**Volvo Construction Equipment** 





Volvo Wheel Loaders 33.4-39.0 t 405 hp



# A passion for performance

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for industry experts. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.

# Helping you to do more.

Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

#### Designed to fit your needs.

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.



# You learn a lot in 180 years.

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

### We're on your side.

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.

## We have a passion for performance.













Volvo Trucks

Renault Trucks



VOLVO























Volvo Penta

Volvo Financial Services



Volvo Buses

Volvo Construction Equipment



# Volvo's OptiShift technology combines the company's patented Reverse By Braking (RBB) technology, with lock-up available from first to fourth gear, to boost productivity and efficiency in all applications. Lock-up creates a direct drive between the engine and transmission – eliminating power losses in the torque converter and reducing fuel consumption by up to 18%.

# An efficient operation.

Innovation is at the core of Volvo Construction Equipment. That's why our engineers are developing clever innovations to make equipment more fuel efficient while reducing emissions and environmental impact. OptiShift technology – a unique technical advancement which reduces fuel consumption by up to 18% and increases performance in wheel loaders – is just one example of this.

#### Reverse By Braking (RBB)

RBB is ideal for short cycle or truck loading applications. When the operator changes direction the Volvo patented RBB function senses the loader's direction and slows the machine by applying the service brakes automatically. This increases fuel efficiency, improves operator comfort and increases machine lifetime.





# Eco pedal

Volvo's unique eco pedal applies mechanical push-back force when the accelerator is used excessively and engine rpm is about to exceed the economic operating range. This encourages the operator to ease off the throttle, reducing fuel consumption.

#### Intelligent hydraulics

Volvo's load-sensing hydraulics, combined with the fuel efficient Volvo engine, supply power to the hydraulic functions according to demand, to boost efficiency and lower fuel consumption. The system ensures fast response for shorter cycle times while delivering smooth operation through superior control of both the load and the attachment.



# Fully loaded.

The new L250H from Volvo is a high production machine designed to increase your productivity and profitability in applications including quarry, aggregates, mining and heavy infrastructure. Experience short cycle times, high breakout force and excellent controllability with this heavy-duty machine.

# Z-bar linkage

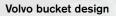
Volvo's proven Z-bar linkage provides high breakout force for strong, powerful digging in hard materials. The high lift capacity enables fully loaded buckets to be elevated to maximum height. Fast hydraulic speeds deliver quick load cycles, increasing productivity even in the toughest environments.





# **Boom Suspension System**

The optional Boom Suspension System (BSS) boosts productivity by up to 20% by absorbing shock and reducing the bouncing and bucket spillage that occurs when operating on rough ground. This enables faster and more comfortable work cycles and increases machine life.



Volvo buckets are developed and built as an integrated part of Volvo wheel loaders. As a result, the two are perfectly matched and work in harmony as one solid, reliable unit to deliver maximum productivity and long life.



# Powertrain

The ideally-matched, all-Volvo powertrain has been built to work together in perfect harmony. The Volvo design has been rigorously tested to deliver optimized performance, high productivity, low fuel consumption and superior reliability. This long-established and proven technology has been built by Volvo for 40 years, including all in-house components and parts.

# Heavy-duty for heavy duties.

If you're looking for a strong, durable and reliable wheel loader to handle heavy-duty applications then look no further than the L250H. Powered by a premium Volvo engine, this robust machine provides the strength and reliability you need to optimize your operation.

## Volvo engine

Featuring advanced technology and built on decades of experience, the powerful Volvo engine delivers high performance and low fuel consumption. The water cooled turbocharger increases engine life and performance.



#### Cooling on demand

The hydraulically-driven, electronically controlled cooling fan regulates the temperature of vital components. It automatically activates only when it's needed – reducing fuel consumption and noise. The standard reversible functionality – which blows air in the opposite direction – allows self-cleaning of the cooling units.





