

HD+ SERIES | HAMM



HD+ SERIES | HIGHLIGHTS

## **OVERVIEW OF THE HIGHLIGHTS**

## Perfectly equipped

## Operation and comfort

- > Plenty of room and a high level of comfort
- > Ergonomically optimal working conditions
- > Safe, intuitive operation thanks to clear, language-neutral operating elements

## 02 Visibility

- > Safe, high-quality compaction thanks to an excellent overview of the machine and construction site environment from every sitting position
- > Bright, energy-saving lighting

## 03 Compaction

- > Outstanding evenness thanks to large drum diameters
- > High-quality, fast compaction thanks to the wide drums and high operating weight
- > Homogeneous compaction thanks to even weight distribution

## 04 Water-sprinkling system

- > Large tanks allow for long working periods
- > Sprinkling with precision adjustment
- > Clearly visible spray nozzles

## 05 3-point articulation

- > Even weight distribution
- > First-rate directional stability
- > Outstanding driving stability



HD+ SERIES | COMFORT

## XXL WORK-STATION

Plenty of space for good work

### **Comfort and ergonomics**

The workstation on the HD+ provides optimum prerequisites for focused work. Drivers access the XXL operator's platform and the panoramic cabin of the HD+ via a wide step with broad footplates. The comfort doesn't stop there: As standard, the driver's seat can be rotated and moved sideways right up to the edge, while its height and suspension can be adjusted. The seat has two armrests and can be supplied with a backrest extension and fabric covers. The steering column can be tilted if required, making climbing into the machine incredibly easy.

The different equipment variants of the HD+ also offer other practical features like the USB charging port, 12 V sockets, plenty of storage space, a cup holder and fresh air nozzles. On request, a mobile cool box can also be provided as well as a lunch box holder in all ROPS machines.

## 01 Ergonomics

> The tilt of the steering column with dashboard and steering wheel can be adjusted in small increments

#### 02 Operator's platform

- > Open platform with handrail, either with or without ROPS bracket and/or protective roof
- > ROPS cabin with split or non-split door

## 03 Ventilation

- > Air outlets for agreeable temperature control and supply of fresh air
- > Ventilation slots for fast de-icing

#### 04 Driver's seat

> Can be moved sideways and rotated in both directions

**Heating** as standard in the cabin, air-conditioning optional

**ROPS**as standard for all cabi

**XXL panoramic cabin** spacious, with a lot of headroom

Step on both sides for easy access in any situation



HD+ SERIES | **OPERATION** 

## SIMPLY FOLLOW YOUR INTUITION

Work safely and efficiently

### Simply logical, simply language-neutral

Straightforward operation is one of the hallmarks of the HAMM rollers. One of the key elements: No language knowledge is needed to understand the displays. Clear symbols and the logical layout are a major contribution to intuitive operation.

The HD+ also impresses in terms of its ergonomics. For example, the seat in the HD+ series of tandem rollers is permanently attached to the steering column including the dashboard. As a result, all of the displays remain within the driver's field of vision in any sitting position. The HD+ series tandem rollers are steered using the steering wheel.

#### **Clear and structured**

All HD+ series models with Tier 3 engines are equipped with a clearly structured dashboard. This is where all of the important displays and operating elements are arranged logically. Less important or less frequently used operating elements are positioned at the front of the cabin or at ceiling height.

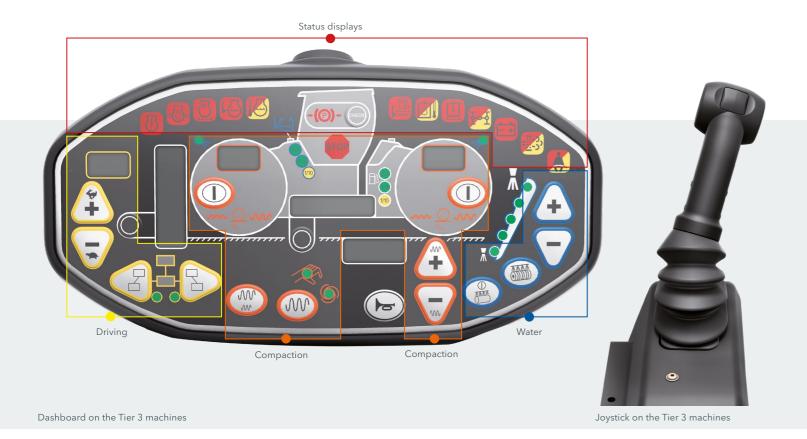
The drive control is actuated via a joystick on the driver's seat.

