

Volvo Construction Equipment
Building Tomorrow



L180H HIGH-LIFT

Volvo Wheel Loaders 34.9-38.0 t 341 hp



REACH FURTHER, LIFT HIGHER

The new H-series L180H High-Lift may boast the same striking design as the former G-Series, but this machine has been updated with the latest innovative technology, promoting greater productivity and fuel efficiency. With a High-Lift ability unique to Volvo, the L180H High-Lift pushes the boundaries of the ordinary wheel loader.

A proven concept since 1974

Volvo was the first to present a High-Lift wheel loader to the industry in 1974. Built on years of experience the new Volvo L180H High-Lift has been specifically designed, from frame to grapple, for log handling applications.



60% more space

Optimize space in your timber yard and save up to 60% worth of space, thanks to the high-lift arm system of the L180H High-Lift. Offering excellent stability and long reach (3 metres), to stack logs up to 6.5 metres high.

Range of grapples

To help you reach any log on the stack, Volvo grapple with rotator unit offers 360° rotation and has built-in shock absorbers and a tilting function. For more information on our complete range of Volvo attachments, just speak to your dealer!

Benefits in the base

Primed for productivity, the robust wheel loader base offers stability when travelling over adverse terrains at high speeds. This is enhanced by the Boom Suspension System, which engages to absorb shock and reduce bouncing.

Make room for more stock

Store more timber and push logs further onto the pile, with the optional log pusher. Increasing stack height by up to 30% (1.5 m), the log pusher is an efficient tool for log handling operations. For comfort and safety, the log pusher is operated by two push buttons, situated in front of the hydraulic control levers.



Sky-high efficiency

The new L180H High-Lift combines the latest Volvo technology with power and upgraded features, resulting in up to 5% better fuel efficiency and 5% greater productivity than the G-series.

Up to 5% greater fuel efficiency

Do more with less fuel, the H-series machine update offers up to 5% 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.



Boost your productivity by up to 5%

For ultimate stability and high efficiency, the L180H High-Lift has been upgraded with a new transmission, which works in harmony with the engine and axles. 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.

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.



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.



