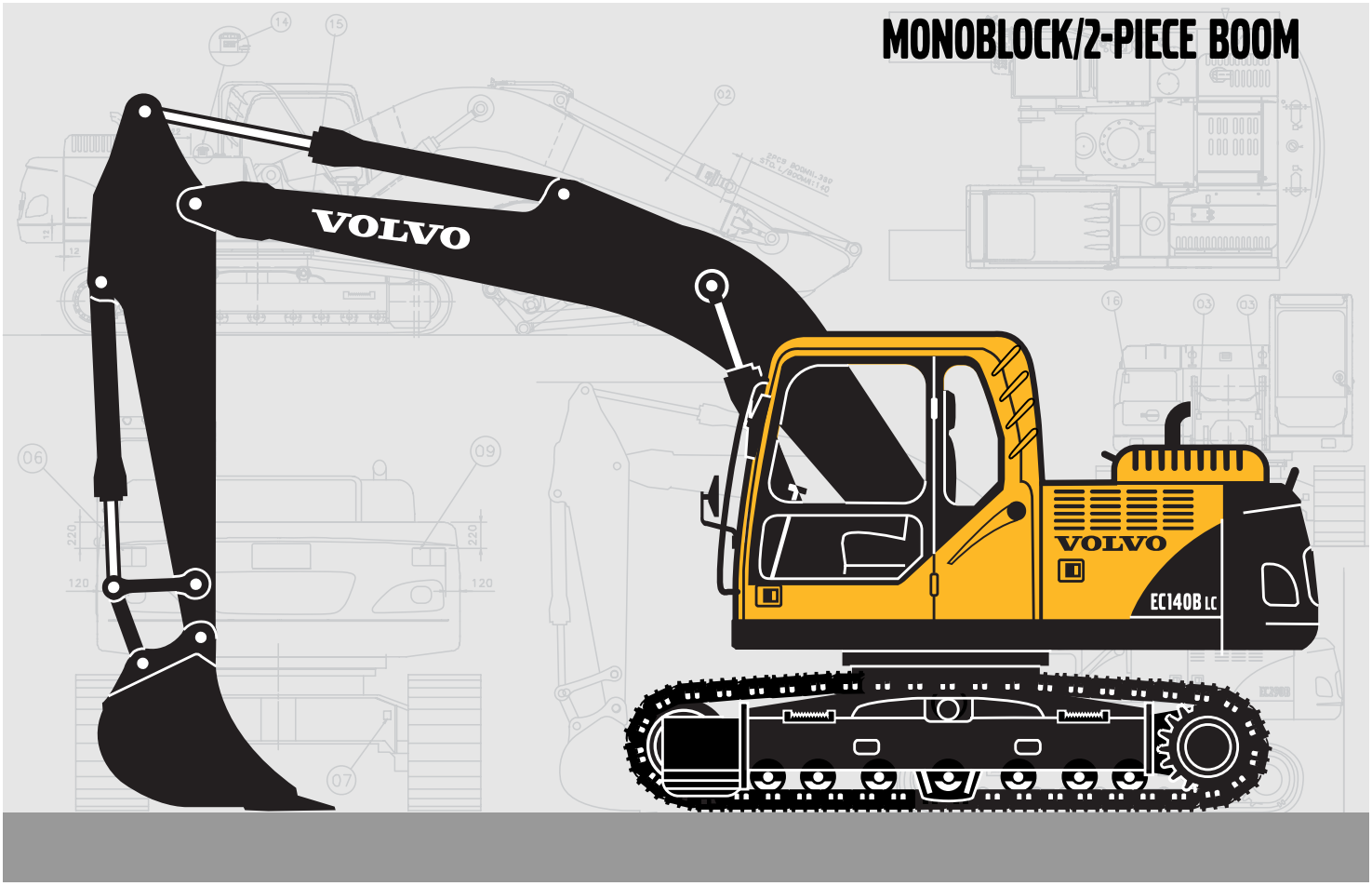
VOLVO EXCAVATOR

EC140B LC
EC140B LCM

MONOBLOCK/2-PIECE BOOM



- **Engine power, gross: 73 kW (98 hp)**
- **Operating weight: LC: 13.4 ~ 15.2 t LCM: 14.6 ~ 15.6 t**
- **Buckets (SAE): 600 ~ 1,075 l**

- Turbocharged VOLVO diesel engine with direct injection
- Contronics, Volvo's advanced mode selection system and electronically controlled system
- 2 variable displacement axial piston pumps. Independent and simultaneous movements of the digging equipment are controlled by "Automatic Sensing Work Mode".
- Cab
  - Ergonomic environment for easier operator use
  - Low sound level
  - Filtered air
  - Hydraulic dampening mounts
- Strong digging equipment, produced by robotic welding
- High lifting, breakout and tearout forces for tough digging conditions
- Undercarriage
  - LC: Longer undercarriage for excellent stability
  - LCM: Uses 20 ton class undercarriage components and offers higher ground clearance transportation
- Auxiliary hydraulic valve is standard
- Prepared for a number of optional items

VOLVO

ENGINE

Both the EC140B LC and EC140B LCM are powered by a turbocharged 4-stroke 4 cylinder diesel engine.
The engine has been specifically designed for excavators giving you good fuel economy, low noise and emission levels, and a long service life.

Air Filter: 3-stage

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.

Low-Emission Engine:

Make	VOLVO
Model	D4D
Power output at	35 r/s (2,100 rpm)
Net (ISO 9249/ SAE J1349)	69 kW (94 ps / 93 hp)
Gross (SAE J1995)	73 kW (99 ps / 98 hp)
Max. torque	390 N·m at 1,500 rpm
No. of cylinders	4
Displacement	4 l
Bore	101 mm
Stroke	126 mm

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	24 V
Batteries	2 x 12 V
Battery capacity	100 Ah
Alternator	28 V / 80 A

UNDERCARRIAGE

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

LC

No. of track pads	2 x 46
Link pitch	171.45 mm
Shoe width, triple grouser	500 / 600 / 700 / 750 mm
No. of bottom rollers	2 x 7
No. of top rollers	2 x 1

LCM

No. of track pads	2 x 42
Link pitch	190 mm
Shoe width, triple grouser	600 / 700 / 800 / 900 mm
No. of bottom rollers	2 x 6
No. of top rollers	2 x 2

DRIVE

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.

