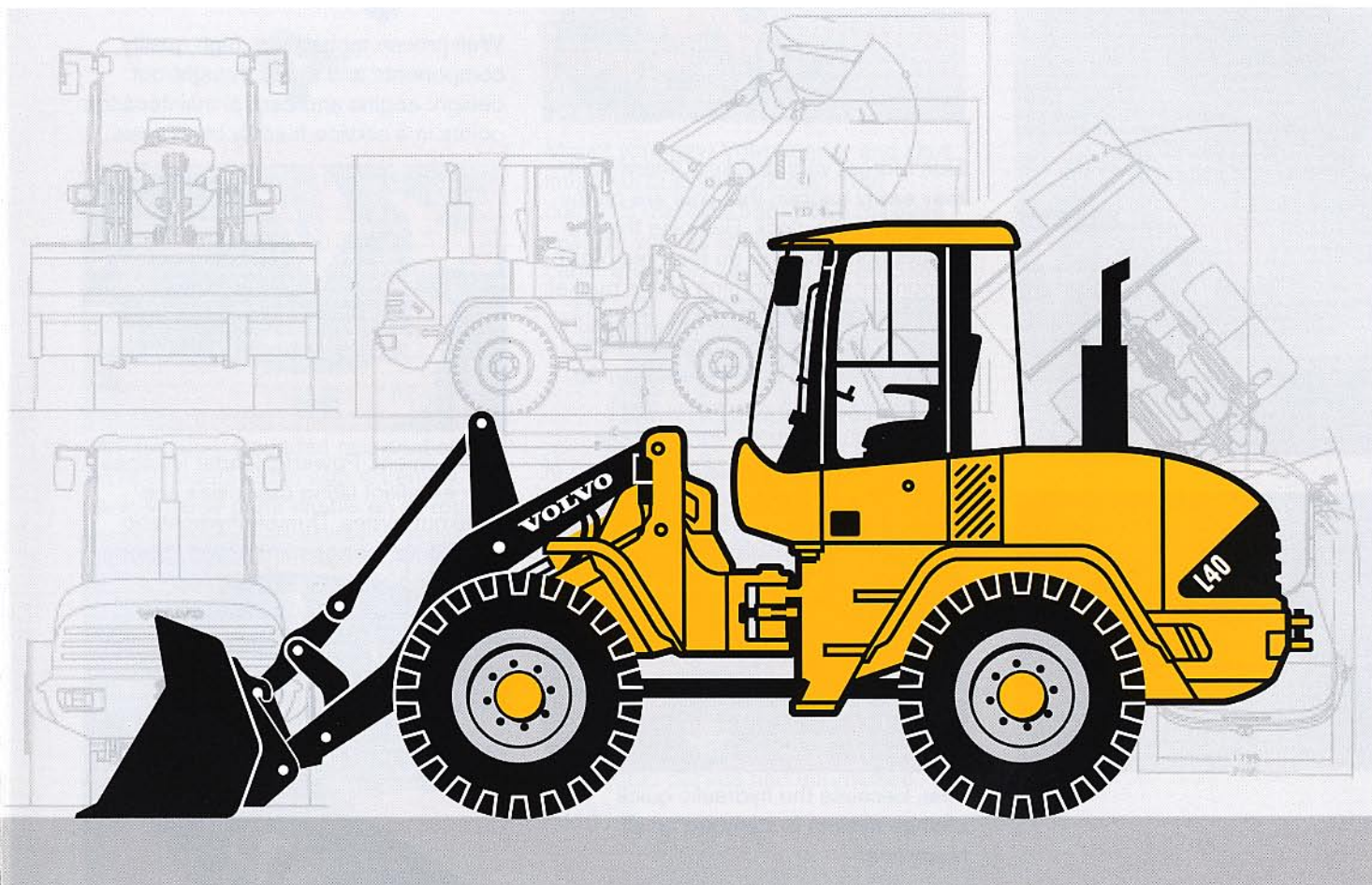


## VOLVO WHEEL LOADER

# L40



- **Gross Power:**  
SAE J1995 69/94 kW/hp  
**Net Power:**  
SAE J1349 63/86 kW/hp

- **Operating Weight:**  
7,2 t

- **Bucket Capacities:**  
1,2 - 2,0 m<sup>3</sup>

- **High-performance, low environmental impact diesel engine:** quiet, low emissions, economical fuel consumption.