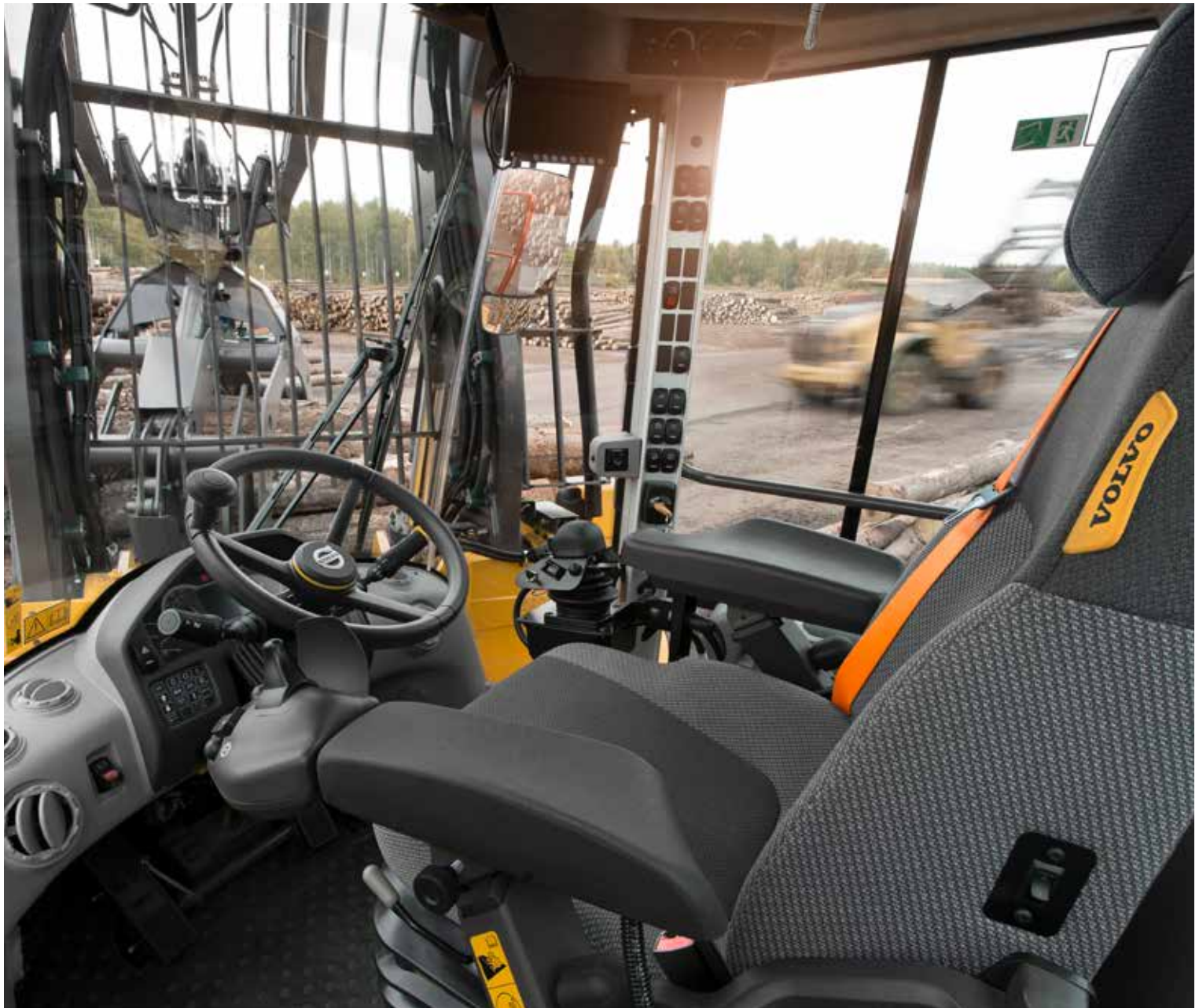


NEW GENERATION OPTISHIFT

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.



*I am providing service for the sorting line, extracting sorted timber from the pockets.
The Volvo wheel loader is an excellent machine, easy to use and convenient. Controls and hydraulics, everything is fine.
Vladimir Golubev, Wheel loader operator, Malinovskiy Sawmill, West Siberia (Russia)*



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 L180H High-Lift boasts a range of features to enhance your operating experience, including Comfort Drive Control. For increased productivity, the Volvo cab can be customized to your preference.

Visibility

To enhance visibility, the High-Lift has new rear view mirrors and is equipped with a rear-view camera. Optimized by the optional 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.



Comfortably productive

Ensure precise control of the hydraulics from the specially designed lever, with multiple functions. For greater controllability and improved cycle times, Comfort Drive Control gives you the opportunity to steer the machine from a small lever.



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.



In demand

Offering strength in demanding applications, the L180H High-Lift is built to last. Maintain the life of your machine with simple serviceability and proactive dealer support, as well as flexible maintenance and repair plans.

Proactive Monitoring

Keep your machine moving with Proactive Monitoring. 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.



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.



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.



Volvo, with its special attachments for wood handling, has the upper hand over other manufacturers. And if we had to choose only one brand, we would choose Volvo – that is on the one hand a question of philosophy, but on the other hand also for economic reasons.

**Hans Weinzierl Junior, Managing Director,
Holzwerke Weinzierl, Vilshofen (Germany)**





INDUSTRY LEADING SERVICEABILITY

For simple serviceability, 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.

BUILT FOR THE JOB

- Redesigned rear view mirrors
- Rear-view camera
- New adjustable premium seat (optional)
- Comfort Drive Control (optional)
- Radar detect system (optional)

UP TO 5% GREATER FUEL EFFICIENCY

- New generation OptiShift
- New dry P-brake
- Eco pedal
- Reverse By Braking

MAXIMIZE YOUR UPTIME

- Strong frame and central hinge
- Tilting cab – 30° or 70°
- Electronically-operated engine hood
- Brake wear indicators
- Outboard mounted brakes
- Replaceable breather filters



New levels of efficiency

SET YOUR TARGETS HIGHER

- New transmission and gear ratio: 5% greater productivity
- High-lift arm system: reach up to 3 m, stack up to 6.5 m
- Wheel loader base
- Log pusher: up to 30% higher stack
- Range of grapples