LC

Max. tractive effort	109.8 kN (11,200 kg)
Max. travel speed	3.2 / 5.5 km/h
Gradeability	35° (70%)

LCM

Max. tractive effort	140.2 kN (14,300 kg)
Max. travel speed	2.5 / 4.3 km/h
Gradeability	35° (70%)

SWING SYSTEM

The superstructure is swung by the means of an axial piston motor and a planetary reduction gear. Automatic swing holding brake and anti-rebound valve are standard.

Max. swing speed	11.0 rpm

SERVICE REFILL CAPACITIES

Fuel tank	260 l
Hydraulic system, total	205 l
Hydraulic tank	100 l
Engine oil	15.5 l
Engine coolant	20.3 l
Swing reduction unit	3.8 l
Travel reduction unit	
LC	2 x 3.5 l
LCM	2 x 5.8 l

HYDRAULIC SYSTEM

The hydraulic system, also known as the "Automatic Sensing Work Mode", is designed for high-productivity, high-digging capacity, high-maneuvering precision and good fuel economy. The summation system, boom, arm and swing priority along with boom and arm regeneration provide optimum performance.

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.

Power Max: All function speeds are increased.

Main pump:
- Type · · · · · · · · · · · · 2 x variable displacement axial piston pumps
- Maximum flow · · · 2 x 118 l/min

Pilot pump:
- Type · · · · · · · · · · · · Gear pump
- Maximum flow · · · 1 x 21 l/min

Hydraulic motors:
- Travel · · · · · · · · · · · Variable displacement axial piston motors
- Swing · · · · · · · · · · · Fixed displacement axial piston motor with mechanical brake

Relief valve setting:
- Implement · · · · · · · 32.4 / 34.3 Mpa (330 / 350 kg/cm²)
- Travel circuit · · · · · 34.3 Mpa (350 kg/cm²)
- Swing circuit · · · · 24.5 Mpa (250 kg/cm²)
- Pilot circuit · · · · · · 3.9 Mpa (40 kg/cm²)

Hydraulic cylinders:
- Monoblock boom · · · · · · · · · · · · · · · · · · · 2
  - Bore x Stroke · · · · · · · · · · · · · · · · · · · ø105 x 980 mm
- 1st boom of 2-piece boom · · · · · · · · · · · 2
  - Bore x Stroke · · · · · · · · · · · · · · · · · · · ø110 x 980 mm
- 2nd boom of 2-piece boom · · · · · · · · · · 1
  - Bore x Stroke · · · · · · · · · · · · · · · · · · · ø160 x 765 mm
- Arm · 1
  - Bore x Stroke · · · · · · · · · · · · · · · · · · · ø120 x 1,045 mm
- Bucket · 1
  - Bore x Stroke · · · · · · · · · · · · · · · · · · · ø100 x 865 mm

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 13 vents.

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

Sound Level:
- Sound level in cab
  - according to ISO 6396 · · · · · · · · · · · · · LpA 72 dB(A)
- External sound level
  - according to ISO 6395
  - and EU Directive 2000/14/EC · · · · · · · LwA 100 dB(A)

GROUND PRESSURE

• **LC undercarriage with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	13,390 kg	40.3 kPa (0.41 kg/cm²)	2,490 mm
	600 mm	13,600 kg	34.1 kPa (0.35 kg/cm²)	2,590 mm
	700 mm	13,810 kg	29.7 kPa (0.30 kg/cm²)	2,690 mm
	750 mm	13,920 kg	28.0 kPa (0.29 kg/cm²)	2,740 mm

• **LC undercarriage with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	13,740 kg	41.1 kPa (0.42 kg/cm²)	2,490 mm
	600 mm	13,950 kg	35.0 kPa (0.36 kg/cm²)	2,590 mm
	700 mm	14,160 kg	30.5 kPa (0.31 kg/cm²)	2,690 mm
	750 mm	14,270 kg	28.7 kPa (0.29 kg/cm²)	2,740 mm

• **LC undercarriage dozer blade with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	14,290 kg	43.0 kPa (0.44 kg/cm²)	2,490 mm
	600 mm	14,500 kg	36.4 kPa (0.37 kg/cm²)	2,590 mm
	700 mm	14,710 kg	31.6 kPa (0.32 kg/cm²)	2,690 mm
	750 mm	14,820 kg	29.8 kPa (0.30 kg/cm²)	2,740 mm

• **LC undercarriage dozer blade with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	14,640 kg	44.1 kPa (0.45 kg/cm²)	2,490 mm
	600 mm	14,850 kg	37.3 kPa (0.38 kg/cm²)	2,590 mm
	700 mm	15,060 kg	32.4 kPa (0.33 kg/cm²)	2,690 mm
	750 mm	15,170 kg	30.5 kPa (0.31 kg/cm²)	2,740 mm

• **LCM undercarriage with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm	14,590 kg	36.3 kPa (0.37 kg/cm²)	2,590 mm
	700 mm	14,800 kg	31.6 kPa (0.32 kg/cm²)	2,690 mm
	800 mm	15,010 kg	28.0 kPa (0.29 kg/cm²)	2,790 mm
	900 mm	15,220 kg	25.3 kPa (0.26 kg/cm²)	2,890 mm

• **LCM undercarriage with** 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm	14,940 kg	37.2 kPa (0.38 kg/cm²)	2,590 mm
	700 mm	15,150 kg	32.3 kPa (0.33 kg/cm²)	2,690 mm
	800 mm	15,360 kg	28.7 kPa (0.29 kg/cm²)	2,790 mm
	900 mm	15,570 kg	25.8 kPa (0.26 kg/cm²)	2,890 mm

BUCKET & ARM COMBINATION

• LC undercarriage, Volvo K-GP bucket (straight side)

Description			Standard bucket	Reinforced bucket	Wide bucket	
Bucket capacity	SAE		520 l	520 l	570 l	640 l
	CECE		450 l	450 l	500 l	550 l
Bucket width	with side cutter		1,035 mm	1,035 mm	1,110 mm	1,175 mm
	without side cutter		925 mm	925 mm	1,000 mm	1,065 mm
Weight (with side cutter)			394 kg	417 kg	412 kg	440 kg
No. of teeth			5	5	5	5
Application			General purpose	Extreme service	Loading service	Loading service
2,100 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	A	A
		2.5 m	A	A	A	B
		3.0 m	A	B	B	C
2,450 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	A	A
		2.5 m	A	A	A	A
		3.0 m	A	A	B	C

