

First-class compaction **HD+ SERIES** 



# **READY FOR BIG JOBS**

High-quality and cost-effective compaction

Founded in 1878, HAMM has focused on the manufacture of rollers for road construction since the beginning of the 20th century. From that time on, HAMM has been the driving force and trendsetter in the industry. Many technologies and solutions that have become the standard in the compaction sector were developed by HAMM. VV)

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Everything about the HD+ series rollers is geared to performance: The generously sized tanks and the large drum diameters, as well as the powerful travel and vibration drives. Thanks to HAMMTRONIC and many other intelligent solutions, the HD+ is very economical to use. It also offers excellent driving and handling characteristics. These rollers are therefore the best choice for both large surfaces and narrower spaces within the city.

The HD+ series is also equipped for the digital future: It can communicate via integrated interfaces with Smart Doc from HAMM, as well as with other digital systems and applications available on the market.

## HAMM PRODUKTPROGRAMM



## ARTICULATED TANDEM ROLLERS

> Drum width: 800 - 2140 mm> Working weight: 1.5 - 14 t

# PIVOT-STEERED TANDEM ROLLERS

> Drum width: 1500 - 1680 mm> Working weight: 7 - 9 t

# COMPACTORS

> Drum width: 1370 - 2140 mm > Operating weight: 5 - 26 t

# PNEUMATIC-TYRE ROLLERS

> Width over tyres: 1127 - 1830 mm> Operating weight: 4 - 27 t



# **HIGHLIGHTS AT A GLANCE**

Perfectly equipped

# 01 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 view over the machine and construction site 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

# 06 Digital future

- > Smart Doc
- > Process data interface
- > Telematics solutions (John Deere Operations Center)



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HAMMTRONIC

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HAMM SUSTAINABILITY describes innovative technologies and solutions which are consistent with the sustainability objectives of the WIRTGEN GROUP.

# **WORKSTATION IN XXL**

Plenty of space to work well

### Comfort and ergonomics

The workstation on the HD+ offers optimal conditions for focused work. Drivers access the XXL operator's platform or the panoramic cabin of the HD+ via a wide step with broad footplates. And it doesn't end there: In the standard design, the driver's seat can be rotated and moved sideways to the edge, and the height and suspension are also adjustable. The seat has two armrests and can be delivered 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 provide other practical features, such as the USB charging port, 12 V sockets, plenty of storage space, a cup holder and fresh air nozzles. On request, a portable cool box can also be included, plus, on all ROPS machines, a lunch box holder.

### 01 Ergonomics

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

#### 02 **Operator's platform**

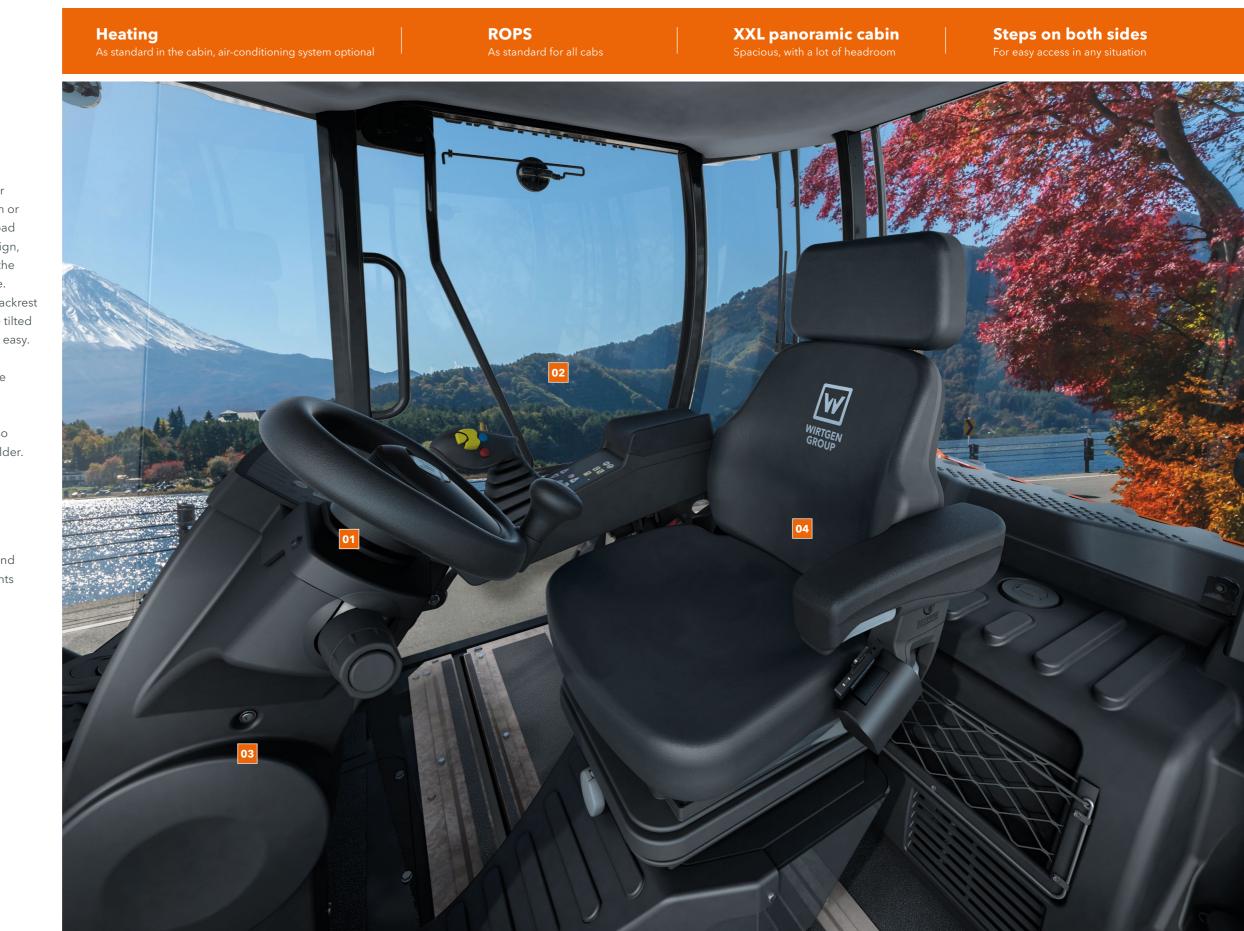
- > Open platform with handrail, either with or without ROPS bracket and/or protective roof
- > ROPS cabin with split or non-split door

