



Large Truck and Tanker Rollover Prevention

STATISTICS

There are over 1,300 tanker rollover accidents and 500 large truck rollover accidents that occur each year throughout the U.S. according to National Highway Traffic Safety Administration. Over 60 percent of these rollover accidents result in fatalities.¹ Most of these accidents occur on dry straight roads and highways, not on ramps and turns as one might expect. Over 63 percent of tanker rollover accidents occur with partial loads.² Veteran drivers, with over 10 years of experience, are involved in over two thirds of all rollover accidents.³

In an effort to increase awareness and significantly reduce the number of truck rollover accidents, consider the following:

THE SCIENCE Behind the Rollover

- Center of gravity – Large trucks and tankers have a higher center of gravity and are naturally more susceptible to rollovers. Liquid loads and shifting-solid loads create additional forces on the truck's center stability and center of gravity.⁴
- Speed – Maintaining safe speeds at all times is critical. Most speed limit signs are designed for passenger vehicles for clear dry conditions. Large trucks should observe a much lower speed limit and adjust further considering driving conditions.
- Sudden stops, starts, and turns – Loads prone to shifting are greatly affected by sudden movement in stops, starts, and sharp turns. Anticipating stops, slower deliberate starts and slowing during turns all minimize load shifting.
- Partial loads – These loads are often more hazardous than full loads. More shifting of loads occurs with partial loads, especially liquid loads (sloshing and surging).

THE DRIVER

- Distracted driving – All unsafe behaviors should be avoided while driving including cellphone use, texting, eating, and other electronic device usage.
- Speeding – Obey all posted truck speed limit signs while maintaining 10 mph under automobile speed limit signs. Keeping the truck at safe speeds will allow the driver to adjust more readily to situations that occur.
- Alertness – Drivers being alert is a major success factor for avoiding accidents. The use of illegal drugs, alcohol, certain prescription drugs, and some over-the-counter drugs will limit the ability for the driver to remain alert and significantly delay reaction times.
- Hours of service – Adhere to the DOT FMSCA guidelines for maximum allowable driving times and required rest break intervals.

THE TRUCK - Vehicle Maintenance and Pre-Trip Inspections

- Brakes – Conducting brake inspections and checks for proper operation are critical. Before each trip, at a minimum, check the air compressor, slack adjusters, brake lines, linings, warning lights, and gauges.
- Suspension – The suspension system supports the loads and provides vehicle stability. Components of the suspension system to check in a pre-trip inspection should include u-bolts, spring hangers, axle, spring assembly, torsion bar, air components, and torque/radius/tracking components.
- Tires – Maintaining proper tire pressures and treads will provide for a safer ride and better driver control. It is important to check all tires for excessive/abnormal wear, proper inflation/pressures, load limits, and clearances at a minimum.

THE CONDITIONS

- Roadways – City, rural, and highway driving each present unique challenges to a driver. Traffic conditions, road surfacing, pedestrian traffic, ramps, and roadway narrowing must all be taken into account in pre-trip planning. Dispatch and fellow drivers may be able to provide information alerting others of unusual conditions.
- Environmental factors – Driving in the rain, snow, below freezing weather, fog, low light, and high wind situations increase the potential for rollover accidents to occur. These conditions can cause reduced traction, reduced visibility and can affect load stability. Decreasing speeds and increasing following distances will minimize accident potential during low light and inclement weather conditions. Consider getting off the road during severe conditions.
- Steep grades – Steep uphill grades limit visibility and can cause load shifts. Steep downhill grades can shift loads and increase the truck speeds. Test brakes and appropriately shift gears prior to negotiating steep grades.
- Road conditions – Under construction and poorly maintained roads can pose road hazards that could affect load stability. Soft shoulders, gravel, berms, narrow culverts, and curbs (tripping) all could have a catastrophic effects leading to rollovers.

ROLLOVERS CAN BE PREVENTED...SAVE A B.U.C.K.

Be alert

Understand the hazards

Check your truck

Know your load

RESOURCES:

Tanker Rollover Prevention Video - <https://www.fmcsa.dot.gov/rolloverprevention>

Truck Rollover Prevention Training Video (Vicroads) - <https://www.youtube.com/watch?v=mV9NebHbtus>

Cargo Tank Rollover prevention paycheck stuffer - https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Cargo%20Tank%20Payroll%20Stuffer%20-%20Handout_090613_C.pdf

LexTrainer – A free online training resource for AIG policyholders - <https://lextrainer.puresafety.com/Ondemand/Home>

REFERENCES:

1. National Highway Traffic Safety Administration, Traffic Safety Facts 2013

2. Department of Transportation Federal Motor Carrier Safety Administration

3. National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia, <http://www-fars.nhtsa.dot.gov/>

4. National Waste & Recycling Association, <https://wasterecycling.org/>

The services described herein are intended for the express purpose of assisting AIG underwriting personnel in the underwriting of the subject insured's risk exposures, property and/or operations and to assist in loss control activities. No warranty, guarantee, or representation, either expressed or implied, is made as to the correctness or sufficiency of any such service. Services may not address each and every possible loss potential, violation of any laws, rules or regulations, or exception to good practices and procedures. AIG assumes no responsibility for the discovery and elimination of hazards which could possibly cause accidents or damage at any facility that is inspected. Reliance upon, or compliance with, any of the information, suggestions or recommendations contained in any of the services described herein in no way guarantees the fulfillment of any insured's obligations under its insurance policy or as may otherwise be required by any laws, rules or regulations.

Contact:

AIG Programs Loss Control

T 800 611 3994

F 888 659 9047

programslc@aig.com



Bring on tomorrow

American International Group, Inc. (AIG) is a leading international insurance organization serving customers in more than 130 countries. AIG companies serve commercial, institutional, and individual customers through one of the most extensive worldwide property-casualty networks of any insurer. In addition, AIG companies are leading providers of life insurance and retirement services in the United States. AIG common stock is listed on the New York Stock Exchange and the Tokyo Stock Exchange.

Additional information about AIG can be found at www.aig.com | YouTube: www.youtube.com/aig | Twitter: @AIG_LatestNews | LinkedIn: www.linkedin.com/company/aig

AIG is the marketing name for the worldwide property-casualty, life and retirement, and general insurance operations of American International Group, Inc. For additional information, please visit our website at www.aig.com. All products and services are written or provided by subsidiaries or affiliates of American International Group, Inc. Products or services may not be available in all countries, and coverage is subject to actual policy language. Non-insurance products and services may be provided by independent third parties. Certain property-casualty coverages may be provided by a surplus lines insurer. Surplus lines insurers do not generally participate in state guaranty funds, and insureds are therefore not protected by such funds.