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|  | <b>When a Truck Tire Blows</b> | Date:      |
|   | <b>TOOLBOX / TAILGATE TALK</b> | Presenter: |

Truck tires (i.e., semi-truck) are under much higher pressure than car tires. In fact, when they are filled, they are filled in a cage which protects the tire technician if the tire blows. This is because a car tire is usually filled to between 27-34 psi whereas a semi-truck tire will be filled to between 80-110 psi.

The tire is unlikely to blow because of a nail or screw in the tread, it will simply go flat which is more difficult to detect while you are driving; eventually it will overheat and degrade.

A tire could blow if the sidewall develops a weakness, the tire is subject to a big impact due to a pothole or obstacle in the road, a part of the truck is rubbing up against it causing it to lose rubber, or something causes the tire to overheat like improperly adjusted brakes or pressure that's too low.

When a tire blows it can damage bodywork, the mudguard, air and brake lines and the rim – basically, anything that's near the tire. There's the initial explosion of air – often this is sideways, either towards the outside or the underneath of the truck or trailer, as the sidewall is the thinnest part of the tire. The tire carcass often shreds and flails around with the turning of the wheel, banging into parts of the truck and trailer. Eventually, the tire casing will start to degrade, giving up sizable chunks of rubber that can hit following vehicles. Retreads can become separated from the rim and that then poses a dangerous hazard to other motorists.

If a front tire blows, the truck will either shake or pull towards the side of the blowout and the steering will become heavy. You might also feel the truck drop onto the road surface. There's a high likelihood you'll damage the wheel unless you can stop very quickly but gently (braking puts more stress through the front wheels).

If a trailer tire or drive tire blows, you may not feel it but you might hear it as it'll sound a bit like a rifle shot. It's not uncommon for a driver to be unaware that a rear tire in a trailer has blown if the tires are dual sets unless another motorist makes them aware. The other tires on the trailer will support the weight and will allow a driver to drive a short distance to find a safe place to have it repaired. Sometimes a blown rear tire will cause a vibration.

If a tire fails while you are driving, hold the steering wheel firmly and take your foot off the accelerator. Don't brake sharply unless you're at risk of hitting something. Slow the truck down using the gears and braking gently, then pull off the road to stop (take care not to park on any soft ground where the truck could sink in, causing it to tip over).

## **CONSEQUENCES of TRUCK TIRE BLOWOUTS**

Truck tire blowouts are not simply flat tires. They are extremely dangerous events that jeopardize the safety of both truck drivers and those with whom they share the road. Not only can a tire blowout cause a big rig to careen out of control and crash into other vehicles, but the flying scraps of blown-out tires can also threaten the lives of other drivers, passengers, and pedestrians.

**When a truck tire blows out, it can cause immediate safety threats, such as:**

## **LOSS OF CONTROL**

In a trucking tire blowout, the force of the explosion, combined with the trailer's instability when balancing on suddenly uneven tires, often causes truckers to swerve and lose control. This loss of control can cause the truck to collide with other vehicles or even tip over.

## **FLYING TIRE DEBRIS**

Tire blowouts are often accompanied by small chunks of rubber flying in every direction. This is caused by the force of the explosion ripping the tire apart, sending tire debris flying dangerously in the road. When other vehicles and pedestrians are in the path of the flying tire fragments, the results can be catastrophic, and even fatal.

## **LOOSE CARGO**

In the chaotic swerving that often follows a truck tire blowout, the rig's trailer may sway dangerously, disrupting the cargo inside. This can throw off the trailer's balance, leading to a possible rollover, or cause the back doors to open and release the cargo on the road, creating potentially fatal hazards for other vehicles.

## **DRIVER PANIC**

Truck tire blowouts are generally very loud and easily startle other drivers. When the driver of a passenger vehicle sees a large tractor-trailer veer out of control, he or she may panic and aggressively brake, swerve, or speed up, adding increased risk and chaos to the already dangerous situation.

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