain in their latched position during impacts and rollovers. (Class II, Priority Action) (H-84-75)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and GROSE, Member, concurred in this recommendation. BURSLEY, Member, did not participate.

  
By: Jim Burnett  
Chairman

<sup>2/</sup> Highway Accident Report--"Jonesboro School District Schoolbus Run-off Road Overtun, State Route 214 at State Highway 18, Near Newport, Arkansas, March 25, 1983" (NTSB/HAR-83/03).