

VOLVO WHEEL LOADER

L180E HIGH-LIFT



VOLVO

A COMPLETE LOG HANDLER

Volvo L180E High-Lift is much more than a wheel loader equipped with a high-lift unit. The entire machine, from frame to grapple, is designed and built by Volvo. We have built a complete and genuine high-lift machine from the ground up, tailor-made and purpose-designed. Volvo L180E High-Lift is a complete log handler.

With an 8.6 ton working load, 5.5 meters lift height under the hanging load, a grapple capacity of 3.2 square meters and a 4 meter reach, Volvo L180E High-Lift is the most powerful, efficient and productive high-lift we've ever built for log handling.

Higher stacks give 60 percent smaller storage area

High lift height and long reach give short cycle times in applications such as unloading logs and pulp wood, stacking, and unloading sorting hoppers and feed tables. Cycle time can also be reduced by the grapple with 360 degree rotation, making it possible to reach the logs from all sides of the stack.

The ability to build higher stacks makes it possible to significantly cut the size of storage areas. In fact, by using the maximal lift height when stacking logs you can utilize the stockyard surface 60-70 percent more effectively than in traditional log handling.

Load-sensing hydraulics for higher capacity

With the Volvo E-series, the load-sensing hydraulics have been given a variety of features that increase productivity and efficiency to even higher levels. It's possible to run several hydraulic functions simultaneously. Most of all, now you can close the grapple with full force and lift the grapple arm at the same time, which increases productivity throughout the whole work process.

Comfort suspension for fast operation in all ground conditions

In log handling, the work pace is fast. It's all about precision loading as well as many short work cycles. The articulated wheel loader is easy to maneuver, smooth and quiet and fast and powerful. The comfort suspension, Boom Suspension System, makes it possible to operate quickly, effectively and comfortably, even in rough ground conditions. The Boom Suspension System increases the machine's operating stability, which results in faster cycles and increased operator comfort.

A safe and comfortable workplace - even during long work shifts

Volvo wheel loaders offer both a safe and comfortable workplace. The ergonomically designed cab is sound-insulated, and the best filtration on the market ensures a comfortable cab climate with clean and fresh air. The electronic monitoring system, Contronic, gives the operator full control of the machine's vital functions.

With lever steering (Comfort Drive Control*), the operator can easily switch between using the steering wheel and lever steering, reducing harmful static muscle strain.

Fuel consumption reduced by another 20 percent

Volvo wheel loaders have been known for their high productivity and low fuel consumption. With the E-series, this has been improved by another 15-20 percent. The explanation can be found in the perfect coordination and matching of the in-house developed engine, drivetrain and the load-sensing hydraulic system.

Relax - and produce more

Volvo's fuel-efficient 12-liter engine with electronically controlled fuel injection delivers high torque already at low engine speeds. The transmission is equipped with a stiffer torque converter, giving faster response. Load-sensing working hydraulics and steering system gives quick response and power when and where it's needed. The automatic powershift system APS, with four different selectable shifting programs, gives optimal productivity in all work cycles.

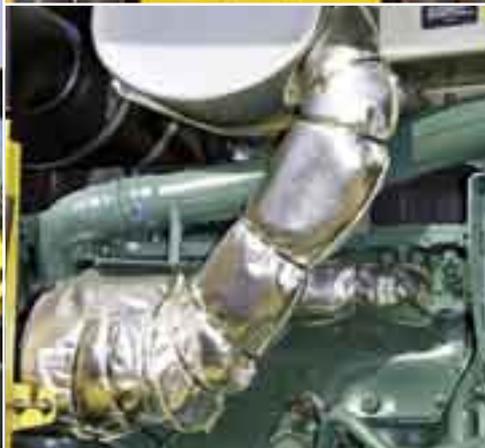
With Volvo wheel loaders, you can relax - and produce more.

For more information, see the Volvo L180E Product Brochure .

* Optional equipment



SPECIFICATIONS



Hydraulic system

Working hydraulic system: Closed center system (load sensing) with pilot-operated hydraulic valves. Pumps: Two variable axial piston pumps. Pump 1 for working hydraulic system. Pump 2 for steering, brake, pilot and working hydraulic system. Pilot operation: An electro-hydraulic servo control actuates the 2 control valves via a servo unit. Valves: Main valve 1, 2 spool control valve for lift and tilt function. Main valve 2, 4 spool control valve for grapple, grapple tilt, rotator and log pusher (optional equipment).

