

VOLVO EXCAVATORS
BUILDING
CONSTRUCTION



VOLVO

SITE WORK. FOUNDATION. FINISHED. VOLVO KNOWS BUILDING CONSTRUCTION.

Home. Shelter. Security. Few things are as fundamental as having a place to call home. The engine of growth in today's global economy is construction of homes, office parks, retail stores, warehouses, schools and hospitals. Volvo B-Series excavators drive commercial and residential construction with the real power behind the growth.

Building success at every stage

Contractors rely on excavators to build a solid foundation for commercial, residential and institutional building projects. Whether clearing the site of heavy vegetation or deep digging for footings, excavators need to perform.

Volvo B-Series excavators are built for the widely varied demands of building construction.

With rugged, robotically welded boom and arm, B-Series excavators have the mustard to conquer the toughest digs and most extreme conditions. Smart, productive hydraulics deliver outstanding breakout forces, swing power and fast cycle times to maximize production at all stages of construction. And Volvo's long undercarriage provides sure footing for any soil condition.

Fuel-efficient Volvo engines

Superior engineering shows in the Volvo engine, which has been engineered to match hydraulic and engine horsepower under any loading condition. Outstanding fuel efficiency can keep your Volvo B-Series excavator at work for two shifts on one full tank. And because it's a Volvo engine, you can be confident of reliable operation and long life.

Hydraulics match the task

The hydraulic system is designed to match conditions on the job, no matter the site demands. Operate in general mode for control and load retention during mass excavation or truck loading. For the steady hand required for shaping banks, building earth-retention walls or site grading, switch to fine mode for precise operation. When the job calls for auxiliary hydraulics and any attachment, be confident the flow and power will match the demand.

Taking care of the operator

On busy, crowded job sites, the cab features industry-leading visibility to give the operator confidence all around. Comfort and convenience are built into every inch of the cab to minimize operator fatigue and maximize productivity on the longest work days.

Volvo knows what contractors need in an excavator. We're there on job sites all over the world, making sure Volvo is meeting all building construction needs.

When you face the toughest challenges in building construction, answer them with Volvo B-Series excavators.

Capacity: Quickly cut sites to desired grade



Power: Lift, swing and place with confidence



Full line: Range of machine sizes match the job



Quick cycles: Smooth, even truck loading





MULTI-TASK PERFORMANCE TO CONQUER CLEARING, LEVELING AND SITE PREP.

Before buildings can rise on a construction project, the site must first be tamed. Demolishing old structures, clearing heavy vegetation, over-excavation and site build-up are all part of the preparation phase. With power and control from field-tested Volvo technology, count on B-Series excavators to get job sites ready for the next stage.

Power and response for site work

With a high-strength, robotically welded boom and arm, B-Series excavators have the backbone and dig force to rip through deep tree roots, pull the widest stumps and cut through tough soil. The boom and arm are designed for extreme conditions, with the mettle for tearing down structures, excavating impacted debris, or removing boulders and blasted rock.

Hydraulics that match demand

Hydraulic flow and engine output are closely matched to provide optimum performance — and fuel efficiency.

Boom and arm regeneration coupled with dual axial piston pumps deliver digging performance for fast cycles during soil stripping and over-excavation. A range of boom and arm configurations help match the machine to the job, whether you're demolishing a building, cutting densely packed tree roots or excavating contaminated earth.

One-touch power boost on the right joystick provides 10 percent more breakout force to power through buried bricks, concrete, old wooden piles, rock, tree roots — whatever gets in the way.

Highly responsive hydraulics allow the operator to feel changing conditions when digging, clearing vegetation or trenching for site drainage.

Advanced Work Mode

The Advanced Work Mode control system detects the need for additional power. Operate in general mode for production in digging and dumping. For power and control when pulling out old storage tanks, lifting large debris or setting big drainage pipe, switch to fine mode for 10 percent more power and fine precision.

Low-effort wrist-control joysticks provide smooth hydraulic control, to make easy work of repetitive tasks and provide fingertip control when raking, grading, leveling or loading a tub grinder.

Extend your capabilities

Volvo B-Series excavators are built for auxiliary attachments, with factory-installed piping for hammer or shear. No add-ons or wet kits needed. That means you are ready to go when the job requires a grapple to pull down trees or a hammer for breaking up ledge.



Key Features

Smart, productive hydraulics

- High breakout forces help cut through rock, tough soils.
- Quick cycle times for stripping building pads.
- Power boost supplies 10 percent higher digging forces to easily fill the bucket in tough conditions.
- System is like an extension of the operator's hands, allowing sensitive "feel" of soil conditions or obstacles.
- Precision control for grading, placing loads or finishing work.

