

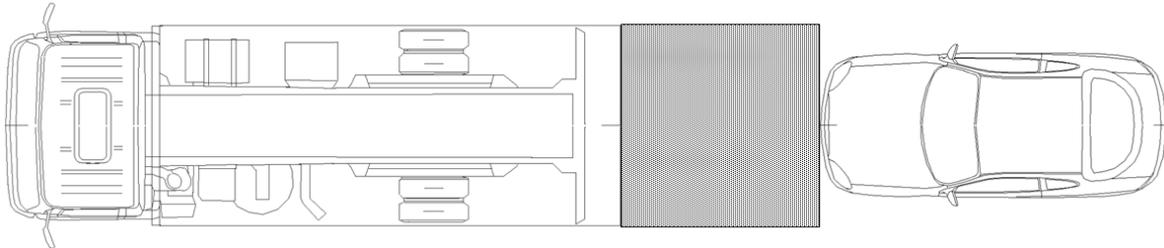
The three crash tests

Caution, roadworks ahead! When lanes get narrow, you need to take extra care.

Crash 1: Collision with crash cushion

Background

A vehicle is approaching temporary roadworks and fails to notice the conspicuous warning truck that indicates and secures the entrance to the site. The vehicle collides at approx. 75 kph with the trailer on the rear of the warning truck. Fortunately, the mobile warning unit is equipped with crash cushions.



Result

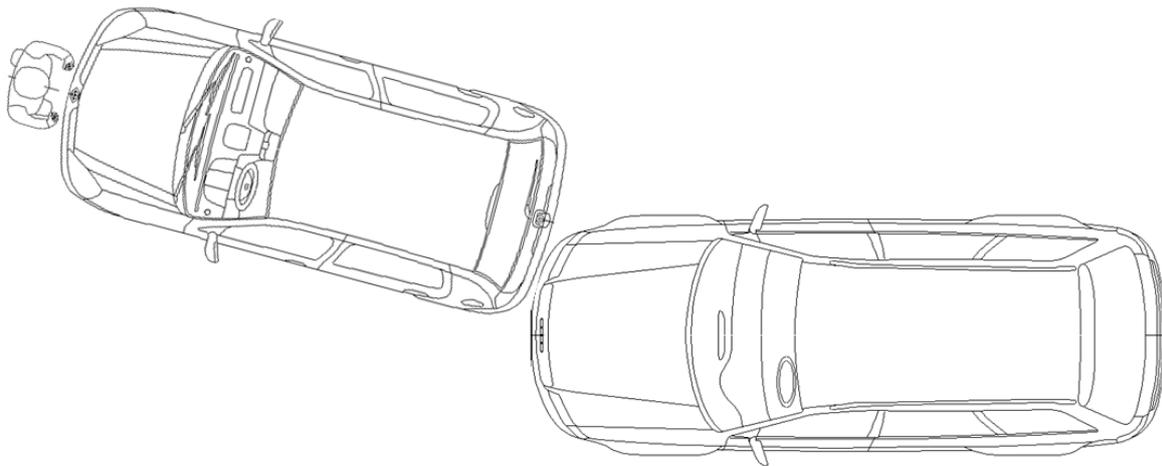
The vehicle's speed is reduced very abruptly by the collision. However, the crash cushion and the vehicle's crumple zone absorb most of the force of the collision. The impact of the collision will be less severe for occupants of the colliding vehicle, as the vehicle does not come to an immediate halt.

For the occupants in the warning truck or persons in the secured area in front of the warning truck the accident is relatively harmless. Thanks to the safety barrier, hardly any impact force is transferred to the warning truck. It moves only slightly.

Crash 2: Rear-end collision with broken-down vehicle

Background

A vehicle has broken down in the right-hand lane at roadworks; there is no hard shoulder. The driver, who is wearing a high-visibility vest, is standing in front of his vehicle trying to fix the problem with the hood open. His child is in the rear of the vehicle, secured in a child seat and fastened in with the seat belt. The broken-down vehicle is not properly secured. As a result, the driver of a following vehicle is too slow in identifying the situation and cannot stop in time. His vehicle collides at 55 kph with the stationary vehicle.



