FACT SHEET

Brake software package

EBS (Electronic Brake System) package
EBS is a very fast-reacting electronically controlled brake system with a number of benefits compared to a conventional full pneumatic brake system. The EBS system ensures better brake efficiency and offers a large number of additional features such as anti-lock braking, traction, stability and brake monitoring functions.

The EBS brake system is integrated into the vehicle’s electronic architecture and the EBS control modulators use electrical signals to control the electro-pneumatic valves that regulate the air pressure in the brake cylinders. Brake pressure can then be distributed per wheel or axle depending on the situation to achieve better vehicle stability and safety.

The electronic brake system is also fitted with a full pneumatic back-up with two independent brake circuits, similar to the conventional brake system. EBS is available in two variants, EBS-STD and EBS-MED.

FEATURES AND BENEFITS
The system reacts extremely quickly, resulting in shorter braking distances. It offers a variety of functions such as:

- Electronic control adapts and optimises brake force characteristics.
- Brake force distribution, between axles and between the tractor and trailer, increases stability.
- Reduced, and more uniform, wear on brake linings and tyres.
- Brake Blending with the auxiliary brakes reduces wear on the disc brakes.
- Automatic Parking Brake Activation for high security.
EBS-STD and EBS-MED include the following systems:

ABS anti-lock brakes.

Lining Wear Sensing (LWS)* – indicates when approximately 20% of the brake lining thickness remains.

Lining Wear Control (LWC)* – evens out brakelining wear between the wheels on the same axle.

Brake Blending – the auxiliary brake function activates to supplement the wheel brakes.

Drag Torque Control** – prevents the driven wheels from locking on slippery surfaces when the throttle pedal is released.

Diff Lock Syncro (DLS) – the driven wheels are synchronised before the differential lock is engaged.

Diff Lock Control (DLC)** – automatic engagement of the differential lock at low speeds on solo and tandem rear axles.

Brake Temperature Warning*.

External Brake Demand (EBD) – allows connection of supplementary systems that require braking, e.g. adaptive cruise control.

Diagnosis via the TEA2+ – vehicle electronic system.

Traction Control System (TCS)** – anti-spin and synchronisation, distributes tractive force between the driven wheels.

Emergency Brake Assistance – increases brake pressure to optimise slowing of the vehicle and reduce braking distance.

Constant wheel brake monitoring check function.

Automatic Parking Brake Activation – the parking brake activates automatically at key-off and when vehicle is standing still.

For tractors, the following functions are also included:

Coupling Force Control (CFC) – between the tractor and the trailer.

Tilt Prevention – prevents solo tractors from tilting forward when braking on steep downhill slopes.

EBS-MED also include the following systems:

Lining Wear Analysis* – calculates the number of miles/km remaining for the brake linings.

Hill Starting Assistance – the brakes release at a certain engine torque or when the clutch pedal is released on a manual gearbox, or approximately one second after the brake pedal has been released in vehicles with an automatic gearbox.

EBS status monitoring – via the TEA2+ vehicle electronic system and TechTool.


* Not for BRAKE-ZV.
** Not for all wheel drive.