Large Truck & 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% of these rollover accidents result in fatalities. Most of these accidents occur on dry straight roads and highways, not on ramps and turns as one might expect. Over 63% of tanker rollover accidents occur with partial loads. Veteran drivers, with over 10 years of experience, are involved in over 2/3 of all rollover accidents.

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.

- 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 cell phone 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 & Pre-Trip Inspections**

- Brakes – Conducting brake inspections and checks for proper operation are critical. Checking the air compressor, slack adjusters, brake lines, linings, warning lights and gauges should be inspected before each trip at a minimum.

- Suspension – The suspension system supports the loads and provides vehicle stability. Components of the suspension system to check in a pro-trip inspection should include U-bolts, spring hangers, axel, 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
LexTrainer – A free online training resource for AIG policyholders - https://lextrainer.puresafety.com/Ondemand/Home

REFERENCES:
Department of Transportation Federal Motor Carrier Safety Administration

For more information, contact your local AIG representative.

The information, suggestions and recommendations contained herein are for general informational purposes only. This information has been compiled from sources believed to be reliable. Risk Consulting Services do not address every possible loss potential, law, rule, regulation, practice or procedure. No warranty, guarantee, or representation, either expressed or implied, is made as to the correctness or sufficiency of any such service. Reliance upon, or compliance with, any recommendation in no way guarantees any result, including without limitation the fulfillment of your obligations under your insurance policy or as may otherwise be required by any laws, rules or regulations. No responsibility is assumed for the discovery and/or elimination of any hazards that could cause accidents, injury or damage. The information contained herein should not be construed as financial, accounting, tax or legal advice and does not create an attorney-client relationship.

This document is not intended to replace any recommendations from your equipment manufacturers. If you are unsure about any particular testing or maintenance procedure, please contact the manufacturer or your equipment service representative.

American International Group, Inc. (AIG) is a leading global insurance organization. AIG member companies provide a wide range of property casualty insurance, life insurance, retirement solutions, and other financial services to customers in more than 80 countries and jurisdictions. These diverse offerings include products and services that help businesses and individuals protect their assets, manage risks and provide for retirement security. AIG common stock is listed on the New York Stock Exchange. Additional information about AIG can be found at www.aig.com | YouTube: www.youtube.com/aig | Twitter: @AIGinsurance www.twitter.com/AIGinsurance | LinkedIn: www.linkedin.com/company/aig. These references with additional information about AIG have been provided as a convenience, and the information contained on such websites is not incorporated by reference into this document.

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 jurisdictions, and coverage is subject to underwriting requirements and 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.

© American International Group, Inc. All rights reserved.