

VOLVO WHEEL LOADERS

# FORESTRY & LOG HANDLING



**MORE CARE. BUILT IN.**



# VOLVO'S FIRST WHEEL LOADERS WERE LOG HANDLERS TOO

With more than 50 years of experience building machines for the log handling industry, Volvo's wheel loaders have a well-deserved reputation for high productivity, efficiency, reliability and flexibility. They've been specially designed to withstand the abuse encountered in tough environments.

## More efficient along the entire production chain

With their high capacity, flexibility and wide range of attachments, Volvo wheel loaders boost productivity in each link of your transport chain. Their excellent operating characteristics, breakout torque, parallel lift-arm action and long reach permit short cycle times in log unloading, stacking and feeding sorting bins and feed tables. Changing attachments is quick and easy, which means you need fewer machines to get the job done. The same machine that takes care of storage and shipping the finished product – paper and pulp bales, paper reels, sawn log or palletized goods – can also be used to handle wood chips and clear snow.

## Power and agility for fast work cycles

Volvo's wheel loaders are renowned for their strength, high productivity and low fuel consumption. The high-performance engines have excellent response with full power at low rpm. Well matched hydraulics provide smooth grapple, fork and bucket movements. All genuine attachments are purpose-built for forestry industries and log handling, and offer the same high quality as the rest of the machine.

## Volvo L180F High-lift means 60 % less storage space

Lift height and long reach give high productivity in applications like unloading logs and pulp, stacking and unloading sorting hoppers and feed tables. The grapple also reduces cycle time with its 360-degree rotation, which makes it possible to reach the logs from every side of the stack. You can build higher stacks, and use your stockyard space 60–70% more efficiently compared to traditional methods.





# CREATED FOR THE TOUGHEST ENVIRONMENTS EQUIPPED FOR THE TOUGHEST JOBS

You have enough to think about while doing your job, and you shouldn't have to worry whether your equipment is up to the task. That's why every feature in a Volvo wheel loader isn't just designed to tackle everything you need to do – it's also rigorously tested to make sure it won't let you down.

## **Better breakout torque at maximum lifting height**

The excellent geometry of Volvo's TP Linkage combines high breakout torque with parallel lift throughout the entire lifting range. The TP Linkage is uniquely suitable for unloading a logging truck, as it allows the breakout torque to actually increase from dump (forward tilt) to maximum roll-back at maximum lifting height, as shown below. Other design attributes include optimum visibility and excellent protection of the working components. The short distance between the load's center of gravity and the front axle improves stability, resulting in greater safety and faster work cycles.

## **Load-sensing hydraulic system**

The load-sensing hydraulic system delivers exact hydraulic oil flow to the functions that require it. This is an energy-efficient system which helps to lower fuel consumption.

## **100 % differential lock on front axle**

The lock reduces tire spin on slippery surfaces for increased productivity and safety.

## **Engine isolated from the cooling system**

The insulation reduces debris entering the engine compartment.

## **Low temperature, insulated muffler**

The insulated muffler reduces the risk for high heat in the engine compartment and reduces the sound level.

## **Effective clean air filtration protects both man and machine**

The best cab filtration system in the industry not only cleans the incoming air, but also the recirculated air inside the cab, making it one of the cleanest cab on the market. The filters are easily accessible for cleaning or replacing. Also, the air is vented from all major components with easy to replace breather filters, to prevent dust and dirt from entering the engine, transmission, axles, hydraulic system or the fuel tank. This means more time for log handling, and longer operating life for your Volvo wheel loader.

## **Well protected electrical system**

All electric cabling is well protected from water, dirt, and wear in solidly fastened, heavy-duty conduits with rubberized connectors and terminal caps. Electrical components, including the fuse box, are well protected inside the cab.





# TAKING CARE OF BUSINESS

Volvo Care Cab is a safety-conscious work place, stress and vibration reduced. Climate control and fingertip operation of the loadsensing hydraulics actually make the hard work of log handling quite comfortable. That's why Care Cab will help you to get more done.

