

How to Survive a Tire Blowout on the School Bus

Video Reference Guide

Introduction

Weakened, damaged or worn tires can result in a tire blowing out on the school bus. When this happens, drivers, students and other motorists are at extreme risk. To counteract this, school bus drivers must always be aware of the condition of their tires. In this Reference Guide we will examine what school bus drivers should know about the condition of their tires to lessen the chances of a catastrophic blowout.

PART I: Getting Started - Pre Trip Inspection

A good starting point in avoiding a tire blowout is during the bus driver's daily Pre Trip Inspection of their school bus. Drivers should check both the front and rear tires to make sure they are all properly inflated. If a school bus driver is unsure of the proper air pressure requirements on their bus they should check with their Mechanic or Supervisor. Drivers should know the minimum safe air pressure for their bus' front and rear tires.

It is also a good idea to check the tread depth of the tires with a **Tread Depth Gauge**. Drivers can and should check with their Mechanic to learn the minimum depth that is allowed on their bus' tires. Also, during the Pre Trip Inspection, examine the tires for potential hazards such as nails or other debris that could possibly puncture or otherwise further damage the tire. Check for worn spots, bumps, bulges or any other irregularities. If a driver has rubbed a tire against the curb recently, they should be sure to check that they haven't damaged the tire.

A driver should alert the Mechanic or Maintenance Department any time they find or suspect a potential problem. **Never let tire damage go unattended!** Keep in mind that tires with low pressure can be prone to blowouts. Low air pressure in the tire means there is room inside for heat build-up. This leads to dangerously high air pressure. Make sure to always keep the tires properly inflated.

PART II: Preparation for Handling a Tire Blowout

In the demonstration from the video, Barbara Smith explained to a group of school bus drivers about how to prepare for a front tire blowout on a school bus. She told them that when a front tire blows out, the weight of the bus shifts to the low corner of the vehicle where the blowout is located. This will cause the bus to be pulled across the road, potentially into and across other lanes of traffic.

Barbara then described the preventative measures bus drivers can implement to alleviate the chances of the bus colliding with other vehicles during a blowout. She reminded the other drivers not to reach through the steering wheel, admitting she was guilty of this seemingly innocent action. Her reason for doing so becomes clear when she tells them how when a tire blows out it pulls the bus across the road, turning the wheel with it.

If a driver were to have their arm through the steering wheel when a tire blows, they could severely injure or break their fingers, hand, wrist or arm. Barbara stressed the importance of keeping both hands on the wheel when a tire blows to maintain control, getting the bus back into the proper lane before there is an accident, or worse, a fatality.

Next Barbara explains the damage that can result from rubbing a tire against the curb. She told the drivers that rubbing the tire against the curb wears down and damages the tire's sidewall. The damage actually occurs on the inside of the tire. Rubbing the tire causes it to separate which could then in turn cause a bubble to form. If that bubble pops it can possibly cause a blowout.

Barbara then reminded the drivers that a blowout can occur ANYWHERE, and there are many places where the risks involved with a blowout could put the entire bus in very serious danger. She mentioned the mountains where roads are narrow, windy and can have added hazards like cliffs. If you were driving at even a moderate speed and had a blowout on the side with a cliff you would be in a lot of trouble.

PART III: Acceleration and Braking

The last issues Barbara addressed before the demonstration were Acceleration and Braking. These are critical issues if a driver is to minimize the effects of a blowout on a school bus. First Barbara talked about acceleration. If a front tire blows out:

- 1) Accelerate immediately!! Push the gas pedal to the floor.
- 2) Do not use the Service Brake!!
- 3) INSTEAD, engage the Spring Brake.

The Service Brake applies the brakes to all four wheels. When you apply the brakes to all four wheels it's going to immediately pull all the bus' weight right back onto the blown out tire, possibly causing the driver to lose control again. The Spring Brake, however, only engages the rear brakes.

PART IV: Demonstration of a Tire Blowout

The demonstration for the front tire blowout took place at the California Highway Patrol Training Academy in Sacramento, California. The driver for the demonstration knew there would be a front left tire blowout, of course, and Barbara was there to coach him through the demonstration and act as a back-up driver if necessary. During the staged demonstration every precaution was taken to protect everyone involved from harm and to minimize the chances of an accident. In real life there is no warning! That is why it is so important to remember the sequence of actions a bus driver must take if a blowout occurs on their bus.

- 1) Hold onto the wheel tightly, trying to stop any additional sideways movement.
- 2) **Accelerate!** Push the gas pedal to the floor. DO NOT BRAKE!!
- 3) Regain control of the bus, bringing it back into the correct lane. Don't take your hand off the wheel to apply the brake until you're able to maintain control of the bus.
- 4) Apply the Spring Brake. DO NOT use the SERVICE BRAKE.

Even with the demonstration driver aware of the impending blowout and the precautions that were taken to ensure everyone's safety, the bus still crossed over one entire lane of what could have been traffic. Although blowing out a front tire on a school bus is a rare occurrence, bus drivers must know how to react to this event. Be prepared, lives count on it. Bus driving isn't an easy assignment, but continue your hard work. Your students and their parents depend on you.

