

VOLVO BACKHOE LOADERS

BL61, BL61 PLUS



MORE CARE. BUILT IN.



A BACKHOE LOADER INSPIRED BY THE WAY YOU WORK.

The Volvo BL61 Backhoe Loader is the result of years of research into what customers wanted most. Volvo then built a machine that provides everything you expect - durability, power, quality and environmental care. The result is a machine that gets the job done and keeps coming back for more.

Designed to fit your needs

Although the blueprints for Volvo's BL61 Backhoe Loader were drafted by a skilled team of Volvo engineers, the inspiration for its design was taken from construction industry professionals just like you. By incorporating direct customer input into every phase of development, Volvo engineers were able to create a reliable, value-priced machine that brings increased profitability to any size operation.

Tried and tested

To ensure the BL61 Backhoe Loader met the highest levels of quality applied to all Volvo products, the machine was put through rigorous on-site tests to prepare it for the daily assault of deep trenching, heavy lifting, loading, craning and more. But the real strength of its design lies in the fact that the entire machine - from loader to bucket - functions as one focused system capable of delivering reliable, productive operation year after year.

Proven power plant

The Volvo BL61 is equipped with a proven Volvo turbo diesel engine capable of delivering 64 kW / 86 HP (70 kW / 94 HP for BL61 Plus), of consistent and responsive power. The machine's Powershuttle gearbox features four fully synchronized gears and electro-hydraulic switching between forward and reverse. And, for better balance, the transmission is mounted directly to the engine.

A powerful shift in productivity (Only for BL61 Plus)

The optional Powershift transmission helps you increase productivity with four forward and reverse speeds and a standard kick down for fast, smooth shifting from second to first gear. Forease of operation, a fully automatic mode is activated when fourth gear is engaged. Powershift makes your job a lot easier so that you not only get more done, you do it with speed and comfort.

Durability within

The chassis of the Volvo BL61 is built tough for extended life. Every hydraulic line, fitting pin and bolt is corrosion protected and all hydraulic fittings employ O-ring face seal technology to ensure dry hydraulic joints. All electrical components are of the highest quality and all connections feature a waterproof, snap-together design.



- Proven Volvo engine delivers reliable power.



- Care is built into every phase of production.



- Each unit is fully tested to ensure long life.



- Powershift available as an option on BL61 Plus.
- BL61: 2,691 kg (5,933 lb) loader lift capacity for productivity.
BL61 Plus: 2,922 kg (6,442 lb) loader lift capacity for productivity.
- 52.8 kN (11,861 lb) backhoe bucket digging force.



TOP PERFORMANCE AT BOTH ENDS OF THE MACHINE.

With customer-driven engineering at its foundation, and power and reliability throughout its construction, the Volvo BL61 was built to move. And with better dig depths, breakout forces and operating capacities than virtually every competitive model in its price class, its operation will move you as well.

Built to perform

The BL61's boom has a closed box welded construction with fewer components - and fewer welds - to give it superior strength. The kingpost is composed of cast iron to allow flexible movement and swing while still maintaining uncompromising strength.

Power to execute

To dig into those tough sites, the backhoe provides a 4,250 mm (14") dig depth and 52.8 kN (11,861 lb) of bucket dig force. The narrow, S-style boom provides excellent visibility and outstanding load capacity to simplify digging and loading operations. For safe roading, the boom can be hydraulically locked, and there's a locking pin to secure the swing arm in place.

Flexible operation

Today's job site demands that backhoe loaders adapt to the work at hand. That's why the BL61 has optional features like an extendible dipper and a mechanical attachment bracket. And for added versatility and comfort, operators can choose between excavator- or backhoe-style controls.

Performance under pressure

The BL61's box-welded loader frame is powered by friction welded dual lift cylinders and incorporates a large, reinforced torque tube. The loader is configured along the sloped hood line to provide optimum visibility. In addition, fixed flow hydraulics and a self-levelling loader provide fast, efficient cycle times. The loader features a centre-mounted dump cylinder for a better view of the bucket and more digging power.

