

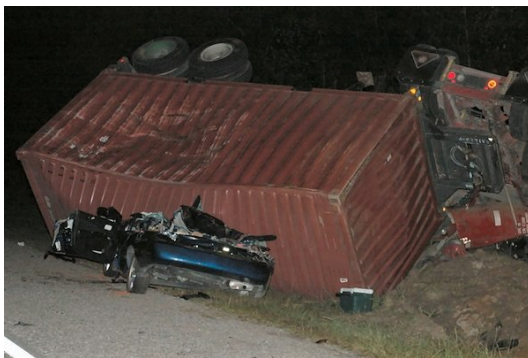


W Poplin Engineering

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COLLISIONS - Matching The Damage

At issue - Did the tractor trailer move left and sideswipe the automobile or did the automobile driver lose control and move right into the tractor trailer?



Accident Scene - Possible Side Swipe Collision?

Damaged Automobile after it was Towed

When vehicles collide, the damage patterns indicate the vehicle's position relative to each other during the collision. A recent case involved a same direction collision on an interstate highway. The passenger side of an automobile contacted the driver side tires of a tractor-trailer. There was tire contact at the passenger front and the passenger rear of the automobile. Following the collision, both vehicles swerved off the roadway to the right. The tractor-trailer rolled over the top of the automobile fatally injuring the automobile driver.

The Highway Patrol Special Investigation Team concluded the tractor trailer moved left and sideswiped the automobile.

It was obvious that the damage at the front of the automobile was caused as the left front wheel of the truck and the passenger front of the automobile collided. The truck lug nuts protrude from the wheel leaving a distinct pattern on the passenger front fender and wheel of the automobile. However, the damage pattern occurred with the vehicles approximately 20° from parallel indicating that the automobile was already "out of control" when this contact occurred.

A large profile gauge was constructed and matched to the side of the truck tire. Using the gauge and an exemplar undamaged automobile illustrated that the damage to the rear

fender of the automobile had to have been made after the tractor-trailer had begun to overturn. There was no damage on the truck nor the automobile that was consistent with a sideswipe contact.

It was therefore concluded that all of the collision damage occurred after the automobile driver lost control and traveled into the adjacent lane colliding with the tractor trailer.

COLLISIONS - Matching The Damage - Complete Article Online



Left Front Wheel - Truck Lug Pattern was Found on Car Passenger Front Fender



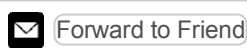
Measuring the Lug Damage Pattern - 20° from parallel



Using a "Homemade" Profile Gauge to Match the Truck Tire



Matching the Profile Gauge To the Fender - Confirming Overturn not Sideswipe



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