



Press Release

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Heavy Goods Vehicle safety in the spotlight as Euro NCAP launches brand-new TRUCK SAFE assessment programme

Trusted vehicle safety organisation releases its first set of test results as it continues its drive towards achieving Vision Zero

- › HGV crashes are the most severe on European roads
- › TRUCK SAFE is an important addition to Euro NCAP's existing passenger car and LCV ratings programmes
- › Ratings programme will raise safety standards and unite HGV stakeholders
- › First batch of trucks have been assessed across three performance categories
- › Volvo Truck models score 5-star ratings with IVECO's S-WAY model scoring a 1 star rating

The safety of the trucks on European roads is in the spotlight after **Euro NCAP** today revealed the first set of results for its brand-new TRUCK SAFE assessment programme. This is the very first time that HGVs have been tested for safety. Out of nine trucks assessed, Volvo's FH Aero and FM models both earned a maximum five-star rating, while IVECO's current S-WAY model emerged as the weakest performer with one star.

As part of its mission to achieve **Vision Zero** (eliminating all traffic fatalities and serious injuries), Euro NCAP has turned its testing and safety performance attention to the HGV vehicle category for the first time.

The organisation has been helping to drive up safety standards by evaluating and rating the active and passive safety performance of passenger cars for close to 30 years, and launched a similar rating scheme for Light Commercial Vehicles in 2020.

The threat HGVs pose

Because of their size and weight, HGV crashes are the most severe on European roads. Although trucks account for less than 3% of the traffic fleet in Europe, they are responsible for 15% of accident fatalities. Furthermore, only 11% of casualties in accidents involving HGVs are truck occupants. The remaining 89% are car and van occupants, as well as Vulnerable Road Users. [1]

The benefits of getting safety right

HGVs are an economic force for good, fulfilling an essential role distributing 95% of the goods consumed across the European continent. It's therefore important that the sector is supported while ensuring trucks are safe and don't continue to pose a disproportionate threat to other road users.

Objective measures of HGV safety performance will allow all stakeholders that rely on the haulage sector to select the safest trucks and play a part in reducing the societal cost of road transport, while also helping to generate better commercial outcomes.

The TRUCK SAFE programme will unify road authorities, hauliers, drivers, insurers, truck manufacturers themselves and the brands and companies who want their goods shipped safely around common and harmonised best practice.

The testing protocols

The first cohort to be tested under the TRUCK SAFE protocols were nine trucks from the fleet long-haul segment. The nine trucks selected for testing represent 95% of the trucks in this category that are currently on Europe's roads.

TRUCK SAFE is the first of Euro NCAP's testing protocols to adopt a new framework that measures vehicle safety across the lifecycle of an accident. For this particular assessment of long-haul HGVs, the evaluation methodology *'the Stages of Safety'* focuses on three stages and the timeline of a typical accident scenario: the hours and minutes before an accident with an emphasis on *safe driving*, active safety system intervention before an incident or *crash avoidance* and the *post-crash* 'golden hour' after an incident.

A percentage score is awarded for performance during each stage. These scores are then collated to determine an overall rating out of five stars. The assessment categories are:

Safe Driving

Occupant monitoring, driver engagement, vision and vehicle assistance

Crash Avoidance

ADAS performance in avoiding frontal, lane change, and low-speed manoeuvring collisions

Post Crash

Rescue information and ease of extrication during the 'golden hour'

(This 'crash lifecycle' approach will be progressively adopted across all of Euro NCAP's different vehicle category testing protocols).

As well as giving each truck a rating out of five stars, Euro NCAP has also introduced an additional CitySafe accreditation that is awarded to trucks that feature technologies or good design that can prevent accidents that typically happen in cities or urban environments, such as automated emergency braking should unsighted bicycles be detected alongside vehicles making junction turns.

Trucks were evaluated at various Euro NCAP-accredited testing facilities across Europe, including HORIBA MIRA in the UK, Applus Idiada in Spain, DEKRA in Germany, and CSI in Italy.

The results

Of the nine trucks evaluated, two achieved a five-star rating, two were awarded four stars, four earned three stars and one scored a single star. Four trucks were also awarded the CitySafe accreditation.