Added versatility

Few machines offer more versatility than the Volvo Backhoe Loader. With a wide assortment of versatile attachments, you've got the flexibility of an entire fleet of machines. Choose a simple-to-use mechanical attachment bracket or an optional hydraulic attachment bracket that allows you to save time and effort by quickly changing buckets from the operator's station. You can also get an auxiliary hydraulic circuit to operate attachments, such as a hammer.

More room to work

The BL61's 1,000 l (1.3 cu/yd³) General Purpose Bucket helps you move more material with every load. For added versatility, an optional Multi-Purpose Bucket lets you perform up to nine separate functions. Both can be outfitted with optional bolt-on teeth, reversible cutting edge or flip-over forks.



- Narrow S-style boom offers visibility, capacity.



- Self-levelling loader provides fast cycle times.



- Attachment bracket provides total versatility.



- Fast travel speed helps get the job done efficiently.
- Optional pallet forks let you move material with ease.
- Choose between excavator- or backhoe-style controls.



OPERATOR SAFETY - ALWAYS A VOLVO PRIORITY.

When you work in hazardous, unforgiving terrains, safety isn't a luxury - it's a necessity. That's why Volvo engineered its BL61 operator's station with optimal levels of safety and ergonomics. From the locking stabilisers to the integral loader safety strut, the BL61 is built for safe operation.

Set your sights on any job

Whether you choose the open ROPS or cab version, the BL61's operator station was built for the way you work. With strategically placed posts and additional wide, flat windows featured on the cab, you'll get unobstructed, panoramic views of the site from virtually any working angle. In addition, cab windows can be opened fully or partially for increased ventilation.

Take control of the site

The BL61's controls are positioned to reduce fatigue and maximise productivity. Comfortable grips and responsive handling lets operators raise, lower, tilt, return-to-dig and float with precision and speed. Additional lockable storage for tools, gloves and manuals is also provided.

It's easy to enter and exit the machine with the handrails and three serrated steps on either side of the machine. And for added safety in low-light conditions, the BL61 is equipped with two front and two rear halogen working lights and hazard flashers.

A higher level of comfort

The BL61's comfort cab provides features like an optional tilt-steering wheel and an adjustable suspension seat. And since you can't control the weather outside, the cab controls it on the inside with a standard heater/defrost system and an optional air-conditioning system.

More care, built in

To provide maximum uptime and machine life, the Volvo BL61's design allows for fast, convenient maintenance with 50-hour greasing intervals, a tilt-up hood, ground-level fluid checks, common filter access points and long service intervals.



- Handrails and three serrated steps for easy entry, exit.



- Long service intervals and ground-level checks.



- Ergonomic controls help reduce operator fatigue.
- Stay informed with easy-to-read machine gauges.
- Spacious cab with suspension seat for total comfort.



SPECIFICATIONS

Engine

Low emission, turbocharged 4-cylinder, liquid-cooled Volvo diesel engine with 40% torque rise.

Model	Volvo D4D
Net power	BL61: 62 kW (83 hp) BL61 Plus: 68 kW (91 hp)
Gross power	BL61: 64 kW (86 hp) BL61 Plus: 70 kW (94 hp)
Displacement	4.04 l (246 in ³)
Compression ratio	19:1
Rated speed	2,200 rpm

Electrical system

Weatherproof connections.

Standard 12-Volt, 690 CCA battery with dual battery option. Standard 95 amp alternator.

Drivetrain

Foot operated differential lock allows 100% full lock on rear axle. Final reduction in wheel hubs by a three pinion outboard planetary drive.

Travel speed

Maximum speed, forward/reverse

1	5.7 km/h (3.5 mph)
2	BL61: 9.2 km/h (5.7 mph) *BL61 Plus: 9.4 km/h (5.8 mph)
3	BL61: 18.5 km/h (11.5 mph) *BL61 Plus: 19 km/h (11.8 mph)
4	BL61: 37 km/h (23 mph) *BL 61 Plus: 35.9 km/h (22.3 mph)

* with powershift.

Brakes

Multi-plate, oil-immersed, servo power-assisted, self-adjusting inboard disc brakes with four wheel drive automatically engaged in third and fourth gear. (4WD only).

Independent, interlocking, twin serrated brake pedals. Parking brake engaged by a mechanical lever.

Steering

Hydrostatic steering with protected double acting single cylinder behind the front axle with remote grease fitting for axle pivot pin.

