

Safety Alert of THE MONTH

PLEASE PASS THIS ON TO PEOPLE AND ORGANIZATIONS IN BC'S FOREST INDUSTRY

June 2016

Preventing Log Truck Rollovers

On Dec. 4th, 2014 a log truck rollover west of Chase on Highway 1 resulted in the death of a member of the public, Michael Evenson. The investigation results are public and provide critical information for log haulers and supervisors on log truck rollovers and managing speed. The Coroner's Report included the following information regarding the incident.

The investigation showed that Mr. Evenson had been driving to work westbound in his 2007 Chevrolet Malibu when an eastbound 2013 Kenworth tractor hauling a load of long cedar logs failed to negotiate a clockwise curve in the highway. A rollover ensued and the Kenworth's rear 1999 log trailer landed on top of Mr. Evenson's vehicle causing severe damage. The road surface was dry and in good repair. The posted speed limit was 100 kilometers per hour.

An RCMP Forensic Collision Reconstructionist attended the scene. A tire weight shift mark from the rear trailer of the Kenworth was identified, beginning in the westbound lane 0.76 metres north of the centre line. The mark continued on for 54.02 metres in the westbound lane and was seen to arc into the eastbound lane over a total distance of 86.70 metres. The logs were spilled into the westbound lane and carried on, strewn into the opposite ditch. Mr. Evenson's vehicle had been travelling within his westbound travel lane.

It was determined that the critical curve speed for the Kenworth was between 111 and 114 kph. It was also determined that the Kenworth was travelling between 106 and 108 kph at the time of impact, with the cruise control engaged. It was reported that even a small steering input at or near the critical curve speed could cause a rollover.

Small things like a second of inattention or a minor steering adjustment at the wrong time when combined with a heavy vehicle weight and speed can result in a serious or fatal incident.

Rollover Prevention

1) Speed and Steering Input

- Adjusting speed/slowing down when approaching corners will reduce the potential for a rollover
- Poor steering control (understeering or oversteering) and overcorrection are also main contributors to rollovers



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2) Load and Load Securement

- Weight and weight transfer significantly impact braking and vehicle control
- Load movements affect a vehicle's stability and can be a major contributing cause in a rollover
- The driver must use the appropriate load securement devices so the load doesn't move

3) Misjudgement and Inattention

- Misjudging the speed at which a curve can be safely negotiated is a main contributing cause to rollovers
- Inattention, lack of observation and fatigue result in attention lapses that create significant hazards
- Avoiding riding on the shoulder of the road. Soft shoulders can cause the load to shift, leading to a rollover.



4) Loading – Working Together

- Loaders and professional drivers must work together to ensure weights, load distribution and securement of the load are appropriate for safe transit
- Proper crowning of logs ensures that the center of mass of the load will be near the center of the track width of the trailer
- Crowning the load will ensure securement devices make contact with more of the logs

Additional resources:

1) Anatomy of a Log Truck Rollover Information

<http://www.bcforestsafe.org/rollover>

2) Video: How to Prevent Motor Vehicle Incidents for Professional Truck Drivers

<http://www.safetydriven.ca/resource/motor-vehicle-incidents/#prettyPhoto>