#### 03 Ventilation

> Air outlets for pleasant 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



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# **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 models in the HD+ series with UN ECE R96 (EPA Tier 3) engines feature a clearly designed 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.

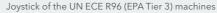
### Easy Drive: Even simpler and more user-friendly

The innovative "Easy Drive" operating concept from HAMM combines intuitive operation with clear user guidance and optimal ergonomics. All models in the HD+ series with EPA Tier 4 / EU Stage V engines are fitted with an Easy Drive operator's platform. It stands out thanks to its simple, very easy-to-learn operation and ergonomically optimized features. The multifunction armrest with joystick can be folded back, if preferred.



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 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 following applies to all other operating elements: The more often they are used, the closer they are to the joystick.

Easy

Drive

The buttons on the joystick are designed for intuitive control. The functions are preselected at the top and adjusted at the bottom.

# **EXCELLENT VISIBILITY**

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 excellent visibility contributes to the compaction quality and ensures a high level of safety.

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

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HD+140i OSCILLATION **n**O

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### Ready to go - 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, enabling work to be carried out just as accurately and safely after dark and in tunnels as it is in daylight.

On request, additional LED lighting on the drum edges and tyres ensures optimal 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.



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The open design of the machine frame and the shape of the tank ensure a clear view of the area immediately in front of the drums.



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

# **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 an edge pressing and cutting device.

### **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 substrate, achieving a powerful depth effect.

### Oscillation

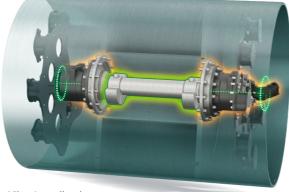
During oscillation, the drum performs a rapidly alternating forwards/backwards rotational movement. This introduces the compaction energy tangentially to the front and back and into the substrate. In contrast to a vibrating roller drum, it acts dynamically on the substrate all the time. It is always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

### VIO

With the VIO drum, HAMM combines vibration and oscillation in a single system. From inside the cabin, the operator can switch between the two compaction systems while in motion. This makes the roller particularly flexible for applications on a wide variety of construction sites.

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

In addition to the usual adjustment of vibration frequency, many HD+ models offer yet another special function: 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 each type of asphalt.



Vibrating roller drum

#### **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.

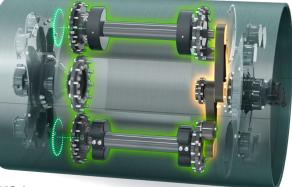


### **HAMM >** ADVANTAGES OF OSCILLATION

### 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





VIO drum

### **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.

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# **ALWAYS ENOUGH WATER**

Large tanks and more 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 fine-tune how much water is added. 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 crossbeam 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 economical and, at the same time, precise use of the additive in the combination rollers with Easy Drive: The concentrate is located in a separate tank and the system only mixes the additive with water when it is needed.

The dosage can then be adjusted to different levels from the operator's platform. The additive is added 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.



# **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 is particularly beneficial when compacting in curves. Impeccably even surfaces, free from deformations, are produced in next to no time.

> The turning circle of the HD+ is very small. This means that even the large models can manoeuvre well in tight spaces, too.



### Easy manoeuvring

The HD+ has an exceptionally large track offset for articulated rollers. It facilitates clean, simple manoeuvring, so the entire area can be compacted right up to the edges. This makes precise edge-finishing possible. The steering is reset using a state-of-the-art position measurement system to within +/- 1 cm. 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. This allows the driver to give their full concentration to the task of compacting: 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.