2WD Turns lock to lock	BL61: 4.25
4WD Turns lock to lock	4
2WD Steering angle	BL61: 56°
4WD Steering angle	55°

4WD Turning circle: Between walls

Without brakes	11.4 m (37'5")
-----------------------	----------------

4WD Loader turning circle: Between curbs

Without brakes	9 m (29'6")
-----------------------	-------------

2WD Turning circle: Between walls

With brakes	9.8 m (32'2")
Without brakes	10.6 m (34'9")

2WD Loader turning circle: Between curbs

With brakes	7 m (22'12")
Without brakes	8 m (26'3")

Hydraulic system

Open-centre, flow-sharing with gear type pump powering the digging elements and attachments.

Max flow	114 l/min (30.1 us gal/min)
Working pressure	
Excavator	250 bar (3,626 psi)
Loader	BL61: 220 bar (3,191 psi) BL61 Plus: 235 bar (3,408 psi)
System capacity	130 l (34.3 us gal)

Weight

4WD cab machine with general-purpose loader bucket, 610 mm heavy-duty backhoe bucket, standard 105 kg cast iron front bumper, 75 kg operator, full fuel tank and extendible dipper.

Operating weight	8,168 kg (18,007 lb)
-------------------------	----------------------

Transmission

Completely sealed W300 diameter torque converter mounted to engine flywheel with a flexplate. Powershuttle gear box with four forward and four reverse fully synchronized gears. Electro-hydraulic forward/reverse switch on steering column.

Capacities

Cooling system	19 l (5 US gal)
Fuel tank	120 l (31.7 US gal)
Engine oil (w/filter)	14 l (3.7 US gal)

Rear axle

Differential oil capacity	14.5 l (3.8 US gal)
----------------------------------	---------------------

Front axle (4WD)

Differential oil capacity	6.5 l (1.7 US gal)
----------------------------------	--------------------

Hydraulic reservoir	41 l (10.8 US gal)
----------------------------	--------------------

Hydraulic system	130 l (34.3 US gal)
-------------------------	---------------------

Backhoe performance

High performance backhoe is closed box welded, narrow and curved and includes a hydraulic boom lock and manual swing locking pin. Cast iron swing post. Cushioned swing, boom and bucket cylinders. Extendible dipper increases the reach by 990 mm. Manually and externally adjustable nylatron extendible dipper wear pads.

Standard dipper

Bucket width	610 mm (24 in)
Bucket capacity	0.20 m ³ (7.1 cu ft)
Bucket digging force (SAE J1179)	52.8 kN (11,861 lb)
Dipper digging force (SAE J1179)	32.6 kN (7,324 lb)
Bucket rotation	194°

Extendible Dipper

Bucket width	610 mm (24 in)
Bucket capacity	0.20 m ³ (7.1 cu ft)
Bucket digging force (SAE J1179)	52.8 kN (11,861 lb)
Dipper digging force (SAE J1179)	
Ret.	32.6 kN (7,324 lb)
Ext.	23.9 kN (5,379 lb)
Bucket rotation	194°

Loader performance

Low-effort, levers control all loader functions. Loader features a single cylinder and is self-levelling, with float and return-to-dig. Loader is box weld constructed with large diameter torque tube and friction welded dual lift cylinders. Optional Boom Suspension System (ride control), 1,000 l (1.3 cu/yd³), 2,350 mm (93 in) wide, General Purpose or Multi-Purpose buckets with optional teeth and reversible bolt-on cutting edges. Integral safety strut. Weekly (50-hour) greasing intervals.

Lift capacity at full height

(with General Purpose bucket)

BL61:	2,691 kg (5,933 lb)
BL61 Plus:	2,922 kg (6,442 lb)

Bucket breakout force

BL61:	43.9 kN (9,866 lb)
BL61 Plus:	49.6 kN (11,155 lb)

Loader arm breakout force

BL61:	47 kN (10,571 lb)
BL61 Plus:	50.1 kN (11,270 lb)

Cycle Times:

