

HX SERIES | HAMM



## **OVERVIEW OF THE HIGHLIGHTS**

### Perfectly equipped

#### **Operation and comfort**

- > Comfortable seat operating unit, rotatable and adjustable sideways
- > Heating and air-conditioning system with excellent fresh air supply
- > Safe, intuitive operation thanks to clear, language-neutral operating elements

#### Visibility

- > Fully glazed panoramic cabin
- > Viewing pane in the floor for a view of the drums
- > Energy-saving, bright LED lighting
- > Coming Home function
- > Camera system

#### Compaction

- > Split vibration and oscillation drums
- > Homogeneous weight distribution

#### **Driving and steering**

- > Intelligent drive control with automatic reversing
- > Precise pivot steering with four steering modes
- > Extremely large track offset
- > Small turning circle
- > High gradeability

#### **Water-sprinkling system**

- > Large tank volume for long working periods
- > Sprinkling with precision adjustment
- > Easily accessible spray nozzles
- > High operational safety

### 06 Engine technology

> ECO mode > Automatic e > Automatic engine stop

> Engine operation with diesel and HVO fuel

> Modern exhaust gas after-treatment

#### **Digital construction site**

> Smart Compact > Smart Doc

> JD Link

> Process data interface





> Smart Compaction



**HAMM SUSTAINABILITY** 

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

### **XXL WORKSTATION**

Plenty of space for good work

#### Easy Drive: Super simple, super user-friendly

Drivers reach their workstation, the panorama cabin of the HX series, via a wide ascent with large steps. There, the journey continues in comfort thanks to Easy Drive, as all models in the HX series are equipped with an Easy Drive operator's platform. This operating concept means intuitive operation thanks to clear user guidance and an ergonomically optimised, comfortable working environment.

The sophisticated interior design was developed by HAMM in the course of an extensive research project in collaboration with universities, ergonomics specialists and roller operators from different countries. The results speak for themselves: The seat operating unit can be adjusted perfectly, enabling drivers of different heights and builds to find an ergonomic sitting position.

#### **Comfort meets ergonomics**

The driver's seat can be rotated and moved sideways to the edge as standard, the height and springing are adjustable. The comfortable seat can be supplied with a backrest extension and fabric covers. It also has two armrests. The steering column can be tilted to make it particularly easy to enter and exit.

In short: This comfortable workstation offers optimal conditions for concentrated working.

Furthermore, the HX series offers numerous pleasant details. For charging devices such as mobile phones and cool boxes, there is a USB charging port (5 V) and two 12 V sockets, plus plenty of storage space, a coat hook, several cup holders and various fresh air nozzles. A mobile cool box and a lunch box holder can also be provided upon request.

#### O1 Steering column

- > The tilt can be adjusted in fine increments
- > Can be tipped forwards to get in and out easily

#### **Ventilation and heating**

- > Air outlets for agreeable temperature control and supply of fresh air
- > Ventilation slots for fast de-icing
- > Wide-opening windows (top 180°, bottom 85°)
- > Heating as standard, air-conditioning system optional

### Operator's platform

- > ROPS cabin with split doors
- > Operator's platform with ROPS and handrail

#### 04 Driver's seat

- > Can be moved laterally mechanically or electrically (option)
- > Can be rotated 90° to each side
- > Electrically rotatable by 350° (option), with automatic seat reversal



### **SIMPLY FOLLOW YOUR INTUITION**

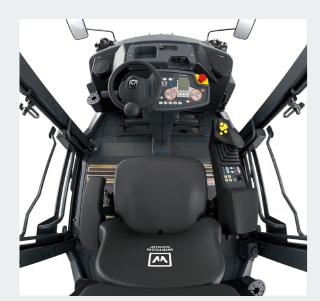
Work safely and efficiently

#### **Brilliantly user-friendly**

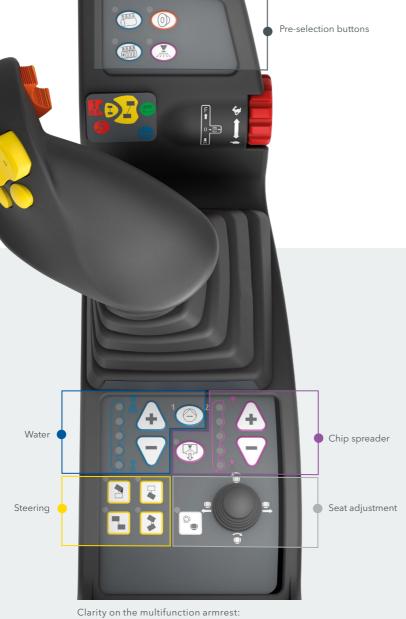
The straightforward operation is one of the hallmarks of the HAMM rollers. One of the key elements: No language knowledge is needed to understand the displays. Clear symbols and the logical layout are a major contribution to intuitive operation.