Result

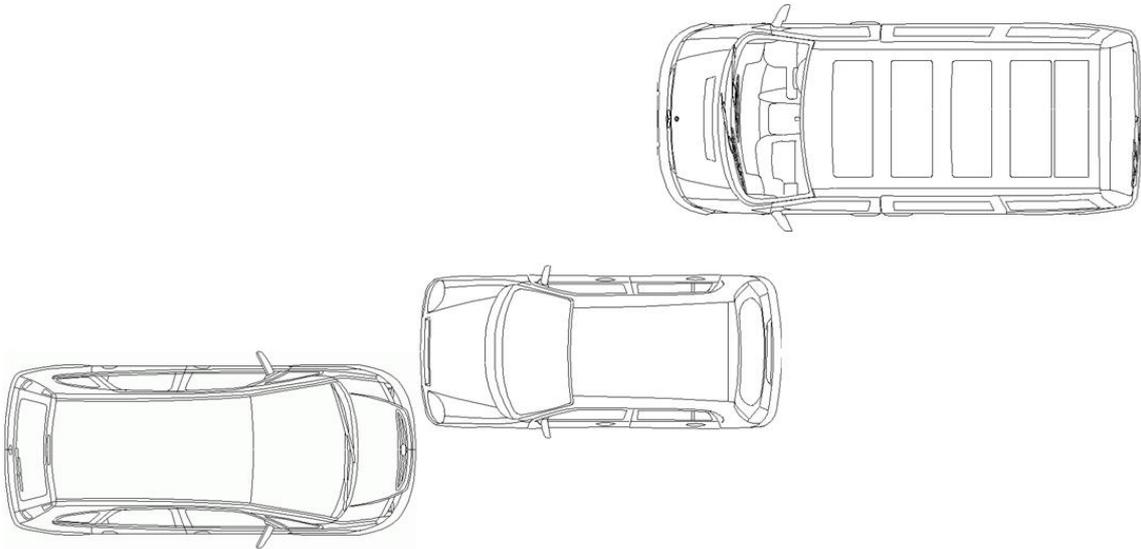
In this rear-end collision at roadworks the person in front of the broken-down vehicle is catapulted into the air by the force of the collision. Serious or even fatal injuries can be expected. The child in the car is better protected by the passenger compartment, the child seat, and the seat belt. The rear of the vehicle is badly damaged by the oncoming vehicle. Serious damage to the front of the stationary vehicle can also be expected from the concrete crash barrier.

The front of the oncoming vehicle is damaged. Thanks to the seat belt and airbag, the risk of injury to the driver is slight.

Crash 3: Head-on collision in the area of an S-bend

Background

At an S-bend in the roadworks a delivery van traveling in the right-hand lane drives straight on instead of following the lane markings. As a result the van forces the small car driving on its left-hand side into the oncoming traffic. This car then breaks through the barrier that separates it from oncoming traffic and collides at approximately 50 kph with an oncoming vehicle traveling at approximately the same speed.



Result

In this violent head-on collision the small car and the oncoming vehicle collide at an angle. This causes both cars to spin; the small car is jammed between the oncoming vehicle and the delivery van in the right-hand lane.

Damage to the small car is extensive. At the front the passenger compartment collapses as a result of the collision with the oncoming vehicle. The collision with the delivery van also damages the rear of the small car. The seat belt and the airbag are unable to provide full protection, and the driver can be expected to suffer serious or fatal injuries.

The front section of the oncoming vehicle is also severely damaged, but its passenger compartment remains intact. The driver is protected by his seat belt and air bag. Although the side of the delivery van is damaged, the driver of the van is at no risk of injury from the side-impact.