

V O L V O



Volvo Excavators 20.5-24.0 t / 45,220-52,945 lb 154 hp

EC210

Volvo Construction Equipment

EC210

**A great partner for those important supporting jobs.
Light enough to move and maneuver easily.
Strong enough to get the job done.**



Light support

Volvo EC210 is a lighter machine that will be your perfect partner in agricultural applications and supporting work. But it is also popular to use for building, road work or utilities. With improved fuel efficiency and longer service intervals, EC210 will lower the Total Cost of Ownership while still being able to punch above its weight in performance.



Operator comfort

- More precise controls
- Quieter cab
- Personalized settings for greater comfort
- ROPS cab as standard



Smart View with Obstacle Detection

- Increased safety onsite and for the operator
- Radar warns for items outside the screen
- HD screen
- Human identifying alarm separate from other obstacles



Serviceability

- Ground level access for service
- Long service intervals
- Grouped filters and lubrication points
- Quick and easy oil changes



Fuel Efficiency

- Up to 10% improvement
- Engine pump optimization with engine speeds as low as 1,600 rpm
- Smart MCV



Productivity

- Volvo Active Control
- Dig Assist with On-Board Weighing
- Electro-hydraulic system
- Boom/Swing functions

Volvo EC210 in detail

Engine

The latest generation, Volvo engine Tier 4f emissions compliant diesel engine fully meets the demands of the latest, emissions regulations. Featuring Volvo Advanced Combustion Technology (V-ACT), it is designed to deliver superior performance and fuel efficiency. The engine uses precise, high pressure fuel injectors, turbo charger and air-to-air intercooler, and electronic engine controls to optimize machine performance.

- **Air Filter:** 3-stage with precleaner

- **Automatic Idling System:** Reduces engine speed to idle when the levers and pedals are not activated resulting in less fuel consumption and low cab noise levels.

| | | |
|----------------------------|----------------------|--------------|
| Engine | Volvo | D4J |
| Max power at | r/min (r/s) | 2,000 (33.3) |
| Net, ISO 9249/SAE J1349 | kW (hp) | 114 (153) |
| Gross, ISO 14396/SAE J1995 | kW (hp) | 115 (154) |
| Power output at | | |
| Operating max | r/min (r/s) | 1,800 (30) |
| Travel max | r/min (r/s) | 2,000 (33.3) |
| Max torque | Nm (ft lbf) | 618 (456) |
| at engine speed | r/min (r/s) | 1,700 (28) |
| No. of cylinders | | 4 |
| Displacement | l (in ³) | 4 (246) |
| Bore | mm (in) | 101 (3.98) |
| Stroke | mm (in) | 126 (4.96) |

Electrical System

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. The master switch is standard. Contronics provides advanced monitoring of machine functions and important diagnostic information.

| | | |
|------------------|--------|----------|
| Voltage | V | 24 |
| Batteries | V | 2 x 12 |
| Battery capacity | Ah | 100 |
| Alternator | V/A | 28 / 130 |
| Start motor | V - kW | 24 / 5.5 |

Undercarriage and structures

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.

| | | |
|----------------------------|---------|---|
| Track shoes | | 2 x 49 |
| Link pitch | mm (in) | 190 (7.5) |
| Shoe width, triple grouser | mm (in) | 500/600/700 /800/900 (20/24/28/32/36) |
| Bottom rollers | | 2 x 8 |
| Top rollers | | 2 x 2 |

Swing system

The swing system uses an axial piston motors, driving a planetary gearbox for maximum torque. An automatic holding brake and antirebound valve are standard.

| | | |
|------------------|--------------|---------------|
| Max. slew speed | r/min | 12 |
| Max. slew torque | kNm (ft lbf) | 76.6 (56,520) |

Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected within the track frame.

| | | |
|--------------------------|-------------|--------------|
| Max. drawbar pull | kN (lbf) | 178 (40,016) |
| Max. travel speed (low) | km/h (mi/h) | 3.4 (2.1) |
| Max. travel speed (high) | km/h (mi/h) | 5.4 (3.4) |
| Gradeability | ° | 35 |



Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

Integrated air-conditioning and heating system: The pressurized and filtered cab air is supplied by an automatically controlled fan. The air is distributed throughout the cab from 14 vents.

Ergonomic operator's seat: The adjustable seat and joystick console move independently to accommodate the operator. The seat has 12 different adjustments plus a seat belt for the operator's comfort and safety.

Sound Level

Sound level in cab according to ISO 6396

| | | |
|-----------------|----|----|
| L _{pA} | dB | 70 |
|-----------------|----|----|

External sound level according to ISO 6395, EU Noise Directive (2000/14/EC)

| | | |
|-----------------|----|-----|
| L _{WA} | dB | 102 |
|-----------------|----|-----|

Service Refill

| | | |
|-------------------------|---------|-----------------|
| Fuel tank | l (gal) | 295 (78) |
| DEF/AdBlue® tank | l (gal) | 17.9 (5) |
| Hydraulic system, total | l (gal) | 215 (57) |
| Hydraulic tank | l (gal) | 98 (26) |
| Engine oil | l (gal) | 16 (4) |
| Engine coolant | l (gal) | 14 (4) |
| Slew reduction unit | l (gal) | 5.4 (1) |
| Travel reduction unit | l (gal) | 2 x 3.5 (2 x 1) |



Hydraulic system

The new electro-hydraulic system and new MCV (main control valve) use intelligent technology to control on-demand flow for high productivity, high digging capacity and excellent fuel consumption.

The following important functions are included in the system:

Summation system: Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity

Boom priority: Gives priority to the boom operation for faster raising when loading or performing deep excavations.