HERE TO SUPPORT YOU

- Genuine Volvo Parts
- Operator training
- Proactive Monitoring



Volvo L180H High-Lift in detail

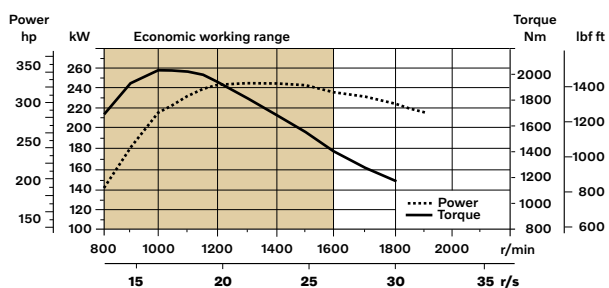
Engine

V-ACT Stage V, 13 liter, 6-cylinder straight turbocharged diesel engine with 4 valves per cylinder, overhead camshaft and electronically controlled unit injectors. The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. The throttle applications is transmitted electrically from the throttle pedal or the optional hand throttle.

Air cleaning: Three-stage: - primary filter -secondary filter.

Cooling system: Hydraulically driven radiator cooling fan.

Engine	Volvo	D13J
Max. power at	r/min	1 300 - 1 400
ECE R120 net	kW	251
	hp	341
ISO 9249, SAE J1349 net	kW	250
	hp	340
Max. torque at	r/min	1 000
SAE J1995 gross	Nm	2 030
ISO 9249, SAE J1349 net	Nm	2 024
Economic working range	r/min	800 - 1 600
Displacement	l	12.8



Brake System

Service brake: Volvo dual-circuit system with nitrogen-charged accumulators. Outboard-mounted fully hydraulic operated, fully sealed oil circulation-cooled wet disc brakes. The operator can select automatic declutch of the transmission when braking by a switch on the instrument panel.

Parking brake: Dry disc brake. Applied by spring force, electro-hydraulic release with a switch on the instrument panel.

Secondary brake: Dual brake circuits with rechargeable accumulators. One circuit or the parking brake fulfills all safety requirements.

Standard: The brake system complies with the requirements of ISO 3450.

Number of brake discs per wheel front		1
Accumulators	l	2 x 1.0 + 1 x 0.5

Electrical System

Central warning system:

Contronic electrical system with central warning light and buzzer for following functions: - Serious engine fault - Low steering system pressure - Over speed warning engine - Interruption in communication (computer fault)

Central warning light and buzzer with the gear engaged for the following functions: - Low engine oil pressure - High engine oil temperature - High charge air temperature - Low coolant level - High coolant temperature - High crank case pressure - Low transmission oil pressure - High transmission oil temperature - Low brake pressure - Engaged parking brake - Fault on brake charging - Low hydraulic oil level - High hydraulic oil temperature - Overspeeding in engaged gear - High brake cooling oil temperature front and rear axles.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	2 x 170
Cold cranking capacity, approx	A	1 000
Alternator rating	W/A	2 280/80
Starter motor output	kW	7

Drivetrain

Torque converter: Single-stage.

Transmission: Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears with Pulse Width Modulation (PWM) valve. Torque converter with lockup.

Transmission: Volvo Automatic Power Shift (APS) with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO.

Axles: Volvo fully floating axle shafts with planetary hub reductions and nodular iron axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle.

Transmission	Volvo	HTL 223
Torque multiplication, stall ratio		2.09:1
Maximum speed, forward/reverse		
1st gear	km/h	6.1
2nd gear	km/h	12.6
3rd gear	km/h	23.5
4th gear	km/h	38
Note: 4th gear limited by ECU		
Measured with tires		800/65R29
Front axle/rear axle		AWB 40B
Rear axle oscillation	± °	13
Ground clearance	mm	610
at oscillation	°	13

Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronic 3.0 monitoring system.
Heater and defroster: Heater coil with filtered fresh air and fan with auto and 11 speeds. Defroster vents for all window areas.
Operator's seat: Operator's seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall. The forces from the retractable seatbelt are absorbed by the seat rails.
Standard: The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 ("Operator Restraint System").
Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO₂-eq

Ventilation	m ³ /min	9
Heating capacity	kW	16
Air conditioning (optional)	kW	7.5

Steering System

Steering system: Load-sensing, hydrostatic articulated steering.
System supply: The steering system has priority feed from a load-sensing axial piston pump.
Steering cylinders: Two double-acting cylinders.