[Read the full document](#)

Truck: DAF XF

Truck SAFE Rating: ★★★☆☆

CitySafe: Yes

Safe Driving – 85%

Collision Avoidance – 35%

Rescue – 80%

Euro NCAP comment: “The DAF XF achieves a Safe Driving performance that is class-leading for a flat floor long-haul cab. Its vision performance is class-leading with very deep windows, low belt lines, a lower door window and CMS replacing all mirrors. It is equipped with an AEB system that works moderately well for front-to-rear collisions with vehicles and frontal collisions with pedestrians and cyclists. Its impressive performance in urban crash types earns our CitySafe award and a solid 3 stars overall. It is therefore a good choice for the long-haul sector where operation may require entry into cities.”

Truck: Iveco S-WAY

Truck SAFE Rating: ★☆☆☆☆

CitySafe: No

Safe Driving – 32%

Collision Avoidance – 19%

Rescue – 80%

Euro NCAP comment: “IVECO declined the opportunity to provide a vehicle for testing. Therefore, Euro NCAP tested and rated the most recent, well-specified vehicle available. The manufacturer informs us that it is not representative of the safety performance of their latest generation vehicle that complies with GSR2 regulations but first deliveries of those were not expected until later in 2024. As tested, the IVECO S-WAY offers marginal direct vision and few of the ADAS features that Euro NCAP considers in its rating, resulting in its disappointing 1 star rating.

Truck: MAN TGX

Truck SAFE Rating: ★★★☆☆

CitySafe: No

Safe Driving – 56%

Collision Avoidance – 60%

Rescue – 80%

Euro NCAP comment: “MAN declined the opportunity to provide a vehicle for testing. Despite this, Euro NCAP was able to source, test and rate the latest GSR2-compliant model, equipped with all the relevant safety options. The TGX offers a solid 3-star safety performance, well balanced between Safe Driving and Collision Avoidance. Its direct vision performance is poor, scoring zero in our rating. However, it is optionally available with an excellent camera monitoring system, which provides enhanced driver vision. It provides a very good range of crash avoidance technologies with a high-performing lane support system.”

Truck: Mercedes-Benz Actros L

Truck SAFE Rating: ★★★☆☆

CitySafe: No

Safe Driving – 72%

Collision Avoidance – 51%

Rescue – 80%

Euro NCAP comment: “Daimler Trucks declined the opportunity to provide a vehicle for testing. Therefore, Euro NCAP tested and rated the most recent, well-specified vehicle obtainable – a vehicle first registered in July 2024. The manufacturer informs us that it is not representative of the safety performance of their latest generation, which only became available later in 2024. As tested, the Actros L offers a solid 3-star safety performance. It is the tallest truck tested in this sector but with CMS available, it still manages a good Safe Driving score. It provides a very good range of crash avoidance technologies but the performance of some of the functions was limited.”

Truck: Renault Trucks T

Truck SAFE Rating: ★★★★★☆

CitySafe: No

Safe Driving – 72%

Collision Avoidance – 70%

Rescue – 80%

Euro NCAP comment: “The Renault Trucks T earns a strong 4-star rating due largely to its high-quality Advanced Driver Assist Systems (ADAS), getting balanced points across both Safe Driving and Collision Avoidance, most of which is standard fitment. It is more limited in its direct vision performance, although its recent addition of a CMS system has improved its overall Safe Driving score. The Renault would also benefit from a cyclist turn across path function. Combined with the more limited direct vision, this makes it more suitable for the highway, rather than the city.”

Truck: Scania R-series

Truck SAFE Rating: ★★★★★☆

CitySafe: No

Safe Driving – 64%

Collision Avoidance – 62%

Rescue – 80%

Euro NCAP comment: “The Scania R-series is available with nearly all of the driver assistance systems Euro NCAP considers and they generally perform well. But many of those systems are additional cost options. The vision fundamentals are good, but the end result is limited by obstructions from conventional mirrors and a CMS system is not available. Its ADAS performance is good in most areas, however it lacks some of the functionality to protect vulnerable road users. Overall, it’s a good option particularly for highway operations, provided the appropriate options are selected.”

Truck: Scania G-series

Truck SAFE Rating: ★★★★★☆

CitySafe: Yes

Safe Driving – 71%

Collision Avoidance – 62%

Rescue – 80%

Euro NCAP comment: “The Scania G-series was tested as a partner version of the R. The G-series benefits from a lower cab, improving vision. The vehicle is a solid performer with a balanced approach across Safe Driving and Collision Avoidance. It is available with nearly all of the driver assistance systems Euro NCAP considers and they generally perform well, but many of those systems are additional cost options. The vision fundamentals are good and benefit from the lower cab mounting height. The end result is still limited by the lack of a camera monitor system. Its Collision Avoidance performance is good in most areas, and AEB VRU combined with good vision earns it our CitySafe accreditation. Overall, it’s a safe choice in a mix of environments, provided the appropriate options are selected.”