- **Hydrostatic drive with significant advantages:**
  - Easy to operate due to automatic drive facility.
  - Maintains high drawbar pull even when working hydraulics are engaged.
  - Advantageous hydrostatic brakes, wear-free and safe.

- **Strong TP-loader linkage, perfect for loading fork applications:** high breakout and lift forces combine with optimum parallelity of the attachment.

- **Operator-selected 100% differential lock** on both axles to give optimum traction.

- **Standard hydraulic quick-change coupling:** Various tried-and-tested attachments for a wide range of applications.

- **Purpose designed cab comfort:**
  - Electronic Service and Information System (ESIS).
  - Multi-function lever.

# VOLVO



## ENGINE

**Engine:** Deutz in-line 4-cylinder, 4 stroke, direct injection diesel engine with turbocharging, water cooled.

**Air cleaning:**

1. Pre cleaner with ejector
2. Paper filter with indicator in cab
3. Safety filter

Engine.....	BF4M 1013
Gross power @.....	2100.....r/min
SAE J1995.....	69.....kW
SAE J1995.....	94.....hp
Net power @.....	2100.....r/min
SAE J1349 - DIN ISO 1585.....	63.....kW
SAE J1349 - DIN ISO 1585.....	86.....hp
Max. torque @.....	1400.....r/min
SAE J1349 netto.....	380.....Nm
DIN ISO 1585.....	380.....Nm
Cubic capacity.....	4,76.....l
Bore.....	108.....mm
Stroke.....	130.....mm



## ELECTRICAL SYSTEM

Rated voltage.....	24.....V
Battery voltage.....	2 x 12.....V
Battery capacity.....	2 x 74.....Ah
Alternator rating.....	1540/55 ..W/A
Starter motor output.....	4,0.....kW



## DRIVETRAIN

**Transmission:** hydrostatic transmission, full power shift under load, both when changing direction (forward and reverse) and between ranges. Maximum drawbar force can be achieved in all ranges. Inch/brake pedal for variable machine speed control and power transfer to bucket hydraulics at constant engine rpm. Multi-function lever for change of direction, differential lock and use of the servo-control.

**Axles:** all-wheel drive by two rigid planetary axles.

**Differential locks:** hydraulically actuated 100% differential locks in both axles.

**Frame:** solid front and rear frame, robot-welded. Articulating oscillating joint for optimum manoeuvrability and traction.

Oscillation at wheel, max. ....	310.....mm
Track.....	1760.....mm
Angle of oscillation.....	±10°.....
Tires: Size.....	15.5-25.....
Rim.....	12 x 25.....

Speed, max.:	Standard	High Speed
1st range forward/reverse.....	5,0.....km/h	5,0.....km/h
2nd range forward/reverse.....	20,0.....km/h	12,0.....km/h
3rd range forward/reverse.....		35,0.....km/h



## SERVICE FILL CAPACITIES

Engine.....	12,0.....l
Fuel tank.....	130,0.....l
Front axle, total.....	7,9.....l
Rear axle,	
incl. drop-box.....	9,9.....l
Hydraulic tank, incl. hydraulic system.....	110,0.....l



## BRAKING SYSTEM

**Service brake:** reliable dual braking system, acting upon all four wheels.

1. Wear-free, hydrostatic inching brake
2. Central disc brake, actuated via "inch/brake pedal".  
First stage of pedal application actuates the inching facility, the last third of pedal application applies the central disc brake.
3. High speed version:  
wet inboard mounted multi-disc brakes.

**Parking brake:** central disc brake, acting upon all four wheels.



## HYDRAULIC SYSTEM

Load sensing hydraulic system with self-controlling power distribution. Thermostatically controlled oil circuit with integrated cooling system.

**Hydraulic control valve:** Servo-controlled, double acting control valve three spool system, with primary and secondary pressure valves.

1. Lifting function
2. Tilting function
3. Additional function for hydraulic QC  
Unlock, neutral, lock  
Preparation for operating hydraulic attachments with this function is available as an option.