Steering cylinders		2
Cylinder bore	mm	100
Rod diameter	mm	60
Stroke	mm	525
Working pressure	MPa	21
Maximum flow	l/min	252
Maximum articulation	± °	37

Service Refill

Service accessibility: Large, easy-to-open hood covering whole engine department, electrically operated. Fluid filters and component breather air filters promote long service intervals. Possibility to monitor, log and analyze data to facilitate troubleshooting.

Fuel tank	l	366
DEF/AdBlue® tank	l	31
Engine coolant	l	55
Hydraulic oil tank	l	156
Transmission oil	l	48
Engine oil	l	50
Axle oil front	l	46
Axle oil rear	l	55

Lift Arm System

The Volvo high-lift arm system is a rugged and stable in-house design, with optimized visibility throughout the work cycle. The new lift arm design gives increased lift height and the possibility to rotate the grapple 360 degrees fully open at top position. The lift height is 5.8 meters under closed grapple.

Lift cylinders		2
Cylinder bore	mm	140
Piston rod diameter	mm	110
Stroke	mm	2 220
Tilt cylinder		2
Cylinder bore	mm	140
Piston rod diameter	mm	70
Stroke	mm	691

Hydraulic System

System supply: Two load-sensing axial piston pumps with variable displacement. The steering function always has priority from one of the pumps.

Valves: Two main 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).

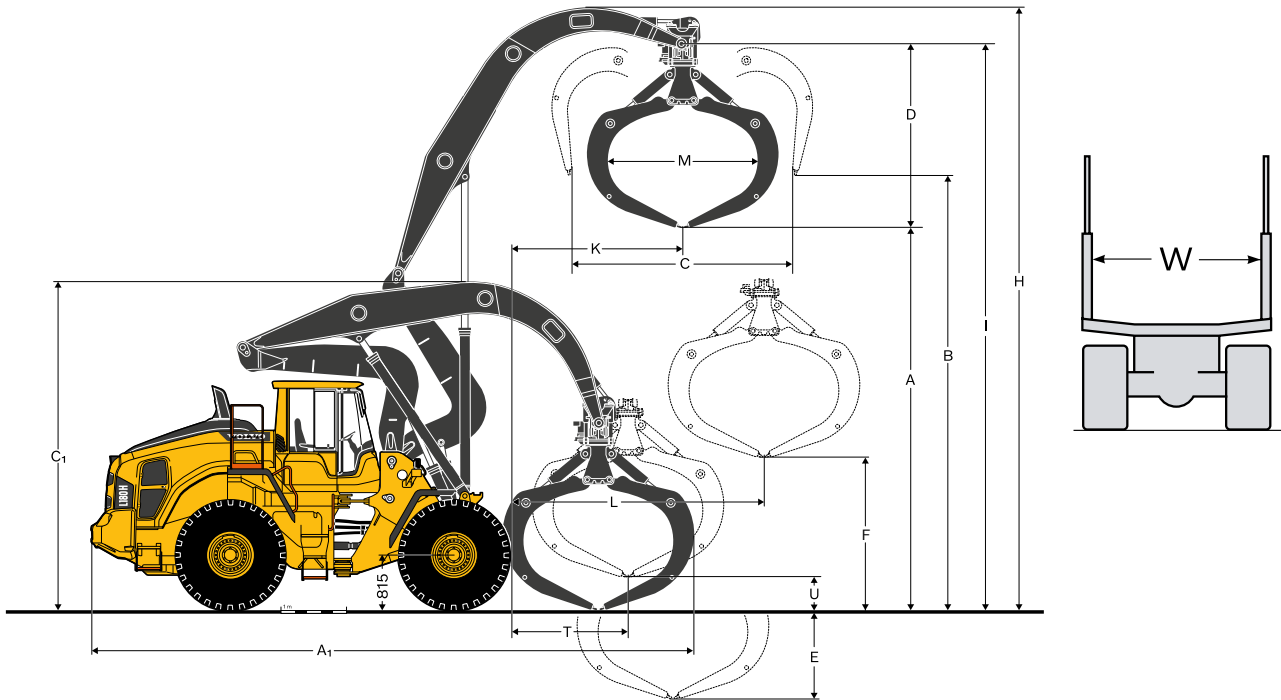
Filter: Full flow filtration through 10 micron (absolute) filter cartridge.

