NO MORE RISK

The new Trailer Control Module+ stands for increased safety: an automatic parking brake with 'Parking Hold' prevents potentially fatal consequences from mistakes made during coupling.

TWO MISTAKES can occur during day-to-day coupling and decoupling of trailers. Each is harmless in itself. But if one mistake happens in conjunction with the other, danger is imminent.

When decoupling a trailer, as soon as the driver disconnects the compressed air supply line with the red coupling head, the service brakes of the towed unit are automatically activated. This means that the trailer is rock steady – all wheels are locked. And if the compressed air system loses air over time, the spring brake automatically engages.

Mistake Number 1: Relying on this, the driver neglects to activate the trailer parking brake separately, although this is mandatory. Or he simply forgets to do so. The correct procedure according to current technology is to pull the red knob, which activates the trailer spring brake.

Mistake Number 2: During coupling, the red coupling head is connected first instead of the yellow one. This means that compressed air flows from the tractor unit into the supply line, and immediately releases the trailer brakes if Mistake Number 1 was made.

Suddenly, the trailer is the source of several different risks. If the driver has not yet mechanically connected the tractor unit and the trailer, and if the two are parked on a slope, the trailer can crush the man on the deck against the rear wall of the cab. The other possibility is equally bad – if the trailer rolls backwards, it can threaten other people or traffic.

The figures speak for themselves: incorrectly connecting the red coupling first instead of the yellow results in one death per year for every 3,500 trailers.

A new additional function in the Trailer Control Module+ (TrCM+) addresses this precise problem, and reliably prevents such accidents in the future. The new feature called 'Parking Hold' works like this: When the driver mistakenly connects the red coupling head first instead of the yellow, the service brake of the trailer releases, but at the same time, the spring brake is automatically activated.

The parking valve (red knob) then goes into the venting position. This can be confirmed visually because the parking brake's red knob is automatically extended.

Important: Above all, when there is little pressure in the system, this knob must be pressed for about ten seconds; otherwise, it can pop out and the spring brake will continue to operate. In general, the driver must ensure that the driving position has been activated before driving off; otherwise, the wheels that have been locked by the spring brake will remain locked.

Measures have also been taken to ensure that the spring brake does not overcompensate in a true braking emergency. Not only the trailer brake valve but the parking valve is also equipped with an emergency braking function. It is precisely this function that could cause the spring brake, in addition to the service brake, to engage if, for example, the supply line tears or breaks.

However, this could inhibit the functioning of an ABS, EBS or ALR braking system and, in extreme cases, lead to locked wheels and trailer skid. To prevent this, Haldex has integrated two-way valves that guarantee regular emergency braking.

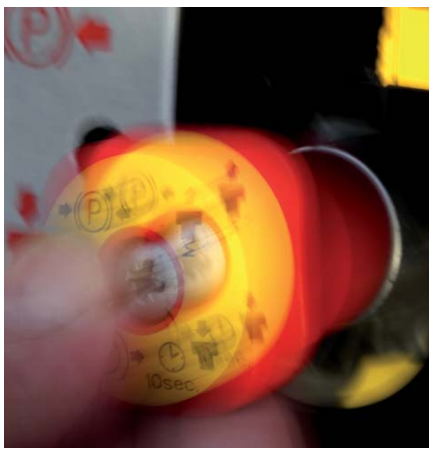
So, in an emergency, the spring brake is generally under full pressure and, initially, not involved in the braking procedure. This means that the trailer's service brake system can operate in ABS mode, which is advantageous if the road surface is slippery. ■

THREE IN ONE

Even with the additional 'Parking Hold' function, the Trailer Control Module+ continues to fulfil the combined park and shunt valve, emergency braking and pressure protection valve functions. This means that the trailer manufacturer needs to install only one valve instead of three. The customer benefits from a tidier structure on the trailer chassis, which makes installation, maintenance and repair much easier.

THE TrCM+ COMBINES MORE FEATURES THAN EVER.

IF CONNECTED INCORRECTLY, TrCM+ AUTOMATICALLY ACTIVATES THE PARKING BRAKE.



THE SPRING BRAKE RELEASES ONLY WHEN THE RED KNOB IS PRESSED.

EASY-TO-UNDERSTAND PICTOGRAMS EXPLAIN THE NEW FUNCTION.