• LC undercarriage, Volvo HARDOX 400® bucket (curved side)

Description			Direct fit - GP bucket			Quick fit -GP bucket	
Bucket capacity	SAE		500 l	600 l	750 l	500 l	600 l
	CECE		450 l	540 l	670 l	450 l	540 l
Bucket width			800 mm	900 mm	1,100 mm	800 mm	900 mm
Weight			390 kg	420 kg	490 kg	375 kg	410 kg
No. of teeth			4	4	5	4	4
Application			Tough condition	Tough condition	Tough condition	Tough condition	Tough condition
2,100 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	C	A	A
		2.5 m	A	B	C	A	B
		3.0 m	A	C	D	B	C
2,450 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	B	A	A
		2.5 m	A	A	C	A	A
		3.0 m	A	B	D	A	C

A: Applicable for general purpose up to 2,000 kg/m³
B: Applicable for general purpose up to 1,800 kg/m³
C: Applicable for general purpose up to 1,500 kg/m³
D: Applicable for general purpose up to 1,200 kg/m³

BUCKET & ARM COMBINATION

• LCM undercarriage, Volvo K-GP bucket (straight side)

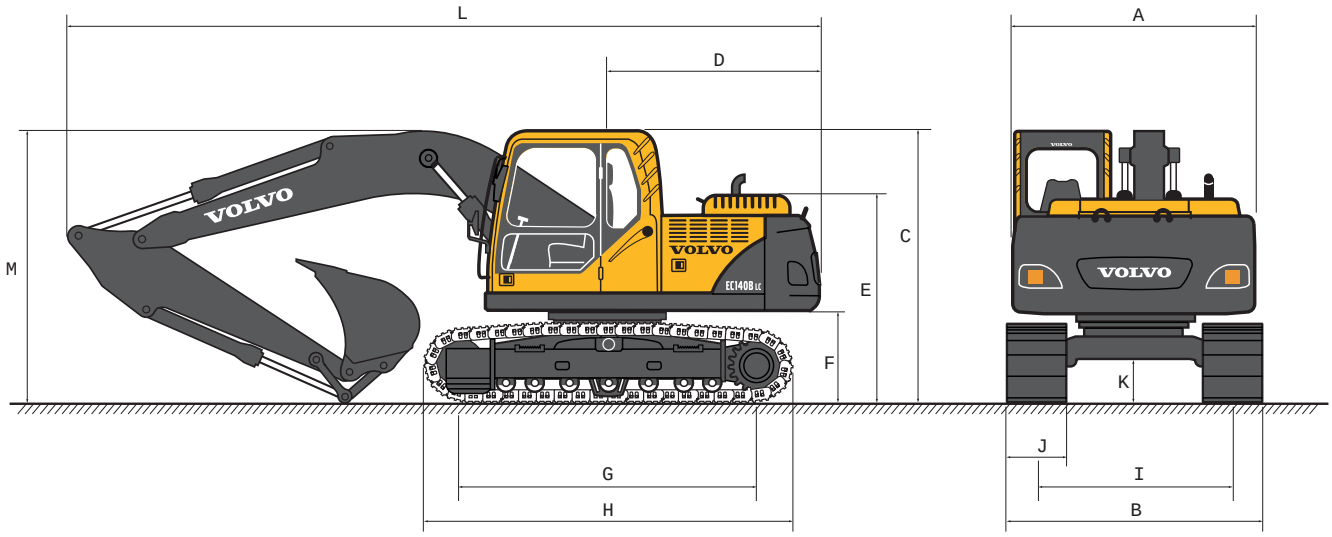
Description			Standard bucket	Reinforced bucket	Wide bucket	
Bucket capacity	SAE		520 l	520 l	570 l	640 l
	CECE		450 l	450 l	500 l	550 l
Bucket width	with side cutter		1,035 mm	1,035 mm	1,110 mm	1,175 mm
	without side cutter		925 mm	925 mm	1,000 mm	1,065 mm
Weight (with side cutter)			394 kg	417 kg	412 kg	440 kg
No. of teeth			5	5	5	5
Application			General purpose	Extreme service	Loading service	Loading service
2,100 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	A	A
		2.5 m	A	A	A	A
		3.0 m	A	A	A	B
2,450 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	A	A
		2.5 m	A	A	A	A
		3.0 m	A	A	A	B

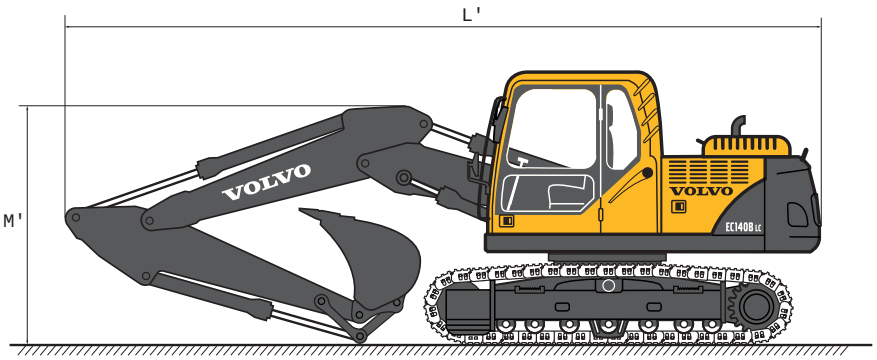
• LCM undercarriage, Volvo HARDOX 400® bucket (curved side)

Description			Direct fit - GP bucket			Quick fit -GP bucket	
Bucket capacity	SAE		500 l	600 l	750 l	500 l	600 l
	CECE		450 l	540 l	670 l	450 l	540 l
Bucket width			800 mm	900 mm	1,100 mm	800 mm	900 mm
Weight			390 kg	420 kg	490 kg	375 kg	410 kg
No. of teeth			4	4	5	4	4
Application			Tough condition	Tough condition	Tough condition	Tough condition	Tough condition
2,100 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	B	A	A
		2.5 m	A	A	C	A	A
		3.0 m	A	B	C	A	B
2,450 kg counterweight	Monoblock boom 4.6 m + arm options	2.1 m	A	A	A	A	A
		2.5 m	A	A	B	A	A
		3.0 m	A	A	C	A	B

