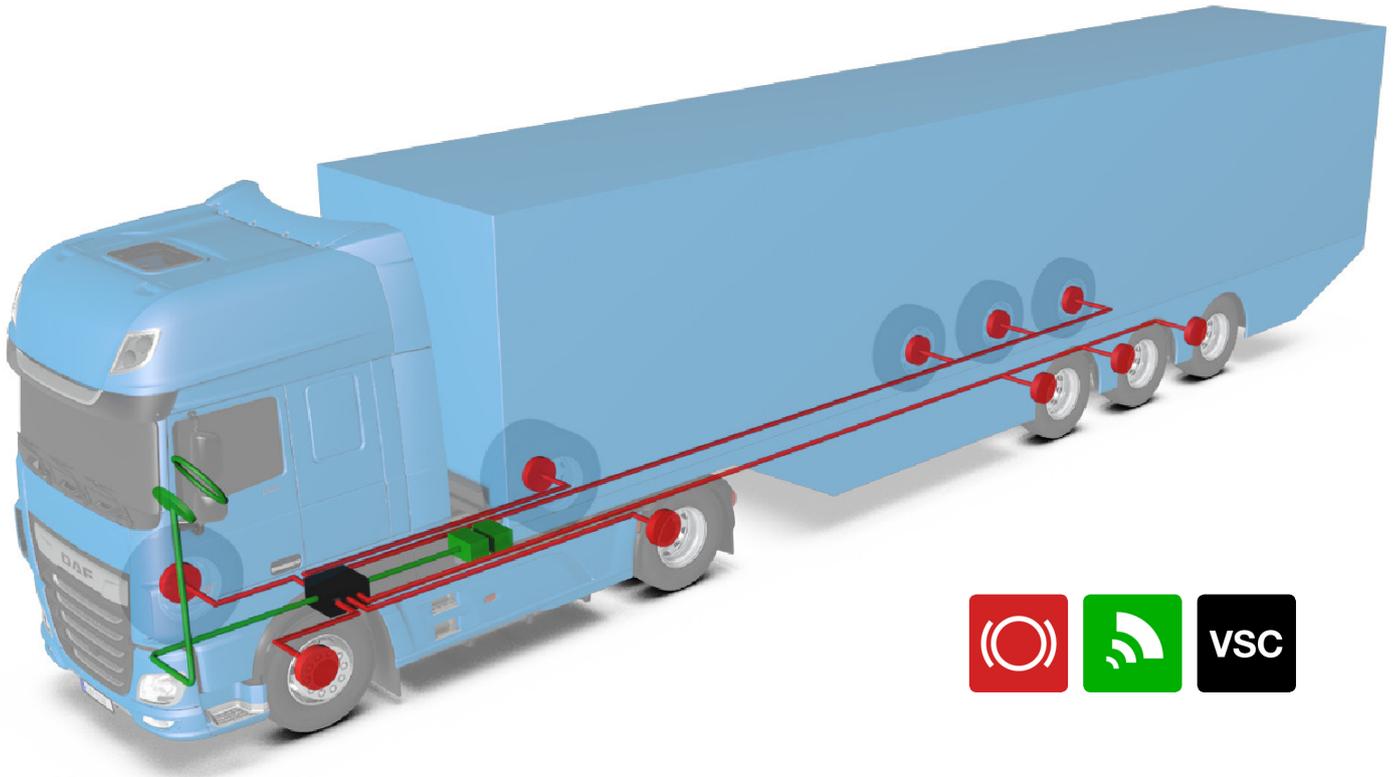


# DAF - Vehicle Stability Control

Keeps you on the road



## What is Vehicle Stability Control?

Vehicle Stability Control (VSC) is an electronic active safety system that helps the driver to stay in control of his vehicle during a critical manoeuvre, such as swerving to avoid an obstacle or strong steering in an unanticipated tight corner.

VSC strongly reduces the risk of a sudden roll-over that particularly hangs over tankers and vehicles with a high centre of gravity, during cornering or quick lane change manoeuvres. Secondly, VSC significantly reduces the risk of jack-knifing.

VSC continuously monitors the driver's steering input against the direction of the vehicle. When they do not match, VSC will automatically reduce engine power and if necessary actuate the brakes at one or more wheels for short periods of time.

## Advantages of VSC

VSC can prevent many types of crashes, but is especially effective in preventing single vehicle crashes that result from a loss of control. VSC can save the life of your driver and that of other roadusers. This by itself should be enough reason to have VSC on your truck.

But there is more. A badly crashed vehicle in the news, with the name of your own firm or that of your customer clearly legible on it, will not contribute to a sound company reputation.

Consequential losses may result in various areas:

- loss of goods, damaged goods, late delivery
- vehicle recovery and vehicle damage
- traffic jams and damage to the road
- environmental consequences

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## How does VSC work?

The VSC system uses several sensors to determine what the driver wants (steering wheel angle sensor) and to measure how the vehicle reacts on the driver's input (yaw rate sensor, lateral acceleration sensor and wheel speed sensors). If a potential loss of vehicle control is detected, VSC automatically cuts engine throttle and if necessary applies brake pressure to the appropriate wheel(s), to help bring the vehicle back in line with the driver's intended path.

## Lateral instability

Lateral instability may result from slippery road conditions or excessive speed in a curve, and from pulling the vehicle back on the road from a soft shoulder.



In case of understeer the front of the vehicle slides to the outside edge of the curve and if uncorrected, will leave the road. VSC will apply the brakes at the curve-inside wheels to bring the tractor back on its intended path.

In case of oversteer the driven axle slides to the outside edge, causing the front of the vehicle to move to the inside edge of the curve. Excessive oversteer may result in jack-knifing. VSC will correct the oversteer tendency by strongly applying the trailer brakes (stretching the combination) and by braking of the appropriate tractor wheels (to support the steering wheels).

## Vertical instability

Vehicle roll-over may be induced by high speed cornering on motorway exits, but can also occur at lower speeds, as a result of too fast or too strong steering inputs from the driver. The latter may occur during evasive quick lane change manoeuvres. In case of an impending roll-over VSC will apply brakes and reduce engine torque to slow the combination down, back to safe operating conditions.