

V O L V O



Volvo Compact Wheel Loaders 5.5-6.1 t / 12,125-13,448 lb 74 hp

L356

Volvo Construction Equipment

L356



Ultimate performance



Fast cycle times

- Articulated oscillating joint and 100% different locks secure outstanding traction
- Portal axles design provides industry-leading ground clearance
- Independent hydraulic pumps enable simultaneous lifting and steering with no impact on boom speed
- Z-bar delivers high-breakout force and excellent parallel movement for bucket and forks applications



Versatility

- Compact design minimizes transit time
- Volvo attachments brackets: efficient attachment changes
- Range of matched Volvo buckets, forks, grapples and material handling arms



Easy and safe operation

- All-round visibility
- Adjustable steering column
- Single inching braking pedal
- FOPS/ROPS certified cab



Enhanced uptime

- 100 hours lift frame greasing interval
- Easily accessed service points
- Genuine Volvo Parts: retain Volvo quality
- Control service costs with a Customer Support Agreement

L35G in detail

Engine

Volvo 4-cylinder, common rail, diesel engine compliant to EPA Tier 4f environmental regulations.

Maximum engine incline is 30 degrees in all directions.

Air cleaning:

1. Paper filter with indicator in cab
2. Safety filter

Exhaust after treatment system:

Cooled Exhaust Gas Recirculation (EGR), diesel oxidation catalyst (DOC)

Engine	Volvo	D3.3M
Max power at	r/min (r/s)	2,600 (43.3)
SAE J1995 gross	kW (hp)	55.4 (74)
Max. torque at	r/min (r/s)	1,500 (25)
SAE J1995 gross	Nm (ft lbf)	265 (195)
Economic working range	r/min (r/s)	1 300 - 2 100 (21.7 - 35)
Displacement	l (in ³)	3.3 (203)
Bore	mm (in)	98 (3.86)
Stroke	mm (in)	120 (7,323)

Electrical System

Contronic electrical system with central warning light and buzzer, providing clear and easy to read information to the operator.

A keypad allows easy navigation on the central LCD display with main and sub information field.

Indicators and activation lights are available for various control and monitoring functions.

An audible warning alarm will sound and a central warning indicator will flash if abnormal operating values or error messages arise.

Gauges are available for coolant temperature and fuel level.

A fuse test port is available in the fuse box, allowing operators to perform initial investigations, reducing diagnostic time.

Voltage	V	12
Batteries	V	1
Battery capacity	Ah	100
Alternator rating	W/A	1 260 / 90
Starter motor output	kW	3

Drivetrain

The hydrostatic transmission allows for speed range change without any tractive power interruption.

Maximum tractive power is available in all speed ranges, regardless of the driving direction.

Single "Inch/brake pedal" for variable machine speed control and easy power transfer to the wheels at constant engine rpm.

Transmissions forward, neutral, reverse and differential locks buttons are all easy to reach on the multifunctional right joystick. This allows excellent ergonomics and greater efficiency in all applications thanks to the single-handed operation of the machine.

Two rigid portal axles provides long durability and best in class ground clearance.

The central articulating-oscillating joint and all wheel drive allows excellent mobility in all ground conditions.

The 100% differential lock on both axles enable low tire wear on hard ground while maximizing traction force in soft terrain.

Angle of oscillation	± °	10
Oscillation at wheel, max.	mm (in)	270 (10.6)
Track	mm (in)	1,532 (60.3)

Travel speed, forward/reverse

1st gear	km/h (mi/h)	6 (3.7)
2nd gear	km/h (mi/h)	20 (12.4)

Low-speed version

1st gear	km/h (mi/h)	6 (3.7)
2nd gear	km/h (mi/h)	20 (12.4)

High-speed version

1st gear	km/h (mi/h)	8 (5)
2nd gear	km/h (mi/h)	30 (18.6)

Tires

Size	405 / 70 R20
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Linkage

Z-bar linkage providing high breakout force to the bucket and also parallel movement to the fork frame thanks to Volvo's specific kinematics.

Torque parallel (TP) linkage also available as an option to provide greater breakout force throughout the entire tilt angle.