The HX series also impresses when it comes to ergonomics. For example, the seat in the 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 Easy Drive operator's platform is comfortable, spacious and ergonomically optimised.



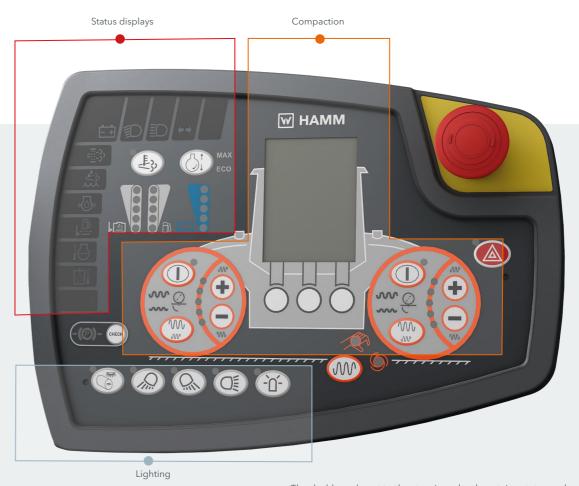
Clarity on the multifunction armrest:

The pre-selection buttons are located at the top while the buttons for setting the functions are located at the bottom.

The roller is controlled via a steering wheel. The most important buttons are located on the joystick and are all directly visible. The important buttons are positioned on the armrest in such a way that they are visible to the driver at all times. The more frequently an element is used, the closer the button or switch is positioned in relation to the joystick.

On the dashboard, the elements are grouped into functional units and colour-coded. These colours can also be found on other HAMM rollers. This makes operation easier, since the same applies for all HAMM rollers:

Same colour = same functional group.



The dashboard next to the steering wheel contains status and parameter displays as well as infrequently used buttons.

# CLEAR FIELD OF VISION IN ALL DIRECTIONS

**Including a view of the drum** 

#### **Unrivalled field of vision**

The operator's platform in the HX series offers the driver a perfect view of the entire working environment from the panoramic cabin with all-round glazing. From the edge of the cabin or operator's platform, they also have an excellent view of the drum edges and the edge pressing and cutting device.

Thanks to wide viewing panes in the cabin floor, the driver also has an exceptionally good view of the drums. The windows can be folded for cleaning.





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

See and be seen - important criteria for quality and safety when working at night. There are bright halogen or LED lights on the frame of the roof or cabin of the HX series 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. A folding stainless steel protective roof (option) protects the lights on the frame from damage. On request, additional LED lighting of the drum edges and the drums guarantees optimum illumination.

A small but subtle detail: The interior lighting on the HX automatically switches off when the doors are closed. This ensures pleasant viewing conditions for the driver, as does the less bright, reddish ambient lighting that is provided as standard in the cabin.

At the end of the working day, the Coming Home function (option) 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.

#### Always in the right direction

The pivot steering works with exceptional precision in every situation. The very large angle of rotation results in a large, freely adjustable track offset. This allows the working width to be almost doubled in relation to the drum width.

The HX series can be steered in four ways. Furthermore, the driver is supported by a speed-dependent resistance for steering and steering stop.





#### Single-axle steering:

Only the front or rear axle turns.



#### Analogue steering:

Both drums turn simultaneously in opposing directions. This results in a very small turning circle



#### Diagonal steering:

Both drums turn simultaneously in the same direction, resulting in extremely fast lateral track offset.



The cabin doors, which are framed all-round, are split. On both sides, a large window can be opened 180° wide.



On request, the driver's seat can be electrically operated, allowing it to be moved and swivelled by up to 350°.

HX SERIES | COMPACTION / DRIVE CONTROL

# MASTERS THE MOST DEMANDING OF TASKS

Top quality in every layer

#### Intelligent drive control included

The perfect interplay between the pivot steering, an intelligent drive control system, the vibration or oscillation drives and the powerful water-sprinkling system is the key to outstanding compaction. All of this is combined with the homogeneous weight distribution in the HX series. The rollers therefore compact to a very high quality even in tight curves, on construction sites in confined conditions or on roundabouts.

