



The new Brake Assist system from Hamm enhances safety in road construction: High-performance LiDAR sensors are mounted on the roof of the tandem rollers to detect people, objects and obstacles.

IMAGE SOURCE: WIRTGEN GROUP

Brake Assist promotes safety on construction sites

30 September 2026 by Hamm (WIRTGEN Group)

- Hamm introduces the Brake Assist system for its HX series tandem rollers to improve construction site safety.
- The system uses high-performance LiDAR sensors to continuously monitor surroundings and detect obstacles.
- Brake Assist automatically executes a controlled three-stage braking process to prevent or mitigate collisions.

- Designed to support operators without interfering with normal work, it actively enhances safety beyond standard warning alerts.

The next driver assistance system for the HX series

With its new Brake Assist system, Hamm is offering yet another solution for improved safety on construction sites. The assistance system detects potential collision risks and, in an emergency, slows the machine down or brings it to a complete stop. Brake Assist is initially being introduced on the tandem rollers in the HX series, with further models to follow.

Increasing demands on safety standards

Asphalt construction sites are among the most challenging working environments in the construction industry. Heavy machinery often moves around in confined spaces, while surveying, testing and operating personnel are present in the immediate working area at the same time. Particularly when working with rollers, people and machines must work together effectively to ensure the required paving quality. Additional challenges arise from high asphalt temperatures, changing weather conditions, restricted visibility and noise emissions. At the same time, evaporation, the build-up of vapours, blind spots and heavy construction site traffic make it difficult to spot potential hazards. Under these conditions, even brief moments of inattention or unexpected movements in the vicinity of machinery may lead to critical situations. As modern construction sites become increasingly complex, the demands placed on technical safety solutions are also rising. Construction companies are increasingly looking for systems that actively support machine operators and provide additional layers of safety. The new Brake Assist helps the operator to spot hazards at an early stage and intervenes automatically in an emergency.

Brake Assist with state-of-the-art sensors

At the heart of the new assistance system are high-performance LiDAR sensors that continuously scan and monitor the machine's surroundings. The sensors generate a precise real-time image of the immediate vicinity of the machine, detecting people, objects or other obstacles in the machine's path. If an obstacle approaches the defined danger zone, the system reacts automatically: The Brake Assist assesses the situation within a fraction of a second and, if necessary, automatically initiates a three-stage controlled braking manoeuvre. At first, only the machine's speed is reduced. If the obstacle does not move out of the danger zone or continues to approach the machine, the machine is braked in a controlled manner until it

comes to a complete stop. If an emergency situation arises, the machine initiates an emergency stop. Various parameters, such as the direction of travel, the current speed, the set working width, the track offset and the steering angle are analysed for this. The operator remains involved in the work process at all times, but is provided with an additional layer of safety for situations in which people, vehicles or obstacles unexpectedly enter the working area. Thanks to the system's active intervention, collisions can be prevented or their consequences significantly minimised.

The Brake Assist is also designed to not interfere with the operator's normal working routine.

Identifying risks and responding to them

With this intelligent combination of object detection and automatic braking, Hamm's Brake Assist goes beyond traditional warning systems. Instead of simply flagging up hazards, the system actively helps to defuse critical situations and improve safety on construction sites.

Source: WIRTGEN GROUP

ROLLERS

TANDEM ROLLERS