## **A great work place**

You really feel welcome in Volvo's latest cab. It's both wider and deeper than it's predecessor. There is lots of space to stretch out your legs, and ample space for storage boxes, boots, and cups. The large, swept windshield gives excellent visibility in every direction. Boom Suspension System, (BSS)\*, effectively absorbs shocks and reduces the bouncing and rocking that often arises when running on rough ground with a heavy load. BSS improves cycle times and operator comfort. Several seats and adjustment features make it easy to find a comfortable operating position.

## **Always a comfortable climate**

Volvo's unique and patented two-stage cleaning recirculates up to 90 percent of the air, and only 10 percent comes from the outside. The air in the cab is cleaned to 98 percent. Automatic Heat Control (AHC) is standard and ensures a comfortable temperature in the cab. And if the operator needs a break, the heat\* can be left on even with the engine off, which both saves fuel and protects the environment.

## **Log handling at your fingertips**

With lever steering Comfort Drive Control, (CDC)\*, the operator can handle steering and shifting forward/reverse with controls in the left armrest to avoid static muscle loads. For the use of log grapples with a hydraulic heel kick-out, Volvo wheel loaders can be equipped with third and fourth hydraulic functions\*, which are operated with additional control levers. Pilot-operation with Electro-servo hydraulics\* increases both comfort and control.

\* Optional equipment





# BUILT TO RUN. SUPPORTED FOR LIFE

When you invest in a Volvo wheel loader, you get a log handler of the very highest quality. But of course, even the best machines need service and maintenance to be as productive tomorrow as they are today. Customer Support will help you to keep an eye on your owning and operating costs.

## **We care about your operation - anywhere at anytime**

Volvo Construction Equipment and Volvo Wheel Loaders center around a professional Customer Support organization, providing parts supply, aftersales services and training. All this gives customer benefits through controlled owning and operating costs. When you invest in a Volvo wheel loader, the availability of good service and access to genuine Volvo parts are just as important as the price. After all, it is the total cost during the machine's entire life that's interesting. With all the products and resources we have at our disposal, we can offer you the best support. Anywhere, anytime.

## **Four levels of support, one level of care**

The best way to get the most out of your Volvo wheel loader is to invest in a Volvo Customer Support Agreement. There are four levels of agreements designed to give you total peace of mind; white, blue, silver, and – of course – gold, which includes all service, maintenance and repairs during the whole contract period at a fixed price. From this completely flexible starting point, we can create an agreement uniquely tailored to the needs of your business and the age of your loaders.

## **Genuine Volvo parts leave nothing to chance**

Each genuine Volvo part is developed for and manufactured together with all other machine components. It's a complete system where each part works in perfect harmony with other parts. Only by using genuine parts can you be sure that your machine retains the qualities and features we gave it from the beginning.



# OPTIONS TO BOOST YOUR MACHINE PERFORMANCE



## Selection of Volvo optional equipment

### Boom Suspension System (BSS)

The Boom Suspension System absorbs shocks, eliminates rocking and bouncing, and smoothes out rough roads. BSS contributes to higher productivity, and better operator comfort.

### Long boom

A long boom gives the extra dump height and reach necessary for loading high trucks or feeders. The additional reach also gives added protection when loading the bucket by keeping the machine further away from the material.

### Pre-wired for extra work lights

The machine is pre-wired for installation of extra work lights. When daylight is insufficient, the extra lighting provides improved comfort and increased operating safety.

### Log pusher

Recommended for all handling of round wood. Permits log to be stacked higher and clears a path in front of the wheel loader.

### Comfort Drive Control (CDC)

Lever steering CDC enables the operator to handle steering, shifting forward-reverse, and kick-down with controls in the left armrest. At any time, the operator can change between steering with steering wheel and CDC to avoid static muscle loads. When operating on public road – always use the steering wheel.

### Electro-hydraulic control

Pilot-operation with electric-servo hydraulics increases comfort with lighter lever forces and high precision. Adjustable lift and bucket angles, Return-to-dig, and end-position damping are built-in functions. 3rd and 4th hydraulic functions enable use of hydraulically attachments.