### Contronic and electronic systems

The machine's electronics support preventive maintenance and diagnostics for maximum uptime. Waterproof sealed connectors protect your machine's reliability and increase its longevity.

## Axle oil circulation

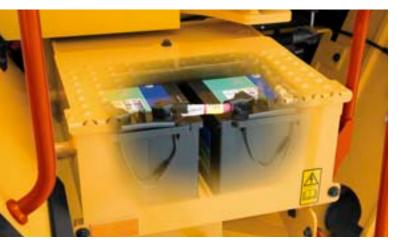
Both the front and the rear axle feature an axle oil circulation feature, which allows the axle oil to circulate and cool inside the axle – protecting components. The optional axle oil cooling system cools axles and can reduce oil changing intervals.

# Smart service access.

At Volvo we know that on site, time means money. That's why the L250H is fitted with a tilting cab – a feature which significantly improves service and maintenance access to give you more uptime. This is just one example of the many time-saving features Volvo incorporates into its machines. Trust Volvo to maintain your uptime.

#### Maintenance-free batteries

Two heavy-duty, maintenance-free 12V batteries in series provide a 24V electrical system. The batteries are located in a well-sealed compartment on the right side of the machine.



# Maintaining a smooth operation

Enjoy peace-of-mind for maximum machine uptime with the rear axle design. The sealed oscillation pins cradle keeps the grease in and the dirt out, keeping components greased for up to 8,000 hours so you can rely on reduced overall service time and costs.

# Grouped and ground level greasing points

The ground level, grouped greasing points makes servicing and maintaining your machine quick and easy. The optional, automatic lubrication system controls greasing when the machine is in operation for more uptime and reduced maintenance.



# Engine access

Electrically activated, the wide-opening engine hood allows quick and easy service access to the engine and components for maximum uptime.

Tilting cab

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The cab can be tilted in two positions – 35° and 70°. Tilting the cab greatly improves service and maintenance access which leads to more uptime and increased machine availability. The cab is tilted via a manually operated hydraulic pump.

# Loaded with innovation.



# Volvo cab

Volvo's industry-leading, certified ROPS/ FOPS cab features ergonomically placed controls, low internal noise levels, vibration protection and ample storage space.



# OptiShift

Volvo's OptiShift technology reduces fuel consumption by up to 18%, increases operator comfort and reduces stress in the drivetrain.

# Z-bar linkage

Volvo's proven Z-bar linkage provides high breakout force for strong, powerful loading in hard materials.

# Volvo bucket design

Volvo buckets are perfectly matched to Volvo machines

- together they work in harmony as one solid, reliable unit to deliver maximum productivity.

# Boom Suspension System (BSS)

The BSS boosts productivity by up to 20% by absorbing shock and reducing the bouncing and bucket spillage that occurs when operating at speed on rough terrain.

# Intelligent hydraulics

Volvo's load-sensing hydraulics supply power to the hydraulic functions according to demand, lowering fuel consumption.



# Powertrain

The ideally-matched, all-Volvo powertrain has been built to work together in perfect harmony - ensuring optimized performance.

# Single lever

VOLVO

The optional, multi-functional joystick gives the operator simultaneous and precise control of the linkage and drive.

# Volvo engine

The Volvo engine delivers high performance and low fuel consumption.

# Easy service access

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Electrically activated, wide-opening engine hood allows quick and easy service access to the engine compartment.

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# Tilting cab

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The cab can be tilted in two positions – 30° and 70° – for improved service and maintenance access. This leads to more uptime and increased machine availability.



# Volvo cab

The spacious ROPS/FOPS certified cab provides a comfortable operating environment with ergonomically placed controls and ample storage space. With low internal noise levels and vibration protection, operators will experience a productive work shift.

VOLVO

# Comfort increases productivity.

Spacious, comfortable, safe and quiet – those are just some of the words that describe Volvo's industry-leading cab. With ideally located controls, a comfortable seat and ample space for storage, it's no wonder that operators feel content and productive throughout the shift in a Volvo machine.