**Hydraulic oil filter:** Combined suction and return-filtration cartridge with a 10 µm filter.  
The filter can be replaced without emptying the hydraulic oil tank.

**Hydraulic pump:** axial piston pump

Hydraulic pump	
Flow.....	106.....l/min
@ engine rpm.....	2100.....r/min
Relief valve pressure.....	21.....MPa



## STEERING

Load sensing hydrostatic steering. Central articulating-ocillating joint with damping effect.

**Steering pump:** gear-type pump controlled by priority valve.

**Steering cylinder:** 2 double-acting steering cylinders

Steering	
Angle of articulation.....	±40°.....
Steering pump	
Flow.....	43,5.....l/min
@ engine rpm.....	2100.....r/min
Relief valve pressure.....	17.....MPa



## LINKAGE

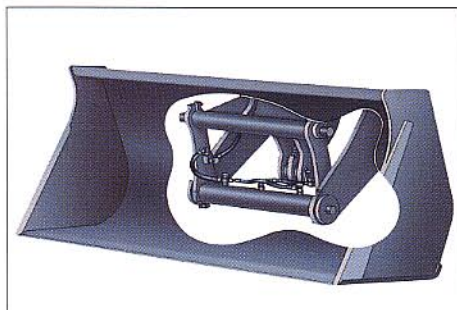
Linkage system:	TP-linkage
	2 Lift cylinders
	1 Tilt cylinder

Lift time (loaded).....	6,0.....s
Lowering time (empty).....	5,0.....s
Dump time.....	1,5.....s
Crowd time.....	1,8.....s

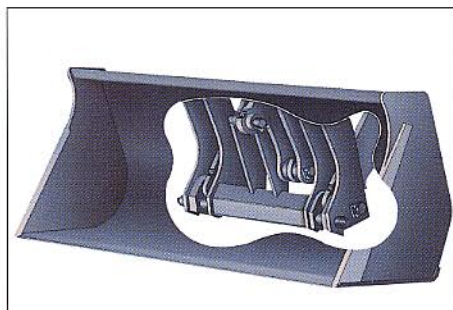
# L40

## Economical

- Extraordinary performance in relation to machine size
- More than 60 attachments available
- 2 types of attachment carrier
- Fuelsaving load sensing hydraulics



Zettelmeyer attachment carrier



Volvo attachment carrier

## Highly efficient

- TP-loader linkage with high restraining forces for safe and controlled manoeuvring in high working positions
- High breakout force and excellent lifting capacity
- Powerful low-emission engine



## Safe

- ROPS/FOPS-cabin
- 3-D panorama cabin and rounded machine contours for excellent all-round view
- Utmost stability by balanced axle load distribution
- Anti-theft function via numeric code

## Robust

- Tried-and-tested components from well-known manufacturers
- Patented Volvo-loader linkage system
- Sealed bearings on the lifting frame
- Cables and hoses fed through the central articulating oscillating joint for safety and protection
- Engine hood made of tough impact resistant PMMA



## Easy to handle

- Compact dimensions
- Articulating oscillating joint and high ground clearance
- 100 % operator-selectable differential lock on both axles
- Hydrostatic transmission with automatic drive facility
- Hydraulic quick change coupler
- Direction control using the multi-function lever or additional lever on the steering column
- Electronic Service- and Information-System (ESIS)
- Easy servicing due to the transverse-mounted engine and central service points

# L40

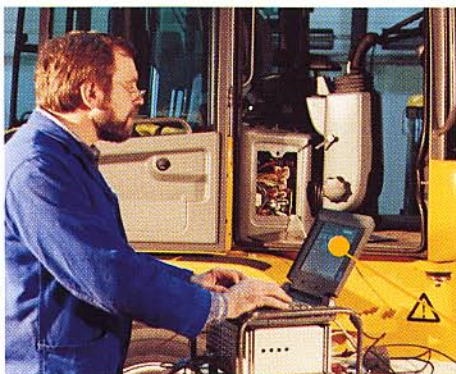
# A wheel loader of the new

## Innovative design

The new Volvo wheel loaders are something to be proud of. Their unmistakable rounded silhouette is pointing the way for a completely new generation of construction equipment. The attractive appearance is combined with function: Rounded rear section and 3-D-panorama cabin with extremely narrow frame parts enable an all-round



view which has never before been achieved - for additional safety at work. With their compact dimensions and the selectable 100% differential lock these machines can easily cope with difficult terrain.