Arm priority: Gives priority to the arm operation for faster cycle times in leveling and for increased bucket filling when digging.

Swing priority: Gives priority to swing functions for faster simultaneous operations.

Regeneration system: Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.

Power boost: All digging and lifting forces are increased.

Holding valves: Boom and arm holding valves prevent the digging equipment from creeping.

Main pump: 2 x Variable displacement axial piston pumps

| | | |
|--------------|-----------------|------------------|
| Maximum flow | l/min (gal/min) | 2 x 200 (2 x 53) |
|--------------|-----------------|------------------|

Pilot pump: Gear pump

| | | |
|--------------|-----------------|----------------|
| Maximum flow | l/min (gal/min) | 1 x 18 (1 x 5) |
|--------------|-----------------|----------------|

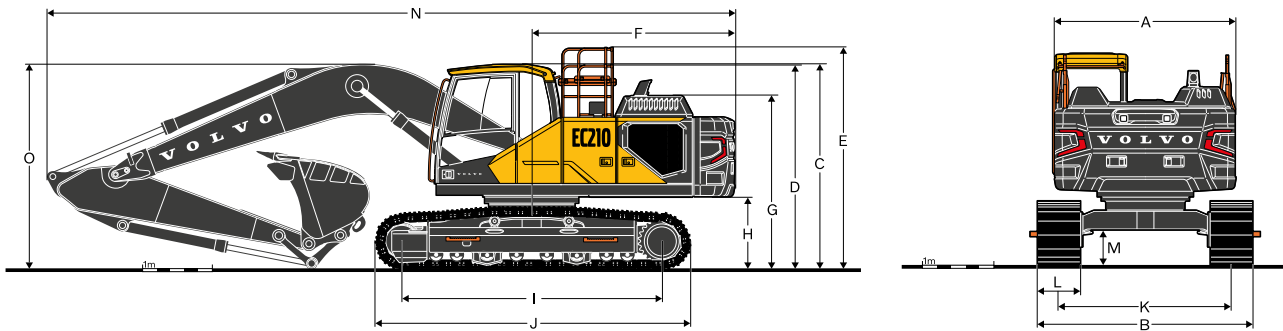
Max. pressure

| | | |
|----------------|-----------|-----------------------------|
| Implement | MPa (psi) | 34.3 / 36.3 (4,975 / 5,265) |
| Travel circuit | MPa (psi) | 34.3 (4,975) |
| Slew circuit | MPa (psi) | 27.9 (4,047) |
| Pilot circuit | MPa (psi) | 3.9 (566) |

Hydraulic Cylinders

| | | |
|--------------------------|-----------------|--------------------------|
| 1st boom of 2-piece boom | | 2 |
| Bore x Stroke | ø x mm (ø x in) | 125 x 1 235 (4.9 x 48.6) |
| 2nd boom of 2-piece boom | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 160 x 1 070 (6.3 x 42.1) |
| Arm | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 135 x 1 540 (5.3 x 60.6) |
| Bucket | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 120 x 1 065 (4.7 x 41.9) |

Specifications

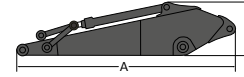
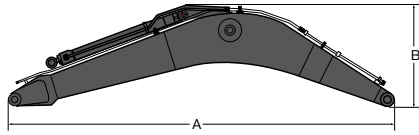


DIMENSIONS

| | Unit | | EC210F L | |
|-------------------------------------|-----------|-------|---------------|--------|
| Boom | m / ft in | | 5.7 m / 18'8" | |
| Arm | m | ft in | 2.9 m | 9'6" |
| A. Overall width of upper structure | mm | ft in | 2,500 | 8'2" |
| B. Overall width** | mm | ft in | 3,190 | 10'6" |
| C. Overall height of cab | mm | ft in | 2,900 | 9'6" |
| D. Overall height of handrail | mm | ft in | 2,875 | 9'5" |
| E. Overall height of guardrail | mm | ft in | 3,120 | 10'3" |
| F. Tail swing radius | mm | ft in | 2,870 | 9'5" |
| G. Overall height of engine hood | mm | ft in | 2,450 | 8'0" |
| H. Counterweight clearance * | mm | ft in | 1,005 | 3'4" |
| I. Tumbler length | mm | ft in | 3,660 | 12'0" |
| J. Track length | mm | ft in | 4,455 | 14'7" |
| K. Track gauge | mm | ft in | 2,390 | 7'10" |
| L. Shoe width | mm | ft in | 800 | 2'7" |
| M. Min. ground clearance * | mm | ft in | 455 | 1'6" |
| N. Overall length of boom | mm | ft in | 9,715 | 31'10" |
| O. Overall height of boom | mm | ft in | 3,035 | 9'11" |

* Without shoe grouser

** Shoe end to end



DIMENSIONS

| Description | Unit | | Boom | | Description | Unit | | Arm | |
|-------------|------|-------|-------|-------|-------------|------|-------|-------|-------|
| | m | ft in | 5.7 m | 18'8" | | m | ft in | 2.9 m | 9'6" |
| A. Length | mm | ft in | 5,915 | 19'5" | A. Length | mm | ft in | 3,895 | 12'9" |
| B. Height | mm | ft in | 1,600 | 5'3" | B. Height | mm | ft in | 865 | 2'10" |
| Width | mm | ft in | 670 | 2'2" | Width | mm | ft in | 440 | 1'5" |
| Weight | kg | lb | 2,010 | 4,430 | Weight | kg | lb | 1,140 | 3'9" |

* Includes arm cylinder, piping and pin

DIMENSIONS

Superstructure with boom cylinders, weight

| Description | Unit | | Superstructure | |
|-------------|------|----|----------------|--------|
| Weight | kg | lb | 10,990 | 24,230 |