# Visibility

Volvo offers a variety of options to improve safety and visibility when working in the dark. This includes reflectors which follow the contour of the machine, LED entrance lights illuminating the cab for safe entry/exit and additional LED work lamps to increase visibility around the machine. All machine lights are available as LED through Volvo's light packages, which increases lifetime of the light and saves energy.

## Information panel

The display clearly presents the operator with vital machine information including fuel and oil levels and warning messages – ensuring optimal operation. From the operator seat, basic configurations and tests can be performed via the panel – which is easy-to-read even in bright sunlight.





# Cab air filter

The cab air intake is located high on the machine, where air is cleanest. The easy-to-replace pre-filter separates coarser dust and particles before the air passes through the main filter and finally enters the cab. Volvo's industry-leading design allows 90% of the cab air to be recirculated through the main filter for continuous dust removal.



## Single lever control

For ease of operation, the optional, multi-functional joystick gives the operator simultaneous and precise control of the hydraulic functions.

# Adding value to your business.

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximising uptime.



#### **Complete Solutions**

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.





CareTrack gives you access to a wide range of machine monitoring information designed to save you time and money. Reduce fuel costs, optimize machine and operator performance and proactively manage service and maintenance to maximize uptime.









# **Genuine Volvo Parts**

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.



# Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.



# **Customer Support Agreements**

PROFITABILITY

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The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

FUEL CONSUMPTION

# Volvo L250H in detail.

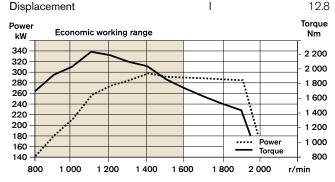
# Engine

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

#### Air Cleaning: 2 stages.

**Cooling system**: Hydrostatic, electronically controlled fan and intercooler of the air-to-air type.

Engine		D13E
Max power at	r/s (r/min)	25.0 (1 500)
SAE J1995 gross	kW / hp	298 / 405
ISO 9249, SAE J1349 net	kW / hp	296 / 402
Max torque at	r/s (r/min)	18.3 (1 100)
SAE J1995 gross	Nm	2 231
ISO 9249, SAE J1349 net	Nm	2 220
Economic working range	r/min	800 - 1 600
Diamla comont	1	100



## 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: Fully sealed, wet multi-disc brake built into the
transmission. 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.
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**Standard**: The brake system complies with the requirements of ISO 3450.

Number of brake discs per wheel (front)		2
Accumulators	I	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, appro	A xx	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 HTL307
		2.094:1
1st gear	km/h	7
2nd gear	km/h	11.5
3rd gear	km/h	24.5
4th gear	km/h	38
		29.5R25 L4
		AWB 50B / 41
	0	15
5° osc.	mm	600
	2nd gear 3rd gear 4th gear	2nd gear km/h 3rd gear km/h 4th gear km/h

# Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronic 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 and floor. 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").

Steering system: Load-sensing hydro	ostatic articulated stee	rina
Steering system		
Air conditioning (optional)	kW	7.5
Heating capacity	kW	16
Ventilation	m³/min	9
LwA	dB(A)	109
External sound level according to ISO	6395/SAE J2104	
LpA	dB(A)	70
Sound level in cab according to ISO	6396/SAE J2105	

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

Cylinder bore	mm	100
Piston rod diameter	mm	60
Stroke	mm	525
Working pressure	MPa	$21.0 \pm 0.35$
Maximum flow	l/min	202
Maximum articulation	±°	37

Service

**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	I	366
Engine coolant	I	55
Hydraulic oil tank	I	226
Transmission oil	I	48
Engine oil	I	50
Axle oil front/rear	I	78 / 80

#### Lift arm system

Z-bar		
Cylinders lift		2
Cylinder bore	mm	190
Piston rod diameter	mm	100
Stroke	mm	873
Cylinder tilt		1
Cylinder bore	mm	220
Piston rod diameter	mm	120
Stroke	mm	570

# Hydraulic system

**System supply**: Two load-sensing axial piston pumps with variable displacement. The steering system always has priority.

