

TOOLBOX TALKS

Driving and Merging Collision FactSheet

Maneuvers

Collisions frequently occur when traffic merges from one lane into another. These merging maneuvers usually occur at highway on/off ramps, at the juncture of two or more highways blending together in the same direction, and on local streets and highways as the roads narrow or available lanes are reduced due to construction, or lane obstructions, etc. Merging in traffic is an especially difficult challenge for a truck driver and is one situation where the limitations of a large truck are most noticeable. Most highway merging collisions are considered “preventable” on the part of the professional driver. Therefore, all of your drivers should be trained on how to avoid merging collisions, particularly those collisions that are due to their driving inexperience, visibility, and “blind spots.” Drivers need to be well aware of their “blind spots” which prevent them from seeing other motorists. According to a report prepared by Motor Carrier Safety Services, one of the most common merging or lane change collisions between trucks and passenger vehicles occurs when the passenger vehicle is traveling slightly in front and to the right of the truck, and about one car length forward of the front truck bumper. This is because the truck driver’s blind spot actually extends from eleven feet behind his front bumper to twelve feet six inches in front of it. Compact cars are usually less than 14 feet in length. During a lane change collision where a semi-trailer or the rear of a tractor’s cab strikes the left side of a passenger vehicle, usually the driver of the passenger vehicle is able to see the truck and attempt evasive action. When an impact does occur, the result is often a sideswipe collision.

However, when a passenger vehicle traveling straight is struck on the left rear side by a truck switching lanes to the right, the front of the passenger vehicle immediately spins to the left, going sideways in front of the truck, and is then struck a second time. The first collision often is very light with little visible damage to either vehicle. Two factors contribute to collision severity. First, the driver of the passenger vehicle would not be anticipating an impending collision. Second, there is no time to react. The passenger vehicle immediately goes into a spin and is out of control. Then the more serious second collision occurs when the passenger vehicle is broadsided at freeway speed by the truck.

Training

To help your drivers avoid these and other merging/lane change collisions, conduct a series of lane change and merging maneuvers during all road exams. Provide training as necessary and retest your drivers. Proper mirror adjustment should be covered during all orientation programs, during periodic safety meetings, and especially during the road examination. Give retraining any time there is a new type of mirror installed and any time that a driver has a collision where improper mirror adjustment or lane changing was a factor. Drivers who experience “near misses” should receive retraining as well. Have your drivers retake their road test to determine the type of retraining that is necessary to eliminate repeat collisions.

Precautions

In addition, instruct your drivers to follow these precautions:

- Before beginning the trip, properly adjust the driver’s seat and clean and adjust all mirrors in order minimize your blind spots.
- While driving, scan your mirrors often so you know what is around your vehicle.
- Make certain you have enough space to complete any maneuver you attempt to make.
- Communicate your intentions to merge or change lanes to other drivers by turning on your turn signals before you begin your maneuver. A minimum of three blinks of your signal is recommended.
- After you pass, make sure the vehicle you just passed has the proper following distance behind you before you lane change back in front of it.
- Watch for any vehicles around your truck that may be moving in your blind spots. If you had sight of a vehicle and suddenly it “disappears,” it is mostly likely in your blind spot.



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