Working pressure maximum, pump 1 20,0 MPa

Flow at and engine speed	247 l/min 10 MPa 32 r/s (1900 r/min)
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Working pressure, pump 2 21,0 MPa

Flow at and engine speed	247 l/min 10 MPa 32 r/s (1900 r/min)
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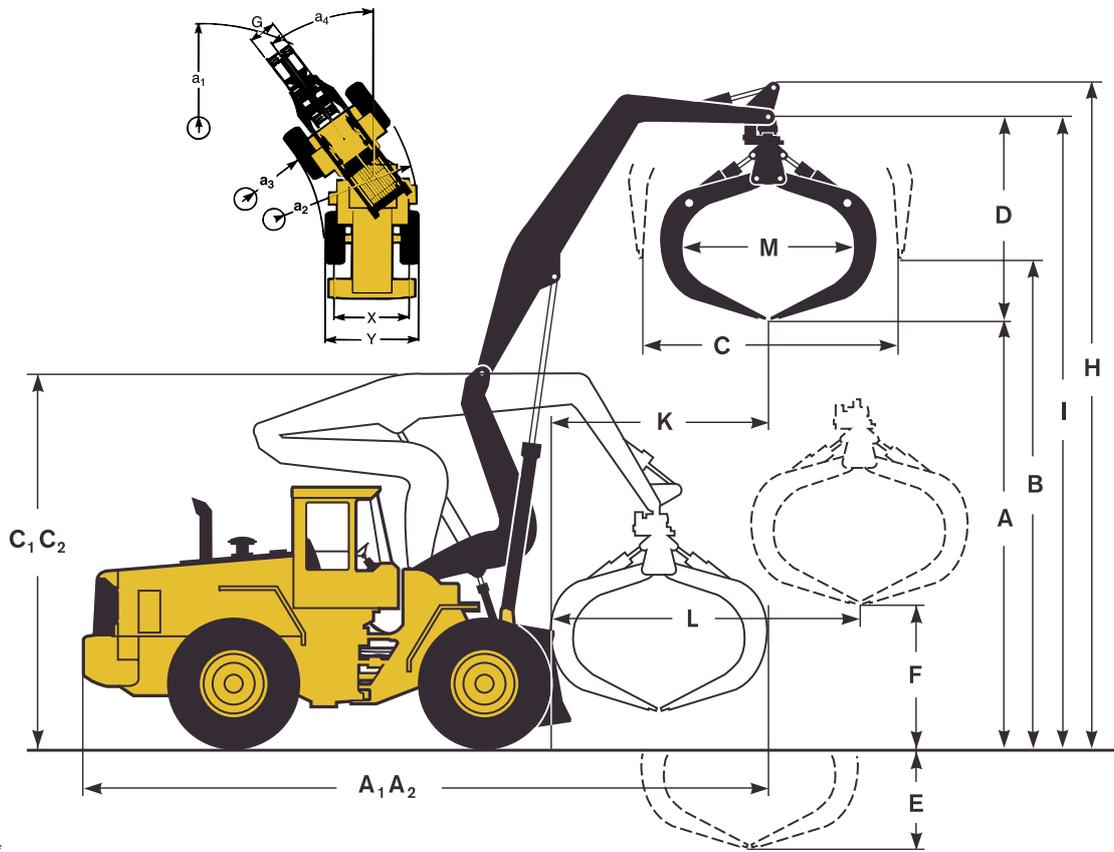
Pilot system

Working pressure	3,5 MPa
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Cycle times

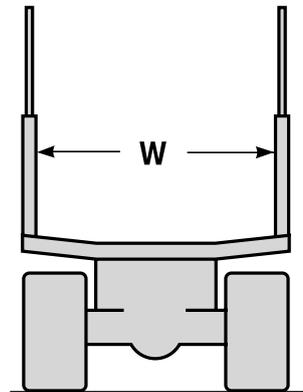
Lift	8,0 s
Lower	6,0 s
Tilt forward	4,2 s
Tilt backward	4,2 s
Grapple opening	3,2 s
Grapple closing	3,3 s
Grapple tilt backward	6,0 s
Grapple tilt forward	3,0 s
Rotator	4,5 s/r
Log pusher up	2,0 s
Log pusher down	1,8 s