Lower structure, weight

| Description | Description | | Unit | | EC210F L | |
|-------------|----------------|--------|-------|----|----------|--------|
| | Triple grouser | 600 mm | 24 in | kg | lb | 7,215 |
| 700 mm | | 28 in | kg | lb | 7,635 | 16,840 |
| 800 mm | | 32 in | kg | lb | 7,910 | 17,440 |
| 900 mm | | 36 in | kg | lb | 8,190 | 18,060 |

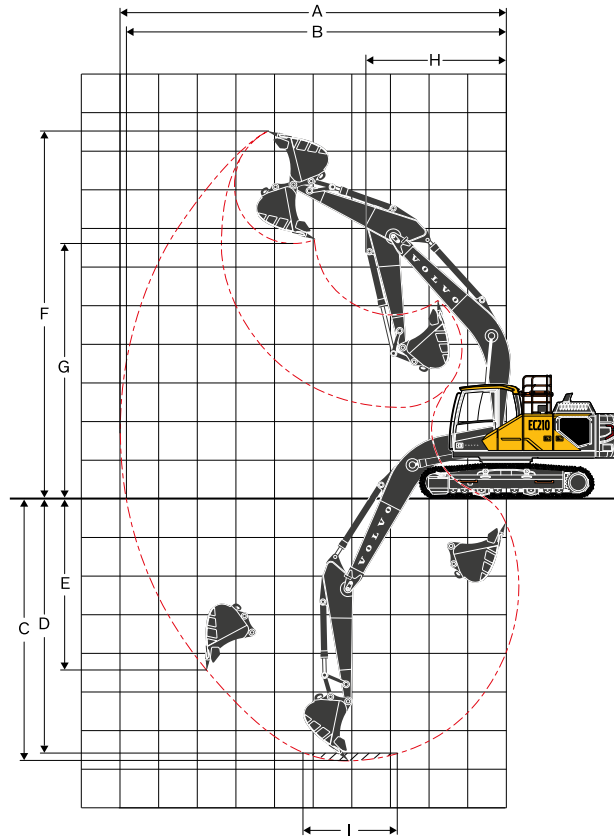
GROUND PRESSURE

EC210F L

| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | |
|----------------|------------|----|------------------|--------|-----------------|-----|---------------|--------|
| | mm | in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 600 | 24 | 22,150 | 48,830 | 46.8 | 6.8 | 2,990 | 9'10" |
| | 700 | 28 | 22,570 | 49,760 | 40.9 | 5.9 | 3,090 | 10'2" |
| | 800 | 32 | 22,840 | 50,350 | 36.2 | 5.3 | 3,190 | 10'6" |
| | 900 | 36 | 23,120 | 50,970 | 32.6 | 4.7 | 3,290 | 10'10" |

EC210F L, 5.7 m (18'8") boom, 2.9 m (9'6") arm, 853 kg (1,880 lb) bucket, 4,500 kg (9,920 lb) counterweight

Specifications



WORKING RANGES WITH DIRECT FIT BUCKET

| Description | Unit | | EC210F L | |
|---|-----------|-------|---------------|--------|
| Boom | m / ft in | | 5.7 m / 18'8" | |
| Arm | m | ft in | 2.9 m | 9'6" |
| A. Max. digging reach | mm | ft in | 9,995 | 32'10" |
| B. Max. digging reach on ground | mm | ft in | 9,835 | 32'3" |
| C. Max. digging depth | mm | ft in | 6,825 | 22'5" |
| D. Max. digging depth (l=2.44 m / 8'0" level) | mm | ft in | 6,635 | 21'9" |
| E. Max. vertical wall digging depth | mm | ft in | 5,535 | 18'2" |
| F. Max. cutting height | mm | ft in | 9,445 | 31'0" |
| G. Max. dumping height | mm | ft in | 6,555 | 21'6" |
| H. Min. front swing radius | mm | ft in | 3,645 | 12'0" |

DIGGING FORCES WITH DIRECT FIT BUCKET

| | | | | | | |
|-------------------------|-------------|-----------|----|-----|-----|--------|
| Breakout force (bucket) | Normal | SAE J1179 | kN | lbf | 125 | 28,100 |
| | Power boost | SAE J1179 | kN | lbf | 132 | 29,670 |
| | Normal | ISO 6015 | kN | lbf | 141 | 31,700 |
| | Power boost | ISO 6015 | kN | lbf | 149 | 33,500 |
| Tearout force (arm) | Normal | SAE J1179 | kN | lbf | 101 | 22,710 |
| | Power boost | SAE J1179 | kN | lbf | 107 | 24,050 |
| | Normal | ISO 6015 | kN | lbf | 104 | 23,380 |
| | Power boost | ISO 6015 | kN | lbf | 110 | 24,730 |
| Rotation angle, bucket | | | | ° | 179 | |