Truck: Volvo FH Aero

TRUCK SAFE Rating: ★★★★★★

CitySafe: Yes

Safe Driving – 80%

Collision Avoidance – 89%

Rescue – 80%

Euro NCAP comment: “The Volvo FH is an excellent safe choice for a vehicle in the fleet sector. The direct vision is good, helped by the availability of CMS and its aero-inclined front. Combined with very good assistance systems, this produces a very good Safe Driving score. It achieves a very good score in Collision Avoidance, with every system Euro NCAP assess being available, including automated braking to protect cyclists where trucks turn across their path. As a highway truck, its good direct vision combined with very good AEB for vulnerable road users also earns the Volvo FH our CitySafe accreditation alongside its 5 stars, making it an excellent choice for operations that require occasional city deliveries.”

Truck: Volvo FM

Truck SAFE Rating: ★★★★★

CitySafe: Yes

Safe Driving – 87%

Collision Avoidance – 89%

Rescue – 80%

Euro NCAP comment: “The Volvo FM was tested as a partner to the FH aero but offers a lower cab to improve vision. It is an excellent safe choice for a vehicle in the fleet sector. The direct vision is very good, helped by the availability of CMS. Combined with very good assistance systems, this produces a very good Safe Driving score. It achieves a very good score in Collision Avoidance, with every system Euro NCAP assess being available including automated braking to protect cyclists where trucks turn across their path. As an all-rounder its very good direct vision, combined with very good AEB for vulnerable road users, earns the Volvo FM a 5-star rating and also achieves our CitySafe accreditation, making it an excellent choice for combined city and highway operations.”

“This testing shows there is a big difference between the relative safety of current truck models. It’s worth noting the differences we’re seeing are down to manufacturers’ current safety strategies. That means these results provide a strong snapshot of the HGV market before Euro NCAP influences the safety of vehicles.

“The results show that there are plenty of safety features available in the market and not necessarily just with more expensive models. For instance, Renault, that achieved four stars, is positioned towards the less expensive end of the market.

“And likewise, there’s a big question over who makes the safest truck. I think it’s interesting that Volvo, without any motivation from Euro NCAP, has produced a truck that’s done really, really well and represents real safety gains on European roads. Volvo has the technologies that are going to address most of the crashes that account for the 3,000 or so people that are killed every year on Europe’s roads.”

— Matthew Avery, Director of Strategic Development, Euro NCAP

“The launch of our TRUCK SAFE assessment programme is a landmark moment for vehicle safety and marks the start of our journey into fleet and business purchases. This is an essential step towards achieving Vision Zero.

Our first set of TRUCK SAFE testing protocols do a fantastic job of assessing capability and identifying which manufacturers are performing well. In due course, we will add passive safety (collision protection) by 2030 to further address the problems of truck-to-car crashes.

“As well as inspiring manufacturers to build safer trucks, TRUCK SAFE will also unite everyone within the HGV safety ecosystem for the first time. These stakeholders have a lot to gain from having safer trucks on Europe’s roads, whether that’s road authorities being able to reduce the societal cost of road transport and supporting a growing economy, freight shippers minimising their reputational risk and protecting their brand, or helping manufacturers to build safer trucks that will be more attractive to the market.

“It’s a well-known fact that a safe truck is a more profitable vehicle, and that’s something that benefits business and Europe as a whole.

— Dr. Michiel van Ratingen, Secretary General Euro NCAP

The next batch of TRUCK SAFE results will focus on the long-haul fleet rigid segment and will be released in April 2025. The urban distribution segment will then come under scrutiny, with those results set to be revealed in October 2025.

- Ends -

Sources: ERSO EU fatalities, Eurostat EU vehicles, DfT UK traffic

Industry Opinion

Mark Cartwright, Head of Commercial Vehicle Incident Prevention, National Highways

“Our number one priority is safety and that’s why we are proud to support Euro NCAP’s work in developing rating standards for HGVs.”

Sheena Hague, Director of Road Safety, National Highways

“We welcome the introduction of the TRUCK SAFE rating as our roads carry two-thirds of freight. This work by Euro NCAP will help make our roads even safer. We continue to work with freight companies and other partners to achieve our ambition of making sure no-one is harmed on our roads.”

Steve Phillips, Secretary-General, Conference of European Directors of Roads (CEDR)

“CEDR really welcomes the opportunity to work with Euro NCAP on developing safety criteria for trucks. It's absolutely vital that we break down the silos and embrace the safe system approach because we all want safe trucks with safe drivers on safe roads.”