# **EFFICIENT MAINTENANCE**

All sorted in just a few steps



HAMM •

### **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 John Deere Operations Center<sup>™</sup> for remote diagnostics and efficient fleet management.

### Maintenance guickly 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 optimal access to the filters and dipsticks.

#### 01 Easy access

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

#### 02 Servicing access

> Folding step on the drums for easy filling

#### 03 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 approach, as illustrated by the fact that HAMM has, to date, won more than 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 gas and noise emissions.



### Environmental protection [ at every stage

On the construction site, HAMM rollers impress with their low fuel consumption. Plus, all models can be operated with either diesel or non-fossil fuels. HAMM AG's main plant is certified in accordance with ISO 14001, meaning it is constantly striving to reduce emissions and the consumption 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



Thanks to Smart Compaction, HAMM is able to offer a range of systems to support compaction. This includes solutions for comprehensive monitoring, documentation and quality assurance during compaction as well as integrated assistance systems for automatically selecting the required compaction parameters and for regulating the compaction energy.

# **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 stop

Automatic engine cut-off after an extended period of inactivity. Saves fuel and, therefore, 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 spreader (HDS) and precision spreader (HLS). With lighting and tarpaulin. Rapid installation/removal.

### Seat 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.

### **PDS interface**

Collision prevention assistance system

### HTM (HAMM Temperature Meter)

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

# Smart Doc

Smartphone app for compaction control. Helps the driver by providing "compaction maps" and presenting the compaction status in graph form.

### **Camera system**

Camera on the cabin with a separate display.



Line spreader (HLS)

Disc spreader (HDS)

# YOUR WIRTGEN GROUP **CUSTOMER SUPPORT**

Service you can rely on.

Trust our reliable, rapid support for the entire life cycle of your machine. Our wide range of services can provide you with the right solution for any challenges you may face.



### Service

We honour our service promise - with fast, straightforward assistance, whether on the construction site or at our professional workshops. Our service team is made up of highly trained experts. Thanks to our special tools, repair, maintenance and servicing are carried out swiftly. On request, we can draw up a service agreement that is tailored specifically to your needs. > www.wirtgen-group.com/service



### Training

The WIRTGEN GROUP product brands are specialists in their field and have decades of experience. Our customers, too, can benefit from this expertise. We proudly impart our knowledge to you through our WIRTGEN GROUP training scheme, with courses tailored specifically to operators and service staff.

> www.wirtgen-group.com/training

\* John Deere Operations Center™ (formerly WITOS) is not currently available in all countries. If you wish to discuss this, please contact your local subsidiary or your dealer.

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### Spare parts

Using WIRTGEN GROUP original parts and accessories, we make sure your machines are always highly reliable and available. Our experts are also on hand to offer advice on wear part solutions that are optimized for specific applications. Our parts are readily available across the globe and are easy to order.

> parts.wirtgen-group.com



#### Telematics solutions

At the WIRTGEN GROUP, technologically advanced construction machines and sophisticated telematics solutions go hand in hand. With the Operations Center\*, the platform for digital process, machine and service optimisation solutions, you can not only simplify maintenance scheduling for your machines, but also increase both productivity and profitability. > www.wirtgen-group.com/telematics

# **TECHNICAL DATA** AT A GLANCE

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# HD+ SERIES

	Basic data					
	Machine model	Weight class (t)	Drum width (mm)	Engine output (kW)	Workin width m (mm)	
2	Machines in	accordance	with the UN E	CE R96 (EPA	Tier 3) er	
	HD+ 70	7	1500	55,4	1635	
	HD+ 80	8	1680	55,4	1815	
	HD+ 90	9	1680	100	1850	
	HD+ 110	11	1680	100	1850	
	HD+ 120	12	1980	100	2150	
	HD+ 140	14	2140	100	2310	
	Machinasin				Tion 4 and	

Machines in	accordance	with the EU St	age V / EPA	Tier 4 emi
HD+ 70i	7	1500	55,4	1635
HD+ 80i	8	1680	55,4	1815
HD+ 90i PH	9	1680	55,4	1850
HD+ 90i	9	1680	85	1850
HD+ 110i	11	1680	85	1850
HD+ 120i	12	1980	115	2150
HD+ 140i	14	2140	115	2310

VV	Vibration at front - vibration at rear
VO	Vibration at front - oscillation at rear
VT	Vibration at front - set of wheels at rear
and the second	김 영화님께 가장 관계에 가장 감독을 다 있는 것이 아파 방법에 가장하는 것이 안했다. 것이 가지 않는 것이 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다. 것이 없는 것이 없 않는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 않는 것이 없는 것이 있 것이 없는 것이 없 않이 않이 않이 않 않이 않이 않이 않이 않이 않이 않이 않이 않이 않

V-VIO

VV-S VO-S VT-S



Vibration at front - VIO (vibration or oscillation) at rear Split vibration at front - split vibration at rear Split vibration at front - oscillation at rear Split vibration at front - set of wheels at rear





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For further information, scan the code or visit www.wirtgen-group.com/products-hamm

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