OPERATIONAL DATA



Tires: 775/65 R29*

Rotating grapple, 360°, 3,2 m ²	
A ₁ Grapple positioned lengthwise 3,5 m	9350 mm
- with log pusher	9830 mm
A ₂ Grapple tilted forward	10 520 mm
C ₁ Grapple positioned lengthwise	4900 mm
C ₂ Grapple tilted forward	4700 mm
H	8860 mm
I	8490 mm
K	2750 mm
L	3950 mm
X	2280 mm
Y	3080 mm
a ₁	7530 mm
a ₂	6780 mm
a ₃	3830 mm
a ₄	±37°



Note: When loading a vehicle, the log grapple width (M-measure) should be 150 mm narrower compared to the distance between the "stakes" (W) on the vehicle.

	Empty machine in carry position		Rated load in carry position	
	Front	Rear	Front	Rear
Axle load kg	12 250	20 860	26 600	15 050
Ground pressure kg/cm ²	6,5	4,5	6,5	4,5

Tire inflation: 650 kPa front and 450 kPa rear.

Tires 800/65 R29*	TIMBER LENGTH 5,0 m		TIMBER LENGTH 4,0 m	PULP WOOD LENGTH 4,0 m		
						
Grip area	m ²	3,2	3,2	3,5	3,8	3,8
Grapple weight	kg	1880	2050/1960	1960	2020/1940	2310
Working load	kg	8800	8600/8700	8600	8600/8700	8400
A	mm	5590	5590	5640	5140	5290
B	mm	6540	6540	6530	6300	6390
C	mm	3630	3630	3750	4500	4500
D	mm	2900	2900	2850	3350	3200
E	mm	1200	1200	1250	1670	1500
F	mm	2270	2270	2220	1820	1970
G	mm	1100	1100/900	1100	1100/900	900
M	mm	2400	2400	2550	2350	2350
Operating weight*	kg	32 910	33 110	33 410	33 160	33 260
Shortwood (pulpwood)					X	X
Timber		X	X	X		
Terminal handling		X	X	X	X	X
Unloading/loading of vehicles		X	X	X	X/X	X/X
Unloading against wall					X	X
With hydraulic clamping arms			X	X		X
With triplex chain		X			X	
Order No.		91852	82127/82126	82128	94463/93607	82129

*) Including liquid in rear tires. Optional liquid in front tires increases the weight by 1830 kg. The log pusher increases the operating weight by 800 kg. Log pusher, order No. 80796.

STANDARD EQUIPMENT

Service and maintenance

Automatic lubrication system

Engine

Three stage air cleaner with ejector and inner filter
Indicator glass for coolant level
Preheating of induction air
Two fuel filters
Coolant filter
Oil trap
Exhaust heat insulation

Electrical system

24 V, prewired for optional accessories
Alternator, 24 V/55 A
Battery disconnect switch
Fuel gauge
Hour meter
Electric horn

Instrument panel with symbols

Lighting:

- Twin halogen front headlights with high and low beams
- Parking lights
- Double brake and tail lights
- Turn signals with flashing hazard light function
- Halogen working lights (2 front and 2 rear)
- Instrument lighting

Contronic monitoring system

ECU with log and analysis system
Contronic display
Fuel consumption
Ambient temperature
Engine shutdown to idle in case of malfunction indication:

- High engine coolant temperature
- Low engine oil pressure
- High transmission oil temperature

Start interlock when gear is engaged
Brake test
Test function for warning and indicator lights
Warning and indicator lights:

- Charging
- Oil pressure engine
- Oil pressure, transmission

- Brake pressure
 - Parking brake
 - Hydraulic oil level
 - Axle oil temperature
 - Primary steering
 - Secondary steering
 - High beams
 - Turn signals
 - Rotating beacon
 - Preheating coil
 - Differential lock
 - Coolant temperature
 - Transmission oil temperature
 - Brake charging
- Level warnings:
- Engine oil level
 - Coolant level
 - Transmission oil level
 - Hydraulic oil level
 - Washer fluid level

Drivetrain

Automatic Power Shift with operator-controlled declutch function of transmission
PWM-control between different gear positions
Differentials:
front: 100% hydraulic diff lock
rear: conventional
Oil cooler for front and rear axle