*Machine with pin-on bucket

BUCKET SELECTION GUIDE

| Bucket Type | | | Capacity | | Cutting width | | Weight | | Teeth | Recommended maximum material density (kg/m ³) | |
|-----------------------------|-----------------|-------|-----------------------|-------|---------------|-------|-------------------|--------------------|-------|--|--|
| | | | | | | | | | | EC210F L, 4,500 kg (9,920 lb) counterweight | |
| | | | 5.7 m (18'8") GP Boom | | | | | | | | |
| | | | G2.9 m (9'6") Arm | | | | | | | | |
| L | yd ³ | mm | in | kg | lb | EA | kg/m ³ | lb/yd ³ | | | |
| DF Buckets | GP | 480 | 0.63 | 600 | 23.6 | 623 | 1,373 | 3 | 1,800 | 3,034 | |
| | | 480 | 0.63 | 600 | 23.6 | 666 | 1,468 | 3 | 1,800 | 3,034 | |
| | | 590 | 0.77 | 750 | 29.5 | 710 | 1,566 | 3 | 1,800 | 3,034 | |
| | | 630 | 0.82 | 800 | 31.5 | 703 | 1,549 | 4 | 1,800 | 3,034 | |
| | | 750 | 0.98 | 900 | 35.4 | 749 | 1,650 | 4 | 1,800 | 3,034 | |
| | | 750 | 0.98 | 900 | 35.4 | 790 | 1,742 | 4 | 1,800 | 3,034 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 812 | 1,790 | 4 | 1,800 | 3,034 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 854 | 1,882 | 4 | 1,800 | 3,034 | |
| | | 1,090 | 1.43 | 1,240 | 48.8 | 909 | 2,003 | 5 | 1,800 | 3,034 | |
| | | 1,090 | 1.43 | 1,240 | 48.8 | 950 | 2,095 | 5 | 1,800 | 3,034 | |
| | | 1,270 | 1.66 | 1,380 | 54.3 | 993 | 2,189 | 5 | 1,800 | 3,034 | |
| | | 1,270 | 1.66 | 1,380 | 54.3 | 1,035 | 2,281 | 5 | 1,800 | 3,034 | |
| | 1,440 | 1.88 | 1,540 | 60.6 | 1,085 | 2,391 | 6 | 1,700 | 2,865 | | |
| | HD | 480 | 0.63 | 600 | 23.6 | 675 | 1,489 | 3 | 2,100 | 3,540 | |
| | | 480 | 0.63 | 600 | 23.6 | 738 | 1,628 | 3 | 2,100 | 3,540 | |
| | | 750 | 0.98 | 900 | 35.4 | 809 | 1,784 | 4 | 2,100 | 3,540 | |
| | | 750 | 0.98 | 900 | 35.4 | 872 | 1,923 | 4 | 2,100 | 3,540 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 882 | 1,945 | 4 | 2,100 | 3,540 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 946 | 2,085 | 4 | 2,100 | 3,540 | |
| | | 1,090 | 1.43 | 1,240 | 48.8 | 984 | 2,169 | 5 | 2,100 | 3,540 | |
| 1,090 | | 1.43 | 1,240 | 48.8 | 1,047 | 2,309 | 5 | 2,100 | 3,540 | | |
| 1,270 | | 1.66 | 1,380 | 54.3 | 1,045 | 2,305 | 5 | 2,000 | 3,370 | | |
| 1,270 | | 1.66 | 1,380 | 54.3 | 1,108 | 2,443 | 5 | 1,900 | 3,205 | | |
| Quick Coupler Buckets | FD | 950 | 1.24 | 1,500 | 59.1 | 725 | 1,598 | N | 1,600 | 2,697 | |
| | | 1,030 | 1.35 | 1,600 | 63.0 | 761 | 1,677 | N | 1,600 | 2,697 | |
| | GP | 480 | 0.63 | 600 | 23.6 | 623 | 1,373 | 3 | 1,800 | 3,034 | |
| | | 480 | 0.63 | 600 | 23.6 | 666 | 1,468 | 3 | 1,800 | 3,034 | |
| | | 590 | 0.77 | 750 | 29.5 | 710 | 1,566 | 3 | 1,800 | 3,034 | |
| | | 630 | 0.82 | 800 | 31.5 | 703 | 1,549 | 4 | 1,800 | 3,034 | |
| | | 750 | 0.98 | 900 | 35.4 | 749 | 1,650 | 4 | 1,800 | 3,034 | |
| | | 750 | 0.98 | 900 | 35.4 | 790 | 1,742 | 4 | 1,800 | 3,034 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 812 | 1,790 | 4 | 1,800 | 3,034 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 854 | 1,882 | 4 | 1,800 | 3,034 | |
| | | 1,090 | 1.43 | 1,240 | 48.8 | 909 | 2,003 | 5 | 1,800 | 3,034 | |
| | | 1,090 | 1.43 | 1,240 | 48.8 | 950 | 2,095 | 5 | 1,800 | 3,034 | |
| | | 1,270 | 1.66 | 1,380 | 54.3 | 993 | 2,189 | 5 | 1,800 | 3,034 | |
| | | 1,270 | 1.66 | 1,380 | 54.3 | 1,035 | 2,281 | 5 | 1,700 | 2,865 | |
| | 1,440 | 1.88 | 1,540 | 60.6 | 1,085 | 2,391 | 6 | 1,500 | 2,528 | | |
| | HD | 480 | 0.63 | 600 | 23.6 | 675 | 1,489 | 3 | 2,100 | 3,540 | |
| | | 480 | 0.63 | 600 | 23.6 | 738 | 1,628 | 3 | 2,100 | 3,540 | |
| | | 750 | 0.98 | 900 | 35.4 | 809 | 1,784 | 4 | 2,100 | 3,540 | |
| | | 750 | 0.98 | 900 | 35.4 | 872 | 1,923 | 4 | 2,100 | 3,540 | |
| | | 920 | 1.20 | 1,090 | 42.9 | 882 | 1,945 | 4 | 2,100 | 3,540 | |
| 920 | | 1.20 | 1,090 | 42.9 | 946 | 2,085 | 4 | 2,100 | 3,540 | | |
| 1,090 | | 1.43 | 1,240 | 48.8 | 984 | 2,169 | 5 | 2,100 | 3,540 | | |
| 1,090 | | 1.43 | 1,240 | 48.8 | 1,047 | 2,309 | 5 | 2,000 | 3,370 | | |
| 1,270 | | 1.66 | 1,380 | 54.3 | 1,045 | 2,305 | 5 | 1,700 | 2,865 | | |
| 1,270 | | 1.66 | 1,380 | 54.3 | 1,108 | 2,443 | 5 | 1,700 | 2,865 | | |

