

# Party Crashers

## Vulnerable Vehicle Conversions

A limousine fire in the San Francisco Bay Area caught the nation's attention recently with its horrific loss of life and mysterious origin. The victims were members of a bridal party out for a celebration. The fatal ride, a stretched 1999 Lincoln Town car, was part of a fleet managed by a licensed limousine company with a clean operating record. That night, the only potential violation was that the limo was licensed to carry eight passengers and the party numbered nine.

According to the driver, he became aware of a problem when the passengers started tapping on the privacy glass to catch his attention. Blaring party music made communication difficult, and so it took him a moment to react to their complaints of smoke in the back compartment. He eased out of the traffic stream, parked on the shoulder, and helped several women exit the vehicle via the opened partition. Tragically, the conflagration took mere seconds to reach uncontrollable levels and the remaining passengers could not be rescued.

The post-tragedy analysis in the media has been fevered; it has ranged from questions about exceeding load limits to the recall history of the Town Car. Among pertinent clues, the absence of a collision and the speed of the fire's spread are telling. Until fire investigators and mechanical engineers complete the analysis, though, the cause remains unknown.

For those in the business of dissecting vehicle accidents for insurance companies and attorneys, the fiery event underscores a stark reality: modified vehicles, whether they are tuned-up cars, vans for the disabled or stretched luxury limos, are vulnerable to litigation when drives go awry. This is true whether or not the vehicle comes from an Original Equipment Manufacturer (OEM) authorized converter or a "Mom and Pop" shop.

Even a small change, like installing after-market catalytic converters, can have a cascade effect on vehicle operations. Now just imagine the impact of a complete transformation. Converting a Hummer from a rock-crushing ride to an improbably long prom-queen coach requires fearsome re-engineering of the body as well as all the operating systems.

By law, the modifications must meet Federal Motor Vehicle Safety Standards (FMVSS) and state laws in order for the vehicle owner to secure licensing and usage permits. However, the system is vulnerable to spotty oversight and enforcement. This means vehicle buyers must perform due diligence. They need to ascertain the certifications and qualifications of the shops while gathering information about the respective reputations of the shops before purchasing/renting rides. Even when every precaution is taken, bad things can still happen.

In another tragic case, a fatal van crash revealed an unforeseen consequence of a customized conversion. The van owner was a quadriplegic who commissioned extensive vehicle changes in order to enable his mobility. Alterations to



the van's internal configuration allowed him to enter/exit the driver's seat and operate the vehicle with complete control. Unfortunately, the driver subsequently experienced a failure in his left front tire when operating the van. He lost vehicle control, crashed, and suffered fatal injuries. Later examination of the van revealed signs of over-deflection in the tires. A tire expert investigated the tire failure hypothesis by weighing each wheel position, using extra ballast where required. It turns out that the vehicle modifications that were commissioned exceeded the load ratings of the tires, leaving them vulnerable to failure with use. This also adversely affected the handling and control properties of the vehicle. Tires with greater load ratings were needed for this modified vehicle.

Consumers should take a measured approach to purchasing or commissioning modified vehicles. Identify reputable dealers with excellent track records for delivering quality vehicles and customer service. Always ask detailed questions about how the changes done to the OEM vehicle affect handling. Relatedly, ask how the modifications impact retained OEM components like the suspension and wheels. Take full advantage of training opportunities to acclimatize to the challenges of driving a converted vehicle.

Ultimately, accident investigations for modified vehicles are painstaking because much attention must be paid to the changes that diverge from the OEM standards and whether they adhere to FMVSS regulations. Failure to follow established guidelines or making modifications that increase the possibility of malfunction expose the conversion shop and related parties to litigation risk.

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