

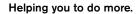
## **L250H**

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.



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 Penta

Volvo Financial Services



### 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.





### 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.



#### 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.

#### 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.





#### Axle oil circulation

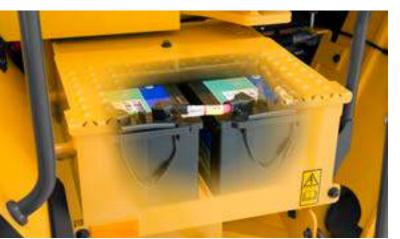
Both the front and the rear axle feature an axle oil circulation feature, which allows the axle oil to circulate and cool inside the axle – protecting components. The optional axle oil cooling system cools axles and can reduce oil changing intervals.

### 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.





#### Maintenance-free rear axle cradles

The rear axle is supported on maintenance-free cradles and includes greased-for-life bearings and bushings – reducing overall service cost, increasing machine uptime and ensuring long life. Cradle oscillation pins are sealed to keep grease in and dirt out.

#### 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.



### Loaded with innovation.



#### Intelligent hydraulics

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



#### Powertrain

Volvo cab

The ideally-matched, all-Volvo powertrain has been built to work together in perfect

harmony - ensuring optimized performance.





# 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.



#### 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.

#### CareTrack

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.





#### 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.



### Volvo L250H in detail.

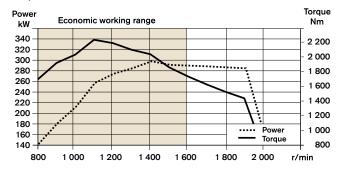
#### **Engine**

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

Number of brake discs per wheel (front)		2
Accumulators	1	$2 \times 1.0 + 1 \times 0.5$

#### **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	Α	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	Volvo HTL307
			2.094:1
	1st gear	km/h	7
Maximum speed,	2nd gear	km/h	11.5
forward/reverse	3rd gear	km/h	24.5
	4th gear	km/h	38
Measured with tires			29.5R25 L4
Front axle/rear axle			AWB 50B / 41
Rear axle oscillation ±		0	15
Ground clearance at 15° osc.		mm	600

#### 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").

Sound level in cab according to ISO 6396/SAE J2105

LpA	dB(A)	70				
External sound level according to ISO 6395/SAE J2104						
LwA	dB(A)	109				
Ventilation	m³/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 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.

- 1	366
1	55
1	226
1	48
- 1	50
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.

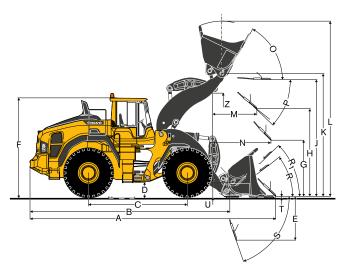
Filter: Full flow filtration through 10 micron (absolute) filter cartridge.

O O		0
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	$25.0 \pm 0.5$
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

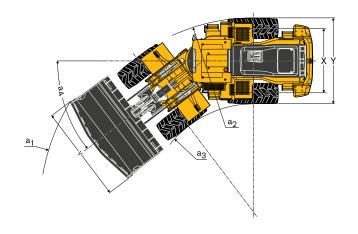
## Specifications.

Tires L250H: 29.5 R25 L4						
		Standard boom	Long boom			
Α	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			
$F_2$	mm	2 850	2 840			
G	mm	2 132	2 133			
Н	mm	3 140	3 490			
J	mm	4 340	4 700			
K	mm	4 640	5 000			
L	mm	6 330	6 680			
M	mm	1 670	1 640			
N	mm	2 340	2 610			
0	0	62	57			
$P_{2}$	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			
T T	mm	129	197			
U*	mm	540	620			
V	mm	3 580	3 580			
Χ	mm	2 400	2 400			
Υ	mm	3 170	3 170			
Z	mm	3 940	4 150			
a <sub>1</sub>	mm	15 860	16 060			
$\mathbf{a}_{2}$	mm	7 110	7 110			
a <sub>3</sub>	mm	3 950	3 950			
a <sub>4</sub>	0	37	37			
+ 0	045					

<sup>\*</sup> 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											
Tires 29.5 R25 L4		REHAN	DLING	GEN	ERAL PURP	OSE	ROCK*** LIGHT		LIGHT MATERIAL	LONG BOOM*	
		6.1 m <sup>3</sup> STE P BOE	6.9 m <sup>3</sup> STE P BOE	5.7 m³ 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	m³	6.1	6.9	5.7	6.4	6.4	5.5	5.5	6.0	10.2	-
Volume at 110% fill factor	m³	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	2 110	1 930	100
H**)	mm	3 320	3 230	3 140	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 m³ 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

Note: This only applies to genuine Volvo attachments.