Specifications

BUCKET SELECTION GUIDE

| Bucket Type | | | Capacity | | Cutting width | | Weight | | Teeth | Recommended maximum material density (kg/m ³) | | |
|-----------------------|-----------------|-------|----------|-----------------|---------------|------|--------|-------|-----------------------|---|--------------------|-------|
| | | | | | | | | | | EC210F L, 4,500 kg (9,920 lb) counterweight | | |
| | | | | | | | | | 5.7 m (18'8") GP Boom | | | |
| | | | | | | | | | G2.9 m (9'6") Arm | | | |
| | | | L | yd ³ | mm | in | kg | lb | EA | kg/m ³ | lb/yd ³ | |
| Quick Coupler Buckets | S-quick coupler | GP | 480 | 0.63 | 600 | 23.6 | 646 | 1,423 | 3 | | 1,800 | 3,034 |
| | | | 480 | 0.63 | 600 | 23.6 | 613 | 1,351 | 3 | | 1,800 | 3,034 |
| | | | 590 | 0.77 | 750 | 29.5 | 691 | 1,524 | 3 | | 1,800 | 3,034 |
| | | | 630 | 0.82 | 800 | 31.5 | 693 | 1,528 | 4 | | 1,800 | 3,034 |
| | | | 750 | 0.98 | 900 | 35.4 | 772 | 1,702 | 4 | | 1,800 | 3,034 |
| | | | 750 | 0.98 | 900 | 35.4 | 739 | 1,630 | 4 | | 1,800 | 3,034 |
| | | | 920 | 1.20 | 1,090 | 42.9 | 842 | 1,856 | 4 | | 1,800 | 3,034 |
| | | | 920 | 1.20 | 1,090 | 42.9 | 809 | 1,784 | 4 | | 1,800 | 3,034 |
| | | | 1,090 | 1.43 | 1,240 | 48.8 | 931 | 2,052 | 5 | | 1,800 | 3,034 |
| | | | 1,090 | 1.43 | 1,240 | 48.8 | 898 | 1,980 | 5 | | 1,800 | 3,034 |
| | | | 1,270 | 1.66 | 1,380 | 54.3 | 1,007 | 2,219 | 5 | | 1,800 | 3,034 |
| | | | 1,270 | 1.66 | 1,380 | 54.3 | 974 | 2,147 | 5 | | 1,800 | 3,034 |
| | | | 1,440 | 1.88 | 1,540 | 60.6 | 1,061 | 2,339 | 6 | | 1,600 | 2,697 |
| | | | 460 | 0.60 | 600 | 23.6 | 625 | 1,377 | 3 | | 1,800 | 3,034 |
| | | | 630 | 0.82 | 800 | 31.5 | 718 | 1,583 | 4 | | 1,800 | 3,034 |
| | | | 750 | 0.98 | 900 | 35.4 | 766 | 1,689 | 4 | | 1,800 | 3,034 |
| | | | 920 | 1.20 | 1,090 | 42.9 | 836 | 1,843 | 4 | | 1,800 | 3,034 |
| | | | 1,090 | 1.43 | 1,240 | 48.8 | 925 | 2,039 | 5 | | 1,800 | 3,034 |
| | | | 1,270 | 1.66 | 1,380 | 54.3 | 1,012 | 2,232 | 5 | | 1,800 | 3,034 |
| | | | 1,440 | 1.88 | 1,540 | 60.6 | 1,104 | 2,434 | 6 | | 1,500 | 2,528 |
| 750 | 0.98 | 900 | 35.4 | 758 | 1,670 | 5 | | 1,800 | 3,034 | | | |
| 920 | 1.20 | 1,050 | 41.3 | 832 | 1,833 | 4 | | 1,800 | 3,034 | | | |
| 1,090 | 1.43 | 1,200 | 47.2 | 918 | 2,023 | 5 | | 1,800 | 3,034 | | | |
| 1,270 | 1.66 | 1,350 | 53.1 | 1,001 | 2,206 | 5 | | 1,800 | 3,034 | | | |
| 1,440 | 1.88 | 1,500 | 59.1 | 1,104 | 2,434 | 6 | | 1,500 | 2,528 | | | |

Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application.

(In case of using bigger bucket than regional standard MRS, consultation with R&D is highly recommended)

The recommendations are given as a guide only, based on typical operation conditions.

Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

Maximum load : Payload, bucket and additional tools such as quick coupler, rotator,

Maximum material density

| kg/m ³ | lb/yd ³ | |
|-------------------|--------------------|--|
| 1,200~1,300 | 2,000~2,200 | Coal, Caliche, Shale |
| 1,400~1,600 | 2,300~2,700 | Wet earth and clay, Limestone, Sandstone |
| 1,700~1,800 | 2,800~3,100 | Granite, Wet sand, Well blasted rock |
| > 1,900~ | > 3,200~ | Wet mud, Iron ore |