Raise to full height

4.1 sec

Dump time 1.9 sec

Curl time 2.4 sec

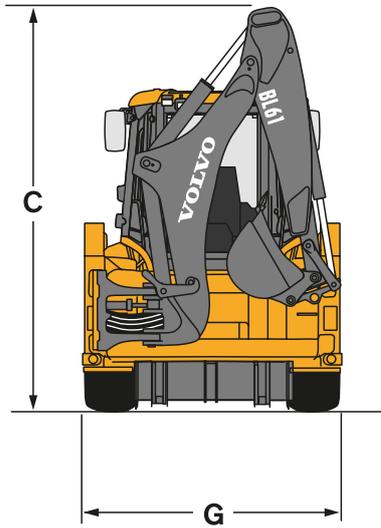
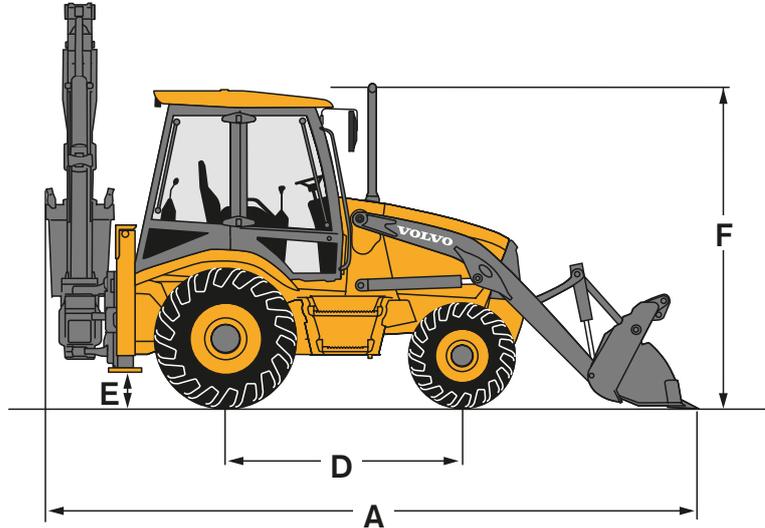
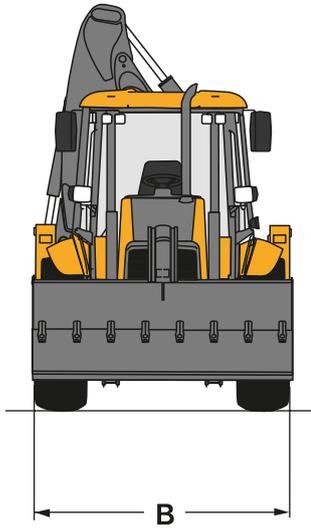
Lower 3.4 sec