A: Applicable for general purpose up to 2,000 kg/m³
B: Applicable for general purpose up to 1,800 kg/m³
C: Applicable for general purpose up to 1,500 kg/m³
D: Applicable for general purpose up to 1,200 kg/m³

DIMENSIONS





• **LC**

Description	Unit	4.6 m Boom		
		2.1 m Arm	2.5 m Arm	3.0 m Arm
A. Overall width of superstructure	mm	2,450	2,450	2,450
B. Overall width	mm	2,590	2,590	2,590
C. Overall height of cab	mm	2,770	2,770	2,770
D. Tail swing radius	mm	2,130	2,130	2,130
E. Overall height of engine hood	mm	2,080	2,080	2,080
F. Counterweight clearance *	mm	900	900	900
G. Tumbler length	mm	3,000	3,000	3,000
H. Track length	mm	3,740	3,740	3,740
I. Track gauge	mm	1,990	1,990	1,990
J. Shoe width	mm	600	600	600
K. Min. ground clearance *	mm	430	430	430
L. Overall length	mm	7,630	7,630	7,510
L'. Overall length	mm	7,610	7,550	7,320
M. Overall height of boom	mm	2,710	2,830	3,210
M'. Overall height of boom	mm	2,720	2,950	3,350

* Without shoe grouser

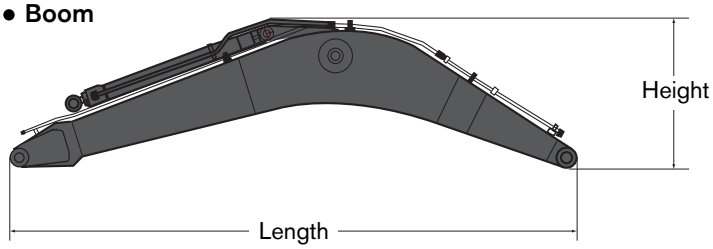
DIMENSIONS

• LCM

Description	Unit	4.6 m Boom		
		2.1 m Arm	2.5 m Arm	3.0 m Arm
A. Overall width of superstructure	mm	2,450	2,450	2,450
B. Overall width	mm	2,690	2,690	2,690
C. Overall height of cab	mm	2,960	2,960	2,960
D. Tail swing radius	mm	2,130	2,130	2,130
E. Overall height of engine hood	mm	2,270	2,270	2,270
F. Counterweight clearance *	mm	1,080	1,080	1,080
G. Tumbler length	mm	3,000	3,000	3,000
H. Track length	mm	3,790	3,790	3,790
I. Track gauge	mm	1,990	1,990	1,990
J. Shoe width	mm	700	700	700
K. Min. ground clearance *	mm	540	540	540
L. Overall length	mm	7,600	7,620	7,580
L'. Overall length	mm	7,630	7,600	7,420
M. Overall height of boom	mm	2,780	2,900	3,160
M'. Overall height of boom	mm	2,820	2,990	3,370

* Without shoe grouser

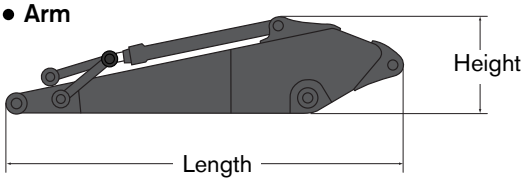
• Boom



Description	4.6 m	4.6 m 2-piece
Length	4,770 mm	4,765 mm
Height	1,370 mm	1,225 mm
Width	545 mm	545 mm
Weight	1,000 kg	1,280 kg

* Includes cylinder, pin and piping

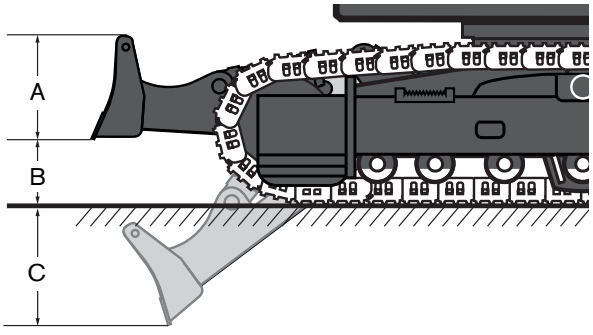
• Arm



Description	2.1 m	2.5 m	3.0 m
Length	2,800 mm	3,190 mm	3,690 mm
Height	760 mm	760 mm	760 mm
Width	300 mm	300 mm	300 mm
Weight	570 kg	645 kg	720 kg

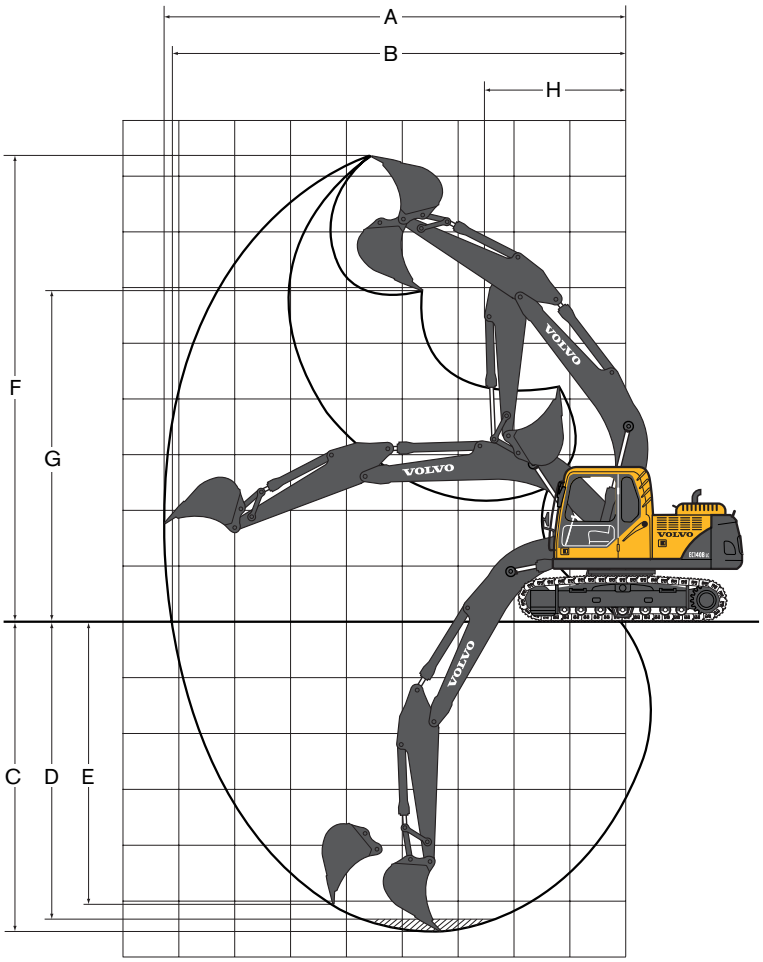
* Includes cylinder, piping and linkage

• Front dozer blade (for LC only)