## First-class operator comfort

Mount your new Volvo loader and start into a successful work day. Your compact machine from Volvo makes it easy for you. Its spacious, comfortable cabin is entirely designed for precise



and fatigue-free work: excellent air conditioning, adjustable operator's seat and individually adjustable steering column. Clearly arranged ESIS dash board with supporting electronics (Electronic Service and Information System).



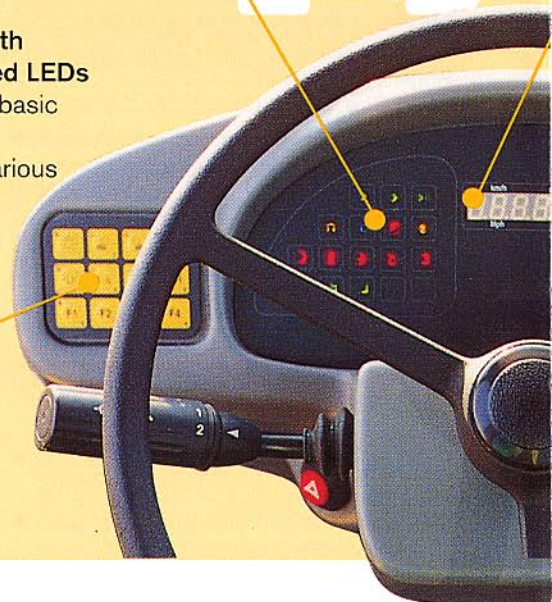
### Colour-coded LED-illuminated symbols

- as controls
- as warning symbols combined with acoustic signal

### Membrane key pad with symbols and integrated LEDs

- Entry and retrieval of basic operating data
- Functional keys for various operating functions
- Anti-theft function via numeric code

**Targeted fault-diagnosis via laptop:** detailed information for the service engineer resulting in less production downtime.



# Compact class from VOLVO



## Non-stop operation



Don't forget your breaks. Otherwise it may easily happen that you are on the go around the clock. Because there is always something to do for a real Volvo allrounder: in the morning with a bucket, at noon with the loading fork, in the afternoon with the road sweeper. Or with another one of the more than 60 attachments, with which you can convert your compact Volvo to your individual needs. With hardly any loss of



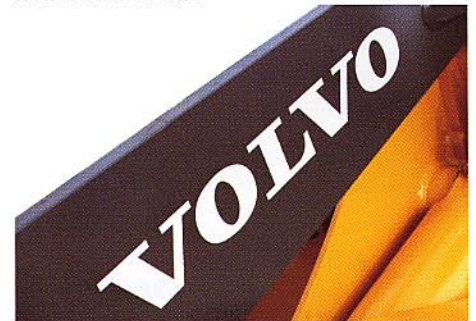
time, because the hydraulic quick change system is standard on all machines.

## VOLVO - Uncompromising performance

Well-proven technology, high quality components and a well thought-out design: engine and central maintenance points in a service-friendly transverse



arrangement. Powerful loader linkages with excellent lifting capacities and breakout forces. Durable hydrostatic travel drive for constant power. Strong diesel engines with high power reserves. Exemplary environmental features: excellent fuel economy, operation with low exhaust and reduced noise emissions.



**VOLVO - trust a great name. It stands for superior quality, safety and top performance.**

**6-digit LED-display**  
• Indication of faults  
• Indication of operating data

**Analog LED-information**  
• Fuel level  
• Engine temperature  
• Drive system oil temperature

Multifunction lever for differential locks, directional change and neutral position.