Advanced Work Mode

- Range of system settings matches engine power with hydraulic pump output.
- Work modes automatically match output to job demands.
- Integrated controls boost fuel efficiency.

Boom, arm options to match jobs

- Range of boom and arm configurations deliver the right depth, from short stick to long reach.

Volvo-designed quick fit

- Control attachment changes right from the cab by simply depressing two switches.
- Plate-to-plate interface reduces loss of breakout force for optimum performance.
- Attachment lock indicator gives operator visible signal that attachment is engaged.



SLURRY WALLS. FOOTERS. SHEET PILES. TRUE PERFORMANCE WHERE IT COUNTS.

Few things are as important as a solid foundation. A building's function, strength and longevity depends on what is under the surface. And what is beneath the building relies on the workings of a tough, versatile excavator. Volvo B-Series excavators tame the demands of commercial and residential construction.

Digging — and much more

It all starts with the dig. Volvo excavators have the raw power, the hydraulic capacity and the control to efficiently complete digging operations on residential homes, office buildings, parking structures and more.

A range of Volvo excavator models provides the dig depth, breakout force and reliable operation for all types of digging. Whether it's a 12-foot basement cut in frozen loam or a 60-foot commercial dig in solid ledge, Volvo excavators command even extreme job site conditions.

Swing torque enhances operation

High swing torque improves loading and dumping when swinging loads uphill. Experience faster cycle times when loading up a ramp or from inside a cellar hole. That means quicker job completion and higher productivity.

A long undercarriage provides sure footing and stability for digging deep shafts, compacting material for aggregate piers or digging basements and trenches.

Volvo excavators deliver precise fingertip control to efficiently scrape, smooth and even cellar holes in preparation for sheet piling, earth-retention systems or poured foundations. The same excavator doing the production digging can quickly and efficiently do this important finishing work, saving time and money.

Versatile building machine

For the most efficient digs, the Volvo-designed quick fit allows the operator to easily switch bucket sizes and widths right from the cab, to best suit soil conditions. The smart design of the fit means minimal loss of breakout force. Easily switch from a general-purpose bucket to a trenching bucket for installing water, sewer, electric or drainage.

The hydraulics are closely matched to engine output, delivering optimum power to meet job demands. With dual variable-action piston pumps, the hydraulic system is ideal for smoothly lifting, carrying and placing loads such as catch basins or large-diameter piping.

Special shockless valves ensure that swing starts and stops are fast and smooth. A swing rebound-dampening system prevents rebound, ensuring the load stays stable.

Preparing the building pad

For performance beyond the dig, Volvo excavators deliver balanced operation for grading slopes or preparing the building pad.

Evenly slew, rake and distribute material for quick and efficient site leveling and grading. Combined with an articulating bucket, you have wrist-like action that allows creation of even grades and efficient material placement.