Description	Measurement
A. Height	580 mm
Width	2,590 mm
Weight	900 kg
B. Lift height	504 mm
C. Digging depth	562 mm

WORKING RANGES & DIGGING FORCES



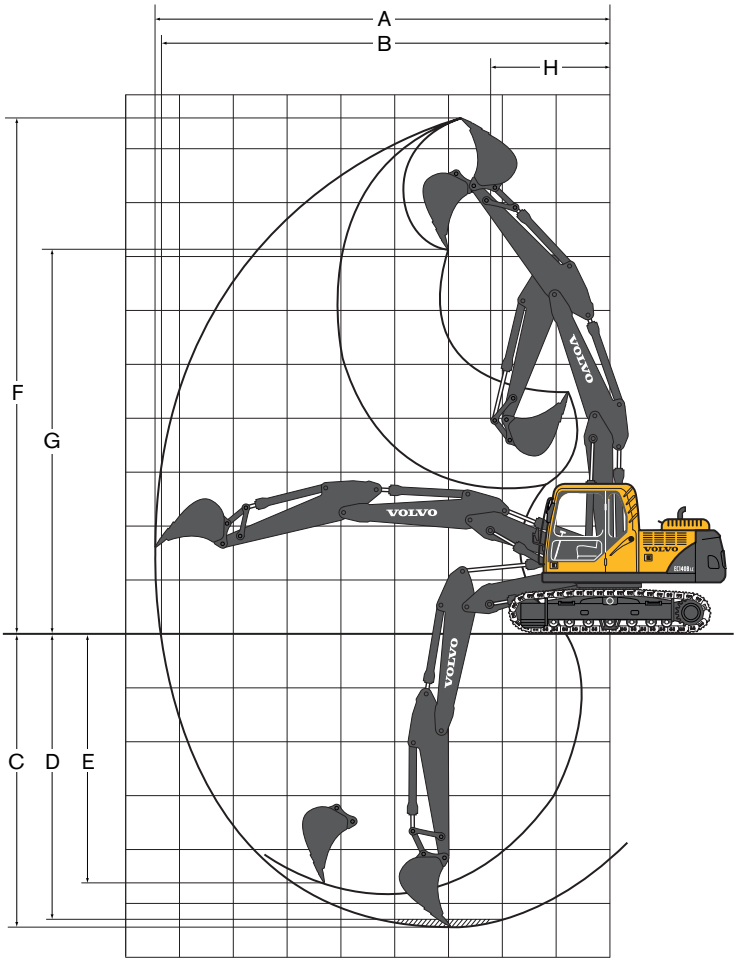
• 4.6 m monoblock boom with direct fit bucket

Description	Unit	LC			LCM		
		2.1 m Arm	2.5 m Arm	3.0 m Arm	2.1 m Arm	2.5 m Arm	3.0 m Arm
A. Max. digging reach	mm	7,960	8,330	8,820	7,960	8,330	8,820
B. Max. digging reach on ground	mm	7,810	8,190	8,690	7,780	8,160	8,660
C. Max. digging depth	mm	5,130	5,530	6,030	4,980	5,380	5,880
D. Max. digging depth (8' level)	mm	4,870	5,310	5,850	4,710	5,160	5,690
E. Max. vertical wall digging depth	mm	4,580	5,060	5,500	4,430	4,900	5,330
F. Max. cutting height	mm	8,180	8,420	8,770	8,340	8,570	8,930
G. Max. dumping height	mm	5,740	5,980	6,320	5,900	6,130	6,470
H. Min. front swing radius	mm	2,570	2,630	2,840	2,570	2,640	2,830

• Digging forces with direct fit bucket

Description		Unit	LC			LCM		
			2.1 m Arm	2.5 m Arm	3.0 m Arm	2.1 m Arm	2.5 m Arm	3.0 m Arm
Bucket radius		mm	1,250	1,250	1,250	1,250	1,250	1,250
Breakout force – bucket (Normal / Power boost)	SAE	kN kg	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900
Breakout force – bucket (Normal / Power boost)	ISO	kN kg	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000
Tearout force – arm (Normal / Power boost)	SAE	kN kg	69.6 / 73.5 7,100 / 7,500	61.8 / 65.7 6,300 / 6,700	54.9 / 58.8 5,600 / 6,000	69.6 / 73.5 7,100 / 7,500	61.8 / 65.7 6,300 / 6,700	54.9 / 58.8 5,600 / 6,000
Tearout force – arm (Normal / Power boost)	ISO	kN kg	71.6 / 75.5 7,300 / 7,700	63.7 / 67.7 6,500 / 6,900	56.9 / 59.8 5,800 / 6,100	71.6 / 75.5 7,300 / 7,700	63.7 / 67.7 6,500 / 6,900	56.9 / 59.8 5,800 / 6,100
Rotation angle, bucket		deg	174	174	173	174	174	173

WORKING RANGES & DIGGING FORCES



• 4.6 m 2-piece boom with direct fit bucket

Description	Unit	LC			LCM		
		2.1 m Arm	2.5 m Arm	3.0 m Arm	2.1 m Arm	2.5 m Arm	3.0 m Arm
A. Max. digging reach	mm	8,050	8,440	8,930	8,050	8,440	8,930
B. Max. digging reach on ground	mm	7,910	8,300	8,800	7,880	8,270	8,780
C. Max. digging depth	mm	5,060	5,450	5,960	4,900	5,300	5,800
D. Max. digging depth (8' level)	mm	4,940	5,340	5,850	4,780	5,180	5,690
E. Max. vertical wall digging depth	mm	4,270	4,660	5,190	4,120	5,400	5,040
F. Max. cutting height	mm	9,250	9,610	10,090	9,400	9,770	10,240
G. Max. dumping height	mm	6,780	7,140	7,630	6,930	7,290	7,780
H. Min. front swing radius	mm	1,960	2,220	2,640	1,960	2,220	2,640

