

Dispelling Common Misconceptions About Underride Protection

🕒 September 25, 2019 📁 Safety Advocacy, Truck Safety 🔖 Krone side guards, side underride, side underride guards, underride facts, underride misconceptions, underride myths, underride secondary collisions 👤 Marianne

It's time to provide the documentation to **counteract** unfounded fallacies and speculations about underride protection.

COMMON MISCONCEPTION: " A European trailer maker saw trailer failures due to the increased rigidity in the trailer structure from added frame supports for side underride guards, TTMA reported. The trailers were less flexible when operated over uneven road surfaces or on surfaces that produced twisting forces, which led to the trailers becoming disabled during highway use, presenting safety risks to other motorists." <https://www.truckinginfo.com/340949/should-truck-trailers-have-side-underride-guards>

RELATED FACTS: 1. ATA is referring to concerns about the **kinds of damage experienced by owners of Krone trailers in Europe**. A side guard developed by the Krone company in Europe had problems with causing cracks over time in the trailer floor. This has been pointed to by many in the industry as "proof" that no side guard can be designed which will not damage the trailer and cause other safety problems. Please take some time to review this deposition and an excerpt which includes questioning of a Krone representative.

[yorg-sanders-depo \(2\)](#)

[yorg-sanders-exhibits \(1\)](#)

KRONE Deposition Excerpt Side Guard

2. You will find that although it was not a technical success, the company chose not to continue developing it due to economic reasons because safety was not their original motivation. At the time they were the only ones trying to stop cars from going under the side of trucks in Europe and they chose not to continue on that path. However, Mr. Sanders was not implying that it would have been impossible to make corrections had they tried.

3. Krone embarked upon a complete curtain-sided trailer redesign, which happened to have a low frame. Clearly the connections and the members weren't designed/constructed adequately and they had problems. Mr. Sanders says that this experience is not indicative of what will happen when a side guard is added to an existing US-style box trailer.

4. It should be noted that Krone did not design a side guard to go on the side of a trailer, instead they designed a new type of trailer which had side underride protection. It was the trailer design which had technical problems — not a side guard which caused structural problems to an existing trailer design.

5. Also, it is my understanding, from the deposition, that Krone had a working relationship with Wabash Trailers in the U.S. at the time when they were working on the trailer which had a side guard on it. Although Krone made the decision not to continue development of side underride protection on their trailers, **Wabash Trailers** themselves did R&D work on side guards. In fact, they have showcased their prototype side guard at truck shows in the U.S. in 2017 and 2018. And they have a side guard patent issued in the U.S. on March 14, 2019.

UPDATE, June 19, 2023: Please note that we were able to have a Zoom discussion with the German engineer who designed the system used on the Krone trailers. Here the story from him: [Global Underride Discussion](#).

COMMON MISCONCEPTION: “TTMA also pointed out that there would be a significantly increased likelihood of high-centering of the side guards on steep changes in highway and street levels, such as **elevated railroad crossings**, which can result in tractor-trailers becoming stranded on railroad tracks.” <https://www.truckinginfo.com/340949/should-truck-trailers-have-side-underride-guards>

RELATED FACTS: Attached below is a compilation of all railroad grade crossing accidents compiled by the Federal Railroad Administration for the past 5 years — compiled to address the supposed counter-safety “concerns” expressed by TTMA etc. like railroad hang-ups.

[2014-2018 RR Crossing Data](#)

In the last five years for the population of trailers we currently have including the lowboys, car haulers, cattle haulers, beverage trailers, etc **there have been ZERO fatalities coded as truck-trailer stuck on track.**

Even if one were to assume a side guard at 18 inches high would create more hangups and accidents – and the standards on grade crossings say they won’t – **it is just not a statistically frequent fatal or injurious event in comparison to side underrides.** Maybe this is why the NTSB, the one responsible for investigating significant rail transport accidents, **still recommended side guards** for trailers.

COMMON MISCONCEPTION: “The problem of added weight and reduced payload, many regulations result in unintended consequences. . .” <https://www.truckinginfo.com/340949/should-truck-trailers-have-side-underride-guards>

RELATED FACTS: 1) Like any new technology, over time the technology will be improved upon and costs will decrease. 2) If reduced payload means more trucks are on the road (although a weight exemption has been entertained and not all trucks run full all the time), some people speculate that there will be more truck crashes as a result. I postulate that those crashes (because of the underride protection which will be on those trucks) will be more survivable and, thus, will not lead to an increase in fatalities. 3) Some say that if there are side guards, when cars collide with the side guard and are deflected, then there may be secondary collisions as a result. I say that any secondary collision

will most probably be less deadly because the crashworthy safety features of the cars will be triggered and effective at protecting passengers — unlike what occurs in underride when the crumple zones, airbags, and seat belt tensioners are not able to function as intended. 4) Besides, if a car goes under the side of a truck and **keeps going**, as **Joshua Brown's Tesla** did, it could also lead to secondary collisions.

A comment has been made that a side underride regulation would be putting the cart before the horse due to the limited amount of available alternatives. That brings up the question: If there is an engineering problem in an industry, should we look to the industry to see what they can do about it? Why on earth should they sit around waiting for someone else to solve it for them?! Sadly, that seems to have been the prevailing industry attitude since at least 1969.

Fortunately, in addition to Perry Ponder's **AngelWing** side guard and Aaron Kiefer's **SafetySkirt**, some trailer **manufacturers** have been working on development of side underride solutions. But, unfortunately, there has been little to no encouragement given to them by the federal government or other components of the trucking industry to move forward. And potential investors are hesitant to back innovations until they are assured that there is likely to be a market.

Vanguard Strap Side Underride Guard Patent

Who will free us of this chicken & egg dilemma which has cost so many lives?



Myth-busters: The D.C. Underride Crash Test Event Team, March 26, 2019