Tyres

Rear tyres Standard tyres 16.9 x 28

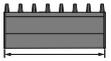
2WD Front 10.5/80 x 18

4WD Front 12.5/80 x 18

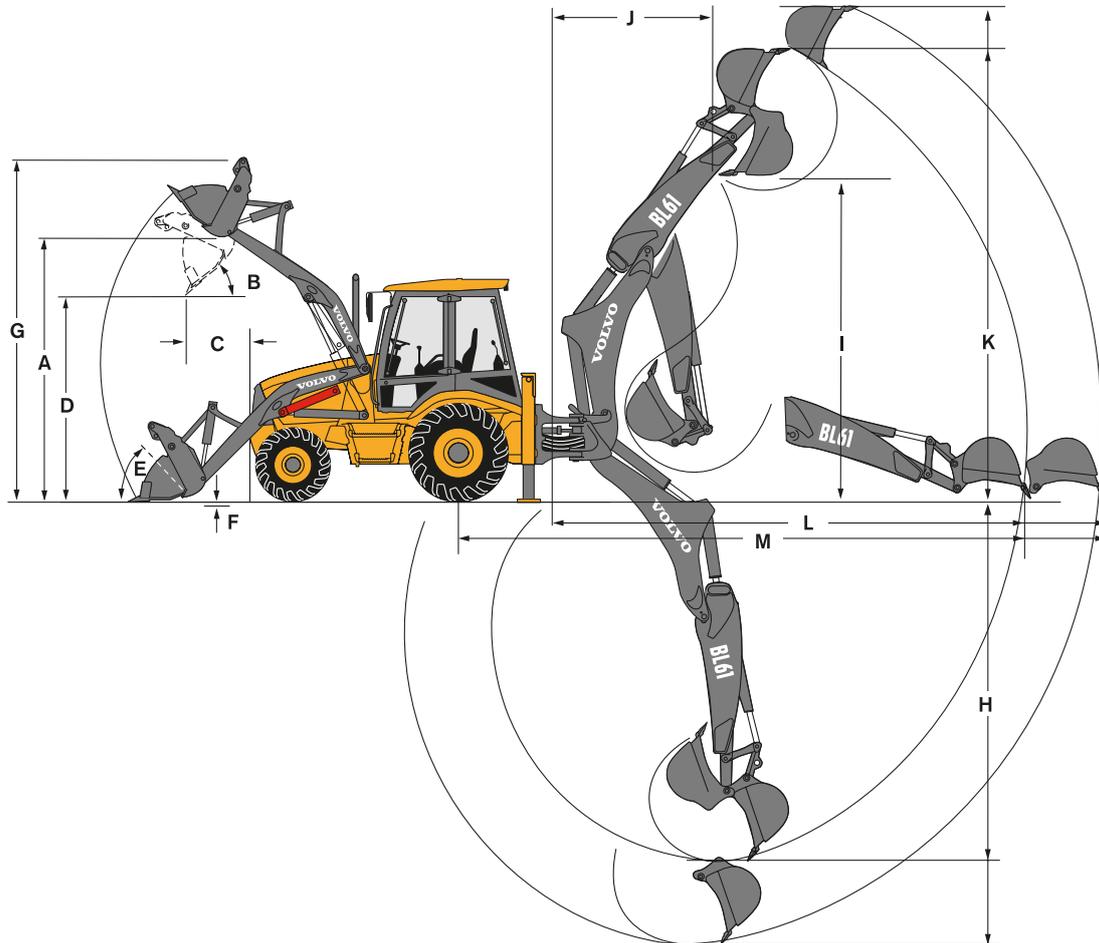


Dimensions - Transport Position

A - Overall length	5,832 mm (19'2")
B - Overall width	2,477 mm (8'2")
C - Overall height	3,710 mm (12'2")
D - Wheelbase 4wd	2,146 mm (7'0")
E - Ground clearance - frame	3,70 mm (1'3")
F - Height to top of ROPS (cab)	2,925 mm (9'7")
G - Stabilisers Width	2,300 mm (7'7")

Loader buckets				
	Width	Weight	Capacity	Teeth nbr.
Standard bucket	2,350 mm 93 in	450 kg 992 lb	1,000 l 1.3 cu/yd ³	8
4 in 1 bucket	2,350 mm 93 in	784 kg 1728 lb	1,000 l 1.3 cu/yd ³	8

Backhoe buckets				
	Width	Weight	Capacity	Teeth nbr.
Standard bucket	300 mm 12 in	90 kg 198 lb	74 l 0.10 yd ³	3
	400 mm 16 in	101 kg 223 lb	110 l 0.14 yd ³	3
	450 mm 18 in	109 kg 240 lb	128 l 0.17 yd ³	4
	610 mm 24 in	126 kg 278 lb	190 l 0.25 yd ³	4
	910 mm 36 in	164 kg 362 lb	309 l 0.40 yd ³	6
Grading bucket	1,215 mm 48 in	135 kg 298 lb	160 l 0.21 yd ³	0
	1,515 mm 60 in	158 kg 348 lb	210 l 0.27 yd ³	0



Loader dimensions

A - Height to hinge pin,	3,404 mm (11'2")
B - Dump angle	50°
C - Dump reach	873 mm (2'10")
D - Dump height	2,661 mm (8'9")
E - Rollback at ground	45°
F - Dig depth below grade	212 mm (8")
G - Height to upper edge of bucket	4,413 mm (14'6")
Max. grading angle	116°

Backhoe dimensions

Standard dipper	
H - SAE dig depth	4,280 mm (14')
Dig depth - 610 mm flat bottom	4,256 mm (13'11")
I - Loading height	3,936 mm (12'11")
J - Loading reach	2,829 mm (9'3")
K - Operating height	5,582 mm (18'4")
L - Reach from swing post	5,867 mm (19'3")
M - Reach from rear axle	7,180 mm (23'7")
Sideshift offset from centreline	574 mm (1'11")
Side wall clearance	601 mm (2')