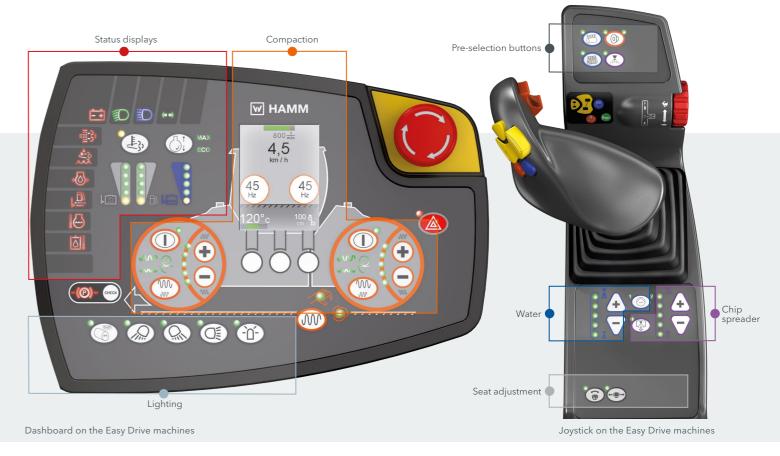
#### Easy Drive: Now even simpler and more user-friendly

The innovative "Easy Drive" operating concept from HAMM combines intuitive operation with clear user guidance and optimum ergonomics. In the HD+ series, all models from an operating weight of 9 t and above with engines in accordance with EPA Tier 4/EU Stage V are equipped with an Easy Drive operator's platform. It stands out thanks to its simple, very easy-to-learn operation and ergonomically optimised features. The multifunction armrest with joystick can optionally be folded back.

The drive control is actuated in the rollers with Easy Drive via an electric joystick on the multifunction armrest. The driver has the important buttons in their field of vision at all times. The idea behind all other operating elements is that, the more often they are used, the closer to the joystick they are located.







The status displays are grouped together on the dashboard next to the steering wheel. This is where the buttons that are only occasionally used are positioned. The displays and buttons are colour-coded. The principle behind all HAMM rollers with Easy Drive is: Same colour = same functional group.

The arrangement of the buttons on the joystick ensures that controlling the system is intuitive. The functions are preselected at the top and adjusted at the bottom.

### HD+ SERIES | VISIBILITY

## **EXCELLENT VIEW**

Everything in view, everything under control

## The basis for top-class work

The large operator's platform provides an unobstructed view of the working area directly around the roller as well as the surrounding construction site. Neither the exhaust pipe nor side rails interfere with the view. A camera system can also be installed on request. This visibility contributes to the compaction quality and ensures a high level of safety.

Fully glazed panoramic cabin with large, wide-opening doors.

HD+140i OSCILLATION

#### Ready to go - by day or night

See and be seen - important criteria for quality and safety when working at night. There are four bright lights (halogen or LED) on the frame and roof or cabin of the HD+ for this purpose. They illuminate an extensive area around the roller, thus enabling work to be carried out just as accurately and safely after dark and in tunnels as it is in daylight.

Additional LED lighting on the drum edges and tyres ensures optimum illumination of the areas next to the roller.

The Coming Home function provides additional safety:
After switching off the machine, the light remains switched on for a brief period before the spotlights are deactivated automatically. The illuminated area around the roller makes it easier for drivers to find their way back in the dark.



The open frame and the shape of the tanks provide an unobstructed view of the area directly in front of the drums.



From a bird's-eye view, it's clear: This operator's platform offers an excellent view of the construction site.

HD+ SERIES | COMPACTION 12 | 13

## **NO COMPROMISES**

High-quality and cost-effective compaction

The perfect interplay between articulated joint, vibration and oscillation drives and the powerful water-sprinkling system is the prerequisite for high-quality compaction. For finishing, the HD+ series rollers can be equipped with a chip spreader and edge pressing and cutting device.

#### **Quality factor: Compaction parameters**

In addition to the usual adjustment of vibration frequency, many HD+ models offer yet another special option:
The frequency and amplitude of each drum can be set independently, allowing the compaction parameters to be very easily adapted to each construction site and type of asphalt.



#### **Dynamic compaction**

The rollers compact the ground or asphalt because their weight acts on the substrate during the double pass. If the drums are caused to vibrate at the same time, the compaction effect increases significantly. Dynamic compaction with vibration and oscillation utilises this effect.

