

Volvo Construction Equipment  
Building Tomorrow



# L150H, L180H, L220H

Volvo Wheel Loaders 24.1-33.1 t 299-373 hp



A large wind turbine stands in a field of dry grass under a warm, orange-hued sunset sky. The turbine's blades are partially visible, with one blade extending from the left side of the frame. The overall scene is peaceful and evokes a sense of clean energy and sustainable progress.

# WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

## Working harder, working smarter

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.





## Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

### Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

### There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.



**BUILDING TOMORROW**

## Progress is in our DNA

Since introducing our first wheel loader, Volvo has continued to refine its concept for more than half a century. Over the years, we have revolutionized our machines, bringing customers unparalleled productivity and efficiency.

**1954**

The world's first wheel loader to feature a parallel lift arm system and attachment bracket with quick coupler – the H-10

**1973**

The first wheel loader with direct injected turbo engine – Volvo BM 1641

Volvo introduced the world's first truly low-emission diesel engines in construction equipment (1974)

**1981**

Volvo introduced the world's first automatic gear shifting system (Automatic Power Shift) and load sensing hydraulic technology

**1988**

Comfort Drive Control

**1990**

Boom suspension system

Volvo patented Torque Parallel linkage (1991)

# SMARTER, STRONGER, FASTER

The new H-series L150, L180 and L220 may boast the same striking design as each of its forerunners, but these machines have been updated with the latest innovative technology, promoting greater productivity and fuel efficiency. Ready to tackle a range of applications, enjoy the same reliability and quality you'd expect from your Volvo wheel loader and more.





**2009**

Volvo sets the standard  
for the attachment  
bracket (ISO 23727)

**2010**

OptiShift  
CareTrack

**2016**

Load Assist, powered  
by the award-winning  
Volvo Co-Pilot

**2017**

New generation  
OptiShift

Second generation  
load sensing hydraulics  
– Patent pending

### **With you for the long run**

As your trusted partner in production, Volvo is here to support you with the best equipment for the job. Boasting a comprehensive portfolio of attachments designed to complement your machines performance, as well as a range of services to boost your profitability, we'll help you tailor the perfect package to suit your business needs.



# Smarter operation

Primed for productivity, the innovative L150H, L180H and L220H loaders combine the latest Volvo technology, including second generation OptiShift, with power and upgraded features, resulting in up to 15% better fuel efficiency than the G-series.

## Up to 15% greater fuel efficiency

Do more with less fuel, the H-series machine updates offer up to 15% greater fuel efficiency than the G-series. Contributing to the increase is the powerful engine, second generation OptiShift, attachment optimization and the new dry P-Brake, which eliminates drag losses.



## Reverse By Braking

Extend the life of your machine's components and increase operator comfort with Reverse By Braking (RBB) – patented by Volvo. The braking function slows the machine when the operator wants to change direction, by reducing engine rpm and automatically applying the service brakes, reducing stress on the drivetrain.



## Power up, fuel down

For short cycle times and high fuel efficiency, the H-series wheel loaders are fitted with a powerful Volvo engine – compliant with the latest emission regulations – delivering greater output and torque than the G-series.



## Eco pedal

Save on machine wear and increase fuel efficiency with the eco pedal. Uniquely designed by Volvo, the eco pedal encourages economical operation, by applying a mechanical push-back force in response to excess use of the accelerator.







# NEW GENERATION OPTISHIFT

For improved cycle times and reduced fuel consumption, customize the lock-up engagement of your machine, with new generation OptiShift. The improved technology integrates the Reverse By Braking function and the new torque converter with lock-up, creating a direct drive between the engine and transmission.

# Made to move

Engineered for efficient work, the L150H, L180H and L220H are fitted with a new transmission and improved technology, resulting in up to 10% better productivity than the G-series.

## Boost your productivity by up to 10%

For ultimate stability and high efficiency, the H-series wheel loaders have been upgraded with a new transmission, which works in harmony with the engine and axels. The new converter delivers increased torque output, resulting in better performance at low speeds. For faster acceleration and smooth operation, the steps between gears have been reduced.



## Fast cycle times

Achieve shorter cycle times with next generation load sensing hydraulics, designed to enhance the responsiveness of attachments and improve the lifting and lowering speed of the boom.