Linkage system	Z-bar
Lift cylinders	2
Tilt cylinders	1
Lift time (loaded)	s 5.5
Lowering time (empty)	s 3.5
Dump time	s 1.2

Brake system

Service brake: an Inching-brake pedal provides hydrostatic wearless braking in the first stage for precise approach; if applied further the central disk brake takes over for final braking and machine immobilization.

Parking brake: Mechanically activated central drum brake, located on the rear axle dropbox and acting upon all four wheels.

Steering System

Central articulating-oscillating joint with Elastic end-stops.

Hydrostatic steering powered via a dedicated gear pump allowing precise operation even at low engine revolutions: steering the machine does not influence the working hydraulic speed e.g. when lifting loads.

Steering cylinders	1
Working pressure	MPa (psi) 19 (2,756)
Maximum flow	l/min (gal/min) 33.5 (8.85)
Max articulation	± ° 40

Cab

The cab is tested and approved according to ROPS (ISO 3471, SAE J1040) and FOPS (ISO 3449).

The cab is compliant with ISO 6055 requirements regarding Operator overhead protection - Industrial trucks and SAE J386 regarding Operator Restraint System.

The operator's seat features an adjustable suspension and a retractable seatbelt. Fresh air is filtered through a large elements prior entering, ensuring extremely clean air distribution in the cab.

Several air vents enables fast de-misting and defrosting.

The conronic monitoring system provides all important information in a central position and all machine controls are located in the operator's field of vision.

Sound Level

Sound pressure level in cab according to ISO 6396:

L _{PA}	dB	75
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External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC:

LWA	dB	101
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Service Refill

Ground level access, fuel filler and hydraulic oil filler well protected under the rear engine hood.

Fuel tank	l (gal)	84 (22.2)
Engine oil	l (gal)	11.2 (3)
Engine coolant	l (gal)	11 (2.9)
Hydraulic tank	l (gal)	54 (14.3)
Front axle oil	l (gal)	12.2 (3.2)
Rear axle oil	l (gal)	13.5 (3.6)

Hydraulic system

Working hydraulic system with pilot operated control valves.

System supply: A gear pump provides flow to the working hydraulic.

System control: Double-acting 3-spools main control valve.

The lift function has four positions: lift, hold (neutral), lower and float position.

The tilt function has three positions: rollback, hold (neutral) and dump.

The third hydraulic function has three positions: unlock attachment, neutral and lock attachment. It can power a hydraulic attachment such as sweeper, 4-in-1 bucket. A fourth hydraulic funtions is available as options to power hydraulic implements (Hi-Tip bucket, angle sweeper etc...)

Filtration:

Full-flow filtration through 10 micron (absolute) filter cartridge in a combined suction-return-filter.

Cooling:

Thermostatically controlled oil flow to oil cooler (fast warm-up, optimized cooling).