#### Vibration

During vibration, the drum performs a fast, circular movement. This results in the compaction energy being directed vertically into the ground, achieving a powerful depth effect.

#### Oscillation

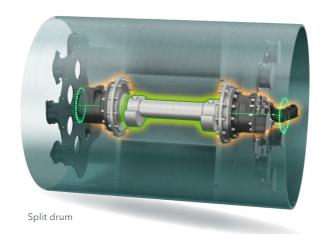
During oscillation, the drum performs a rapidly alternating forwards/backwards rotational movement. This introduces the compaction energy tangentially to the front and back and into the substrate. In contrast to a vibrating roller drum, it acts dynamically on the substrate all the time. It is always in contact with the ground. This also results in constant static compaction using the machine weight.

#### **HAMM** > ADVANTAGES OF OSCILLATION

#### Efficient and cost-effective compaction

- > High level of compaction power
- > Fewer passes
- > No over-compaction
- > Homogeneous, level carriageways
- > Dynamic compaction, even in vibration-sensitive areas
- > Efficient, even at low asphalt or ambient temperatures
- > Low noise level and reduced vibration
- > Maintenance-free





#### **Split drums**

In split drums, both halves rotate at different speeds while cornering. This actively prevents material displacement and cracks. They are used to produce homogeneous surfaces without cracks, even in tight curves. The rollers therefore meet the most demanding requirements for asphalt compaction.

#### **Power Hybrid**

The HD+ 90i PH has a power hybrid drive – a combination of hydraulic accumulator and diesel engine. The combustion engine supplies the power (55.4 kW) for the base load. The hydraulic system is similar to a pumped storage power station: As soon as the combustion engine stops working under full load, a pump starts to fill a hydraulic accumulator. As soon as peak loads occur, the hydraulic system supplies a short-term load of around 20 kW as an auxiliary drive.



## **ALWAYS ENOUGH WATER**

Large tanks and reliable system



### **Quality factor: Water-sprinkling system**

The HD+ series rollers are equipped for long working days without needing to refuel. They have two large water tanks for this purpose.

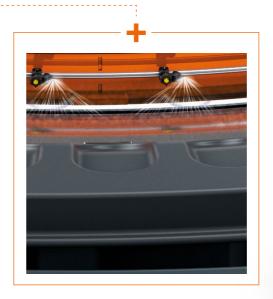
The driver can precisely set how much water to supply. The water supply is then controlled automatically depending on the working speed. Two alternately operating water pumps, an optional anti-freeze filling system and a triple filter ensure maximum system availability.

The position and mounting of the spray bars also help to ensure high quality: They are positioned in front of the cross-beam so that the driver has the sprinkling system in view at all times and can quickly adjust the water volume. In addition, the spray bars are secured to both drums in such an ingenious way that they can be mounted and removed in a matter of moments. The same applies to the individual spray nozzles.

#### **Additive sprinkling: Precise and economical**

With an intelligent solution, HAMM ensures that additive is used economically yet appropriately on the combination rollers with Easy Drive: The concentrate is added in a separate tank and the system only mixes the additive with water when it is needed.

The driver can regulate the dosage in different levels from the operator's platform. The additive is mixed automatically during the compaction process in accordance with the specification. This eliminates the need for manual premixing and the risk of decomposition, while enabling extremely precise dosing.





HD+ SERIES | **DRIVING AND STEERING** 16 | 17

## **MASTERS ANY SITUATION**

Drive and steer safely and precisely

## **Quality factor: Articulated joint**

The 3-point articulation developed by HAMM with its special kinematics is the key to the rollers' outstanding driving behaviour. It guarantees extremely even weight distribution, first-rate directional stability and a high level of stability when cornering, combined with excellent safety against overturning. This benefit is particularly apparent when compacting in curves. Surfaces with impeccable evenness and no deformations are produced rapidly.





#### **Easy manoeuvring**

The HD+ has an exceptionally large track offset for articulated rollers. It enables clean, simple manoeuvring, compacting the entire area right up to the edge. This makes precise edgefinishing possible. The elevated drum suspension also ensures maximum side clearance.

### **Reliable drive control**

The drive control is operated using the joystick and steering wheel. Many features ensure quality on the one hand and safety on the other. For example, the maximum speed can be infinitely variably preselected using the rotary knob. After doing so, the driver can devote their full concentration to the compaction process: The automatic mechanism takes charge of shifting gears, braking and accelerating. This is the perfect prerequisite for smooth, even surfaces.