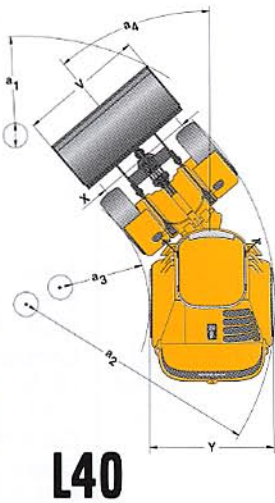
VOLVO WHEEL LOADER

# L40

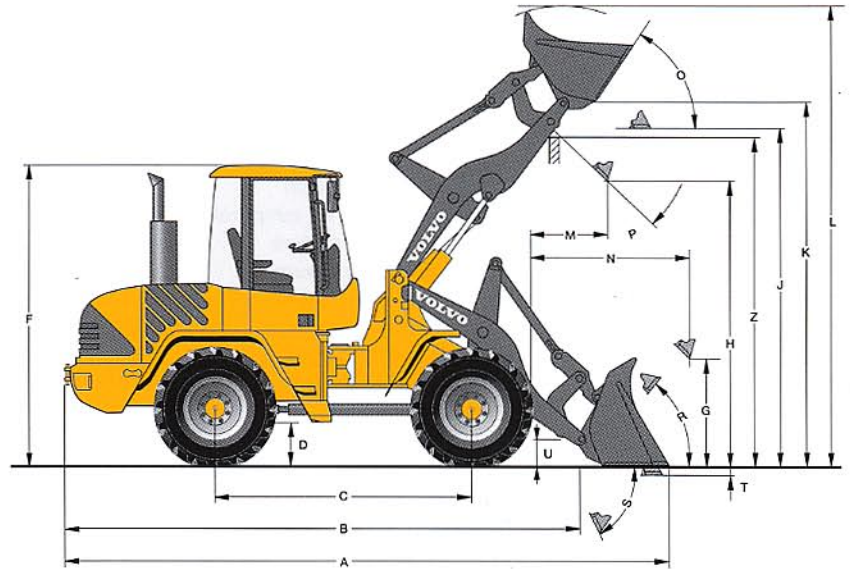
## DIMENSIONS

**Data**  
with TPZ-linkage and  
15.5-25 tires.







B	4860	mm
C	2400	mm
D	420	mm
F	2950	mm
G	1060	mm
J	3300	mm
K	3555	mm
O	57	°
P	45	°
R	50	°
S	68	°
U	255	mm
X	1759	mm
Y	2159	mm
Z	3240	mm
a <sub>2</sub>	4440	mm
a <sub>3</sub>	2220	mm
a <sub>4</sub>	±40	°



**L40**



## OPERATING DATA

Bucket Type with TPZ-linkage and 15.5-25 tires.		General Purpose Bucket		Light Material Bucket		4-in-1 Bucket	High-Tip Bucket
							
Capacity heaped	m <sup>3</sup>	1,2	1,4	1,6	2,0	1,1	2,0
Material density	kg/m <sup>3</sup>	1800	1500	1300	1000	1800	900
Static tipping load, straight (ISO)	kg	5300	5200	5150	4950	5000	4650
Static tipping load, full turn (40° ISO)	kg	4320	4200	4180	4050	4000	3700
Hydraulic lifting capacity, max.	kN	63,0	61,0	60,0	56,5	59,0	50,5
Breakout force	kN	63,0	57,0	52,5	43,5	64,5	-
A Total length	mm	5720	5790	5870	6060	5700	6360
L Lift height, max.	mm	4460	4550	4490	4620	4470	5600
V Bucket width	mm	2250	2250	2250	2250	2250	2250
a <sub>1</sub> Clearance circle	mm	9500	9550	9590	9700	9500	9890
T Digging depth	mm	165	165	165	155	150	155
H Dump height	mm	2800	2740	2680	2540	2790	4020
M Reach at max. height	mm	760	810	850	970	700	1330
N Reach, max.	mm	1520	1570	1610	1730	1460	2430
Operating weight	kg	7200	7250	7260	7340	7410	7550

### Loading Fork

Centre of gravity 500 mm

Tipping load, full turn acc. to ISO 8313	kg	3500
Payload acc. to EN 474-3, 60/80%	kg	2100/2800