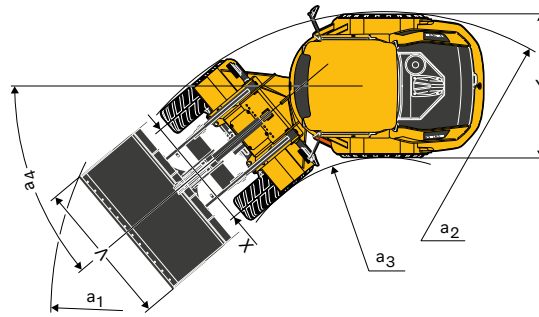
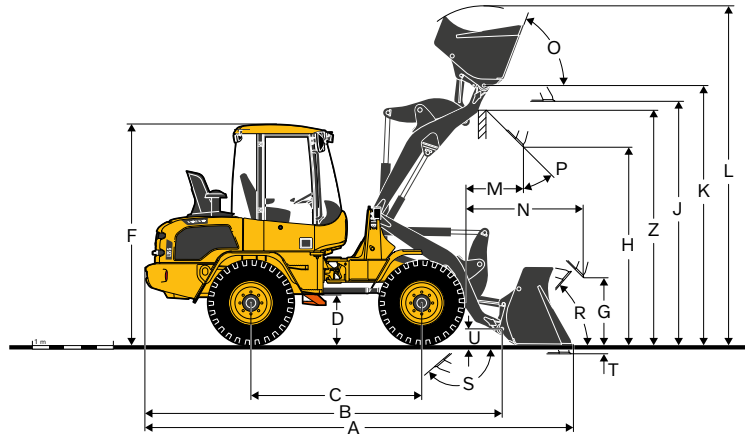
Working pressure max	MPa (bar)	24 (240)
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Flow	l/min (gal/min)	69 (18.2)
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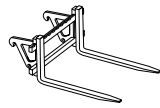
at engine speed	r/min (r/s)	2,600 (43.3)
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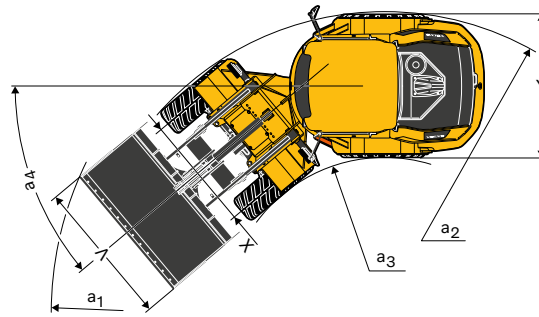
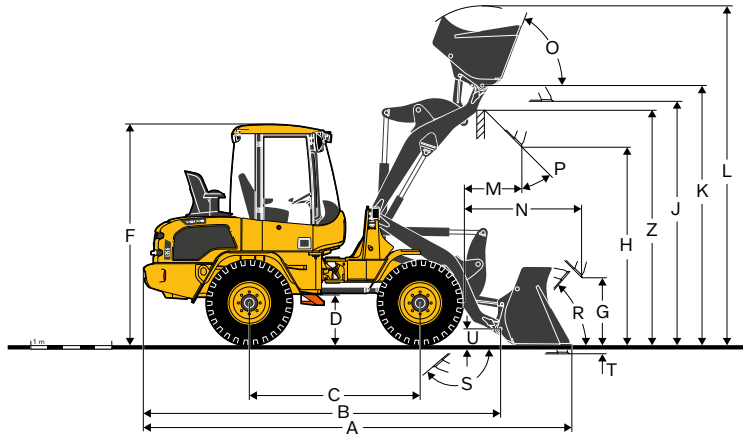



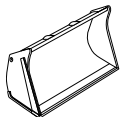

Specifications



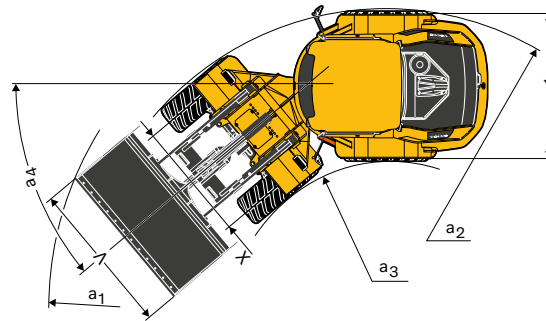
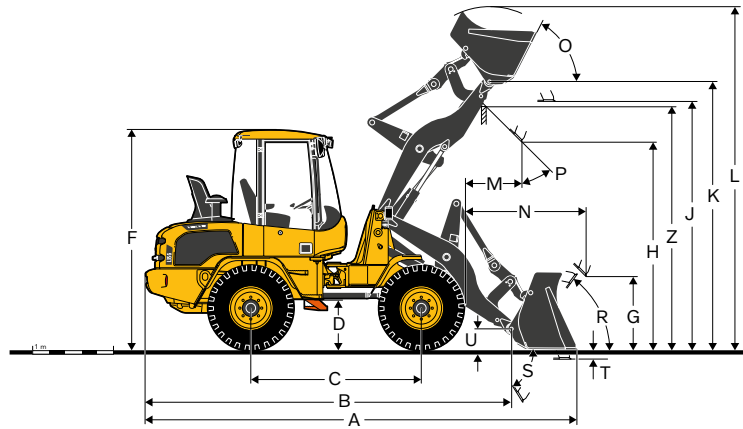
Description	Unit	L35G Z-BAR with 405/70 R20 tires	
		mm	ft in
B	mm ft in	4,485	14'9"
C	mm ft in	2,150	7'1"
D	mm ft in	610	2'0"
F	mm ft in	2,745	9'0"
G	mm ft in	900	2'11"
J	mm ft in	3,145	10'4"
K	mm ft in	3,345	11'0"
O	°	66	
P	°	45	
R	°	50	
S	°	135	
U	mm ft in	200	0'8"
X	mm ft in	1,532	5'0"
Y	mm ft in	1,932	6'4"
Z	mm ft in	3,050	10'0"
a ₂	mm ft in	3,960	13'0"
a ₃	mm ft in	1,980	6'6"
a ₄	°	±40	