Tires

775/65 R29**
Liquid in rear tires

Brake system

Wet oil circulation cooled disc brakes on all four wheels
Dual brake circuits
Dual service brake pedals
Secondary brake system
Parking brake, el-hydraulic
Brake wear indicator, acoustic brake liner wear warning system (sintered brake liners)
Oil cooler and filter for front and rear axle

Cab

ROPS (SAE J1040CC, ISO 3471), FOPS (SAE J231, ISO 3449)

Single key kit door/start
Acoustic inner lining
Ashtray
Cigarette lighter
Lockable door
Cab heating with filter, fresh-air inlet and defroster
Floor mat
Interior lights
Interior rear-view mirror
2 exterior rear-view mirrors
Openable window right-hand side
Tinted safety glass
Hip retractable seatbelt (SAE J386)
Adjustable lever console
Ergonomically designed operator's seat with adjustable suspension
Storage compartment
Sun visor
Beverage holder
Windshield washers front and rear
Windshield wipers front and rear
Interval function for front and rear windshield wipers
Service platforms with anti-slip surfaces on front and rear fenders
Speedometer

Hydraulic system

Main valve, 2-spool
Main valve, 4-spool
Variable displacement axial piston pumps (3) for:

- working hydraulics
- steering system, pilot hydraulics and brakes
- fan motor

Tilt arm positioner, automatic with position indicator, adjustable
Hydraulic oil cooler
Boom Suspension System
Rotorator

External equipment

Noise and vibration dampening suspension of cab, engine and transmission
Lifting lugs
Easy-to-open side panels and engine hood
Steering frame lock
Vandalism lock provision for batteries and engine hood
Towing hitch
Logging counterweight

OPTIONAL EQUIPMENT

(Standard on certain markets)

Service and maintenance

Tool box, lockable
Tool kit
Refill pump for automatic lubrication system
Wheel nut wrench kit
Oil sampling valve

Engine equipment

Engine block heater, 230 V
Fan air intake protection
Air pre-cleaner, oil bath type
Air pre-cleaner, turbo type
Air pre-cleaner, Sy-Klone type
Radiator and hydraulic oil cooler, corrosion prot.
Hand throttle control
Reversible cooling fan, in combination with axle oil cooler
Fuel fill strainer
Fuel filter extra large with water trap
Fuel filter with water trap and heating

Electrical system

Alternator 80 A
Air filter for alternator
Working light, attachments
Working lights front, extra
Working lights rear, extra
Assymetrical lights for left-hand traffic
Reverse alarm
Reverse lights
Shortened headlight support brackets

Warning beacon, rotating, collapsible
Side marker lamps
Battery disconnect switch, additional in cab

Cab

Installation kit for radio, 12 V
Radio with tape recorder
Radio with CD-player
Sliding window, right
Sliding window, door
Sun blinds, front and rear windows
Sun blinds, side windows
Retractable hipbelt, longer and wider than standard
Air conditioning with corrosion prot. condenser
Air conditioning with corrosion prot. condenser and automatic temp. control (ATC)
Ventilation air filter for work in asbestos environment
Operator's seat with low backrest
Operator's seat with low backrest and electrical heating
Operator's seat with high backrest and electrical heating
Operator's seat air suspended with high backrest and electrical heating
Armrest (left) for operator seat
Adjustable steering wheel
Steering wheel knob
Noise reduction kit
Rear view camera incl. monitor
Rear view mirrors, el. heated
Cab ladder, rubber suspended

Drivetrain

Speed limiter, 20 km/h
Speed limiter, 30 km/h

Hydraulic system

Biodegradable hydraulic fluid
Hydraulic oil cooler, extra in combination with axle oil cooler

External equipment

Mudguards widener front/rear
Mudguards, fixed front and swing out rear

Protective equipment

Guards for front headlights
Guards for taillights, heavy-duty
Guards for side and rear window
Guard for radiator grille
Belly guard rear
Belly guard, oil pan
Protection, lift cylinders
Guards for steer cylinder
Special hydraulic fixture for shipment protection

Other equipment

Comfort Drive Control, CDC
Secondary steering
Sign, slow moving vehicle
Noise reduction kit, EU
CE-marking
Sound decal, EU
Log pusher

Tires

Liquid in front tires



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 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.**



All products are not 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

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