

VOLVO WHEEL LOADERS
L180E
HIGH-LIFT

SUPPLEMENT



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 (19,000 lb) working load, 5.5 m (18'0") lift height under the hanging load, with a grapple capacity of 3.2 m² (34.4 ft²) and a 4.4 m (13'1") reach, Volvo L180E High-Lift is the most powerful, efficient and most productive high-lift we've ever built for log handling.

Higher stacks give 60 percent smaller storage area

The High-Lift's height and long reach give short cycle times in applications such as unloading logs and pulp wood, stacking, and unloading in sorting hoppers and on 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 maximum lift height when stacking logs you can utilize the stockyard surface 60-70 percent more effectively than in traditional log handling.

New load-sensing hydraulics for higher hydraulic capacity

With the Volvo E-series, the load-sensing hydraulics have been given a variety of new features that increase productivity and efficiency to even higher levels. Now it's possible to run several hydraulic functions simultaneously. Now you can close the grapple with full force and lift the grapple arm at the same time, which increases productivity throughout the 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 short work cycles. The articulated wheel loader is easy to maneuver, smooth and quiet; at the same time it is 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 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, fresh air. The electronic monitoring system, Con-tronic, gives the operator full control of the machine's vital functions.

Lever steering (Comfort Drive Control*) or wheel steering can be chosen for operator comfort.

Fuel consumption reduced by another 20 percent

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

Produce more in comfort

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 give quick response and power, when and where it's needed. The automatic powershifting system APS, with four different selectable shifting programs, gives optimal productivity in all work cycles.

With Volvo wheel loaders, you can produce more in comfort.

For more information, see the brochure for Volvo L180E.

* Optional equipment





Specifications

Hydraulic system

Working Hydraulic System: Closed center system (load-sensing) with pilot-operated hydraulic valves. Pumps: 2 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 (extra equipment).

Relief pressure maximum, pump 1 20 MPa (2900 psi)
 Flow 247 l/min (65,3 US gpm)
 at 10 MPa (1450 psi)
 and engine speed 31.7 r/s (1900 rpm)
 Relief pressure, pump 2 21 MPa (3050 psi)
 Flow 247 l/min (65,3 US gpm)
 at 10 MPa (1450 psi)
 and engine speed 31.7 r/s (1900 rpm)