Description	Unit	L35G Z-BAR			
		FEM II		FEM III	
With Loading Fork Centre of gravity 500mm / 1'8" ft in 					
Tipping load, full turn (ISO / DIS)	kg lb	3,340	7,363	3,300	7,275
Payload according to EN 474-3, 60/80%	kg lb	2,000 / 2,500	4,409 / 5,512	2,000 / 2,600	4,409 / 5,732
Payload 80%, transport position, 40° full turn	kg lb	2,500	5,512	2,800	6,173

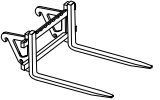


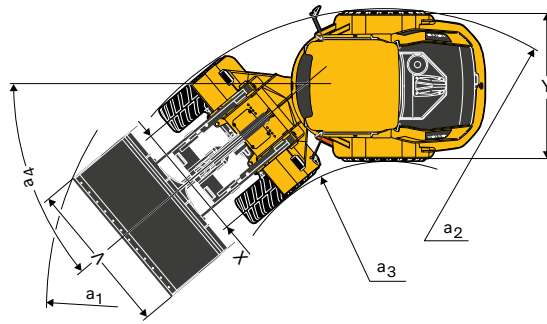
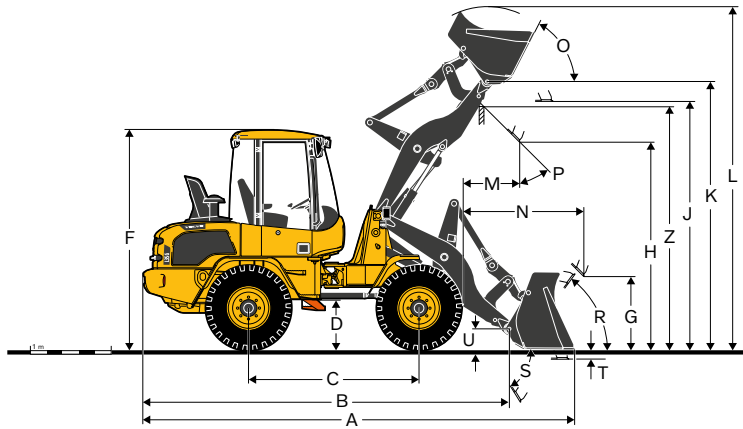
Description	Unit	L35G Z-BAR							
		GENERAL PURPOSE		Light material bucket		4-in-1			
with 405/70 R20 tires									
	Capacity heaped	m ³	yd ³	1.2	1.6	1.5	2	1	1.3
	Material density	kg/m ³	lb/yd ³	1,800	3,034	1,200	2,023	1,900	3,203
Static tipping load, straight (ISO / DIS)	kg	lb	4,950	10,913	4,650	10,251	4,450	9,811	
Static tipping load, full turn 40° (ISO / DIS)	kg	lb	4,350	9,590	4,050	8,929	3,950	8,708	
Hydraulic lifting capacity, max.	kN	lbf	61.5	13,826	57.5	12,927	58.5	12,814	
Breakout force	kN	lbf	60.5	13,601	43.5	9,779	52.5	11,915	
A Total length	mm	ft in	5,420	17'9"	5,690	18'8"	5,520	18'2"	
L Lift height, max.	mm	ft in	4,320	14'2"	4,500	14'9"	4,260	13'11"	
V Bucket width	mm	ft in	2,100	6'11"	2,000	6'7"	2,000	6'7"	
a ₁ Clearance circle	mm	ft in	8,760	28'9"	8,825	28'11"	8,740	28'8"	
T Digging depth	mm	ft in	95	0'4"	95	0'4"	100	0'4"	
H Dump height	mm	ft in	2,670	8'9"	2,470	8'1"	2,570	8'5"	
M Reach at max. height	mm	ft in	750	2'5"	935	3'0"	780	2'7"	
N Reach, max.	mm	ft in	1,570	5'2"	1,755	5'9"	1,600	5'3"	
Operating weight	kg	lb	6,100	13,448	6,200	13,669	6,440	13,867	