Working pressure maximum, pump 1	MPa	20
Working pressure maximum, pump 2	MPa	21
Pilot system	MPa	3.2 - 4.0
Lower, empty (top to bottom)	s	6

Sound Level

Sound pressure level in cab according to ISO 6396		
L _{pA}	dB	70
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L _{WA}	dB	108

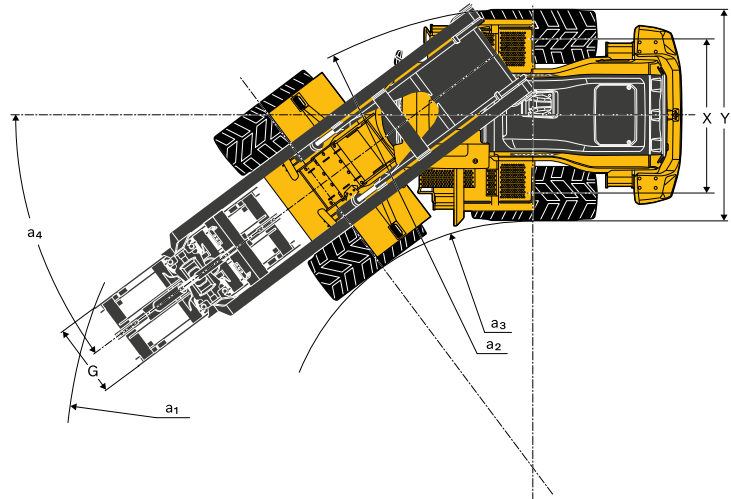
Specifications






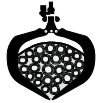

Tires: 775/65 R29*

Rotating grapple, 360°, 3.2 m², 82127

A ₁	Grapple positioned lengthwise	mm	9 600
	– with log pusher	mm	9 916
A ₂	Grapple tilted forward	mm	10 590
C ₁	Grapple positioned lengthwise	mm	5 160
C ₂	Grapple tilted forward	mm	4 760
H		mm	9 132
I		mm	8 930
K		mm	2 760
L		mm	3 990
X		mm	2 280
Y		mm	3 080
a ₁		mm	7 630
a ₂		mm	6 840
a ₃		mm	3 830
a ₄		°	± 37



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

		Timber Length 5.0 m		Timber Length 4.0 m	Pulpwood Length 4.0 m	
Tires 775/65 R29*						
Grapple area	m ²	3.2	3.2	3.5	3.8	3.8
Grapple weight	kg	1 880	2 050/1 960	2 150	2 020/1 940	2 210
Working load	kg	8 800	8 600/8 700	8 500	8 600/8 700	8 500
A	mm	5 800	5 800	5 700	5 350	5 350
B	mm	6 700	6 700	6 600	6 450	6 450
C	mm	3 630	3 630	3 750	4 500	4 500
D	mm	2 900	2 900	2 850	3 350	3 200
E	mm	1 330	1 330	1 430	1 780	1 780
F	mm	2 255	2 255	2 150	1 800	1 800
G	mm	1 100	1 100/900	11	1 100/900	900
M	mm	2 400	2 400	2 550	2 350	2 350
Operating weight*	kg	34 935	35 105/35 015	35 205	35 075/34 995	35 265
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.		91 852	82 127/82 126	82 128	94 463/93 607	82 129

* Including liquid in rear tires.

Optional liquid in front tires increases operating weight by 1 830 kg. Log pusher (order no. 84181) increases operating weight by 800 kg. Radiator grille guard (WL86023) increases operating weight by 140 kg. Fire suppression system increases operating weight by 85 kg.