#### Top performance, even on steep slopes

The HD+ series rollers master even steep inclines safely and without any hassle. This is ensured by the effective anti-slip control paired with high torques.

18 | 19 HD+ SERIES | SERVICING / ASSETS

## **EFFICIENT MAINTENANCE**

Achieved in just a few steps



#### **Efficient service**

To ensure fast and thorough servicing, HAMM uses the WIRTGEN GROUP's WIDIAG service diagnostics tool. The interface for this system is easily accessible in the multifunction armrest.

The HD+ series rollers can be equipped with the JD Link telematics system for remote diagnostics and efficient fleet management.

#### Maintenance quickly completed

The HD+ is fast and easy to service. This is the best way to ensure that the roller is serviced on a regular basis!

With long maintenance intervals and few maintenance points, HAMM makes life easier for workshop staff. What's more, all points requiring routine maintenance are grouped together on the same side of the machine. A large, wide-opening door to the engine compartment provides optimum access to the filters and dipsticks.

### Easy access

> Filters and dipsticks are easily accessible through the wide-opening door

#### Servicing access

> Folding step on the drums for easy filling

#### Scraper

> Easy-to-replace scrapers





#### Design

Since the 1980s, HAMM has considered design to be a crucial element in product development. And this has proven to be a successful move, as illustrated by the fact that HAMM has, to date, won close to 40 international design and innovation awards, making it the front runner in the construction industry.



## HAMMTRONIC 🔯



The HAMMTRONIC electronic machine management system monitors all engine and driving functions. It automatically adjusts the travel drive, the vibration or oscillation drive and the engine speed to the current operating conditions. This reduces fuel consumption as well as exhaust and noise emissions.



### Environmental protection at every stage



On the construction site, HAMM rollers are impressive thanks to their low fuel consumption. What's more, most models can not only be operated with diesel, but also with non-fossil fuels. HAMM AG's main plant is certified in accordance with ISO 14001, meaning that HAMM is constantly striving to reduce emissions and the use of resources even in the production of rollers.



#### **Easy Drive**

Intuitive operation is at the heart of the Easy Drive operating concept. It is easy to learn and employs the same operating logic in all Easy Drive rollers in which it is installed. In addition, the ergonomically optimised operator's platforms ensure the driver always adopts a healthy posture and seating position.



## Smart Compaction



With Smart Compaction, HAMM has brought together all the key elements required for digitally supported compaction. The systems record relevant parameters as well as position data and use graphs to display work progress. The data can also be exported into a variety of formats for analysis and documentation.

## **OPTIONS FOR EVERY EVENTUALITY**

Tailored for all applications and regions

HAMM has thought of everything. Thanks to numerous additional options, the rollers can be precisely adapted to the requirements.

### Automatic engine-off function

Automatic engine cut-off after an extended period of inactivity. Saves fuel and hence operating costs.

#### Edge pressing and cutting device

Clearly visible. For precise delineation of the paths. With track indicator. Pressing rolls and cutting wheels in many sizes and diameters.

#### **Chip spreader**

Modern disc and precision spreaders. Easy operation via the joystick on the multifunction armrest. Depending on the model, with vibrating unit and tarpaulin to protect the spreading material against moisture.

#### Safety belt monitoring device

Issues an acoustic and visual warning as soon as it detects that the seat belt is not fastened.

#### **Process data interface**

Enables continuous compaction control data to be easily exported to all common documentation systems.

#### **HTM (HAMM Temperature Meter)**

Measures the surface temperature of the asphalt and displays this on the dashboard.

## Smart Doc



Smartphone app for compaction control. Helps the driver by providing "compaction maps" with a graphic depiction of the compaction status.

#### **Camera system**

Camera on the cabin with a separate display.



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### **Training**

Staff responsible for the WIRTGEN GROUP's product brands are specialists in their areas and have decades of application experience. Our customers also greatly benefit from these experts. In our WIRTGEN GROUP training courses, we gladly pass on our knowledge to operators and service personnel.

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#### Telematics solutions

Construction machines with leading technology and perfected telematics solutions work hand-in-hand in the WIRTGEN GROUP. Intelligent monitoring systems such as WITOS or JD Link\* not only facilitate the maintenance planning of your machines but also increase productivity and economy.

> www.wirtgen-group.com/telematics

\* WITOS and JD Link are not currently available in all countries. Please consult your responsible branch or dealer if you have any questions in this area.

HD+ SERIES | **TECHNICAL SPECIFICATIONS** 



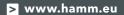




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