Key Features

Enhanced controllability

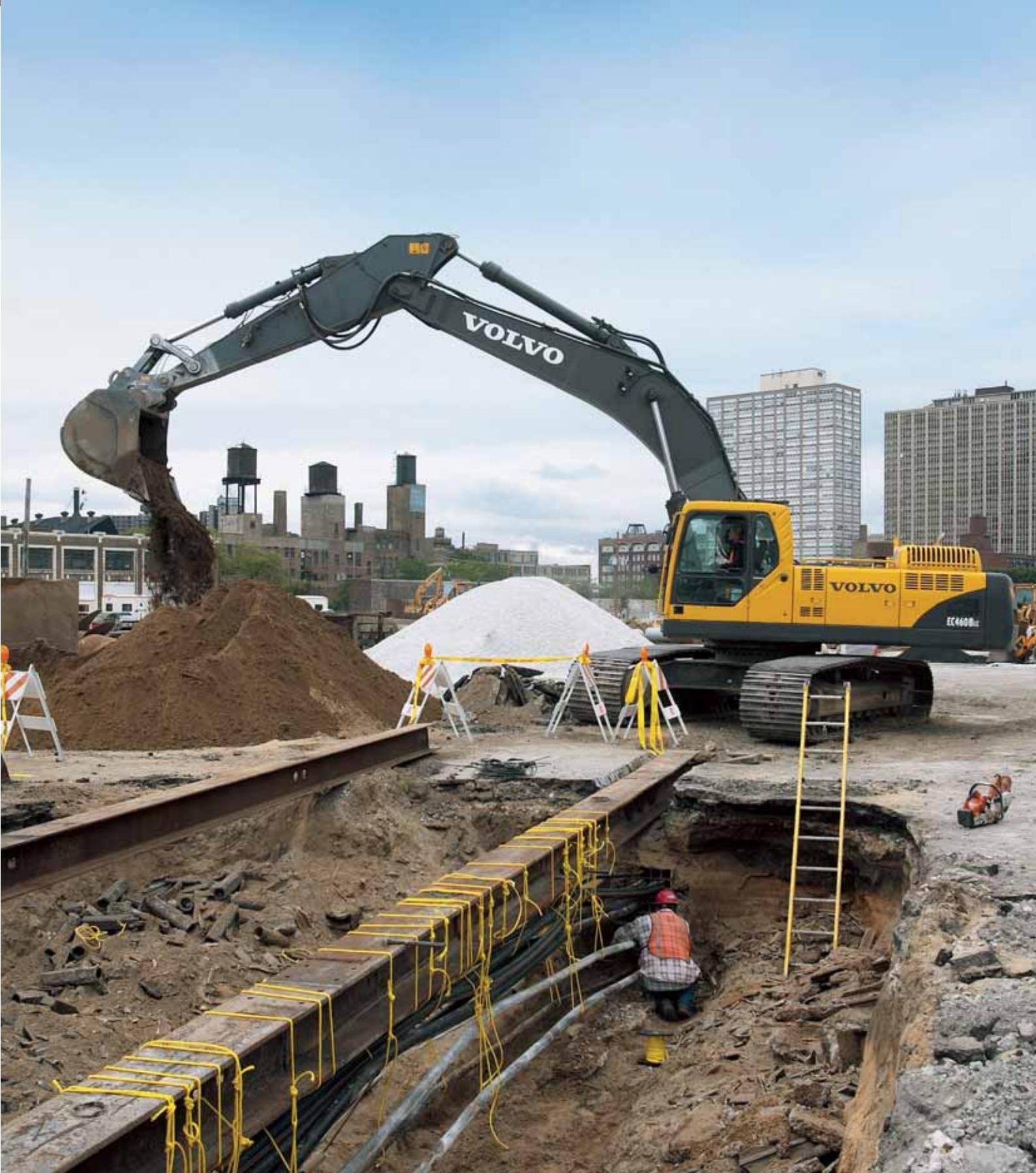
- "F" mode delivers superior control and precise movement.
- Low-effort controls reduce operator fatigue and improve cycle times.
- Hydraulic oil flows to arm and boom for simultaneous lifting and placing motion.
- Rebound dampening lessens stress on the machine while maintaining balanced load.
- Control allows precision work such as side cutting.
- Easily complete finishing operations such as building pad preparation.

Lifting power

- Lift bulky manholes or sections of concrete or steel pipe.
- 10 percent more lifting power in "F" mode.

Quick fit

- Lifting eye welded right on quick fit.
- Easily remove bucket to add lift capacity.



INDUSTRY-LEADING VISIBILITY. TOTAL COMMAND OF THE WORK SITE.

Success on building-construction jobs depends on a skilled excavator operator. And the key to a productive operator is a great cab.

With industry-leading visibility, superior comfort and adjustable, low-effort controls, the Volvo B-Series cab delivers what operators value most.

Industry-leading visibility

Building-construction jobs demand good visibility for mass excavation, digging footers, trenching, lifting and swinging. Volvo delivers the cleanest lines of sight you'll find on any excavator. Good visibility means safer, more effective digging, with low operator fatigue.

For trenching or digging operations, the lower front window is easily removed and stored securely on the cab door. The windshield quickly slides up into the ceiling when the operator wants the front of the cab completely open.

Even with the cab closed, the ample front glass is joined with only a thin crossbar that does not impede visibility. In rainy weather, a large windshield wiper keeps the front glass clear.

For lifting operations, or when looking out for overhead power lines or other obstructions, the cab ceiling is made of tinted, low-glare glass. Side and rear glass — coupled with strategically placed rear-view mirrors — provide superior visibility for swinging, placing or travel.

Roomy, adjustable features

To keep the operator comfortable and prevent fatigue on those long workdays, Volvo engineered the B-Series cab with productivity in mind.

The cab offers easy access through a wide swing-out door. Operators will find plenty of legroom, joystick consoles that adjust individually and a fully adjustable seat with nine settings for optimum fit and comfort.

Comfort in any weather

The high capacity climate control unit and ventilation system keeps the cab comfortable even in extreme weather conditions. Air flow is delivered at four fan speeds through 13 ducts.