Equipment

STANDARD EQUIPMENT

Engine

Exhaust after-treatment system
 Three-stage air cleaner, pre-cleaner, primary and secondary filter
 Indicator for coolant level
 Preheating of induction air
 Fuel pre-filter with water trap
 Fuel filter
 Crankcase breather oil trap
 Reversible cooling fan
 Exterior radiator air intake protection

Drivetrain

Automatic Power Shift
 Fully automatic gearshifting, 1-4
 PWM-controlled gearshifting
 Forward and reverse switch by hydraulic lever console
 Indicator glass for transmission oil level
 Differentials: Front, 100% hydraulic diff lock. Rear, conventional.
 OptiShift
 Lock-up first gear

Electrical System

24 V, pre-wired for optional accessories
 Alternator 24V/80A/2280W
 Battery disconnect switch
 Fuel gauge
 Hour meter
 Electric horn
 Instrument cluster:
 Fuel level
 Diesel Exhaust Fluid/AdBlue level
 Transmission temperature
 Coolant temperature
 Instrument lighting

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 work lights (2 front and 2 rear)

STANDARD EQUIPMENT

Contronic Monitoring System

Monitoring and logging of machine data
 Contronic display
 Fuel consumption
 Diesel Exhaust Fluid/AdBlue consumption
 Ambient temperature
 Clock
 Test function for warning and indicator lights
 Brake test
 Test function, sound level at max fan speed

Warning and indicator lights:

Battery charging
 Parking brake

Warning and display message:

Regeneration
 Engine coolant temperature
 Charge-air temperature
 Engine oil temperature
 Engine oil pressure
 Transmission oil temperature
 Transmission oil pressure
 Hydraulic oil temperature
 Brake pressure
 Parking brake applied
 Brake charging
 Overspeed at direction change
 Axle oil temperature
 Steering pressure
 Crankcase pressure
 Attachment lock open
 Safety Belt Warning

Level warnings:

Fuel level
 Diesel Exhaust Fluid/AdBlue level
 Engine oil level
 Engine coolant level
 Transmission oil level
 Hydraulic oil level
 Washer fluid level

Engine torque reduction in case of malfunction indication:

High engine coolant temperature
 High engine oil temperature
 Low engine oil pressure
 High crankcase pressure
 High charge-air temperature

Engine shutdown to idle in case of malfunction indication:

High transmission oil temperature
 Slip in transmission clutches

Keypad, background lit

Start interlock when gear is engaged

STANDARD EQUIPMENT

Hydraulic System

Main valve, double acting 2-spool with hydraulic pilots
Variable displacement axial piston pumps (3) for:
1 Working hydraulics, Pilot hydraulics and Brake system
2 Working hydraulics, Pilot hydraulics, Steering and Brake system
3 Cooling fan and Brake system
Electro-hydraulic servo controls
Electronic hydraulic lever lock
Automatic boom kick-out
Automatic bucket positioner
Double-acting hydraulic cylinders
Indicator glass for hydraulic oil level
Hydraulic oil cooler
Boom suspension system

Brake System

Dual brake circuits
Dual brake pedals
Secondary brake system
Parking brake, electro-hydraulic
Brake wear indicators
Oil cooler and filter front & rear axle

Cab

ROPS (ISO 3471), FOPS (ISO 3449)
Single key kit door/start
Acoustic inner lining
Cigarette lighter, 24 V power outlet
Lockable door
Cab heating with fresh air inlet and defroster
Fresh air inlet with two filters
Automatic heat control
Floor mat
Dual interior lights
Interior rear-view mirrors
Dual exterior rear-view mirrors
Sliding window, right side
Tinted windshield glass
Retractable seatbelt (SAE J386)
Adjustable steering wheel
Storage compartment
Document pocket
Sun visor
Beverage holder
Windshield washer front and rear
Windshield wipers front and rear
Interval function for front and rear wipers

STANDARD EQUIPMENT

Service and Maintenance

Automatic lubrication system
Engine oil remote drain and fill
Transmission oil remote drain and fill
Lubrication manifolds, ground accessible
Pressure check connections: transmission and hydraulic, quick-connects
Tool box, lockable

External Equipment

Orange hand rails
Fenders, front and rear
Viscous cab mounts
Rubber engine and transmission mounts
Frame, joint lock
Vandalism lock prepared for
Engine compartment
Radiator grille
Lifting eyes
Tie-down eyes
Fabricated counterweight
Counterweight, pre-drilled for optional guards