Andre Seeck, Head of Automotive Engineering, BASt (Federal Highway Research Institute)

“As a representative of the German Ministry of Transport and the Board of Directors of Euro NCAP, I have campaigned for the safety of Heavy Goods Vehicles (HGVs) to now also be assessed by Euro NCAP. I am therefore delighted to be able to attend the publication of the first results as a panelist on 20 November and emphasise the importance of this vehicle class for road safety in Europe.”

Stephen Blackmore, Driver Safety & Fuel Performance Management, Turners Distribution

“Turners’ dedication to the safety of our drivers and all road users guides us in making informed decisions when choosing safer trucks. Our support for Euro NCAP’s TRUCK SAFE programme reflects our commitment to advancing the haulage industry toward safer roadways. As a recognised leader in the sector, Turners is proud to set an example in prioritising safety across our fleet.”

Luca Pascotto, Head of Road Safety and Global Advocacy, FIA

“Euro NCAP has led the development of safety design and performance in passenger cars over the last two decades. It is a historical step forward for this testing organisation to include commercial vehicles as part of their assessment. Commercial vehicles are an essential part of global supply chains. When companies upgrade and demonstrate the higher safety performance of their fleets using the Euro NCAP TRUCK SAFE Rating, this will lead to recognition and a higher level of achievement in the FIA's Road Safety Index Score. I am looking forward to our future collaboration and presenting at the TRUCK SAFE Results Event on 20 November 2024.”

Rikard Fredriksson, Senior Expert in Road Safety, Trafikverket

“At Trafikverket and in Sweden, we have definitely felt an urgent need for improving the safety of heavy trucks. In Sweden, heavy trucks represent 6% of traffic, but are involved in 20% of fatal road crashes. In 90% of those crashes, it is not the truck driver that is fatally injured. We are strongly backing Euro NCAP's TRUCK SAFE programme, which we believe is a necessity to reach Vision Zero, and an important tool for fleet owners and transport buyers to set higher safety requirements. We predict that this programme will make a significant difference to reducing fatalities on European roads.”

Sara Forsberg, Chief Technical Officer, Scania

“Our commitment at Scania is to prioritise road safety, and we applaud Euro NCAP's extended safety assessments to heavy trucks. This new rating system will elevate industry standards, fostering meaningful advancements that benefit all road users.”

Testing Backgrounder

Euro NCAP launched LCV ratings in 2020. TRUCK SAFE is a development focused on the HGV class to extend the scope of commercial vehicle safety in the drive towards Vision Zero.

Today's test protocols are focused on active safety such visibility and crash avoidance systems. Consistent with the approach applied to other vehicle classes, passive safety (ie crash protection tests) will form part of the HGV evaluation protocol from 2030. All test protocols are updated on a three-year cycle.

Testing protocols are adapted from Euro NCAP car assessment and regulation. Testing is carried out at various specialist and accredited test houses across Europe.

Test procedures:

Direct Vision

- Addressing close proximity manoeuvring collisions with Vulnerable Road Users

Indirect Vision

- Addressing Vulnerable Road Users and vehicle collisions outside of direct vision

Driver Monitoring

- Addressing seat belt wearing and driver attentiveness

Speed Assistance

- Addressing HGV speeding

Automated Emergency Braking

- AEB Truck to Pedestrian
- AEB Truck to Car
- Addressing pedestrian crossing and inline crashes

AEB Cyclist including junctions

- Addressing cyclist crossing, inline and nearside turn crashes
- Addressing front-to-rear collisions with other vehicles

Lane Support

- Addressing highway and rural road lane departure

Emergency Lane Keeping

- Addressing lane change crashes involving overtaking vehicles

Rescue Information

- Access to occupants within the Golden Hour

Editor's note

For full results, visit [Euro NCAP's newsroom](#) for journalists or click [TRUCKSAFEresults](#)

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About Euro NCAP

Euro NCAP carries out safety assessments on new cars, trucks and vans, offering consumers, policymakers and industry realistic and independent insights into the safety performance of some of the most popular vehicles sold in Europe. Established in 1997 and backed by several European Governments, motoring, consumer and insurance organizations, Euro NCAP has rapidly become a catalyst for encouraging significant safety improvements to new vehicle design.

Euro NCAP ratings strictly apply to vehicles of the specifications offered in Europe. The ratings do not necessarily apply to models offered in other regions, even when sold under an identical name, as production specification and equipment may vary.