

FACT SHEET

ELECTRONIC BRAKING SYSTEM



The Electronic Braking System (EBS) is an electronically controlled anti-lock disc brake system with a number of additional features that considerably increase driving safety and driveability.

EBS is an extremely fast-acting system thanks to its electronic signal transmission. By adjusting braking force at the wheels and axles to suit the vehicle's weight distribution, EBS achieves braking with optimal characteristics.

The system precisely adjusts its responses by analysing the vehicle's current operating situation. This is done with a number of sensors that register parameters such as wheel speed, braking force and brake function.

The braking system is designed to suit both single- and combination vehicles.

There is also a pneumatic backup system consisting of two independent brake circuits. If the EBS system stops functioning for any reason, these will step in to provide good braking performance.



SAFETY

- Fast-acting system, decreases braking distance.
- Brake force distribution enhances stability and counteracts jack-knifing tendencies.
- Increased comfort and safety with Hill Start Aid and emergency brake assistance.



PRODUCTIVITY

- Reduced and more uniform wear on brakes and tyres.

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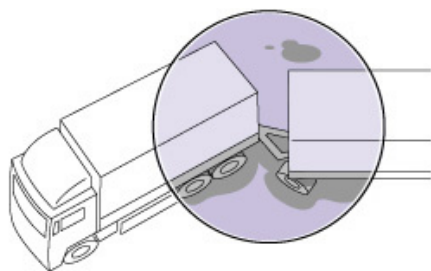
Sales variants

EBS-STD	EBS (Electronic Braking System), standard package
EBS-MED	EBS (Electronic Braking System), medium package

Fast-acting system decreases braking distance

EBS is integrated into the vehicle's own electronic architecture. The EBS control unit uses a number of electrical signals to determine brake pressure in each individual brake cylinder. This electronic control is instantaneous and gives a balanced braking performance.

Enhances stability and counteracts jack-knifing



In order to avoid instability and jack-knifing tendencies, braking force is distributed according to the principle that each axle should brake its own axle weight, and every part of the vehicle rig should brake its own weight.

Reduced and more uniform wear on brakes and tyres

The brakes used for retarding the vehicle and the way in which braking force is distributed are both optimised by the various subsystems included in EBS, such as brake blending and wear distribution.

Features

Brake assistance

Allows full braking force to be reached more quickly in emergency situations.

Anti-lock Braking System (ABS)

Prevents the wheels from locking up during hard braking.

Brake blending

Auxiliary brakes are activated and support the wheel brakes.

Poor brake performance warning

Alerts the driver if retardation is too low in relation to pedal pressure.

Brake temperature warning

Monitors brakes temperature.

Differential lock synchronisation

The driven wheels are synchronised prior to engagement of the differential lock.

EBS status recorder

Via the TEA Truck Electronic Architecture and VCADS Pro (Volvo Computer-Aided Diagnostics System).

External Brake Demand

Via other systems.

Wheel brake monitoring

Continuously checks the braking function of each wheel. A fault code is stored in the diagnostic system.

Drag torque control

Prevents the driven wheels from locking up on slippery road surfaces when the accelerator is released.

Traction Control

Anti-spin and synchronisation, distributes tractive force between the driven wheels.

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Hill Start Aid

Hill Start Aid makes it easier to start in an uphill situation, providing a smoother start and is more gentle on the driveline.

Lining Wear Sensing

Indicates when about 20% of brake lining thickness remains.

Lining Wear Control

Evens out wear between the various axles' brake linings.

For tractors there is also:

Automatic brake compensation (Coupling Force Control)

Between the tractor and the trailer.

Trailer brake

Makes it possible to carry out a safety check (by a push button) when switching trailers. Only for the Volvo FE.

Sales variants contents

Features	EBS-STD	EBS-MED
Brake assistance	•	•
ABS	•	•
Brake blending	•	•
Poor brake performance warning	•	•
Brake temperature warning	•	•
Differential lock synchronisation	•	•
EBS status recorder	•	•
External brake demand (refuse)	•	•
Wheel brake monitoring	•	•
Drag torque control	•	•
Traction control	•	•
Hill Start Aid	—	•
Lining wear sensing	—	•
Lining wear control	—	•
Coupling force control*	•	•
Trailer brake, push button* (Volvo FE only)	•	•

• Standard, - Not available

*For tractors only.