Other Equipment

Counterweight, logging

Equipment

OPTIONAL EQUIPMENT

Engine

Air pre-cleaner, cyclone type
 Air pre-cleaner, oil-bath type
 Air pre-cleaner, turbo type
 Engine auto shutdown
 Engine delayed shutdown
 Engine block heater
 Fuel fill strainer
 Fuel heater
 Hand throttle control
 Max. fan speed, hot climate
 Radiator, corrosion-protected
 Reversible cooling fan and axle oil cooler

Tires

775/65 R29

Drivetrain

Speed limiter

Electrical System

Anti-theft device
 Emergency stop
 Locking device, Tag out Lock out
 Headlights, assym. left
 License plate holder, lighting
 Rear vision system, colour LCD monitor in the cab
 Reduced function working lights, reverse gear activated
 Reverse alarm, audible
 Reverse alarm, audible, multi-frequency
 Reverse warning light, strobe lighting
 Side marker lamps
 Warning beacon LED
 Warning beacon LED automatic
 LED Head Light
 LED tail light
 LED working lights, attachments
 LED working lights on cab, front and rear
 LED working lights on cab, front, 2 alt. 4 LED lamps
 LED working lights on cab, rear, 2 alt. 4 LED lamps
 LED working lights, rear in grille, 2 LED lamps
 LED working lights, front above head lamps, 2 LED lamps
 LED work lights, side on cab, 4 LED lamps
 LED work lights, attachments, 6 LED lamps
 LED light packages
 Working lights halogen, attachments
 Working lights on cab halogen, front and rear
 Working lights on cab halogen, rear
 Electrical distribution unit 24 volt
 Radar detect system
 Jump start connector, NATO-Type

Hydraulic System

Hydraulic fluid, biodegradable, Volvo
 Hydraulic fluid, fire-resistant
 Hydraulic fluid, for hot climate

Brake System

Stainless steel, brake lines

OPTIONAL EQUIPMENT

Cab

Anchorage for Operator's manual
 Automatic Climate Control, ACC
 ACC control panel, with Fahrenheit scale
 Asbestos dust protection filter
 Ashtray
 Cab air pre-cleaner, cyclone type
 Carbon filter
 Cover plate, under cab
 Lunch box holder
 Volvo Armrest, operator's seat, left
 Operator's seat, Volvo air susp, heavy-duty, high back, heated
 Operator's seat, (air seat std) 2-point seat belt
 Operator's seat, (air seat std) 3-point seat belt
 Radio installation kit incl. 12 volt outlet, left side
 Radio installation kit incl. 12 volt outlet, right side
 Radio (with AUX, Bluetooth and USB connection)
 Subwoofer
 Steering wheel knob
 Sun blinds, rear windows
 Sun blinds, side windows
 Timer cab heating
 Window, sliding, door
 Universal door/ignition key
 Remote door opener
 Forward view mirror
 Cab heater power outlet 240V

Service and Maintenance

Oil sampling valve
 Refill pump for grease to lube system
 Tool kit
 Wheel nut wrench kit
 Cleaner kit, with air blow gun
 ROX, rapid oil exchange pump
 CareTrack, GSM, GSM/Satellite
 Telematics, Subscription

Protective Equipment

Belly guard rear
 Belly guard rear, oil pan
 Center hinge and rear frame guard
 Cover plate, rear frame
 Cab roof, heavy-duty
 Guards for front headlights
 Guards for radiator grill
 Guards for tail lights
 Windows, side and rear guards
 Windshield guard

External Equipment

Cab ladder, rubber-suspended
 Fire suppression system
 Mudguards, full cover wideners and prot. Included
 Tow hitch

Other Equipment

CE-marking
 Comfort Drive Control (CDC)
 Secondary steering with automatic test function
 Sound decal, EU
 Sound decal, USA
 Reflecting stickers (decals), machine contour
 Reflecting stickers (stripes), machine contour Cab
 Noise reduction kit, exterior
 Sign, slow moving vehicle
 Sign, 50 km/h

Attachments

Log grapples

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Fire suppression system



Radar detect system



Log pusher



LED lights package



Rotating beacon LED



Hydro-inflated rear tyres



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

volvo.com