The drive is conveniently controlled via the joystick and steering wheel. A preselection of the maximum speed is part of the standard equipment, as well as an automatic reversing. It guarantees gentle braking and acceleration. All of these are the perfect prerequisites for first-class surfaces. Where speed is of the essence, the HX series also scores highly with a high final speed of 11 km/h.



#### **Vibration and oscillation**

The rollers compact the asphalt using their weight, which acts on the foundation layer during the double pass. If the drums are caused to vibrate at the same time, the compaction effect increases significantly. This is exactly what happens during compaction with vibration and oscillation.

#### 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.

#### Split vibrating roller drum

#### **Efficient and cost-effective compaction with oscillation**

- > High level of compaction power
- > Fewer passes required
- > 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 vibrations
- > Maintenance-free

#### Split drums for tandem and combination rollers

For maximum quality, there are split vibration and oscillation drums for all HX series models. The reason: Compaction with split drums is particularly effective in preventing material displacement and cracks. Both halves of the drum rotate at different speeds during cornering, so that homogeneous surfaces without cracks are produced even in tight curves.



HAMM is the only roller manufacturer in the world to offer split oscillation drums.

#### **HAMM** > VARIETY OF DRUMS

### The HX series rollers are available in the following versions

VV Two non-split vibrating roller drumsVV-S Two split vibrating roller drums

VO-S Oscillation drum and split vibrating roller drum

VS-OS Split oscillation drum and split

vibrating roller drum

VT-S Split vibrating roller drum and set of wheels





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

The rollers in the HX series are equipped with two large tanks at the front and rear. This allows them to be highly productive and reliably sprinkle the drums. Optimal availability is guaranteed by very efficient three-fold filtering of the water.

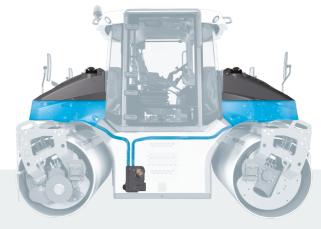
The tanks can be filled quickly and safely via central pressure refuelling. A connecting pipe between the tanks ensures even filling and weight distribution.

#### **Economical and safe**

The sprinkling system works with two pumps to ensure that water is always supplied to the drums, even if one pump should fail. A further pump is provided for supplying the edge pressing and cutting device. It is activated separately, which reduces water consumption.

#### **Easy maintenance**

An easily accessible spray bar with up to six nozzles is located on each drum. A stainless steel cover (option) prevents the water from being blown away. The spray bars and the individual spray nozzles can be easily installed and removed.



16 | 17 HX SERIES | ENGINE / DIGITAL FUTURE

### **EFFICIENT ENGINE CONTROL**

Thrifty and quiet

### Low-emission engines



exhaust gas after-treatment complies with the applicable regional regulations. Furthermore, the engines are approved for operation with diesel and HVO fuels. At the same time, large fuel tanks allow for long working intervals.

### HAMMTRONIC as standard



The electronic machine management for monitoring all engine and driving functions automatically adjusts the travel drive, vibration and/or oscillation and the engine speed to the prevailing operating conditions. This significantly reduces fuel consumption as well as exhaust gas and noise emissions.

#### Economical thanks to the automatic engine stop



The automatic engine stop (option) automatically switches the engine off after an extended period of inactivity. This reduces diesel consumption and avoids unnecessary noise emissions. Furthermore, the DPF needs to be regenerated less frequently and the number of operating hours is reduced. All of this guarantees a high level of acceptance with low operating costs.

#### Optimised fuel consumption without loss of power



When starting up, the engine management automatically sets the rollers in the HX series to ECO mode at a lowered speed of 1500 - 2000 rpm. In conjunction with the HAMMTRONIC control, the fuel consumption is reduced along with the exhaust gas and noise emissions. Nevertheless, the compaction power is constantly high; among other things, this is ensured by the powerful hydraulic system.

## HAMM SUSTAINABILITY

# **EQUIPPED FOR THE DIGITAL CONSTRUCTION SITE**

Ready for the construction sites of tomorrow

#### **Digital-ready**

The rollers in the HX series are "digital-ready". With interfaces and corresponding hardware, they are prepared for the applications, quality and communication requirements of the construction sites of the future.

For this purpose, a standardised process data interface can be integrated on the operating platform. This allows the rollers to communicate with HAMM's own and other digital applications.

#### **Always informed**

The JD Link telematics system visualises the performance data of the rollers in a compact overview in real time. In addition to live data such as consumption data or engine load, working times, position data, error messages and service intervals can also be called up at any time and from any location. Furthermore, diagnostics codes allow for predictive maintenance planning.



