

# WERE THE SEAT BELTS IN USE?

We are often asked to examine a vehicle in an attempt to determine whether one or more occupants were wearing their seat belts at the time of the collision. This type of determination is important in situations where the mitigation of damages with seat belt use is allowed by law.

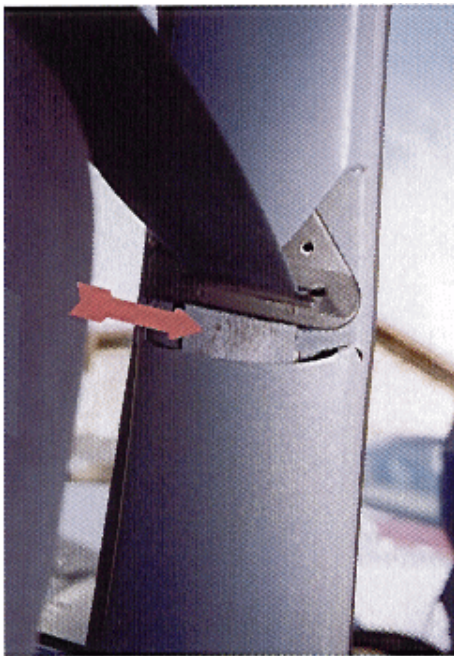


Figure 4

In most cases, a thorough examination of the passenger compartment interior and the seat belts makes it possible to determine which occupants were wearing belts at the time of the collision, and which were not.

The three pictures on this page provide examples of some of the telltale signs of seat belt usage. Figure 4 shows material transferred to the belt by the D-ring, a component

generally mounted on a pillar of the car interior above the elevation of the shoulder. The heat resulting from the stress generated by the acceleration of the occupant in the impact causes this material transfer. Such a material transfer does not occur if the belt is not in use.

Figure 5 shows the latch plate for the seat belt. The arrow identifies stress markings on the belt which were generated at the line of contact between the belt and the latch plate. It is usually necessary to slide the latch plate a short distance along the belt in order to find this evidence, assuming that it is present. However, it is usually best to measure positions of key items such as the latch plate placement before moving it.

Figure 6 shows the physical evidence which most clearly demonstrates that the seat belt in question was in use at the time of the collision. Not only is the blood obvious on the belt, but the drip and run patterns of the blood are consistent with seat belt usage. Additionally, the positioning of the blood on the seat belt is consistent with the belt having been extended out by a reasonable amount at impact.



Figure 6

this article are fairly obvious in demonstrating that the belt was in use. More often than not, however, the physical evidence is more subtle, and close-up or even microscopic examination of metal and fabric is required. Particularly if it is believed or suspected that seat belts were NOT in use at the time of the collision, a detailed and very

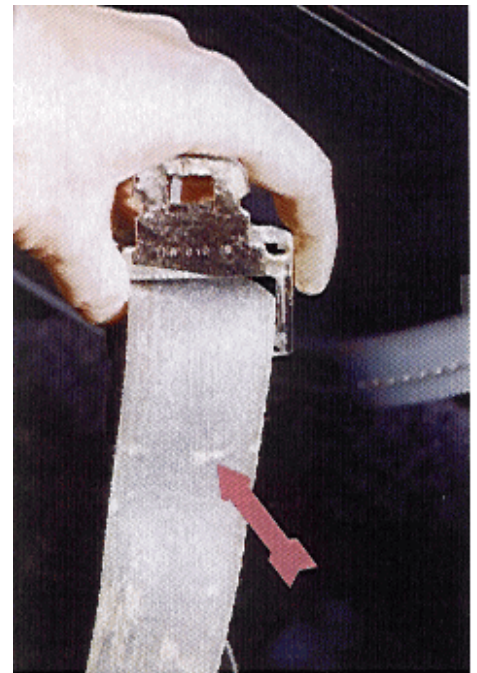


Figure 5

The three examples illustrated in

thorough examination is necessary, in order to rule out the possibility of subtle evidence of belt usage being present.

Proposals for the revision of state laws concerning the mitigation of injury claims where seat belts were not used are in place or proposed in several of the states in which we practice. Thus, there may be an increased need for engineering examinations of seat belts.