• Digging forces with direct fit bucket

Description		Unit	LC			LCM		
			2.1 m Arm	2.5 m Arm	3.0 m Arm	2.1 m Arm	2.5 m Arm	3.0 m Arm
Bucket radius		mm	1,250	1,250	1,250	1,250	1,250	1,250
Breakout force – bucket (Normal / Power boost)	SAE	kN kg	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900	82.4 / 87.3 8,400 / 8,900
Breakout force – bucket (Normal / Power boost)	ISO	kN kg	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000	93.2 / 98.1 9,500 / 10,000
Tearout force – arm (Normal / Power boost)	SAE	kN kg	69.6 / 73.5 7,100 / 7,500	61.8 / 65.7 6,300 / 6,700	54.9 / 58.8 5,600 / 6,000	69.6 / 73.5 7,100 / 7,500	61.8 / 65.7 6,300 / 6,700	54.9 / 58.8 5,600 / 6,000
Tearout force – arm (Normal / Power boost)	ISO	kN kg	71.6 / 75.5 7,300 / 7,700	63.7 / 67.7 6,500 / 6,900	56.9 / 59.8 5,800 / 6,100	71.6 / 75.5 7,300 / 7,700	63.7 / 67.7 6,500 / 6,900	56.9 / 59.8 5,800 / 6,100
Rotation angle, bucket		deg	174	174	173	174	174	173

LIFTING CAPACITY (At the arm and without bucket)

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

EC140B LC

Across undercarriage / Along undercarriage	Lifting hook related to ground level		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
															Max. mm
with 600 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 2.1 m	6.0 m	kg					*3,330	*3,330					*3,510	3,190	4,880
	4.5 m	kg					*3,480	*3,480					3,510	2,300	5,970
	3.0 m	kg			*6,230	*6,230	*4,330	3,450	3,430	2,230			3,000	1,950	6,530
	1.5 m	kg					5,180	3,240	3,340	2,150			2,830	1,820	6,710
	0 m	kg			*5,180	*5,180	5,030	3,100	3,270	2,090			2,900	1,860	6,530
	-1.5 m	kg	*4,800	*4,800	*9,460	5,640	4,990	3,070					3,290	2,090	5,970
	-3.0 m	kg			*8,230	5,760	5,060	3,130					4,460	2,800	4,900
with 600 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 2.5 m	6.0 m	kg					*2,830	*2,830					*3,190	2,740	5,390
	4.5 m	kg					*3,070	*3,070	*3,180	2,300			*3,080	2,060	6,380
	3.0 m	kg			*5,300	*5,300	*3,940	3,470	3,440	2,230			2,730	1,770	6,910
	1.5 m	kg			*6,300	5,840	*5,060	3,230	3,330	2,130			2,590	1,660	7,080
	0 m	kg			*5,770	5,560	5,000	3,070	3,240	2,050			2,640	1,680	6,910
	-1.5 m	kg	*4,400	*4,400	*9,280	5,530	4,930	3,010	3,210	2,030			2,940	1,860	6,390
	-3.0 m	kg	*8,600	*8,600	*8,670	5,630	4,970	3,050					3,790	2,380	5,400
with 600 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 3.0 m	6.0 m	kg							*2,790	2,310			*2,720	2,290	6,020
	4.5 m	kg							*2,760	2,310			*2,550	1,790	6,920
	3.0 m	kg					*3,420	*3,420	*3,120	2,230			2,430	1,560	7,410
	1.5 m	kg			*7,290	5,970	*4,600	3,250	3,320	2,120	2,340	1,490	2,310	1,470	7,570
	0 m	kg			*6,230	5,540	4,980	3,040	3,210	2,020			2,340	1,480	7,410
	-1.5 m	kg	*3,800	*3,800	*8,380	5,430	4,860	2,950	3,150	1,970			2,570	1,610	6,930
	-3.0 m	kg	*7,040	*7,040	*9,060	5,490	4,870	2,950	3,180	1,990			3,160	1,980	6,030
with 600 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 2.1 m	6.0 m	kg					*3,330	*3,330					*3,510	3,400	4,880
	4.5 m	kg					*3,480	*3,480					*3,570	2,450	5,970
	3.0 m	kg			*6,230	*6,230	*4,330	3,670	3,630	2,390			3,170	2,090	6,530
	1.5 m	kg					*5,390	3,460	3,540	2,310			3,000	1,960	6,710
	0 m	kg			*5,180	*5,180	5,320	3,320	3,470	2,240			3,070	2,000	6,530
	-1.5 m	kg	*4,800	*4,800	*9,460	6,040	5,280	3,290					3,480	2,250	5,970
	-3.0 m	kg			*8,230	6,160	5,360	3,360					4,720	3,000	4,900
with 600 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 2.5 m	6.0 m	kg					*2,830	*2,830					*3,190	2,920	5,390
	4.5 m	kg					*3,070	*3,070	*3,180	2,450			*3,080	2,200	6,380
	3.0 m	kg			*5,300	*5,300	*3,940	3,690	*3,480	2,390			2,900	1,900	6,910
	1.5 m	kg			*6,300	6,240	*5,060	3,460	3,520	2,290			2,740	1,790	7,080
	0 m	kg			*5,770	*5,770	5,290	3,290	3,440	2,210			2,800	1,810	6,910
	-1.5 m	kg	*4,400	*4,400	*9,280	5,930	5,220	3,230	3,410	2,180			3,120	2,010	6,390
	-3.0 m	kg	*8,600	*8,600	*8,670	6,030	5,260	3,270					4,010	2,560	5,400
with 600 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 3.0 m	6.0 m	kg							*2,790	2,470			*2,720	2,450	6,020
	4.5 m	kg							*2,760	2,470			*2,550	1,920	6,920
	3.0 m	kg					*3,420	*3,420	*3,120	2,390			*2,540	1,680	7,410
	1.5 m	kg			*7,290	6,360	*4,600	3,470	3,510	2,270	2,490	1,610	2,450	1,580	7,570
	0 m	kg			*6,230	5,930	5,270	3,270	3,400	2,170			2,490	1,600	7,410
	-1.5 m	kg	*3,800	*3,800	*8,380	5,830	5,160	3,170	3,350	2,120			2,730	1,750	6,930
	-3.0 m	kg	*7,040	*7,040	*9,060	5,880	5,170	3,180	3,380	2,150			3,350	2,130	6,030

