Volvo Trucks launches upgraded Volvo Dynamic Steering system to increase road safety

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Volvo has further refined its renowned dynamic steering system with a new function that can detect a tire blowout and immediately take action to keep the truck safely on the road.

The new generation of Volvo Dynamic Steering is designed to detect a front tire puncture and in a split second automatically mitigate the impact by assisting the driver to keep the truck on a steady course. The system reduces the side forces that a sudden loss of tire air pressure can create in the case of a flat tire.



Volvo Dynamic Steering increases road safety and relieves the stress and strain for drivers

This new function adds to the list of Volvo Dynamic Steering benefits, for instance lowering the needed steering force at low speed by 75% – a major benefit for truck drivers as it reduces stress and strain when spending long hours in the drivers' seat. Volvo Dynamic Steering has assisted truck drivers around the world to drive effortlessly and safely ever since the first generation of the system was introduced in 2013.

"A flat tire can easily cause a truck to suddenly veer to the side and the consequences can be fatal. This innovation improves safety for drivers and surrounding road users and makes our Volvo Dynamic Steering system better than ever," says Anna Wrige Berling, Traffic Safety Director, Volvo Trucks.

Mitigating safety hazards - keeps the truck on track

When a tire blowout occurs on a front wheel, the initial puncture and the escaping air typically cause the front wheels to steer and the vehicle to tilt which will make the vehicle deviate from its course. Without any support systems, it would be up to the driver to immediately seize control of the steering wheel to avoid an incident, however statistics shows that this is a very difficult situation to handle.

Volvo Dynamic Steering can assist the driver in keeping the truck in the lane. If the system detects a front flat tire, it does not wait for the symptom to occur – this means a more rapid reaction.

Preventing driver fatigue and physical strain

Volvo Dynamic Steering not only supports emergency situations like tire failure, but it also helps drivers maintain effective maneuvering, steering control, and stability under various speeds and road conditions.

Truck driving can be the cause of long-term occupational hazards in the form of physical strain and driver fatigue, particularly to the driver's neck, back and shoulders. This is caused by long hours sitting in one spot, exposed to vibrations and having to continuously make small adjustments to the steering due to different road conditions. Volvo Dynamic Steering reduces the vibration levels and can adapt the steering to different road conditions.

The upgraded Volvo Dynamic Steering is available for Volvo's FH, FH Aero, FMX and FM models and customers can obtain more detailed information on local availability from their nearest Volvo retailer.

Volvo Dynamic Steering is designed to:

- Detect and reduce involuntary steering movements
- Automatically compensate for unevenness in the road surface and eliminate vibrations.
- Detect skidding tendencies and automatically provide light counter steering assistance to help stabilize the vehicle.
- Detect lane departures and provide gentle counter-steering and vibration alerts to the driver.
- Relieve the stress and strain on the driver's back, neck and shoulders by reducing the need for continuous steering adjustments and corrections.

More facts about Volvo Dynamic Steering:

- When driving at low speed, the needed steering wheel force is reduced by about 75 per cent a major benefit when reversing and in close-quarter maneuvering.
- At higher speeds, the truck maintains its direction even on poor surfaces and in strong side-winds.
- The steering wheel automatically self-centers as soon as the driver's grip on the wheel lightens.
- The technology is based on the truck's hydraulic power steering, assisted by an electronically regulated electric motor that continuously adjusts steering and provides added turning force when needed.
- The system is available in combination with the Stability Assist function, providing light steering wheel assistance to stabilize the vehicle in when detecting skidding tendencies
- It can also be combined with a Lane Keeping Assist function, supporting the driver to keep the truck on track when detecting a deviation from the intended direction
- Another system that is based on Volvo Dynamic Steering is Pilot Assist which continuously monitors the truck's position on the road and provides continuous active steering support. It also monitors the vehicle ahead to ensure a safe distance.
- Volvo Dynamic Steering can be customized with personal settings which allows individual adjustment of steering wheel resistance and responsiveness for convenient and comfortable driving. Drivers can choose from pre-programmed settings that are designed to deliver optimal steering for different road types and situations or freely adjust different parameters for full customization.

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