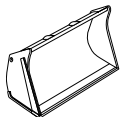

Specifications



Description	Unit	L35G TPZ	
		L35G with TPZ-attachment carrier and 405/70 R20 tires	
B	mm ft in	4,595	15'1"
C	mm ft in	2,150	7'1"
D	mm ft in	580	1'11"
F	mm ft in	2,715	8'11"
G	mm ft in	900	2'11"
J	mm ft in	3,100	10'2"
K	mm ft in	3,350	11'0"
O	°		63
P	°		45
R	°		50
S	°		58
U	mm ft in	250	9.8"
X	mm ft in	1,532	5'0"
Y	mm ft in	1,932	6'4"
Z	mm ft in	3,020	9'11"
a ₂	mm ft in	3,960	13'0"
a ₃	mm ft in	1,980	6'6"
a ₄	°		±40

Description	Unit		L35G TPZ	
With Loading Fork Centre of gravity 500mm / 1'8" ft in				
Tipping load, full turn (ISO / DIS)	kg	lb	2,930	6,460
Payload according to EN 474-3, 60/80%	kg	lb	1,750 / 2,300	3,858 / 5,070
Payload 80%, transport position, 40° full turn	kg	lb	2,500	5,512



Description	Unit	L35G TPZ					
		GENERAL PURPOSE		Light material bucket		4-in-1	
L35G with TPZ-attachment carrier and 405/70 R20 tires							
Capacity heaped	m ³ yd ³	1	1.3	1.2	1.6	0.9	1.2
Material density	kg/m ³ lb/yd ³	1,800	3,034	1,500	2,528	1,900	3,203
Static tipping load, straight (ISO / DIS)	kg lb	4,200	9,259	4,150	9,149	3,900	8,598
Static tipping load, full turn 40° (ISO / DIS)	kg lb	3,700	8,157	3,650	8,049	3,450	7,606
Hydraulic lifting capacity, max.	kN lbf	57	12,814	55.5	12,477	54	12,140
Breakout force	kN lbf	62.5	14,051	54.5	12,252	59	13,264
A Total length	mm ft in	5,420	17'9"	5,520	18'1"	5,460	17'11"
L Lift height, max.	mm ft in	4,290	14'1"	4,330	14'2"	4,200	13'9"
V Bucket width	mm ft in	2,000	6'7"	2,000	6'7"	2,000	6'7"
a ₁ Clearance circle	mm ft in	8,670	28'5"	8,730	28'8"	8,700	28'7"
T Digging depth	mm ft in	90	3.5"	90	3.5"	90	3.5"
H Dump height	mm ft in	2,610	8'7"	2,535	8'4"	2,560	8'5"
M Reach at max. height	mm ft in	725	2'4"	785	2'7"	715	2'4"
N Reach, max.	mm ft in	1,545	5'1"	1,605	5'3"	1,535	5'
Operating weight	kg lb	5,950	13,117	5,970	13,162	6,135	13,525

Equipment

STANDARD EQUIPMENT

Engine

Diesel engine, water cooled
 Diesel oxidation catalyst (DOC)
 Extra fuel filter
 Cold start aid
 Dry-type air filter

