

THE DISGRACE OF TRUCK UNDERRIDE

The Needless Delay of 50 Years Without Adequate Rear Guards
nor Any Sideguards on American Trucks and Trailers



by **Byron Bloch, Auto Safety Expert**

8016 Lakenheath Way, Potomac, Maryland 20854
Byron@AutoSafetyExpert.com --- (301) 299-1800

For distribution at the Truck Underride Roundtable
on August 29th, 2017, at IIHS-HLDI in Ruckersville, Virginia



Rear and side underride tragedies continue to occur, while the U.S. truck-trailer industry
and NHTSA both continue to delay doing what other nations have done long ago.



Recent crash tests by IIHS
show progress toward
feasible, safer designs
for rear and side
underride protection





Underride ... The Danger That Decapitates

by **Byron Bloch**

As you zoom along the highways and expressways around Chicago or anywhere in our nation, do you get anxious when you're following behind or alongside a massive tractor-trailer. And if destiny or a slick road or a lane shifting event occurred, might your car or SUV crash into and even beneath that giant truck?

These are called "truck underride" accidents, in which the passenger vehicle crashes into and underrides beneath the tall rear or side of a big truck. The trailer body smashes through the windshield and rips back the roof, penetrating deeply into the passenger compartment "survival space" and negating the safety benefits of seatbelts and airbags. The injuries are severe or fatal, and sometimes the driver and passengers are decapitated.

As a court-qualified expert in auto safety design and vehicle crash-worthiness, I've consulted and testified in many court cases over the years on behalf of the accident victims, and I've long been fighting for safer guards to be required on all large trucks and trailers so as to prevent future tragedies.



Rear and side underride accidents kill over 400 Americans each year:

NHTSA was established in 1966, and one of its first rule-making efforts was for underride guards for trucks, trailers, and buses. The trucking industry has been fighting the rule-making from its inception. Ironically, the Truck Trailer Manufacturers Association (TTMA) back in 1970 stated that they could make adequate rear underride guards to withstand at least 50,000 lbs. resistive force, but they lobbied for a delay. Corporate influence on politics intervened, with President Nixon postponing many vehicle safety rules, and underride guards were delayed. When the Carter administration tried to re-start the underride guard rule-making, the following Reagan administration put it all "on hold"... so nothing was done for 21 years, 1970 to 1991, due to inhumane political schemes..

Because of this tragic 20-year delay (while victims died), I urged Congresswoman Patricia Schroeder to include truck underride in her December 1991 Hearings on "Automotive Safety: Are We Doing Enough to Protect America's Families?" I testified at the Hearings about truck underride hazards and how to help

resolve the issue, prompting Rep. Schroeder to demand that NHTSA finally issue a standard.

However, when NHTSA issued the new Standards FMVSS 223 and 224 in 1995, they required a minimal strength of only 22,480 lbs., and the guard could be up to 22 inches above the ground, and its full strength did not extend

across the entire rear of the trailer. Large trucks were

excluded because, in NHTSA's bizarre rationale, only 25-percent of underride fatalities involved trucks. These safety standard rear guards were thus too weak, too high above the ground, and not full-width. The underride deaths and severe injuries continued, despite the NHTSA requirement... which by law is only a minimum. And there was no requirement for any side guards at all. This was like condoning reckless homicide by truck and trailer manufacturers!

NHTSA is now, in Spring 2016, considering an upgrade for rear guards on trailers, but only to go from a 30 mph up to a 35 mph crash requirement by a mid-size car. What is urgently needed are rear and side underride prevention guards that can withstand a crash test at 50-mph-plus by a full-size car, impacting directly at 90-degrees and in offset and angular crashes into the rear and side guards, with no intrusion into the passenger vehicle's "survival space".

Think this is too tough to do? Well, way back in 1970, NHTSA funded car-into-trailer crash tests, and showed how to design a safe guard for 40 mph crash protection. Then in 1977, the Insurance Institute for Highway Safety (IIHS) did a series of car-into-trailer crash tests, and showed how a strong guard prevents underride. Then, in 1980, another NHTSA-funded car-into-trailer crash test series recommended how to design guards for 40- mph-plus protection. All of this was ignored when NHTSA finally mandated a Federal Safety Standard in 1995 for (hold on!) only 30 mph protection



More than 200 Americans are killed each year in side underride accidents.

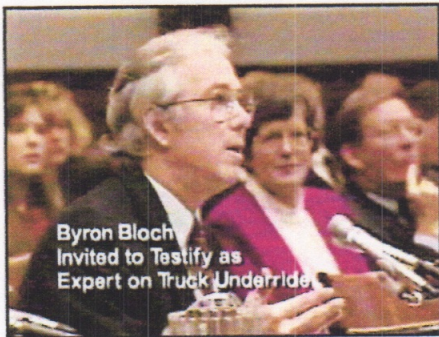


In 2001, I went to England to examine side guards on trailers. There, but not here.