LIFTING CAPACITY EC210F L

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. m |
|---|--------------------------------------|----|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|
| | | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | |
| Boom : 5.7 m (18'8") Arm : 2.9 m (9'6") Shoe : 500 mm (20") CWT : 4,500 kg (9,920 lb) | 7.5 m | kg | | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m |
| | 25 ft | lb | | | | | | | | | | | *11,060 | *11,060 | 19.8 ft |
| | 6 m | kg | | | | | | | *5,100 | *5,100 | | | *4,630 | 4,040 | 7.3 m |
| | 20 ft | lb | | | | | | | *11,220 | *11,220 | | | *10,250 | 9,030 | 23.8 ft |
| | 4.5 m | kg | | | | | | | *5,670 | 5,440 | *5,360 | 3,830 | *4,580 | 3,430 | 8.0 m |
| | 15 ft | lb | | | | | | | *12,360 | 11,740 | *11,800 | 8,230 | *10,080 | 7,610 | 26.2 ft |
| | 3 m | kg | | | | | *8,430 | 7,910 | *6,590 | 5,180 | 5,680 | 3,720 | *4,700 | 3,120 | 8.4 m |
| | 10 ft | lb | | | | | *18,150 | 17,080 | *14,310 | 11,190 | 12,230 | 8,010 | *10,350 | 6,910 | 27.4 ft |
| | 1.5 m | kg | | | | | *10,340 | 7,360 | *7,560 | 4,920 | 5,540 | 3,590 | 4,630 | 3,010 | 8.5 m |
| | 5 ft | lb | | | | | *22,320 | 15,890 | *16,400 | 10,630 | 11,940 | 7,750 | 10,210 | 6,640 | 27.8 ft |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,070 | 7,540 | 4,740 | 5,440 | 3,500 | 4,730 | 3,060 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 15,230 | 16,240 | 10,230 | 11,720 | 7,550 | 10,430 | 6,750 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 6,990 | 7,460 | 4,660 | 5,400 | 3,470 | 5,130 | 3,300 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 15,060 | 16,060 | 10,070 | 11,670 | 7,500 | 11,340 | 7,300 | 25.5 ft |
| | -3 m | kg | *11,380 | *11,380 | *15,630 | 13,730 | *10,920 | 7,060 | 7,500 | 4,700 | | | 6,080 | 3,890 | 7.0 m |
| | -10 ft | lb | *25,580 | *25,580 | *33,880 | 29,420 | *23,640 | 15,210 | 16,160 | 10,160 | | | 13,510 | 8,640 | 22.7 ft |
| | -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,290 | | | | | *6,930 | 5,390 | 5.6 m |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 15,740 | | | | | *15,290 | 12,160 | 18.1 ft | |
| Boom : 5.7 m (18'8") Arm : 2.9 m (9'6") Shoe : 600 mm (24") CWT : 4,500 kg (9,920 lb) | 7.5 m | kg | | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m |
| | 25 ft | lb | | | | | | | | | | | *11,060 | *11,060 | 19.8 ft |
| | 6 m | kg | | | | | | | *5,100 | *5,100 | | | *4,630 | 4,080 | 7.3 m |
| | 20 ft | lb | | | | | | | *11,220 | *11,220 | | | *10,250 | 9,130 | 23.8 ft |
| | 4.5 m | kg | | | | | | | *5,670 | 5,500 | *5,360 | 3,870 | *4,580 | 3,470 | 8.0 m |
| | 15 ft | lb | | | | | | | *12,360 | 11,850 | *11,800 | 8,320 | *10,080 | 7,690 | 26.2 ft |
| | 3 m | kg | | | | | *8,430 | 7,990 | *6,590 | 5,240 | 5,740 | 3,760 | *4,700 | 3,160 | 8.4 m |
| | 10 ft | lb | | | | | *18,150 | 17,250 | *14,310 | 11,300 | 12,360 | 8,100 | *10,350 | 6,980 | 27.4 ft |
| | 1.5 m | kg | | | | | *10,340 | 7,440 | *7,560 | 4,980 | 5,600 | 3,630 | 4,680 | 3,040 | 8.5 m |
| | 5 ft | lb | | | | | *22,320 | 16,050 | *16,400 | 10,740 | 12,080 | 7,830 | 10,330 | 6,720 | 27.8 ft |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,140 | 7,630 | 4,790 | 5,500 | 3,540 | 4,780 | 3,090 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 15,400 | 16,430 | 10,350 | 11,860 | 7,630 | 10,550 | 6,820 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 7,060 | 7,540 | 4,720 | 5,470 | 3,510 | 5,190 | 3,340 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 15,220 | 16,240 | 10,180 | 11,800 | 7,580 | 11,470 | 7,390 | 25.5 ft |
| | -3 m | kg | *11,380 | *11,380 | *15,630 | 13,870 | *10,920 | 7,130 | 7,580 | 4,750 | | | 6,150 | 3,930 | 7.0 m |
| | -10 ft | lb | *25,580 | *25,580 | *33,880 | 29,730 | *23,640 | 15,380 | 16,340 | 10,270 | | | 13,660 | 8,740 | 22.7 ft |
| | -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,360 | | | | | *6,930 | 5,440 | 5.6 m |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 15,910 | | | | | *15,290 | 12,290 | 18.1 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Specifications