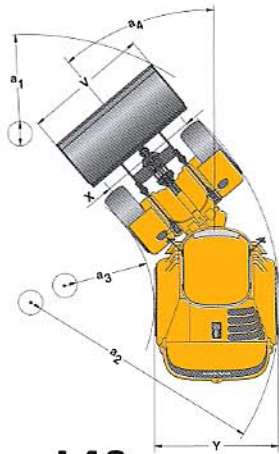
### L40 - Possible machine variations

Linkage	Standard	High speed
TPZ-linkage	TPZ	TPZ/S
TPV-linkage	TPV	TPV/S

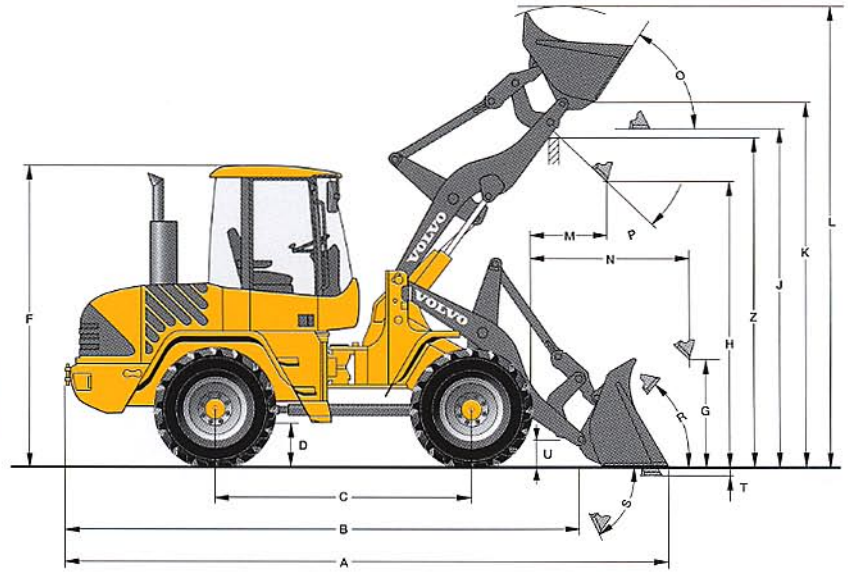
## DIMENSIONS

**Data**  
with TPV-linkage and  
15.5-25 tires.







B	4860	mm
C	2400	mm
D	420	mm
F	2950	mm
G	1060	mm
J	3300	mm
K	3555	mm
O	57	°
P	45	°
R	50	°
S	68	°
U	250	mm
X	1759	mm
Y	2159	mm
Z	3310	mm
a <sub>2</sub>	4440	mm
a <sub>3</sub>	2220	mm
a <sub>4</sub>	±40	°



**L40**



## OPERATING DATA

Bucket Type with TPV-linkage and 15.5-25 tires.		General Purpose Bucket		Light Material Bucket		4-in-1 Bucket	High-Tip Bucket
							
Capacity heaped	m <sup>3</sup>	1,2	1,4	1,6	2,0	1,1	2,0
Material density	kg/m <sup>3</sup>	1800	1400	1200	900	1800	800
Static tipping load, straight (ISO)	kg	5200	5120	5100	4900	4950	4400
Static tipping load, full turn (40° ISO)	kg	4320	4180	4180	3980	3980	3550
Hydraulic lifting capacity, max.	kN	59,0	58,2	57,5	55,8	58,3	53,6
Breakout force	kN	56,0	51,4	47,6	40,0	57,2	-
A Total length	mm	5820	5895	5970	6160	5800	6460
L Lift height, max.	mm	4520	4610	4680	4810	4540	5670
V Bucket width	mm	2250	2250	2250	2250	2250	2250
a <sub>1</sub> Clearance circle	mm	9540	9580	9620	9740	9520	9950
T Digging depth	mm	160	160	160	155	150	155
H Dump height	mm	2740	2680	2620	2490	2720	4090
M Reach at max. height	mm	835	885	925	1050	770	1380
N Reach, max.	mm	1595	1645	1685	1810	1530	2520
Operating weight	kg	7300	7280	7300	7380	7500	7590

Loading Fork Centre of gravity 500 mm		L40 - Possible machine variations		
		Linkage	Standard	High speed
Tipping load, full turn acc. to ISO 8313	kg	3650	TPV	TPV/S
Payload acc. to EN 474-3, 60/80%	kg	2100/2900	TPZ	TPZ/S