And let me mention that many European nations have required side underride guards since the 1980's and they've proven effective in many accident scenarios, but still could be made stronger. Yes, America is a third-rate nation when it comes to protecting its citizens from truck underride tragedies... needlessly weak rear guards, and no side guards at all. And the industry reacts with callous indifference!

So to sum up... In the U.S., about 225 fatalities occur per year in rear underride accidents, and about 200-plus for side underride tragedies. After stupid delays, what we need is for all trucks and trailers to be designed or equipped to prevent the rear and side underride hazards, at least at a 50 mph crash performance level. If America moves expeditiously, we can eliminate virtually all underride deaths and severe injuries. It's called "Vision Zero" ... the visionary goal of zero fatalities. I believe we can do it!

To learn more about truck underride, please visit my website at <http://www.AutoSafetyExpert.com>



**Byron Bloch
Invited to Testify as
Expert on Truck Underride.**

I testified at 1991 Congressional Hearings on the need for rear and side guards.

Update of An Urgent Plea to Congress ...

Truck Side Underride Accidents are Needlessly Killing Americans Because Our Trailers Lack Sideguards

This Hazard can be Easily Solved with a Congressional Mandate to Require Sideguards

by Byron Bloch, Auto Safety Expert

August 2017 (Modified reprise of previous 2010 document)

Roya Sadigh, age 26, was tragically killed on Thanksgiving eve 2004 when her car, in which she was the seatbelted passenger, skidded on a snowy road. The BMW crashed into and “underrode” beneath the tall open side of a large trailer... and its large rear wheels crashed into her “survival space.” With a simple sideguard, similar to those on European trailers for many years, or like the drop-center feature of U.S. moving vans, her car would have been safely deflected away from the trailer, underride would have been prevented, and she would have survived. Every year across our nation, hundreds of Americans are killed or paralyzed in these side underride tragedies. It is overdue time to stop this senseless killing. It is time for our government and the industry to finally take action in requiring and installing sideguards on all large trucks and trailers.



There is a compelling public safety need for all American trailers to be designed and equipped with side guards to prevent cars, SUVs, pickups, and vans from crashing deeply beneath the trailer's tall open sides. Following a U.S. Congressional Hearing in 1991, at which Mr. Bloch testified, NHTSA was directed to engage in rulemaking for a more effective REAR guard, which they issued in 1995. But there is no equivalent mandate for SIDE underride guards. The U.S. trailer manufacturers and trucking companies have continuously refused to voluntarily equip their vehicles with this critical safety feature. And NHTSA, the National Highway Traffic Safety Administration, continues to ignore this issue as well. Ironically, full-panel sideguards of aerodynamic design have been demonstrated to increase the tractor-trailer's fuel efficiency, and are light-weight and economical. There are thus many advantages even beyond safety and crashworthiness.

It is now up to the U.S. Congress.... the members of both the House and Senate... to demand that NHTSA and the trailer manufacturers and trucking companies finally act in a constructive safety manner. Here is our suggestion for what Congress should enact....

Congress hereby directs the National Highway Traffic Safety Administration (NHTSA) to engage in immediate rulemaking to require that all new trailers manufactured as of November 24, 2018, be designed with or equipped with side guards for the purpose of preventing passenger vehicles (cars, SUVs, pickups, vans) from crashing beneath the sides of the trailer in what is known as an "underride" accident. Sideguards will also help prevent underride accidents by pedestrians, bicyclists, and motorcyclists.

Such underride prevention guards or measures can be designed as an integrated feature of the trailer from its inception, or it can be a separate structure that is securely attached to the trailer. Such side underride prevention guards must be of sufficient strength and design to effectively prevent a passenger vehicle from penetrating or underriding beneath the trailer in validation or compliance crash testing at least at 40 miles per hour (preferably at 50 mph), at a perpendicular or 90-degree angle to the side of the trailer, with the 4,000-lbs. moving barrier and selected passenger vehicles as the test device impacting into the side of the stationary target trailer. There shall be no intrusion into the "survival space" of the passenger vehicle.

Further, Congress hereby directs the Federal Motor Carrier Safety Administration (FMCSA) which states that it is "focused on reducing crashes, injuries, and fatalities involving large trucks and buses" to engage in immediate rulemaking to require that all existing trailers, and any from other nations that will be allowed to legally operate on American highways, must be equipped with side underride prevention designs or guards that will effectively prevent passenger vehicles from underriding beneath the sides of those trailers. Performance requirements for compliance must be the same as those issued by NHTSA that apply to new trailers, and will become effective as of November 24, 2018, with a two-year phase-in period thereafter.

If Congress fails to act constructively in a prompt manner, then I ask that the President or Secretary of Transportation issue an Executive Order on behalf of accomplishing what Congress will have failed to do. Sideguards are critically needed to prevent the continuing side underride epidemic.



Byron Bloch

Truck Underride Safety Expert

Phone: 301.299.1800

Byron@AutoSafetyExpert.com

www.AutoSafetyExpert.com

I respectfully request the opportunity to testify in-person at any Congressional Hearing on the subject of truck underride hazards and the need for side underride guards on all trailers operating on American roads and highways. Thank you.