LIFTING CAPACITY EC210F L

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. m |
|---|--------------------------------------|----|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|
| | | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | |
| Boom : 5.7 m (18'8") Arm : 2.9 m (9'6") Shoe : 700 mm (28") CWT : 4,500 kg (9,920 lb) | 7.5 m | kg | | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m |
| | 25 ft | lb | | | | | | | | | | | *11,060 | *11,060 | 19.8 ft |
| | 6 m | kg | | | | | | | *5,100 | *5,100 | | | *4,630 | 4,150 | 7.3 m |
| | 20 ft | lb | | | | | | | *11,220 | *11,220 | | | *10,250 | 9,270 | 23.8 ft |
| | 4.5 m | kg | | | | | | | *5,670 | 5,580 | *5,360 | 3,930 | *4,580 | 3,530 | 8.0 m |
| | 15 ft | lb | | | | | | | *12,360 | 12,040 | *11,800 | 8,460 | *10,080 | 7,820 | 26.2 ft |
| | 3 m | kg | | | | | *8,430 | 8,110 | *6,590 | 5,320 | *5,760 | 3,820 | *4,700 | 3,220 | 8.4 m |
| | 10 ft | lb | | | | | *18,150 | 17,520 | *14,310 | 11,490 | 12,580 | 8,240 | *10,350 | 7,110 | 27.4 ft |
| | 1.5 m | kg | | | | | *10,340 | 7,560 | *7,560 | 5,060 | 5,710 | 3,700 | 4,770 | 3,100 | 8.5 m |
| | 5 ft | lb | | | | | *22,320 | 16,330 | *16,400 | 10,930 | 12,300 | 7,970 | 10,520 | 6,840 | 27.8 ft |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,270 | 7,770 | 4,880 | 5,600 | 3,600 | 4,870 | 3,150 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 15,670 | 16,730 | 10,530 | 12,080 | 7,770 | 10,750 | 6,950 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 7,190 | 7,680 | 4,800 | 5,570 | 3,570 | 5,290 | 3,400 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 15,490 | 16,540 | 10,360 | 12,020 | 7,720 | 11,690 | 7,520 | 25.5 ft |
| | -3 m | kg | *11,380 | *11,380 | *15,630 | 14,110 | *10,920 | 7,260 | 7,720 | 4,840 | | | 6,260 | 4,000 | 7.0 m |
| | -10 ft | lb | *25,580 | *25,580 | *33,880 | 30,240 | *23,640 | 15,650 | 16,640 | 10,460 | | | 13,910 | 8,900 | 22.7 ft |
| | -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,490 | | | | | *6,930 | 5,540 | 5.6 m |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 16,180 | | | | | *15,290 | 12,500 | 18.1 ft | |
| Boom : 5.7 m (18'8") Arm : 2.9 m (9'6") Shoe : 800 mm (32") CWT : 4,500 kg (9,920 lb) | 7.5 m | kg | | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m |
| | 25 ft | lb | | | | | | | | | | | *11,060 | *11,060 | 19.8 ft |
| | 6 m | kg | | | | | | | *5,100 | *5,100 | | | *4,630 | 4,190 | 7.3 m |
| | 20 ft | lb | | | | | | | *11,220 | *11,220 | | | *10,250 | 9,380 | 23.8 ft |
| | 4.5 m | kg | | | | | | | *5,670 | 5,640 | *5,360 | 3,970 | *4,580 | 3,570 | 8.0 m |
| | 15 ft | lb | | | | | | | *12,360 | 12,160 | *11,800 | 8,550 | *10,080 | 7,920 | 26.2 ft |
| | 3 m | kg | | | | | *8,430 | 8,200 | *6,590 | 5,380 | *5,760 | 3,860 | *4,700 | 3,250 | 8.4 m |
| | 10 ft | lb | | | | | *18,150 | 17,700 | *14,310 | 11,610 | *12,580 | 8,330 | *10,350 | 7,190 | 27.4 ft |
| | 1.5 m | kg | | | | | *10,340 | 7,650 | *7,560 | 5,120 | 5,770 | 3,740 | 4,830 | 3,140 | 8.5 m |
| | 5 ft | lb | | | | | *22,320 | 16,510 | *16,400 | 11,050 | 12,440 | 8,070 | 10,650 | 6,920 | 27.8 ft |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,350 | 7,860 | 4,940 | 5,670 | 3,640 | 4,930 | 3,190 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 15,860 | 16,930 | 10,660 | 12,230 | 7,870 | 10,880 | 7,040 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 7,270 | 7,770 | 4,860 | 5,640 | 3,620 | 5,350 | 3,450 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 15,680 | 16,740 | 10,490 | 12,170 | 7,820 | 11,830 | 7,610 | 25.5 ft |
| | -3 m | kg | *11,380 | *11,380 | *15,630 | 14,270 | *10,920 | 7,340 | 7,820 | 4,900 | | | 6,340 | 4,050 | 7.0 m |
| | -10 ft | lb | *25,580 | *25,580 | *33,880 | 30,580 | *23,640 | 15,830 | 16,840 | 10,580 | | | 14,080 | 9,000 | 22.7 ft |
| | -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,580 | | | | | *6,930 | 5,600 | 5.6 m |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 16,360 | | | | | *15,290 | 12,640 | 18.1 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY EC210F L

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. m |
|--|--------------------------------------|----|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|
| | | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | |
| Boom : 5.7 m (18'8") Arm : 2.9 m (9'6") Shoe : 900 mm (36") CWT : 4,500 kg (9,920 lb) | 7.5 m | kg | | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m |
| | 25 ft | lb | | | | | | | | | | | *11,060 | *11,060 | 19.8 ft |
| | 6 m | kg | | | | | | | *5,100 | *5,100 | | | *4,630 | 4,240 | 7.3 m |
| | 20 ft | lb | | | | | | | *11,220 | *11,220 | | | *10,250 | 9,470 | 23.8 ft |
| | 4.5 m | kg | | | | | | | *5,670 | *5,670 | *5,360 | 4,020 | *4,580 | 3,610 | 8.0 m |
| | 15 ft | lb | | | | | | | *12,360 | 12,280 | *11,800 | 8,640 | *10,080 | 8,000 | 26.2 ft |
| | 3 m | kg | | | | | *8,430 | 8,280 | *6,590 | 5,440 | *5,760 | 3,910 | *4,700 | 3,290 | 8.4 m |
| | 10 ft | lb | | | | | *18,150 | 17,880 | *14,310 | 11,730 | *12,580 | 8,420 | *10,350 | 7,280 | 27.4 ft |
| | 1.5 m | kg | | | | | *10,340 | 7,730 | *7,560 | 5,180 | 5,840 | 3,780 | 4,890 | 3,170 | 8.5 m |
| | 5 ft | lb | | | | | *22,320 | 16,690 | *16,400 | 11,170 | 12,590 | 8,160 | 10,780 | 7,010 | 27.8 ft |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,440 | 7,950 | 4,990 | 5,740 | 3,690 | 4,990 | 3,230 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 16,030 | 17,130 | 10,780 | 12,370 | 7,960 | 11,010 | 7,120 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 7,360 | 7,870 | 4,920 | 5,710 | 3,660 | 5,420 | 3,490 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 15,850 | 16,940 | 10,610 | 12,310 | 7,910 | 11,970 | 7,700 | 25.5 ft |
| | -3 m | kg | *11,380 | *11,380 | *15,630 | 14,420 | *10,920 | 7,430 | 7,910 | 4,950 | | | 6,410 | 4,100 | 7.0 m |
| | -10 ft | lb | *25,580 | *25,580 | *33,880 | 30,910 | *23,640 | 16,010 | 17,040 | 10,700 | | | 14,250 | 9,110 | 22.7 ft |
| | -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,660 | | | | | *6,930 | 5,660 | 5.6 m |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 16,540 | | | | | *15,290 | 12,780 | 18.1 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Engine