## STANDARD EQUIPMENT

### Engine

Diesel engine, direct fuel injection  
Cold start aid  
Dry-type air filter

### Electrical System

Alternator 55 A

### Lighting:

Main head lights (halogen)  
full/dipped/asymmetrical  
Working lights (2 front/1 rear)  
Parking lights  
Rear lights  
Brake lights  
Direction indicators  
Hazard warning lights  
Reversing lights  
Cab lighting

### Instrumentation & controls:

Multi-function lever  
24 Volt accessories socket  
Horn  
Hazard warning switch  
Safety start

### Electronic Service and Information-System (ESIS):

Analog LED-information for:

Fuel level  
Engine temperature  
Drive system oil temperature

LED-illuminated symbols (colour-coded) for:

Direction (forward/reverse)  
Indicators (left/right)  
Pre-heater

Main beam  
Differential locks  
Boom arm suspension system (option)  
Loading fork operation (option)

LED-illuminated symbols (red) with acoustic signal for:

Parking brake  
Air filter restriction  
Drive system oil temperature  
Engine temperature  
Engine oil pressure  
Battery charging  
Return filter

Touch pad with symbols and integrated LEDs for:

Parking lights  
Working lights (front/rear)  
Windscreen wiper (rear)  
Rotating beacon (option)  
Boom arm suspension system on/off (option)  
Locking and activation of TPV -attachment carrier (option)  
Activation of multi-function lever for directional change

Digital LED display activated by dual function keys for:

Entry and retrieval of operating and service information  
Anti-theft function control

### Powertrain

Hydrostatic drive  
Operator-selected 100% differential locks

Tires 15.5-25

### Hydraulic System

Load-Sensing Hydraulics  
Axial piston pump  
Control valve three-spool system  
3rd hydraulic circuit

### Service and Maintenance

Tool kit  
Wheel nut wrench

### Cab, Exterior

ROPS/FOPS-cab with flexible mountings  
Walk-through cab  
Lockable doors  
All-round tinted safety glass  
Windscreen wiper (front/rear)  
Windscreen washer (front/rear)  
Sliding window in the left door  
Door stops  
External rear view mirrors (right/left)

### Cab, Interior

4-way adjustable operator's seat  
Adjustable steering column  
Seat belt  
Sunvisor  
Heater with air-filter and defroster (front/rear)  
Cab ventilation  
Preparation for an optional air-conditioner  
Storage box in the cab

### Working Equipment

Automatic bucket leveller  
Hydraulic quick-change attachment carrier

### Carriage Body

Fenders and mudguards, (front/rear)  
Lockable engine hood  
Lockable fuel-tank cap  
Vertical exhaust  
Towing device  
Lifting eyes

### Achieved International Standards for Machines and Production

#### General:

CE Certification  
(EC-directive 89/392/EEC)  
German road traffic regulations

#### Quality:

DIN/ISO 9001 Certification

#### Environment:

DIN/ISO 14001 Certification  
EMAS Validation

#### Sound insulation:

(EC-directive 86/622/EEC II, modification 95/27/EC)

#### Safety:

Certification (EC-directives:  
86/295/EEC ROPS  
86/296/EEC FOPS)

## OPTIONAL EQUIPMENT

### Powertrain

Pre-heater

### Hydraulics

Additional hydraulics for  
3rd hydraulic circuit  
4th hydraulic circuit  
Initial filling of biodegradable hydraulic oil

### Cab

Handthrottle  
Hand control inch valve  
Airconditioner  
Radio

### Working Equipment

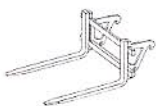
Boom arm suspension system  
Attachment carrier TPV

### Safety

Anti-theft system  
Protective guards for:  
Main head lights  
Working lights  
Rear lights  
Rotating beacon  
Audible reverse alarm

## ATTACHMENTS

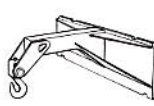
A small selection of the most popular attachments.  
Further buckets and attachments available on request.



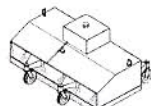
Loading Fork



4-in-1 Bucket



Material Handling Arm



Sweeper



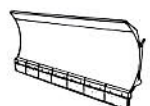
Tree Transplanting Bucket



Side-Tip Bucket



Hay/Manure Fork



Snow Plow

# VOLVO

Volvo Construction  
Equipment Group

Under our policy of continuous product 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.

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