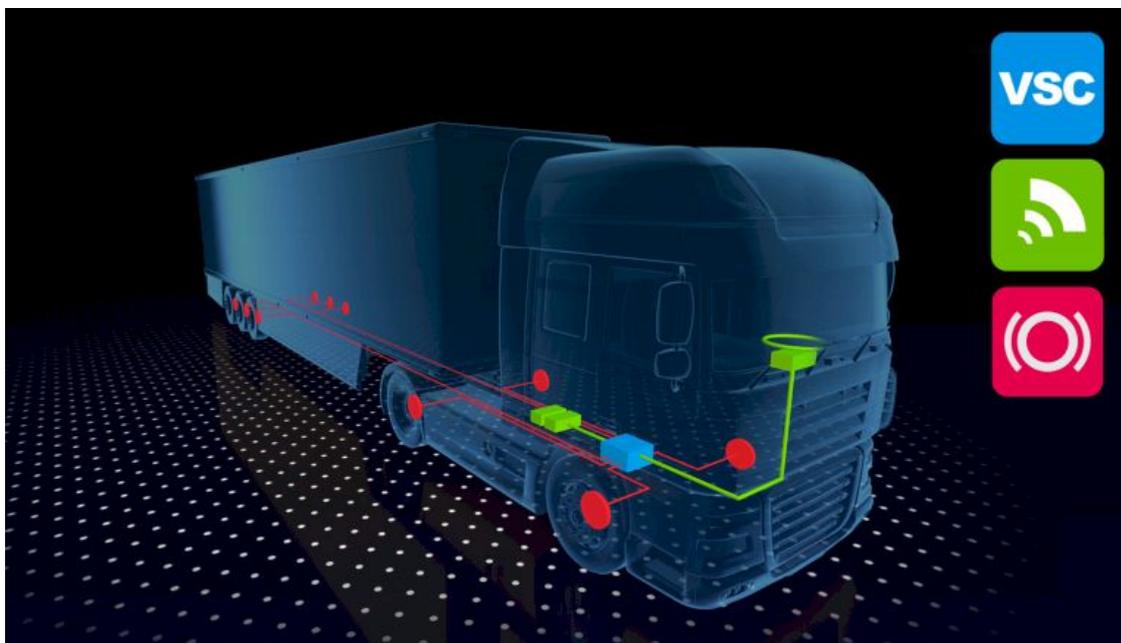


DAF - Vehicle Stability Control

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 their vehicle during a critical manoeuvre, such as swerving to avoid an obstacle or strong steering in an unanticipated tight corner.

VSC assists in preventing sudden roll-overs during cornering or quick lane change manoeuvres that particularly apply to tankers and vehicles with a high centre of gravity. 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.

Why would I specify VSC on my vehicle?

VSC can prevent many types of crashes, but is especially effective in preventing single vehicle crashes that result from a loss of control.

VSC has the potential to save the life of your driver and that of other road users. This by itself should be reason enough to have VSC on your truck.

Your company's reputation may also be damaged when vehicles in serious traffic accidents are highlighted and exposed by the media.



Consequential losses may result in:

- loss of life
- lengthy legal procedures and costs
- 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 the case of understeer the front of the vehicle slides to the outside edge of the curve and if uncorrected will leave the road. VSC applies the brakes at the curve-inside wheels to bring the vehicle back on its intended path.

In the 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 corrects the oversteer by strongly applying the trailer brakes (stretching the combination) and by braking the appropriate prime mover wheels (to support the steering wheels).

Vertical instability

Vehicle roll-over may occur because of high speed cornering on motorway exits, but can also occur at lower speeds, as a result of quick or severe 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.