The data exchange between the machine control system, the Smart Doc app and the Smart Receiver takes place via Bluetooth.

# Smart Compaction

#### **Digital solutions for improved compaction**

HAMM brings together modern assistance systems and other solutions for the measurement, documentation and analysis of compaction processes under the name "Smart Compaction".

#### **Smart Doc**

The app compiles data from the machine control system and the smart receiver (GNSS receiver). In this case, "compaction maps" show at a glance the areas which have already been sufficiently compacted, and those which require further compaction. Furthermore, Smart Doc can document the compaction for the continuous compaction control (CCC).

#### **Smart Compact**

The Smart Compact assistance system analyses compaction and weather data, and helps operators select compaction parameters: It automatically determines whether the compaction should be static or dynamic and sets the appropriate amplitude.





A monitor on the dashboard displays the current settings and information about the compaction.

### **IMPRESSIVE SERVICE CONCEPT**

User-friendly, simple and fast

#### **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 HX series rollers can be equipped with the JD Link telematics system for remote diagnostics and efficient fleet management.

#### Maintenance quickly completed

Long maintenance intervals and few maintenance points are good indicators of mature technology. They can also be found in the HX series. During routine service and maintenance, the rollers stand out thanks to their ease of access to vital points, a wide-opening engine cover and central lubrication points (option) for easy lubrication of the live rings and steering cylinders.

Overall, maintenance is quick and easy with the HX series. This is the best way to ensure that the roller is serviced on a regular basis!

#### 01 Service flap

- > Wide-opening
- > Easy access to filters and dipsticks

#### Servicing access

- > Folding step on the drums
- > Easy filling

#### Scraper

> Can be easily replaced

#### **Temperature sensors**

> Easily accessible under the engine compartment

#### Water tanking

- > Filling from above or via central pressure refuelling (min. 1 bar)
- > Filler neck for pressure refuelling in the engine compartment
- > Connection to hydrant possible
- > Lockable tank cover (option)

#### 06 Water system

- > Central drain for easy draining
- > Easily accessible water filter
- > Water tap as standard

#### 07 Filler neck

> Filler neck for water, diesel and AdBlue on the same side



#### 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.



#### 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.



#### HAMMTRONIC 1



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.



#### **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. With sprinkling as standard (can be activated from the operator's platform).

#### **Chip spreader**

Modern disc spreader (HDS) and precision spreader (HLS). Can be connected via an adapter plate. With LED lighting and tarpaulin. Rapid mounting/dismounting: Operation via the joystick on the multifunction armrest. Optionally with lifting and parking device.

#### **HCM (HAMM Compaction Meter)**

Evaluates the rigidity when compacting asphalt. Display of the corresponding HAMM Measurement Value on the dashboard.

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

Measures the surface temperature of the asphalt using sensors below the engine compartment. Single or double version. Display on the dashboard.

#### **Four working lights**

A total of four lights on the front and rear of the cabin/ protective roof. Halogen (standard) or LED (optional).

#### **LED lighting for drums**

Separate lighting for drums and drum edges.

#### **Telematics interface**

Standardised interface for the transmission of machine data.

#### **Process data interface**

For easy export of the process data (continuous compaction control) in common documentation systems.

#### Smart Doc



Compaction control app for smartphones and tablets. Supports the driver by graphically displaying the compaction status.

#### Smart Compact



Assistance system to support the driver. Automatically sets the compaction type (static or dynamic) as well as the appropriate amplitude and frequency.

#### Thermal apron

Protect tyres against cooling down and accelerate their heating. Easy mounting.







Service you can always rely on.

Place your trust in our reliable and fast support during the complete life cycle of your machine. Our wide service offer includes suitable solutions to meet all of your challenges.



#### Service

We keep our service promises - with fast and uncomplicated assistance both on the building site and in our professional workshops. Our Service team has received expert training. Thanks to special tools, repair, care and maintenance work is completed quickly. Upon request, we can support you with tailored service agreements.

> www.wirtgen-group.com/service



#### Spare parts

Original parts and accessories from WIRTGEN GROUP can ensure the high reliability and availability of your machines in the long term. Our experts will be glad to advise you on application-optimised wear part solutions. Our parts are available worldwide, at any time and are easy to order.

PARTS FINDER

VÖGELE

KLEEMANN

WIRTGEN

> parts.wirtgen-group.com



#### **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.

> www.wirtgen-group.com/training



#### **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.

HX SERIES | **TECHNICAL DATA** 







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