#### **Bucket Selection Chart**

The volume handled varies with the bucket fill and is often greater than indicated by the bucket's ISO/SAE volume. The table shows optimum bucket choice with 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	L25		Material density (t/m <sup>3</sup> )					
boom			0	,8 1,	,0 1	,2 1	,4 1	,6 1	,8 2	,0
Standard boom	Rehandling	6,1 m³							ļ	
		6,9 m³								
	General	5,7 m³								
		6,5 m³								
		6,4 m³								
	Rock	5,6 m³								
		5,5 m³								
		6,0 m³								
	Light material	10,2 m³								
поод роош	Rehandling	6,1 m³								
	General purpose	5,7 m³								
	Rock	5,5 m³								
	Light material	10,2 m³								
11006	Bucket fi	II 00% 95%								
110%		00% 95%	Pin-on							

How to read bucket fill factor

Supplemental Operating Data

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	ka	1 490	650	1 500	650					

21

### 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

CareTrack

Telematics, 3 Year Subscription

#### Engine

Exhaust after treatment system

Three stage air cleaner, pre cleaner, primary and secondary filter

Preheating of induction air

Fuel pre filter with water trap

Fuel filter

Crankcase breather oil trap

Exhaust heat insulation

Exterior radiator air intake protection

#### **Electrical system**

24 V, pre wired for optional accessories

Alternator 24V/80A

Battery disconnect switch with removable key

Fuel gauge

Hour meter

Electric horn

Instrument cluster:

Fuel 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

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

Level warnings:

Fuel level

Engine oil level

Engine coolant level

Transmission oil level

Hydraulic oil level

Washer fluid level

Engine torque reduction in case of malfunction

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

Safety Belt Warning

#### Drivetrain

Automatic Power Shift

Fully automatic gearshifting, 1 4

PWM controlled gearshifting

Forward and reverse switch by hydraulic lever console Indicator class for transmission oil level

Differentials: Front, 100% hydraulic diff lock. Rear, conventional.

OptiShift

#### Brake system

Dual brake circuits

Dual brake pedals

Secondary brake system

Parking brake, electrical hydraulic

Brake wear indicators

#### Cab

ROPS (ISO 3471), FOPS (ISO 3449)

Tiltable Cab

Single key kit door/start

Acoustic inner lining

Ashtray

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

Dual interior rear view mirrors

Dual exterior rear view mirrors

Sliding window, right side Tinted safety glass

Tinted safety 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 hydraulic system

2 Working hydraulic system, Steering and Brake system

3 Cooling fan and Brake system

Electro hydraulic servo controls

Electric level lock

Boom kick out, automatic

Bucket positioner, automatic

Double acting hydraulic cylinders Indicator glass for hydraulic oil level

Hydraulic oil cooler

#### External equipment

Fenders, front and rear

Viscous cab mounts

Rubber engine and transmission mounts

Easy to open engine hood

Frame, joint lock

Vandalism lock prepared for

Engine compartment

Radiator grille

Lifting eyes
Tie down eyes

Tour bitch

Counterweight, pre drilled for optional guards

#### OPTIONAL EQUIPMENT

### Service and maintenance

Automatic lubrication system

Automatic lubrication system for long boom

Grease nipple guards

Oil sampling valve

Oil sampling valve
Refill pump for grease to lube system

Tool kit

Wheel nut wrench kit

#### Engine

Air pre-cleaner, cyclone type

Air pre-cleaner, oil-bath type

Air pre-cleaner, turbo type

Radiator corrosion protection

Reversible cooling fan and axle oil cooler

Radiator and hydraulic oil cooler, corr.prot. Engine block heater 230V/110V

Fuel fill strainer

Hand throttle control

Max. fan speed, hot climate

Reversible cooling fan

Fuel filter, extra

### Fuel heater Electrical system

Alternator 120 amp, heavy-duty

Anti-theft device

Headlights, assym. left License plate holder, lighting

Rear view camera incl. monitor, colour

Rear-view mirrors, adjustable, el.heated

Rear view mirrors, Long arm
Rear view mirrors, adjustable, el.heated, Long arm

Reduced function working lights, reverse gear activated

Reverse alarm

#### **OPTIONAL EQUIPMENT**

#### Electrical system

Reverse warning light, strobe lighting

Shortened headlight support brackets

Side marker lamps

Rotating beacon

Working lights, attachments

Working lights front, high intensity discharge (HID)