**Valves**: Double-acting 2-spool valve. The main valve is controlled by a 2-spool pilot valve.

Lift function: The valve has three positions; raise, hold and lower position. Inductive/magnetic automatic boom kickout can be switched on and off and is adjustable to any position between maximum reach and full lifting height.

**Tilt function**: The valve has three functions including rollback, hold and dump. Inductive/magnetic automatic tilt can be adjusted to the desired bucket angle.

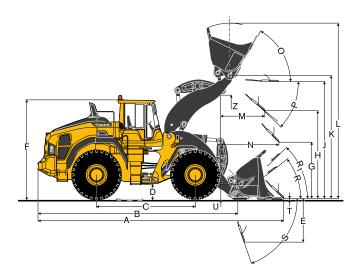
Cylinders: Double-acting cylinders for all functions.

Filter: Full flow filtration through 10 micron (absolute) filter cartridge.							
Working pressure maximum, pump 1	MPa	$29.0 \pm 0.5$					
Flow	l/min	252					
at	MPa	10					
engine speed	r/s(r/min)	32 (1 900)					
Working pressure maximum, pump 2	MPa	$31.0 \pm 0.5$					
Flow	l/min	202					
at	MPa	10					
engine speed	r/s(r/min)	32 (1 900)					
Working pressure maximum, pump 3	MPa	$25.0\pm0.5$					
Flow	l/min	83					
at	MPa	10					
engine speed	r/s(r/min)	32 (1 900)					
Pilot system	MPa	3.2 - 4.0					
Cycle times							
Lift	S	7.1					
Tilt	s	1.9					
Lower, empty	s	4.1					
Total cycle time	S	13.1					

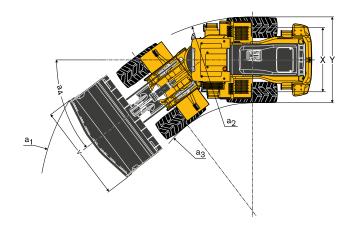
# Specifications.

		Standard boom	Long boom
A	mm	9 490	9 800
В	mm	7 530	7 800
С	mm	3 750	3 750
D	mm	540	540
E	mm	1 790	1 890
F	mm	3 740	3 730
F,	mm	3 630	3 630
F <sub>2</sub>	mm	2 850	2 840
G	mm	2 1 3 2	2 133
Н	mm	3 1 4 0	3 490
J	mm	4 340	4 700
K	mm	4 640	5 000
L	mm	6 330	6 680
М	mm	1 670	1 640
N	mm	2 340	2 610
0	0	62	57
P <sub>2</sub>	0	45	45
P	0	47	47
R	0	41	43
R,	0	48	51
S	0	75	81
S <sub>1</sub>	0	42	46
Т	mm	129	197
U*	mm	540	620
V	mm	3 580	3 580
Х	mm	2 400	2 400
Y	mm	3 170	3 170
Z	mm	3 940	4 150
a <sub>1</sub>	mm	15 860	16 060
a <sub>2</sub>	mm	7 110	7 110
a <sub>3</sub>	mm	3 950	3 950
a <sub>4</sub>	o	37	37

\* Carry position SAE Bucket: 5.7 m³ STE P T SEG



Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.