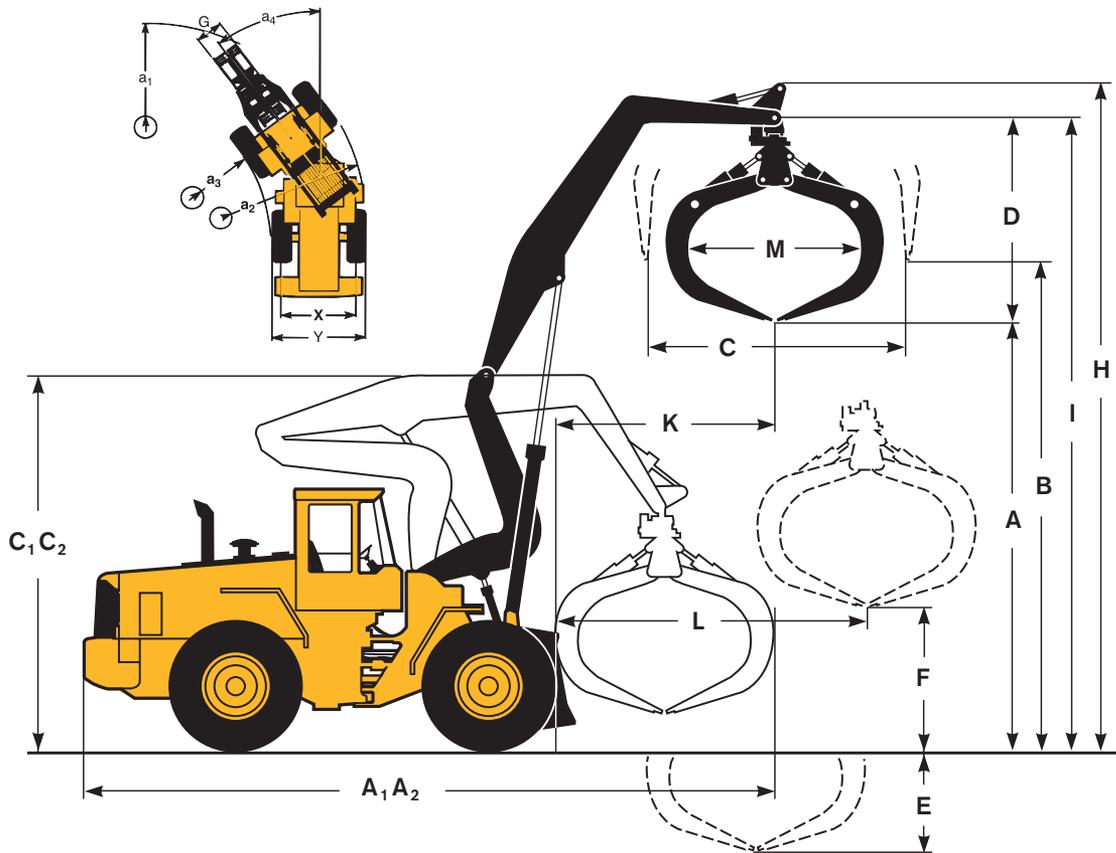
Pilot system

Relief pressure 3.5 MPa (508 psi)

Cycle times

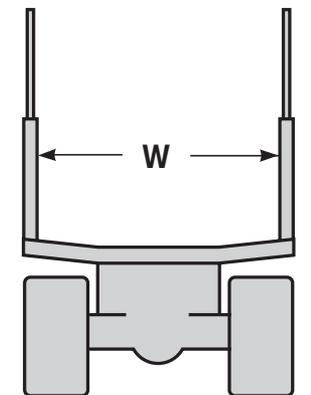
Lift 8.0 s
 Lower 6.0 s
 Tilt forward 4.2 s
 Tilt backward 4.2 s
 Grapple opening 3.2 s
 Grapple closing 3.3 s
 Grapple tilt backward 6.0 s
 Grapple tilt forward 3.0 s
 Rotator 4.5 s/r
 Log pusher up 2.0 s
 Log pusher down 1.8 s

Operational data



Tires: 800/65 R29*

Rotating grapple, 360°, 3.2 m², 34.4 ft²		
A ₁	Grapple positioned lengthwise 3.5 m	9350 mm 30'7"
	- with log pusher	9830 mm 32'3"
A ₂	Grapple tilted forward	10 520 mm 34'5"
C ₁	Grapple positioned lengthwise	4900 mm 16'1"
C ₂	Grapple tilted forward	4700 mm 15'4"
H		8860 mm 29'1"
I		8490 mm 27'9"
K		2750 mm 9'02"
L		3950 mm 13'0"
X		2280 mm 7'48"
a ₁		7530 mm 24'7"
a ₂		6780 mm 22'2"
a ₃		3830 mm 12'6"
a ₄		±37°



Note: at logloading of vehicle the log grapple's width (M-measure) should be 150 mm (0'49") 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	lb	12 250 27,006	20 860 45,988	26 660 58,774	15 050 33,179
Ground pressure	kg/cm²	pounds/sq. ft.	6.5 13	4.5 9	6.5 13	4.5 9

Tire inflation: 650 kPa, 94 psi front and 450 kPa, 65 psi rear.

Tipping load			
A ¹	Tipping load straight machine, max height	11 610 kg	25,600 lb
A ²	Tipping load at full turn	10 780 kg	23,765 lb
B ¹	Tipping load straight machine, max reach	11 000 kg	24,250 lb
B ²	Tipping load at full turn	9450 kg	20,833 lb