Working lights front, on cab, dual

Working lights front, extra

LED Head Light

Working lights front, extra, 2 LED lamps

Work lamp, front on cab, 2 LED lamps

Work lamp, front on cab, 4 LED lamps

Work lamp, rear on cab, 2 LED lamps

Work lamp, rear on cab, 4 LED lamps

Without work lamp side on cab. std

Work lamp, side on cab, 1 LED lamp

Work lamp, side on cab, 4 LED lamps

Work lamp, rear in grille, 2 LED lamps

Work lamp, rear in grille, 4 LED lamps

Work lamp, front above head lamps, 2 LED lamps Tail Lights LED

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

Cab air pre-cleaner, cyclone type

Carbon filter

Cab roof, heavy-duty

Cover plate, under cab

Lunch box holder

Operator's seat, Volvo air susp, heavy-duty, high back, heat, Elservo, not for CDC

Operator's seat, Volvo air susp, heavy-duty, high back, heat,

Elservo, for CDC Armrest, operator's seat, Volvo, left only

Armrest, operator's seat, ISRI, left only

Operator's seat, ISRI, air susp, heat, high back

Radio installation kit incl. 11 amp 12 volt outlet,

Radio installation kit incl. 11 amp 12 volt outlet,

right side

Radio installation kit incl. 20 amp 12 volt outlet

Radio (with AUX, Bluetooth and USB connection)

Subwoofer

Remote door opener

Seatbelt, width 75 mm (3")

Operator's seat, (air seat std) 3-point seat belt

Steering wheel knob

Sun blinds, rear windows

Sun blinds, side windows

Timer cab heating

Window, sliding, door

Universal door/ignition key

Front view mirror

Cab heater power outlet 240V

#### Drivetrain

Diff lock front 100%, Limited Slip rear

Speed limiter, 20 km/h

Speed limiter, 30 km/h

Speed limiter, 40 km/h

Wheel/axle seal guards

#### Brake system

Oil cooler and filter front & rear axle

Stainless steel, brake lines

#### Hydraulic system

Boom suspension system

Arctic kit, pilot hoses and brake accum. incl. hydr. oil

Boom cylinder hose and tube guards

Boom cylinder hose and tube guards for long boom

Hydraulic fluid, biodegradable, Volvo

Hydraulic fluid, fire-resistant

Hydraulic fluid, for hot climate

Electro-hydraulic function, 3rd

Electro-hydraulic function, 3rd for long boom

Electro-hydraulic servo controls for long boom

Hydraulic Constant Flow Control with detent for 3rd function

#### **External equipment**

Cab ladder, rubber-suspended

Deleted front mudguards

Mudguard widener, front/rear for 80-series tires

Mudguard widener, front/rear for 65-series tires

Fire suppression system

Mudguards, full cover, rear for 80-series tires

Mudguards, full cover, rear for 65-series tires Long boom

#### Protective equipment

Belly guard front

Belly guard rear

Belly guard rear, oil pan

Cover plate, heavy-duty, front frame

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

Corrosion protection, painting of attachment bracket

Bucket Teeth protection

#### Other equipment

CE-marking

Reflecting stickers (decals), machine contour

Reflecting stickers (stripes), machine contour Cab

Comfort Drive Control (CDC)

Counterweight, re-handling

Counterweight, signal painted, chevrons

Secondary steering with automatic test function

Sound decal, EU

Year of manufacturing plate Sign 50 Km/h

Sign, slow moving vehicle

CareTrack, GSM

#### CareTrack, GSM/Satellite Tires

29.5 R25

875/65 R29

#### SELECTION OF VOLVO OPTIONAL EQUIPMENT

Extra fuel filter



**Auto-lube** 



Front / Rear-view



Oil bath pre-cleaner



Seat options



Long boom



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.

