



Feature

Poor safety at construction sites

Every year, more than 300 people die in vehicle accidents at construction sites in the EU. It is usually the human factor that is the cause. This is why Volvo Trucks attaches considerable importance to safety issues in its training programme for construction drivers. “The aim is to raise safety awareness among Europe’s drivers,” explains An Paepen, responsible for Volvo’s driver training programme.

The snow covers the landscape at the Volvo Trucks demo center in Göteborg. The approaching hill is steep and the surface is muddy. “Take your foot completely off the accelerator and brake pedals,” says instructor An Paepen.

Fırat Gerçek lifts his feet off the pedals and the truck starts rolling backwards. Suddenly there is a slight jerk and the truck comes to a complete stop. “The truck automatically engages the brakes if it rolls backwards. This is a safety feature of the I-Shift transmission,” explains Paepen.

Gerçek is a qualified mechanical engineer who works as a driver trainer at Volvo Trucks in Turkey. He is visiting Göteborg to learn about safe handling of vehicles on construction sites. Gerçek will take his new skills back to Turkey and train other drivers.

“Safety-consciousness is low among drivers in Turkey. Many drivers do not use a safety belt. At the same time, we have a very large construction sector. This combination means that a lot of accidents take place,” relates Gerçek.

According to Eurostat statistics, about 1000 people die on European construction sites every year. One-third of these accidents involve vehicles, meaning well over 300 fatalities a year. The number of injured is several times greater.

“Construction sites are dangerous workplaces that demand a good deal of skill on the part of the driver. Conditions may be slippery, narrow or steep. Despite this, drivers often tend to operate on autopilot, without thinking. This is when things get dangerous and accidents happen,” notes Paepen.



Last year, Volvo Trucks introduced a new construction truck, the Volvo FMX. In conjunction with its launch, the company rolled out a new tailor-made training programme for construction drivers. Much of the course content deals with safety.

“We felt we could make a difference in this area,” says Paepen. The course includes driving techniques practised on the test track alternated with theory lessons and group discussions.

“We're aiming to increase risk awareness, not least through dialogue. Many drivers are highly experienced. By giving them the opportunity to talk about their experiences, we harness their know-how and continuously update the course material,” explains Paepen.

According to Eurostat, the most common type of vehicle accident at construction sites is running into somebody. The reason is usually poor visibility.

“It's vital that everyone wears high-visibility protective clothing, and that pedestrians avoid walking where trucks drive, load and unload.”

The reversing signal blares across the demo track. Inside the cab, Gerçek has a commanding view to the rear via the rear-view mirrors and a TV display that pops up from the instrument panel.

“In many countries, it's a legal requirement for trucks to be fitted with a reversing monitor. That's a positive development,” says Paepen.

Gerçek relates that one of the most common accident types in Turkey is truck rollovers. According to Eurostat, this is the reason behind one in five fatal accidents involving vehicles. The driver training course gives Gerçek knowledge and tips on how to avoid such accidents. The most important parameter is to ensure that the load is always evenly distributed.

“Time is always scarce at construction sites, and everything moves quickly. However, it's important that the driver and the loader take the time to cooperate and don't cut corners,” he says.

On the test track, Paepen continues instructing Gerçek on the best way to handle I-Shift, a 12-speed manual gearbox with an automatic gearchanging system that is fitted to most Volvo FMX trucks.

“With I-Shift, the driver is free to focus entirely on the actual driving and has oversight of what's happening outside the cab,” explains Paepen.



At the construction site, there is always a risk of bogging down with a heavily laden truck. Vehicle downtime costs money – and can give rise to dangerous situations.

“When rescuing a truck that is stuck, considerable forces are involved. The towing line may snap and slash bystanders. This is absolutely lethal,” says Paepen.

I-Shift makes it possible for the driver to rock the truck free without outside help.

“With the I-Shift transmission, you can find the drag point in the transmission as you press the accelerator. By releasing the accelerator just as you reach the drag point and then letting the truck roll back slightly, you create a back-and-forth rocking motion. After a while, this rocking movement builds up sufficient kinetic energy to roll the truck over the obstacle,” explains Paepen.

Gerçek stops the truck. The day’s training session is over. Tomorrow there will be more driving techniques and more theory.

“This is a great course. I’m gaining a lot of knowledge that I can take back to Turkey,” he says.

January 3, 2011

Many fatal accidents with vehicles on construction sites

- Construction sites are among the most dangerous of all work places. Between 1995 and 2005, an average of 1000 people died every year on construction sites in the EU.
- More than one-third of all fatal accidents involved a vehicle. On average, more than 300 people a year die as a result of vehicle-related accidents on construction sites in the EU.
- The number of fatal accidents in the construction sector dropped between 1995 and 2005. However, the number of fatal accidents still remains high compared with other sectors.

The most common vehicle-related accidents on construction sites:

1. A person being hit by a vehicle.
2. A person falling off a vehicle.
3. A person being hit by objects falling off a vehicle.
4. A person being injured when a vehicle rolls over.



Source: Eurostat

Volvo Trucks Webb-TV:

See what it's like to use I-Shift's rock-free function:

<http://www.youtube.com/watch?v=fLSQMaRnZaw>

Captions for images:

T2010_1443:

In the course, theory is alternated with practical driving exercises on Volvo Trucks' test track. Paepen shows Gerçek how the risk of losing grip on an uphill gradient is reduced with the FMX's I-Shift technology.

T2010_1444:

The first snow of the year blankets the ground and the surface is soft and muddy. At the Volvo Trucks demo track in Göteborg, driver trainers from all over Europe receive hands-on training in safe handling of construction trucks.

T2010_1445:

Gerçek is pleased with the course at Volvo Trucks. Turkey has a very large construction sector, but safety-consciousness is low. Gerçek feels he has learned valuable tips on how to teach Turkish construction site drivers to drive more safely.

T2010_1446:

An Paepen is responsible Volvo Trucks' driver training programme. She says there is considerable interest in the new course, which is specifically designed for construction site drivers.

T2009_1526:

I-Shift reduces the number of things a driver has to do while driving. Instead, the driver is free to focus fully on what is most important – the road and the area around the truck.

T2009_1966:

Accidents involving falls from the vehicle are common. The Volvo FMX has steel steps with a protruding surface structure that offers good grip underfoot as the driver climbs in and out of the cab.

T2010_1047:

The driver sits safely in the Volvo FMX. Through the windscreen and via large rear-view mirrors, the driver has a commanding view of the area around the truck.

T2009_1980:



When backing up, the driver is helped by the reversing monitor, which automatically emerges from the instrument panel when the button with the camera icon is pressed. The reversing monitor in combination with a clearly audible warning signal reduces the risk of someone being hit by a reversing truck.

Direct link to images:

http://icp.llr.se/CumulusE_Z/VTC_ImageGallery/Login2.jsp?assets=T2010_1443;T2010_1444;T2010_1445;T2010_1446;T2009_1526;T2009_1966;T2010_1047;T2009_1980.tif

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