## Comfortably productive

Customize your machine and ensure precise control of hydraulic functions, with the choice of single or multi levers. To get the most out of each operation, select from three hydraulic modes, according to your preferred responsiveness.



## Bucket leveling function

Take your productivity to the next level with the new bucket leveling function. Automatically return the bucket to level from both dump and curl positions, enhancing operator performance.





# Load Assist

Optimize your load cycles with Load Assist, powered by Volvo Co-Pilot – the revolutionary in-cab display. Gain access to a set of smart apps and boost the efficiency of your operation. When installed, the rear-view camera and radar detect system are now integrated into the Volvo Co-Pilot display.

## On-Board Weighing

When it comes to loading the optimum amount of material, intuition can only get you so far. Are you moving enough material, or moving too much? Say goodbye to guess-work with the On-Board Weighing app. The dynamic load weighing system provides realtime insights into the bucket's load, so you can eliminate overloading, underloading, reweighing and waiting times.



## Operator Coaching

Operator Coaching helps to ensure operators are using their Volvo machine to its full potential. The intuitive app provides real-time guidance to operators, helping them understand how their actions influence machine productivity and efficiency, as well as identify areas for improvement or changes in their technique.



## Tire Pressure Monitoring System

With the tire pressure monitoring app, you can check the condition of your tires from the comfort of the cab. Providing real-time information on tire pressure and temperature, the system saves time during machine inspections and can prolong tire lifetime.



## Map

Get accurate machine positioning with Map, a clever app that allows operators to monitor on-site traffic in real-time. Not only does this give operators an improved orientation of the site they are working on, but it allows them to proactively adjust their driving behavior according to traffic conditions.



# Fully loaded

Get the most out of your Volvo wheel loader with a range of purpose built attachments. Form one solid and reliable unit, with attachments that are ideally matched by size and design to your machine's parameters – including link-arm geometry, breakout and lifting forces. If we don't have the right attachment, Volvo can custom build one to your specific requirements.

## Rehandling

Experience up to 5% greater productivity with a new range of Volvo Rehandling buckets. The redesigned buckets are easier to fill and minimize spillage, thanks to new convex sides and the improved spill guard. To prevent spillage and absorb shocks, opt for the Boom Suspension System, which automatically engages, depending on gear or speed selection.



## Log handling

Designed for high lifting force and tilt out force, and offering maximum stability in log handling applications, select from a choice of general purpose grapples, sorting grapples and unloading grapples.



## Slag handling

To protect you and your machine, and ensure durable performance in hot slag handling applications, Volvo offers a selection of specially-designed machine options and attachments.



## Block handling

For high lifting force and maximum stability in block handling applications, choose from a range of robust Volvo attachments, including block forks, breaker tine and clearing rakes.





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*"Taking 27 tonne blocks from the quarry floor to the loading area is not a problem with the L220H."  
Giuseppe Sanna, Director of production at Marmi Daino Real, Orosei (Italy)*



# TORQUE PARALLEL LINKAGE

For strength in demanding applications, Volvo's unique Torque Parallel (TP) linkage provides high breakout torque and ultimate parallel movement throughout the entire lifting range. The linkage offers stability during loading and carrying and allows easy filling of the buckets. For long lasting performance, the lifting arm has double sealing on each of the pins.

# Strong and smart machines

## UP TO 15% GREATER FUEL EFFICIENCY

- Rimpull control
- New generation OptiShift
- Reverse By Braking
- Eco pedal
- Dry P-brake

## MAXIMIZE YOUR UPTIME

- Quicker hydraulic oil fill thanks to new mounted nipple
- Tilting cab - 30° or 70°
- Electronically-operated engine hood
- Brake wear indicators
- Outboard mounted brakes
- Replaceable breather filters

## HERE TO SUPPORT YOU

- Genuine Volvo Parts
- Operator training
- Volvo ACTIVE CARE

## FULLY LOADED

- Unique Torque Parallel linkage
- Block handling
- Slag handling
- Log handling
- Rehandling – up to 5% greater productivity







## BOOST YOUR PRODUCTIVITY BY UP TO 10%

- New load sensing hydraulics
- New transmission and gear ratio
- Bucket leveling function
- Load Assist, powered by Volvo Co-Pilot
- Choice of single or multi levers

## BUILT WITH THE OPERATOR IN MIND

- Adjustable seat
- Choice of three hydraulic modes
- Comfort Drive Control (option)
- Radar detect system (option)
- Remote-control door opener (option)



*"I'm very pleased that we decided to go for these machines."  
Wayne Flew, Operator, Albion Stone (United Kingdom)*



# THE OPERATOR'S CHOICE

Operate in comfort from the best cab on the market, the Volvo cab can be equipped with a new adjustable seat. Access the cab safely and effortlessly using the steps and open the door with ease, thanks to the optional remote-control opener.



