

## **Lessons Learned from Accident Investigations**

### **Lifesaving Practices Outlined for Organizations Using 15-Passenger Vans**

Following the deaths of a teenager and four senior citizens in two separate crashes involving 15-passenger vans carrying members of two different churches, the National Transportation Safety Board (NTSB) is urging all organizations that use these vans to follow lifesaving practices. In the crashes that occurred in Texas and North Carolina the left rear tire failed, the drivers lost control of the vehicles, and the vans rolled over several times.

Highway safety experts at the NTSB strongly suggest the following:

- Keep seat belts and lap belts accessible and make sure passengers use them. They are often forgotten when they are out of sight and wedged between the seat bottom and seat back.
- Inspect seat belts and lap belts and replace missing buckles, as well as broken and worn belts. The NTSB accident investigation concluded that several of the passengers might not have lost their lives if they had been wearing seat belts or lap belts. They were ejected from the vans when the vehicles rolled over.
- Regularly check the condition of tires for uneven wear, cracks and damage. Many of these vans are not continuously driven like the family car. Low mileage doesn't mean tires are safe, the NTSB emphasized. Age, sunlight, and just being parked for long periods can lead to deadly tire degradation and dry rot. Unfortunately, dangerously deteriorated tires cannot always be detected by visual inspection alone. It often takes an automotive repair professional.
- Check the tire pressure often and make sure it conforms to the van and tire manufacturer's standards. Be aware that front and back tires may require different inflation pressures, and these pressures may be higher than the tires on

passenger cars. The manufacturer's recommended pressure is usually on driver's doorsill or in the tire owner's manual. A major problem with these vans, the NTSB found in its investigations, is that tires are often under-inflated, leading to higher tire temperatures, faster tire deterioration, and diminished driving stability.

- Make all drivers of these vans aware that the dynamics of vans, especially during an emergency like a tire blow out, are very different from the family car.
- Get additional training for drivers since these vans handle differently than other vehicles, especially when they are fully loaded.

“We are urging all organizations, from church groups and schools to non-profit and public interest organizations, to learn that driving and maintaining 15-passengers vans is not the same as the average family car, and that it is critical that seat belts be used,” said NTSB Chairman Ellen Engleman Connors.

“Our goal is to prevent these crashes by informing the public about the circumstances that led to these deaths,” Engleman Connors said.

On the morning of May 8, 2001, a 1993 Dodge 15-passenger van was en route from Burkburnett to an outlet mall in Gainesville, Texas. Eleven senior citizens and a driver, all members of the First Assembly of God Church, occupied the van. As it approached Henrietta, Texas, in clear weather and traveling at an estimated speed of 61 to 67 mph, the tread separated from the left rear tire causing a blowout. The van ran off the roadway and rolled over at least two times in the median, ejecting seven passengers. The driver and three of the ejected passengers were killed, and eight passengers were seriously injured.

On the afternoon of July 1, 2001, a 1989 Dodge Ram 15-passenger van was northbound in the left lane on U.S. Route 220, near Randleman, North Carolina, en route from Myrtle Beach, South Carolina, to Roanoke, Virginia. The van, owned by Virginia

Heights Baptist Church of Roanoke, Virginia, was occupied by the driver and 13 passengers, ages 13 to 19. As the van approached an exit in clear weather, at a witness-estimated speed of 65 mph, the tread separated from the left rear tire and it experienced a blowout. The van swung back and forth between two lanes and overturned; four teenage passengers were ejected. One died and three were seriously injured. The driver and the other nine passengers sustained injuries ranging from none to serious.

The Safety Board determined that the probable cause of these accidents was tire failure, the drivers' response to that failure and the drivers' inability to maintain control of their vans in an emergency. It also said that contributing to the accidents was the deterioration of tires, which was caused by the lack of tire maintenance, and the failure to check tire conditions for cracking and dry rot. The tires on these vans had become rotten from ultraviolet damage, age, limited use, and being operated in under-inflated conditions.

The Safety Board also concluded that the safe operation of 15-passenger vans requires a knowledge and skill level different and above that for passenger cars, particularly when the vans are fully loaded or drivers experience an emergency situation.

In addition to alerting organizations to potential hazards, the Safety Board issued a series of recommendations to federal highway safety regulators, state driver licensing agencies, and van manufacturers. The recommendations ask for upgraded licensing requirements and training for drivers of 15-passenger vans; improved roof and structural strength standards; seats belts in all seats; and revised federal vehicle classification so safety standards mandated for these vans are equal to those for other passenger vehicles.

Information on the Texas and North Carolina crashes and several NTSB safety studies focusing on 15-passenger vans are available on the NTSB web site: [www.nts.gov](http://www.nts.gov).