# L250H

									LIGHT LO	LONG	
Tires 29.5 R25 L4		REHAN	DLING	GEN	ERAL PURP	OSE	ROCK***			MATERIAL	BOOM*
	_										
		6.1 m <sup>3</sup> STE P BOE	6.9 m <sup>3</sup> STE P BOE	5.7 m <sup>3</sup> STE P T SEG	6.4 m³ STE P T SEG	6.4 m <sup>3</sup> STE P BOE	5.5 m³ STE P T SEG	5.5 m³ SPN P T SEG	6 m³ SPN P T SEG	10.2 m <sup>3</sup> LM P	
Volume, heaped ISO/SAE	m <sup>3</sup>	6.1	6.9	5.7	6.4	6.4	5.5	5.5	6.0	10.2	-
Volume at 110% fill factor	m <sup>3</sup>	6.7	7.6	6.3	7.0	7.0	6.1	6.1	6.6	11.2	-
Static tipping load, straight	kg	27 590	27 260	25 640	25 370	25 601	26 310	25 790	25 350	24 680	-3 050
at 35° turn	kg	24 520	24 200	22 760	22 500	22 733	23 390	22 860	22 440	21 810	-2 760
at full turn	kg	24 170	23 860	22 440	22 180	22 406	23 060	22 530	22 110	21 490	-2 740
Breakout force	kN	311.8	291.0	323.4	298.7	303.9	330.9	277.1	265.2	251.9	-28
Α	mm	9 230	9 350	9 490	9 600	9 280	9 410	9 740	9 840	9 610	310
E	mm	1 560	1 670	1 790	1 890	1 600	1 710	2 020	2 1 1 0	1 930	100
H**)	mm	3 320	3 230	3 1 4 0	3 060	3 280	3 200	2 980	2 910	3 010	350
L	mm	6 490	6 610	6 330	6 440	6 440	6 680	6 680	6 740	7 030	350
M**)	mm	1 520	1 610	1 670	1 750	1 550	1 620	1 860	1 930	1 770	-30
N**)	mm	2 270	2 320	2 340	2 390	2 290	2 320	2 460	2 490	2 390	270
V	mm	3 580	3 580	3 580	3 580	3 580	3 580	3 580	3 580	3 700	-
a <sub>1</sub> clearance circle	mm	15 740	15 800	15 860	15 910	15 760	15 830	16 000	16 040	16 060	-
Operating weight	kg	34 560	34 720	33 980	34 120	33 970	34 900	35 280	35 250	34 790	-80

\*) Measured with 5.7 m<sup>3</sup> GP STE P T SEG bucket
\*\*) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle. (Spade nose buckets at 42°.)
\*\*\*) Measured with 29.5 R25 L5 tire

## **Bucket Selection Chart**

regard to the	material density.	
Material	Bucket fill, %	Material density, t/m <sup>3</sup>
Earth	110 - 115	1.4 - 1.6
Clay	110 - 120	1.4 - 1.6
Sand	100 - 110	1.6 - 1.9
Gravel	100 - 110	1.7 - 1.9
Rock	75 - 100	1.5 - 1.9

The size of rock buckets is optimized for optimal penetration and filling capability rather than the density of the material.

Type of boom	Type of bucket	ISO/SAE Bucket volume	<b>L250</b> 0,		aterial dens ,2 1	,6 1	,8 2	,0
	Rehandling	6,1 m³ 6,9 m³					1	
E	iral se	5,7 m³						
Door	General purpose	6,5 m <sup>3</sup>						
Standard boom	0,4 11							
tand	<u> </u>	5,6 m³						
S	Rock	5,5 m³						
		6,0 m <sup>3</sup>				ļ		
	Light material	10,2 m³						
	Rehandling	6,1 m³				1		
Long boom	General purpose	5,7 m³						
Loi	Rock	5,5 m³						
	Light material	10,2 m³						
110%	Bucket fi	00% 95%	Pir	1 <del>-</del> on				
How to r	ead buc	ket fill facto						

### **Supplemental Operating Data**

		Standard boom	Long boom				
Tires 29.5 R25	L4	29.5 R25 L5	875/65R29 L3	29.5 R25 L5	875/65R29 L3		
Width over tires	mm	35	95	35	95		
Ground clearance	mm	40	-10	40	-20		
Tipping load, full turn	kg	1 010	180	930	180		
Operating weight	kg	1 490	650	1 500	650		

Note: This only applies to genuine Volvo attachments.