# OPTIONS TO PROTECT YOUR INVESTMENT



## Selection of Volvo protection equipment

### Air Pre-cleaners

Air pre-cleaners are available for even better filtering of the engine induction air. In addition to higher cleaning capacity, these air pre-cleaners are highly recommended in fire-hazardous applications, as they are not connected to the exhaust system.

### Rear-view camera system

Rear-view camera system reduces blind spots and increases site safety when reversing and also improves operator comfort. This applies from 1 Dec. 2008 to all machines with CE marking. Standard in certain markets.

### Mudguards

Front and swing-out rear mudguards – protect the machine.

### Automatic Lubrication System

Our factory fitted Automatic Lubrication System takes care of greasing while the machine is in operation. This means less downtime for scheduled maintenance and more time for productive work.

### CareTrack telematics system

Remote monitoring of the machine's position, utilization, and productivity. Forwarding of error codes, alarms, and service reminders. Position on map plus Geo- & Time-fence functions.

### Automatically activated reversible cooling fan

Timer controlled hydrostatic cooling fan automatically reverses the airflow to remove debris from the radiator/cooling cores and air intake screens for extended maintenance intervals.



#### **Radiator grille guard**

Protects the grille, cooling fan, radiator and condenser cores from damage in severe environments and working conditions. Hinged for easy cleaning and maintenance.

#### **Window and windshield guards**

Protection for both the front, side and rear windows. These guards are custom-made to minimize glass breakage.

#### **Headlight guards**

Protect the headlights, work lights, and turn signals from debris that may break or damage the lenses.

#### **Tail light guards**

Protect the tail lights and turn signals from debris that may break or damage the lenses.

#### **Belly guard, front/rear**

Completely encloses the components located within the front/rear frame between the center hinge and the front/rear axle, including the driveshaft, universal joints and hydraulic lines (front)/engine and transmission (rear). It is hinged for easy cleaning and maintenance.

#### **Steer cylinder guards**

Provide protection for exposed parts in the center hinge area, including the steer cylinders, transmission, as well as hydraulic and electrical lines and connections. A transmission dipstick replaces the transmission oil sight gauge for easy monitoring of the transmission oil level.

# GET AN EXPERT GRIP ON LOG HANDLING WITH VOLVO GENUINE ATTACHMENTS



Log Grapples to handle logs of varying lengths, transport logs over uneven ground, sort different wood types and efficiently maintain the lumberyard.

## **Unloading Log Grapple**

has short, rounded tines, making it easier to fill the grapple when unloading trucks.

## **General Purpose Log Grapple**

is an all-round grapple used for handling and sorting tree length stems or for gripping single stems.

## **Sorting Log Grapple**

has relatively long and straight tines so the grapple can be easily filled when loading from stacks or sorting bunkers. Both the Unloading and the sorting grapple can be fitted with a hydraulic heel/kickout.

## **Tree Length Log Grapple**

is a wide grapple specifically developed for handling long, tree length stems.

## **Heel/Kickout.**

It can be used to hold a single log in a large grapple or pushing out the logs from the grapple instead of tilting it forward, making it possible to reach about half a meter higher. Requires 4th hydraulic function.

## **Tropical Timber Log Grapple**

is intended for handling large diameter and high density tropical timber.



#### **Swivel wood clamp**

handles pulpwood in 2–3 m length and have the possibility to rotate the load 360 degrees.

#### **Combi Forks**

with the one piece top clamp are excellent when handling both palletized goods and round wood in applications where the load must be secured.

#### **Light Material Bucket**

has high capacity for handling low density materials, such as snow, coal, or wood chips. This bucket is equipped with a bolt-on edge saver as standard equipment.

#### **Pallet fork**

together with cast steel attachment bracket are optimized for excellent visibility, giving the operator a clear view of the load being handled.

#### **Offset fork tines**

give the operator a clear view to the ends of the tines. These tines are especially useful when there is a high demand for precision, control and high productivity.

#### **Straight Fork Tines**

are designed for higher breakout forces and optimized digging depth.

#### **Hi-Tip Light Material Bucket**

features increased dump height over standard light material buckets because it is hydraulically lifted from a built-in frame. The Hi-Tip bucket has high capacity for low-density materials and a standard equipment bolt-on edge saver

#### **Lumber Fork Tines**

is optimized for stacking, loading and transporting the finished product at the saw-mill.