Drivetrain

Hydrostatic drive
 Operator-selected 100% differential locks
 Tires 405/70 R20

Electrical System

Alternator 90 A
 Main head lights (halogen)
 full/dipped/asymmetrical
 Working lights (2 front/1 rear, right)
 Parking lights
 Rear lights
 Brake lights
 Direction indicators
 Hazard warning lights
 Reversing lights
 Cab lighting

Hydraulic system

Gear-type pump
 Control valve three-spool system
 3rd hydraulic circuit

Instrumentation & controls

Multi-function lever
 12 Volt accessories socket
 Horn
 Hazard warning switch
 Safety start
 Analog LED-information for:
 Fuel level
 Engine temperature
 LED-illuminated symbols (colour-coded) for:
 Direction (forward/reverse)
 2nd gear
 Indicators (left/right)
 Pre-heater
 Main beam
 Differential locks
 LED-illuminated symbols (red) with acoustic signal for:
 Parking brake
 Air filter restriction
 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
 Boom suspension system
 Locking and activation of Volvo attachment carrier (TPV)
 Activation of directional change on joystick
 Digital LED display activated by dual function keys for:
 Entry and retrieval of operating
 Information
 Anti-theft function control

STANDARD EQUIPMENT

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

Bucket level indicator
 Hydraulic quick-change attachment carrier

Carriage Body

Fenders front/rear
 Lockable engine hood
 Towing device
 Lifting eyes

Service and maintenance

Tool kit

Official approval

Machine conforming to European directive 2006/42/EC
 Electromagnetic compatibility (EMC) conforming to
 European directive 2014/30/EC
 Noise emissions in the environment conforming to directive 2000/14/EC
 Tipping load and payload conforming to ISO 14397-1
 ROPS conforming to ISO 3471
 FOPS conforming to ISO 3449

OPTIONAL EQUIPMENT
Engine
Engine block heater
Fuel pre-heater
Pre cleaner air filter (Turbo II)
Auto Engine Shutdown
Reversible cooling fan
Tropical cooling
Drivetrain
Hand inch valve
Driveline shutoff
Engine overspeeding protection
Hydraulic system
Hydraulic coupler for 3rd hydraulic circuit
4th hydraulic circuit
Flow share function
Joystick with integrated 3rd function
Hyd oil mineral VG46 HV
Hyd oil mineral VG32 HV
Hyd oil mineral VG68 HV
Hyd oil bio synthetic VG46
Boom suspension system
Tilt speed limiter mechanical or hydraulic
Auxiliary hydraulic's return line (direct to tank or via filter)
Additional pump 42 l/min
Safety valves lift and tilt cylinders
Rear hydraulics
Boom kick out
Bucket leveler kick out
Cab
Airconditioner
Radio preparation
Radio AUX/USB/Bluetooth
Air suspended/heated operator's seat
Rearview mirrors inside cab
Enhanced rearview mirrors outside cab
Heated rearview mirrors
Auxiliary cab & engine heater
Orange seatbelt
Wheel/Tires
405/70R18
335/80R20
360/80R20
365/80R20
375/75R20
400/70R20
405/70R20
500/45-22.5
420/65R24
455/70R20

OPTIONAL EQUIPMENT
Electrical
One additional working light (rear left)
Magnetic rotating beacon
Foldable rotating beacon
Audible reverse alarm
Anti-theft system
Daytime running headlight
LED working lights
Power outlet 12V 20A
Protective equipment
Windshield guard, front
Windshield guard, rear
Belly guards, front/rear
Engine hood protection
Protective guards for:
Main head lights
Working lights
Rear lights
Front mudflaps
Other
SMV warning triangle
Preparation for licence plate
Trailer hitch with electrical connector
Central Lubrification unit
Sweeper preparation
Salt sprayer preparation
Safety brace
Attachments
General Purpose bucket
Multi-Purpose bucket
Grading bucket
Light Material bucket
High-Tip bucket
Side-Tip bucket
Clamp bucket
Stone Sorting bucket
Material Handling Arm
Forks with mechanical or hydraulic tines movement
Log Grapple
Custom-Built Attachments

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.

V O L V O