	TIMBER, 5.0 M (16'4") LENGTH		TIMBER, 4.0 M (13'1") LENGTH	PULP WOOD, 4.0 M (13'1")LENGTH	
					
Tires 800/65 R29*					
Grip area	m ²	3.2	3.2	3.5	3.8
	ft ²	34.4	34.4	37.7	40.9
Working load	kg	8600	8600	8600	8600
	lb	18 960	18 960	18 960	18 960
A	mm	5590	5590	5640	5140
	ft in	18'3"	18'3"	18'3"	16'9"
B	mm	6540	6540	6530	6300
	ft in	21'5"	21'5"	21'4"	20'7"
C	mm	3630	3630	3750	4500
	ft in	11'9"	11'9"	12'3"	14'8"
D	mm	2900	2900	2850	3350
	ft in	9'5"	9'5"	9'35"	11'0"
E	mm	1200	1200	1250	1670
	ft in	3'94"	3'94"	4'10"	5'50"
F	mm	2270	2270	2220	1820
	ft in	7'45"	7'45"	7'28"	5'97"
G	mm	1 100	1100/900	1100	1100/900
	ft in	3'61"	3'61"/2'95"	3'61"	3'61"/2'95"
M	mm	2400	2400	2550	2350
	ft in	7'87"	7'87"	8'37"	7'71"
Operating weight*	kg	32 910	33 110	33 410	33 160
	lb	72 554	72 994	73 655	73 104
Shortwood (pulpwood)				X	X
Timber		X	X	X	
Terminal handling		X	X	X	X
Unloading/loading of vehicles		X	X	X	X/X
Unloading against wall					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 increase the weight by 1830 kg (4034 lb). The log pusher increases the operating weight by 800 kg (1764 lb). 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
Muffler, spark arresting
Two fuel filters
Coolant filter
Oil trap
Fuel fill strainer

Electrical system

24 V, prewired for optional accessories
Alternator, 24 V/55 A
Battery disconnect switch
Fuel gauge
Hour meter
Electric horn
Air filter for alternator
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
Outdoor 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
de clutch function of transmission
PWM-control between different gear positions
Forward and reverse switch by lever console
Differentials:
front: 100% hydraulic diff lock
rear: conventional
Oil cooler for front and rear axle

Brake system

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

Cab

ROPS (SAE J1040CC, ISO 3471), FOPS (SAE J231, ISO 3449)
Sliding window, right
Sliding window, door
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 rearview mirror
2 exterior rearview 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
Operator's seat with high backrest, heated
Adjustable steering wheel
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
Rotator

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

Tires

800/65 R29 XLD L3 Michelin

OPTIONAL EQUIPMENT

(Standard on certain markets)

Service and maintenance

Tool box
Tool kit
Refill pump for auto lub system
Wheel nut wrench kit

Engine equipment

Engine block heater
Oil bath pre-cleaner
Turbo air cleaner
Sy-klone pre-cleaner
Radiator and hydraulic oil cooler, corrosion prot.
Hand throttle
Reversible fan

Electrical system

Attachment working lights
Extra working lights front
Extra working lights rear
Light, licence plate
Assymetrical lights for left-hand traffic
Rotating beacon, collapsible
Side marker lamps
Acoustic back-up signal
Alternator 80 A

Cab

Radio with tape recorder
Installation kit for radio
Sunblinds, front and rear windows
Sunblinds, side windows
Retractable seatbelt, longer and wider than standard
Air-conditioning
Ventilation air filter for work in asbestos environment
Operator's seat with low backrest
Operator's seat with low backrest, heated
Operator's seat air suspended with high backrest and electrical heating
Instructor's seat
Armrest (left) for ISRI operator seat
Lunchbox holder
Steering knob
Noise reduction kit
Rear view camera
Automatic temp control (ATC)
Heated rear view mirrors

Hydraulic system

Biodegradable hydraulic fluid

External equipment

Mudguards widener
Mudguards, fixed front and swing out rear

Protective equipment

Guards for front headlights
Guards for taillights
Guards for side windows and rear window
Guards for radiator grill
Belly guard rear
Protection, lift cylinders

Other equipment

Comfort Drive Control, CDC
Secondary steering
Sign, slow moving vehicle
Log pusher

Tires

800/65 R29 GP4D*6S Good Year
775/65 R29 VTS Bridgestone



Technology on Human Terms

Volvo Construction Equipment is one of the world's leading manufacturers of construction machines, with a product range encompassing wheel loaders, excavators, articulated haulers, motor graders and more.

The tasks they face vary considerably, but they all share one vital feature: technology which helps man to perform better: safely, efficiently and with care of the environment. We refer to it as Technology on Human Terms.

The sheer width of the product range means it is always possible to choose exactly the right machine and attachment for the job. Each machine also comes with the quality, continuity and security which is represented by the

Volvo name. The strength of the service and parts organizations and the security of always having immediate access to leading-edge research and technical development are part of the Volvo name. A machine from Volvo meets the very highest demands in all kinds of jobs, under all conditions, the world over.

Volvo Construction Equipment develops, manufactures and markets construction equipment. We are a Volvo company with production facilities on four continents and a market presence in over 100 countries.

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

VOLVO

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