Extendible dipper dimensions

H - SAE dig depth	Ret - 4,280 mm (14')	Ext - 5,343 mm (17'6")
Dig Depth - 610 mm flat bottom	Ret - 4,256 mm (13'11")	Ext - 5,316 mm (17'5")
I - Loading height	Ret - 3,936 mm (12'11")	Ext - 4,557 mm (14'11")
J - Loading reach	Ret - 2,829 mm (9'3")	Ext - 3,700 mm (12'2")
K - Operating height	Ret - 5,582 mm (18'4")	Ext - 6,206 mm (20'4")
L - Reach from swing post	Ret - 5,867 mm (19'3")	Ext - 6,836 mm (22'5")
M - Reach from rear axle	Ret - 7,180 mm (23'7")	Ext - 8,149 mm (26'9")

STANDARD EQUIPMENT

Engine

BL61: Volvo D4D turbocharged diesel engine (62 kW).
BL61 Plus: Volvo D4D turbocharged diesel engine (68 kW).
Ground line fuel fill with 120 litre capacity.
Front grill.

Electrical System

Battery, 690 CCA.
Alternator 95 Amp.

Service and Maintenance

Tool box - external.
External battery box.

Hydraulic System

Hydraulic oil cooler.
Fixed flow system with gear pump.
"Flow Sharing" System.

Lighting

Hazard flasher/direction indicators.
Light, working (2 front, 2 rear).
Front headlights.

Instrumentation & controls

Gauges:

- Coolant temperature
- Fuel level
- Tachometer
- Hour recorder

Headliner.

Warning and control lamps:

- Preheating element engine
- High coolant temperature engine
- Low oil pressure engine
- Air filter engine
- High oil temperature transmission
- Service indicator
- Battery charging
- Hydraulic oil filter
- High hydraulic oil temperature
- Low hydraulic oil temperature
- Warning and control lamps.

Power socket (1).

Horn.

Warning buzzer.

Throttles, hand and foot.

Driveline

Four wheel drive.
Oil immersed disc brakes.
Differential lock.
Fast reversing shuttle, all gears.
Torque convertor.
Four-speed syncromesh transmission.
Transmission de-clutch on loader joystick.
Tyres.

Cab, Exterior

Left/right side doors with locks.
4 side opening windows with partial & full hold open.
One-piece opening rear window.
Front windscreen - laminated.
Mirrors external (2).
All tinted glass.

Cab, Interior

Interior light.
Drink holder.
Ignition switch.
Front and rear windscreen wipers.
Front and rear windscreen washer.
Floor mat.
Seat with fabric or vinyl seat cover with or without arm rests.
Defroster.
Seat belt, retractable.
Power steering.
Hydrostatic heater.

Working Equipment

Backhoe, side-shift, excavator - two lever control.
Hydraulic boom transport lock.
Sideshift, locking.
Swing transport lock.
Loader, self-levelling with return-to-dig and transmission disconnect switch on loader lever.

OPTIONAL EQUIPMENT

Cab

Air Conditioning.
Air suspension and heated seat + arm rests.
Radio.
Speedometer.
Sun visor.
Wide seat belt.
Tilt steering wheel.

Working Equipment

Boom suspension system.
Steering wheel knob.
Extendible dipper.
Stabiliser street pads.
Lifting eye backhoe.

Hydraulics

Hammer hydraulic circuit.
Hammer rigid line.
Hand held hydraulic.

Lighting

Additional working lights (2 front, 2 rear).

Electrical System

Speedometer.
Reversing Alarm.
Battery, additional.

Safety

Hydraulic oil tank lockable cap.
Rotating beacon.
Boom and dipper safety valves.
Loader safety valve.
Front fenders.
Vandal guard.
Anti-theft key board.
Back up alarm.

Attachments

Cutting edge, bolt on.
Tooth, bolt on.

Front loader buckets.
Backhoe buckets.
Volvo hammer HB 440.

Mechanical attachment bracket.
Hydraulic attachment bracket.
Forks kit.



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



All products are not available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Construction Equipment

www.volvoce.com

Ref No. 21 A 100 2688
Printed in Sweden
Volvo, Belley

English
2006.12
BHL