#### **Separate Fork Back Rest Extension**

high stacks of boards or planks can be handled.

# SPECIFICATIONS

## Specifications

Engine		
Max power at	r/s (rpm)	
SAE J1995 gross	kW (metric hp)	
ISO 9249, SAEJ1349 net	kW (metric hp)	
Recommended work load	kg	
with general purpose grapple	m <sup>2</sup>	
Recommended work load	kg	
with sorting grapple	m <sup>2</sup>	
Log grapples	m <sup>2</sup>	
Operating weight	t	



<b>L60F</b>	Volvo D6E LC E3
28,3 (1 700)	
115 (154)	
114 (153)	
4 300	
0,7	
3 450	
1,3	
0,7-1,3	
11,0-12,3	



<b>L70F</b>	Volvo D6E LB E3
28,3 (1 700)	
126 (169)	
125 (168)	
4 550	
0,9	
3 990	
1,5	
0,9-1,5	
12,7-15,0	



<b>L90F</b>	Volvo D6E LA E3
28,3 (1 700)	
129 (173)	
128 (172)	
5 290	
1,3	
5 000	
1,8	
1,3-2,4	
15,0-17,0	

## Specifications

Engine		
Max power at	r/s (rpm)	
SAE J1995 gross	kW (metric hp)	
ISO 9249, SAEJ1349 net	kW (metric hp)	
Recommended work load	kg	
with general purpose grapple	m <sup>2</sup>	
Recommended work load	kg	
with sorting grapple	m <sup>2</sup>	
Log grapples	m <sup>2</sup>	
Operating weight	t	



<b>L110F</b>	Volvo D7E LB E3
28,3 (1 700)	
170 (228)	
169 (227)	
6 500	
1,3	
5 850	
2,4	
1,1-2,4	
18,0-20,0	



<b>L120F</b>	Volvo D7E LA E3
28,3 (1 700)	
180 (241)	
179 (240)	
6 970	
1,3	
6 400	
2,4	
1,1-2,4	
19,0-21,0	



<b>L150F</b>	Volvo D12D LD E3
23,3-28,3 (1 400-1 700)	
210 (282)	
209 (280)	
9 320	
1,8	
7 700	
3,1	
1,6-3,1	
23,0-26,0	

## Specifications

Engine		
Max power at	r/s (rpm)	
SAE J1995 gross	kW (metric hp)	
ISO 9249, SAEJ1349 net	kW (metric hp)	
Recommended work load	kg	
with general purpose grapple	m <sup>2</sup>	
Recommended work load	kg	
with sorting grapple	m <sup>2</sup>	
Log grapples	m <sup>2</sup>	
Operating weight	t (lb)	



<b>L180F High lift</b>	Volvo D12D LA E3
23,3-26,7 (1 400-1 600)	
235 (315)	
234 (314)	
-	
-	
8 500-8 800	
-	
3,2-3,8	
33,0-36,0	



<b>L180F</b>	Volvo D12D LA E3
23,3-26,7 (1 400-1 600)	
235 (315)	
234 (314)	
10 900	
1,8	
8 710	
3,5	
1,6-3,5	
26,0-29,0	



<b>L220F</b>	Volvo D12D LB E3
26,7 (1 600)	
261 (350)	
259 (347)	
12 530	
1,8	
10 080	
4,0	
1,7-4,0	
31,0-33,0	



## Specifications

Engine		
Max power at	r/s (rpm)	
SAE J1995 gross	kW (metric hp)	
ISO 9249, SAEJ1349 net	kW (metric hp)	
Log grapples	m <sup>2</sup> (ft <sup>2</sup> )	
Operating weight	t (lb)	

<b>L350F Log Loader</b>	Volvo D16E LA E3
28,3-30,0 (1 700-1 800)	
397 (532)	
394 (528)	
6,0-6,6 *	
59,7-60,9	

See product brochure for respective machine or [www.volvoce.com](http://www.volvoce.com) for more detailed information.  
\*) Contact Volvo CE for information about available grapples.