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 (At the arm and without bucket)

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

EC140B LC

Across undercarriage / Along undercarriage	Lifting hook related to ground level	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
														Max. mm
with 600 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 2.1 m	7.5 m kg											*5,360	*5,360	2,900
	6.0 m kg			*5,080	*5,080	*4,810	3,940					*3,820	3,260	5,010
	4.5 m kg			*5,230	*5,230	*4,950	3,880	3,710	2,440			*3,430	2,380	6,070
	3.0 m kg					*5,740	3,680	3,660	2,390			3,110	2,030	6,620
	1.5 m kg					5,510	3,450	3,560	2,300			2,940	1,910	6,800
	0 m kg					5,340	3,310	3,480	2,230			3,020	1,950	6,630
	-1.5 m kg			*9,280	6,000	5,290	3,270	3,480	2,230			3,420	2,190	6,080
with 600 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 2.5 m	7.5 m kg			*5,080	*5,080							*3,990	*3,990	3,740
	6.0 m kg			*4,210	*4,210	*4,320	4,000					*3,080	2,800	5,530
	4.5 m kg			*3,960	*3,960	*4,550	3,930	3,740	2,460			*2,810	2,130	6,500
	3.0 m kg			*7,570	7,000	*5,370	3,710	3,660	2,390			*2,750	1,840	7,020
	1.5 m kg					5,520	3,460	3,550	2,280			2,690	1,740	7,180
	0 m kg			*5,230	*5,230	5,310	3,280	3,450	2,200			2,750	1,760	7,020
	-1.5 m kg			*8,810	5,890	5,230	3,210	3,420	2,170			3,060	1,950	6,510
with 600 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 3.0 m	7.5 m kg			*4,120	*4,120	*3,450	*3,450					*3,100	*3,100	4,640
	6.0 m kg					*3,660	*3,660	*3,010	2,480			*2,530	2,350	6,160
	4.5 m kg			*2,850	*2,850	*3,600	*3,600	*3,750	2,490			*2,330	1,860	7,050
	3.0 m kg					*4,670	3,760	3,670	2,400	*2,430	1,640	*2,280	1,630	7,520
	1.5 m kg					5,550	3,480	3,540	2,270	2,500	1,600	*2,350	1,540	7,680
	0 m kg					5,300	3,250	3,420	2,160	2,460	1,560	2,450	1,550	7,530
	-1.5 m kg	*3,460	*3,460	*7,910	5,790	5,170	3,150	3,360	2,110			2,680	1,700	7,050

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 (At the arm and without bucket)

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

EC140B LCM

Across undercarriage / Along undercarriage	Lifting hook related to ground level		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
															Max. mm
with 700 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 2.1 m	6.0 m	kg					*3,330	*3,330					*3,510	3,480	4,880
	4.5 m	kg					*3,480	*3,480					3,570	2,520	5,970
	3.0 m	kg			*6,230	*6,230	*4,330	3,770	3,740	2,460			3,270	2,150	6,530
	1.5 m	kg					*5,390	3,560	3,650	2,370			3,090	2,020	6,710
	0 m	kg			*5,180	*5,180	5,490	3,420	3,580	2,310			3,170	2,060	6,530
	-1.5 m	kg	*4,800	*4,800	*9,460	6,240	5,450	3,390					3,600	2,320	5,970
	-3.0 m	kg			*8,230	6,360	*5,480	3,460					*4,850	3,090	4,900
with 700 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 2.5 m	6.0 m	kg					*2,830	*2,830					*3,190	3,000	5,390
	4.5 m	kg					*3,070	*3,070	*3,180	2,520			*3,080	2,260	6,380
	3.0 m	kg			*5,300	*5,300	*3,940	3,790	*3,480	2,450			2,990	1,950	6,910
	1.5 m	kg			*6,300	*6,300	*5,060	3,560	3,640	2,350			2,830	1,840	7,080
	0 m	kg			*5,770	*5,770	5,460	3,390	3,550	2,280			2,890	1,870	6,910
	-1.5 m	kg	*4,400	*4,400	*9,280	6,130	5,390	3,330	3,520	2,250			3,220	2,070	6,390
	-3.0 m	kg	*8,600	*8,600	*8,670	6,230	5,430	3,370					4,140	2,640	5,400
with 700 mm shoe 2,100 kg CWT monoblock boom 4.6 m + arm 3.0 m	6.0 m	kg							*2,790	2,530			*2,720	2,510	6,020
	4.5 m	kg							*2,760	2,540			*2,550	1,970	6,920
	3.0 m	kg					*3,420	*3,420	*3,120	2,450			*2,540	1,730	7,410
	1.5 m	kg			*7,290	6,570	*4,600	3,570	3,630	2,340	2,580	1,660	2,540	1,630	7,570
	0 m	kg			*6,230	6,130	5,440	3,370	3,520	2,240			2,580	1,650	7,410
	-1.5 m	kg	*3,800	*3,800	*8,380	6,030	5,330	3,270	3,460	2,190			2,820	1,800	6,930
	-3.0 m	kg	*7,040	*7,040	*9,060	6,080	5,330	3,270	3,490	2,210			3,460	2,200	6,030
with 700 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 2.1 m	6.0 m	kg					*3,330	*3,330					*3,510	*3,510	4,880
	4.5 m	kg					*3,480	*3,480					*3,570	2,680	5,970
	3.0 m	kg			*6,230	*6,230	*4,330	4,000	*3,760	2,610			3,450	2,290	6,530
	1.5 m	kg					*5,390	3,780	3,850	2,530			3,260	2,150	6,710
	0 m	kg			*5,180	*5,180	5,780	3,650	3,780	2,470			3,350	2,200	6,530
	-1.5 m	kg	*4,800	*4,800	*9,460	6,640	5,740	3,610					3,790	2,470	5,970
	-3.0 m	kg			*8,230	6,760	*5,480	3,680					*4,850	3,290	4,900
with 700 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 2.5 m	6.0 m	kg					*2,830	*2,830					*3,190	3,170	5,390
	4.5 m	kg					*3,070	*3,070	*3,180	2,680			*3,080	2,410	6,380
	3.0 m	kg			*5,300	*5,300	*3,940	*3,940	*3,480	2,610			*3,090	2,090	6,910
	1.5 m	kg			*6,300	*6,300	*5,060	3,780	3,830	2,510			2,990	1,970	7,080
	0 m	kg			*5,770	*5,770	5,750	3,620	3,750	2,430			3,060	2,000	6,910
	-1.5 m	kg	*4,400	*4,400	*9,280	6,530	5,680	3,560	3,710	2,400			3,400	2,210	6,390
	-3.0 m	kg	*8,600	*8,600	*8,670	6,630	5,730	3,590					4,370	2,820	5,400
with 700 mm shoe 2,450 kg CWT monoblock boom 4.6 m + arm 3.0 m	6.0 m	kg							*2,790	2,690			*2,720	2,670	6,020
	4.5 m	kg							*2,760	2,690			*2,550	2,110	6,920
	3.0 m	kg					*3,420	*3,420	*3,120	2,610			*2,540	1,850	7,410
	1.5 m	kg			*7,290	6,970	*4,600	3,800	*3,660	2,500	2,720	1,780	*2,670	1,750	7,570
	0 m	kg			*6,230	*6,230	*5,600	3,590	3,710	2,400			2,730	1,770	7,410
	-1.5 m	kg	*3,800	*3,800	*8,380	6,430	5,620	3,490	3,660	2,340			2,980	1,930	6,930
	-3.0 m	kg	*7,040	*7,040	*9,060	6,490	5,630	3,500	3,690	2,370			3,660	2,350	6,030