The filtered, pressurized system keeps the cab free of dust and the operator unaffected by heat, cold or wind. Electronic climate control offers large capacity heating 7,200 Kcal/h (28,570 BTU) and cooling 6,500 Kcal/h (25,790 BTU).

Low-noise, low-vibration design

The Volvo B-Series cab design shields the operator from noise and vibration, lessening fatigue and boosting performance. Sound-absorbing material installed in the cab and engine and pump compartments greatly reduces noise levels.

The cab is mounted on viscous dampening mounts to greatly reduce shock, vibration and noise.

Volvo knows how important the operator is to excavator productivity. That's why the operator is at the center of the B-Series design.



Key Features

Operator station

- Deluxe seat has nine adjustments to suit any size operator.
- Joystick consoles can be adjusted lengthwise and for height, providing customized operator comfort.
- Easy-to-read instrument panel provides status on all machine functions.
- Low-effort controls improve productivity and reduce fatigue.
- Smart design provides easy access to all controls and machine functions.

Cab visibility

- Expansive front and top glass for unobstructed views.
- Gas-spring front window lifts easily for increased visibility.
- Removable lower front window stows easily in cab door.
- Thin window crossbar does not inhibit forward visibility.

Cab comfort

- Sound-absorbing material provides low noise levels.
- Viscous-mounted cab lessens shock and vibration.
- Electronic climate-control system keeps cab air comfortable in any weather.



VOLVO MEANS RELIABLE PERFORMANCE, SAFETY AND TOTAL CUSTOMER SUPPORT

For building-construction contractors, having great iron is only part of the equation. Customers want more than a machine. They want support. Solutions. They need to know their excavator — and their brand — will be there. They need to know Volvo.

With Volvo B-Series excavators, it all starts with superior design and reliability. Volvo Construction Equipment has a heritage of making machines that perform over the long haul. It's all backed up with great dealer service and customer support.

Proven Volvo engine performance

The heart of performance with Volvo B-Series excavators is the turbocharged Volvo engine. The six-cylinder engine has direct fuel injection and charged air cooling to meet the unique demands of excavation jobs. For long engine life and reliable performance, Volvo engines feature high horsepower, three-stage air cleaning and a fuel-efficient auto-idling system.

Easy maintenance and service

Volvo B-Series excavators are as easy to maintain as they are to run. An in-cab monitor provides the operator constant information on machine operating conditions.

Long-life, high-capacity air and fluid filters mean reliable operation and less downtime. Volvo B-Series excavators have parts commonality with other Volvo products, meaning even better parts availability.

Swing-out doors provide easy access to the engine, filters, hydraulic pumps and other components. Grouped remote lubrication banks and sight gauges for

fuel and hydraulic oil make daily checks quick and easy. Grouped pressure-check points with quick fittings also speed up service.

In the unlikely event of a controller failure, Volvo excavators are equipped with an emergency engine-speed-control system that allows operation to continue until a technician arrives.

Focus on safety







Like all Volvo products, Volvo B-Series excavators are engineered for safety. Steps and superstructure walkways are made for sure footing with rugged, punched-plate metal and secure handrails. A hydraulic pressure-relief system delivers safer attachment changes and emergency shutdown. High-capacity halogen work lights on the boom and forward superstructure deliver visibility in low-light conditions.







Volvo dealer support







Volvo Construction Equipment's dealer network provides outstanding customer support with extended warranties, preventive maintenance programs, service contracts and more.







Whether you need maintenance for your whole fleet, or just someone to back you up during a machine outage, Volvo dealers are there. After all, it's about more than iron. It's what we call **More care. Built in.**



						
Engine	Volvo D4D	Volvo D4D	Volvo D6D	Volvo D6D	Volvo D6D	Volvo D6D
Rated output, at	35 (2,100)	35 (2,100)	32 (1,900)	32 (1,900)	32 (1,900)	32 (1,900)
ISO 9249/SAE J1349, net	69 (93)	69 (93)	81 (109)	81 (109)	81 (109)	107 (143)
Track length / track gauge	3,740 / 1,990	3,790 / 1,990	3,980 / 2,200	3,980 / 1,990	4,166 / 2,200	4,460 / 2,390
Bucket capacity	0.60-0.98	0.68-1.08	0.88-1.23	0.78-1.08	1.03-1.43	0.83-1.55
Lifting capacity						
along undercarriage	t 3.5	3.8	4.7	4.7	5.4	7.1
at reach / height	m 6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5
Breakout force, SAE	kN 87.3	87.3	105.2	105.2	105.2	130.4
Max. digging reach	m 8.3	8.3	9.0	9.0	9.0	9.9
Max. digging depth	m 5.5	5.4	6.0	6.0	6.0	6.7
Operating weight	t 13.4-15.2	14.6-15.6	16.6-18.4	16.5-18.3	18.1-19.0	20.8-22.3