**LOG HANDLING**

<b>Options to Boost your machine performance</b>	<b>L60F</b>	<b>L70F</b>	<b>L90F</b>	<b>L110F</b>	<b>L120F</b>	<b>L150F</b>	<b>L180F</b>	<b>L180F High-Lift</b>	<b>L220F</b>	<b>L350F</b>
Boom Suspension System, BSS	*	*	*	*	*	*	*	*	*	*
Comfort Drive Control, CDC	*	*	*	*	*	*	*	*	*	
Comfort Drive Control, CDC, in combination with electro-hydraulic				*	*	*	*	*	*	std
Electro-hydraulic function, 3rd				*	*	*	*		*	*
Electro-hydraulic function, 3rd for long boom				*	*	*	*	std	*	
Electro-hydraulic function, 3rd-4th				*	*	*	*	*	*	
Electro-hydraulic function, 3rd-4th for long boom				*	*	*	*	*	*	
Electro-hydraulic servo controls				*	*	*	*		*	
Electro-hydraulic servo controls for long boom				*	*	*	*		*	
Hydraulic function, 3rd	*	*	*	*	*	*	*	std	*	
Hydraulic function, 3rd for long boom	*	*	*	*	*	*	*	*	*	
Hydraulic function, 3rd-4th	*	*	*	*	*	*	*		*	
Hydraulic function, 3rd-4th for long boom	*	*	*	*	*	*	*		*	
Hydraulic attachment bracket, welded						*	*		*	
Hydraulic attachment bracket, cast	*	*	*	*	*					
Long boom	*	*	*	*	*	*	*	*	*	
Long boom for electro-hydraulic				*	*	*	*		*	
Log pusher							*	*	*	
Working lights, front and rear, extra	*	*	*	*	*	*	*	*	*	*

**Options to protect your investment - Selection of Volvo protection equipment**

Automatically activated reversible cooling fan	*	*	*	*	*	*	*	*	*	*
Automatic Lubrication System	*	*	*	*	*	*	*	*	*	*
Belly guard, front	*	*	*	*	*	*	*		*	*
Belly guard, rear	*	*	*	*	*	*	*	*	*	*
CareTrack	*	*	*	*	*	*	*	*	*	*
CareTrack, GSM/Satellite	*	*	*	*	*	*	*	*	*	*
Headlight guards	*	*	*	*	*	*	*	*	*	*
Mudguards	*	*	*	*	*	*	*	*	*	*
Radiator grille guard	*	*	*	*	*	*	*	*	*	*
Rear-view camera system standard in certain markets	*	*	*	*	*	*	*	*	*	*
Steer cylinder guards						*	*	*	*	
Tail light guards	*	*	*	*	*	*	*	*	*	*
Window guards, side and rear	*	*	*	*	*	*	*	*	*	*
Windshield guards	*	*	*	*	*	*	*		*	*
Working lights, attachment	*	*	*	*	*	*	*	*	*	
Working lights, front, extra	*	*	*	*	*	*	*	*	*	std
Working lights, rear, extra	*	*	*	*	*	*	*	*	*	*
Working lights, front on cab, extra	*	*	*	*	*	*	*	*	*	*
Working lights, rear on cab, extra	*	*	*	*	*	*	*	*	*	*

**Log handling attachments**

General purpose log grapple	*	*	*	*	*	*	*		*	
Sorting log grapple	*	*	*	*	*	*	*		*	
Tree length log grapple						*	*		*	
Tropical timber log grapple				*	*	*	*		*	
Unloading log grapple			*	*	*	*	*		*	
Heel/kickout	*	*	*	*	*	*	*		*	
High-tip light material bucket	*	*	*	*	*	*	*		*	
Light material bucket	*	*	*	*	*	*	*		*	*
Fork attachments	*	*	*	*	*	*	*		*	
Combi-fork with one-piece clamp	*	*	*	*	*	*	*		*	
Lumber fork and backrest	*	*	*	*	*	*	*		*	
Swivel wood clamp			*	*	*	*	*		*	
High-Lift grapple								*		



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



*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**

**Volvo Construction Equipment**  
[www.volvo.com](http://www.volvo.com)

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