# Built with the operator in mind

Built with the customer, for the customer, the L150H, L180H and L220H boast a range of features to enhance your operating experience. For increased productivity, the Volvo cab can be customized to your preference.

## Visibility

To enhance visibility, the H-series wheel loaders have new rear-view mirrors and can be equipped with a rear-view camera. Optimized by the radar detect system, which works with the camera to give a visual and audible alert to the operator of unseen on-coming objects. Orange handrails and steps have been placed on the machine, intended to stand out to the operators and maintenance staff.



## Comfort Drive Control

To reduce operator fatigue and improve productivity, Comfort Drive Control can be optionally integrated into your machine. The smart function gives you the opportunity to steer the machine from a small lever – particularly effective for fast-paced truck loading operations.



## Operator training

Increase productivity and reduce fuel consumption by learning how to operate your wheel loader in the most efficient way. Volvo offers operator training, which encompasses the best practices in the industry.



# Keep moving

Offering strength in demanding applications, the L150H, L180H and L220H are built to last. Maintain the life of your machine with simple serviceability and proactive dealer support.

## Durable by design

Designed with durability in mind, the H-series wheel loaders are built with a strong frame structure, ideally-matched to Volvo powertrain. The hydraulically-driven cooling fan regulates component temperature and can be automatically reversed to permit self-cleaning of the cooling units. For long service life, the brakes are outboard mounted and the front and rear axles are cooled by the oil circulation.



## Volvo ACTIVE CARE

Keep your machine moving with Volvo ACTIVE CARE. Volvo monitors machine health remotely, from our very own Uptime Center, helping to predict potential failures before they occur. This gives you more time to focus on your operation, helping to reduce unplanned downtime and minimize repair costs.



## Here to support you

Maintain productivity and machine uptime with our range of readily available Genuine Volvo Parts, all backed by Volvo warranty. We're here to help you stay on track, offering flexible maintenance and repair plans.





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*“We have chosen Volvo machines based on quality, trust and service.”*  
**Gerard den Hartog, CEO, Gebroeders Den Hartog (Netherlands)**



# INDUSTRY LEADING SERVICEABILITY

For simple servicability, the Volvo cab can be tilted to either a 30° or 70° angle, and the engine hood is operated electronically. Stay one step ahead and check the condition of your brakes using the brake wear indicators, placed on the wheels. To prevent dirt and moisture from entering components, each has replaceable breather filters, located remotely.

# Specifications

		<b>L150H</b>	<b>L180H</b>	<b>L220H</b>
Static tipping load at full turn	kg	15 970	18 860	20 980
Bucket capacity	m <sup>3</sup>	2.7 - 9.5	2.7 - 9.5	2.7 - 9.5
Log grapples	m <sup>2</sup>	1.1 - 2.4	1.1 - 2.4	1.1 - 2.4
Operating weight	kg	24 100 - 25 600	27 000 - 28 400	31 200 - 33 100
Breakout force	kN	202	239.9	255.9
Engine		D13E	D13E	D13E
Max power at	r/min	1 300	1 300 - 1 400	1 300 - 1 400
... SAE J1995 gross	kW	220	246	274
... ISO 9249, SAE J1349 net	kW	220	245	273
Max torque at	r/min	1 000	1 000	1 100
... SAE J1995 gross	Nm	1 960	2 030	2 230
... ISO 9249, SAE J1349 net	Nm	1 957	2 024	2 220
Tires		26.5 R25 / 775 / 65 R25	26.5 R25 / 775 / 65R25	29.5 R25, 875/65 R29

Based on machine configuration: Based on 4.0 m<sup>3</sup> STE P T SEG bucket

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.





**Volvo Construction Equipment**  
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