# Equipment.

#### STANDARD EQUIPMENT

Service and maintenance 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 Engine Two 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 Exterior radiator air intake protection 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) 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

Electrical system 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 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 Brake system Dual brake circuits Dual brake pedals Secondary brake system Parking brake, electro-hydraulic Brake wear indicators 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

#### 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
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

#### **OPTIONAL EQUIPMENT**

Service and maintenance
Automatic lubrication system
Automatic lubrication system for long boom
Oil sampling valve
Refill pump for grease to lube system
Tool kit
Wheel nut wrench kit
CareTrack, GSM, GSM/Satellite
Telematics, Subscription
Engine
Air pre-cleaner, cyclone type
Air pre-cleaner, oil-bath type
Air pre-cleaner, turbo type
Engine auto shutdown
Engine block heater 230V/110V
Fuel fill strainer
Fuel heater
Hand throttle control
Max. fan speed, hot climate
Radiator, corrosion-protected
Reversible cooling fan
Reversible cooling fan and avle oil cooler

Reversible cooling fan and axle oil cooler

Hydraulic oil level Washer fluid level

# OPTIONAL EQUIPMENT

OPTIONAL EQUIPMENT
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
Shortened headlight support brackets
Side marker lamps
Warning beacon LED
Working lights halogen, attachments
Working lights LED, attachments
Working lights on cab halogen, front and rear
LED Head Light
Working lights, on cab LED, front and rear
Working lights, rear in grille, 2 LED lamps
Working lights, front above head lamps, 2 LED
lamps Taillight, LED lamp
Electrical distribution unit 24 volt
Load Assist
Radar detect system
Jump start connector, NATO-Type
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
Drivetrain
Diff lock front 100%, Limited Slip rear
Speed limiter
Wheel/axle seal guards
Brake system
Oil cooler and filter front & rear axle

Stainless steel, brake lines

Hydraulic system	
Boom suspension system	
Separate attachment locking	
Arctic kit, for 3rd function	
Boom cylinder hose and tube guards	
Hydraulic fluid, biodegradable, Volvo	
Hydraulic fluid, fire-resistant	
Hydraulic fluid, for hot climate	
Hydraulic 3rd function	
Single lever control, hydraulics 2 functions	
Single lever control, hydraulics 3 functions	
Single lever control, hydraulics 4 functions	S
External equipment	
Cab ladder, rubber-suspended	
Deleted front mudguards	
Fire suppression system	0
Mudguards, full cover, front and rear for 8 tires	U-series
Mudguards, full cover, front and rear for 6 tires	5-series
Long boom	
Tow hitch	
Protective equipment	
Belly guard front	
Belly guard rear	
Cover plate, heavy-duty, front frame	
Cover plate, rear frame	
Cover plate, front/rear axle	
Cab roof, heavy-duty	
Guards for front headlights	
Guards for radiator grill	
Guards for tail lights	
Windows, side and rear guards	
Windshield guard	
Corrosion protection, painting of machine	
Other equipment	
CE-marking	
Comfort Drive Control (CDC)	
Counterweight, logging	notion
Secondary steering with automatic test fu	ncuon
Sound decal, EU Sound decal, USA	
	lour
Reflecting stickers (decals), machine cont Reflecting stickers (stripes), machine cont	
Noise reduction kit, exterior	
Tires	
26.5 R25	
775/65 R29	
29.5 R25	
875/65 R29	
Attachments	
Buckets:	
Rock straight or spade nose	
General purpose	
Re-handling	
Side-dump	
Light material	
-g matoriai	
Wear parts:	
Wear parts: Bolt-on and weld-on bucket teeth	
Wear parts: Bolt-on and weld-on bucket teeth Segments	

## SELECTION OF VOLVO OPTIONAL EQUIPMENT



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.

Single lever control



Volvo Construction Equipment