| | |
|---|---|
| Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets NA T4f requirements | • |
| Dual cooling fan system including electric driven for CAC | • |
| Cyclone pre-cleaner | • |
| Fuel shut off valve | • |
| Engine block heater | o |
| Coolant heater by diesel | o |
| Air filter, High efficiency | o |
| Delayed engine Shutdown | • |
| Automatic engine shutdown | o |
| Water separator with heater | o |
| Arctic regeneration | o |
| Regeneration control | o |

Electric / Electronic control system

| | |
|--|---|
| Anti-theft with code lock system | • |
| Alternator, 130 A | • |
| Automatic idling system | • |
| Lock Out / Tag Out function on main battery switch | • |
| Standard light | • |
| Basic light package | • |
| Advanced light package | o |
| Deluxe light package | o |
| Arm light | o |
| LH light | o |

Undercarriage and structures

| | |
|--|---|
| 3-point side access | • |
| Direct filling DEF(AdBlue) / Sight gauge and splash guard | • |
| Openable 1 piece hood | • |
| Guardrail, fixed/foldable | • |
| Inner rail | • |
| Link 600/700/800/900 mm (24/28/32/36 in) triple grouser shoe | o |
| Link 600 mm (24 in) triple grouser shoe, HD | o |
| Link 600 mm (24 in) single grouser shoe | o |
| Link 700 mm (28 in) double grouser shoe | o |

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Hydraulic system

| | |
|--|---|
| EH(Electro-Hydraulic) control system | • |
| New work mode with 10 steps | • |
| Auto power boost | • |
| One touch power boost | • |
| Priority Adjustment | • |
| Boom down speed control | • |
| Shock reduction function | • |
| Joystick / 4 switch / 4 switch & 1 proportional / Simple L8 / L8 | o |
| Hydraulic oil mineral 32 / 46 / 68 | o |
| Longlife hyd oil mineral 32 / 46 / 68 | o |
| Hydraulic oil bio 46 | o |
| Pattern change | o |
| Boom float function | o |
| Straight travel pedal | o |
| Comfort driving control | o |
| Creep mode | • |
| Variable X3 P-Q control | o |

Cab and interior

| | |
|--|---|
| Keyless engine start and stop | • |
| 8" HD display | • |
| ROPS certified cab | • |
| Tiltable left console | • |
| Digital hour meter | • |
| Wireless mobile charger with Kinematic sensor package option | o |
| Various storage space with cool/heated | • |
| Cabin large mirror, Heated | o |
| Cabin large mirror | • |
| Basic / Premium seat | o |
| Seat belt, 2 inch 2 point / 3 inch 2 point / 3 inch 3 point | o |
| Climate control-HEPA filter | o |
| Radio with MP3/USB/Bluetooth | o |
| Front rain shield | o |
| Sun screen | • |
| Lower wiper | o |
| Sun shield, roof hatch | o |
| Foot rest, High mount | • |
| FOG (Falling Object Guard) | o |
| FOPS (Falling Object Protection Structure) | o |
| Safety net | o |

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.

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Digging equipment

| | |
|-------------------------------|---|
| Boom: 5.7 m (18'8") monoblock | • |
| Arm: 2.9 m (9'6") | • |

Machine controls

| | |
|---|---|
| Kinematic sensor package | o |
| Volvo Co-Pilot 2nd display, 12.8" touchable Full HD | o |
| Dig Assist, Start | o |
| Dig Assist, 2D | o |
| Dig Assist, In-Field Design | o |
| Dig Assist, Topcon 3D-MC | o |
| Dig Assist, Infield-Design Advanced | o |
| Dig Assist, On-Board Weighing | o |
| Dig Assist, Laser Receiver | o |
| Volvo Active Control | o |
| Dig Assist, Boundary Limit | o |

Service and maintenance

| | |
|-------------------------------------|---|
| Fuel level gauge | • |
| Swing out A/C condenser | • |
| Fuel filler pump | o |
| Quick Hydraulic Oil Fill connection | • |
| Jump start connector | o |
| Tool kit | o |

Safety and security

| | |
|---|---|
| Travel alarm, beep / white noise | o |
| Flashing beacon, LED | o |
| Green light beacon | o |
| Rear view camera | o |
| Side view camera | o |
| HD VSV(Volvo Smart View) | • |
| HD VSV with obstacle detection | o |
| Provision, HD VSV with obstacle detection | o |

V O L V O