						
Engine	Volvo D7D	Volvo D7D	Volvo D7D	Volvo D7D	Volvo D12D	Volvo D12D
Rated output, at	33 (2,000)	33 (2,000)	32 (1,900)	32 (1,900)	28 (1,700)	28 (1,700)
ISO 9249/SAE J1349, net	125 (168)	125 (168)	143 (192)	143 (192)	184 (247)	184 (247)
Track length / track gauge	4,650 / 2,590	4,460 / 2,390	4,870 / 2,590	4,665 / 2,390	4,962 / 2,590	5,180 / 2,740
Bucket capacity	1.1-1.98	1.1-1.8	1.03-2.1	0.95-1.88	1.25-2.5	1.6-3.0
Lifting capacity						
along undercarriage	t 9.1	8.9	10.8	10.2	9.4	11.3
at reach / height	m 6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	7.5 / 1.5	7.5 / 1.5
Breakout force, SAE	kN 156.9	156.9	172.6	172.6	209.0	209.0
Max. digging reach	m 10.3	10.3	10.7	10.7	11.1	11.2
Max. digging depth	m 7.0	7.0	7.3	7.3	7.4	7.5
Operating weight	t 24.2-25.8	24.8-25.7	28.2-29.9	28.4-29.7	33.7-36.0	36.8-38.7

						
Engine	Volvo D12D	Volvo D12D	Volvo D16E	Volvo D6D	Volvo D7D	Volvo D7D
Rated output, at	28 (1,700)	30 (1,800)	30 (1,800)	32 (1,900)	33 (2,000)	32 (1,900)
ISO 9249/SAE J1349, net	184 (247)	235 (316)	316 (424)	107 (143)	125 (168)	143 (192)
Track length / track gauge	5,180 / 2,390	5,370 / 2,740	5,990 / 3,350	4,460 / 2,390	4,650 / 2,590	4,870 / 2,590
Bucket capacity	1.28-2.45	1.73-3.78	2.48-6.6	0.52	0.52	0.52 / 0.57
Lifting capacity						
along undercarriage	t 11.0	13.8	20.0	3.0	3.3	3.7
at reach / height	m 7.5 / 1.5	7.5 / 1.5	7.5 / 1.5	10.5 / 1.5	10.5 / 1.5	10.5 / 1.5
Breakout force, SAE	kN 209.0	244.2	374.0	68.6	68.6	69.1
Max. digging reach	m 11.2	12.0	11.5	15.8	18.3	18.6
Max. digging depth	m 7.5	7.7	7.3	12.1	14.4	14.8
Operating weight	t 36.5-38.4	44.5-47.9	68.3-70.6	23.2	27.6	31.6

						
Engine	Volvo D5D	Volvo D5D	Volvo D6D	Volvo D6D	Volvo D6D	Volvo D6D
Rated output, at	31.7 (1,900)	31.7 (1,900)	33.3 (2,000)	33.3 (2,000)	32 (1,900)	32 (1,900)
ISO 9249/SAE J1349, net	88 (118)	88 (118)	103 (138)	103 (138)	112 (150)	112 (150)
Wheel base	mm 2,600	2,600	2,600	2,600	2 600	2 600
Max. travel speed	km/h 30	30	35	35	35	35
Bucket capacity	m³ 0.19-0.75	0.19-0.75	0.19-0.83	0.19-0.83	0.42-1.1	0.42-1.1
Lifting capacity						
along undercarriage	t 4.4	4.3	5.3	5.4	7.7	6.9
at reach / height	m 6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5	6.0 / 1.5
Breakout force, SAE	kN 89.5	89.5	98.5	98.5	111.2	111.2
Max. digging reach	m 8.4	8.6	9.0	9.1	9.3	9.4
Max. digging depth	m 5.0	5.0	5.5	5.7	5.8	6.0
Operating weight	t 14.3-15.4	14.6-15.7	15.9-17.2	16.2-17.5	17.7-19.2	18.3-19.8



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.volvo.com

Ref. No. 30 B 100 2009
Printed in Sweden 2006.02-1,0
Volvo, Eskilstuna

English
EXB