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 (At the arm and without bucket)

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

EC140B LCM

Across undercarriage / Along undercarriage	Lifting hook related to ground level	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
														Max. mm
with 700 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 2.1 m	7.5 m kg											*5,360	*5,360	2,900
	6.0 m kg			*4,610	*4,610	*4,330	4,260					*3,820	3,540	5,010
	4.5 m kg			*5,230	*5,230	*4,460	4,210	*3,920	2,660			*3,430	2,600	6,070
	3.0 m kg					*5,160	4,010	3,960	2,610			*3,360	2,230	6,620
	1.5 m kg					*5,920	3,780	3,860	2,520			3,200	2,100	6,800
	0 m kg					5,790	3,630	3,780	2,450			3,280	2,140	6,630
	-1.5 m kg			*8,320	6,600	5,740	3,590	3,780	2,450			3,710	2,410	6,080
with 700 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 2.5 m	7.5 m kg			*4,700	*4,700							*3,990	*3,990	3,740
	6.0 m kg			*3,990	*3,990	*3,890	*3,890					*3,080	3,050	5,530
	4.5 m kg			*3,960	*3,960	*4,100	*4,100	*3,780	2,680			*2,810	2,330	6,500
	3.0 m kg			*6,830	*6,830	*4,830	4,040	3,960	2,610			*2,750	2,030	7,020
	1.5 m kg					*5,680	3,780	3,850	2,500			*2,850	1,910	7,180
	0 m kg			*5,230	*5,230	5,760	3,600	3,750	2,420			2,990	1,940	7,020
	-1.5 m kg			*8,760	6,490	5,680	3,530	3,720	2,390			3,330	2,150	6,510
with 700 mm shoe 2,450 kg CWT 2-piece boom 4.6 m + arm 3.0 m	7.5 m kg			*3,750	*3,750	*3,450	*3,450					*3,100	*3,100	4,640
	6.0 m kg					*3,370	*3,370	*3,010	2,700			*2,530	*2,530	6,160
	4.5 m kg			*2,850	*2,850	*3,600	*3,600	*3,430	2,710			*2,330	2,040	7,050
	3.0 m kg					*4,390	4,090	*3,720	2,620	*2,430	1,810	*2,280	1,790	7,520
	1.5 m kg					*5,330	3,800	3,840	2,490	2,730	1,770	*2,350	1,700	7,680
	0 m kg					5,750	3,580	3,720	2,380	2,690	1,730	*2,530	1,720	7,530
	-1.5 m kg	*3,460	*3,460	*7,910	6,390	5,620	3,470	3,660	2,330			2,920	1,880	7,050

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.

STANDARD EQUIPMENT

Engine
Turbocharged, 4 stroke diesel engine with direct injection
3-stage air filter with indicator
Air intake heater
Electric engine shut-off
Fuel filter and water separator
Coolant filter
Alternator, 80 A

Electric / Electronic control system
Contronics:
- Advanced mode control system
- Self-diagnostic system

Machine status indication
Engine speed sensing power control
"Power Max" mode system
Automatic idling system
One-touch power boost
Safety stop/start function
Adjustable monitor
Battery master switch
Engine restart prevention circuit
High capacity halogen lights:
- Frame mounted 2
- Boom mounted 2

Batteries, 2 x 12 V/100 Ah
Start motor, 24 V/4.8 kW

Hydraulic system
Automatic hydraulic system:
- Summation system
- Boom priority
- Arm priority
- Swing priority

Boom and arm regeneration valves
Swing anti-rebound valves
Boom and arm holding valves
Multi-stage filtering system
Cylinder cushions
Cylinder contamination seals
Auxiliary hydraulic valve
Straight travel circuit
Automatic two-speed travel motors
Hydraulic oil, ISO VG 46

Superstructure
Access way with handrail
Tool storage area
Punched metal anti-slip plates
Undercover (2.3 mm)

Cab and interior
Hydraulic dampening cab mounts
Adjustable operator seat and joystick control console
Flexible antenna
Hydraulic safety lock lever
Cab, all-weather sound suppressed, includes:
- Ashtray
- Cup holder
- Lighter
- Tinted glass
- Door locks
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt
- Safety glass
- Windshield wiper with intermittent feature
- Stereo cassette radio

Anti-vandalism kit assembly preparation
Master ignition key

Undercarriage
Hydraulic track adjusters
Greased and sealed track chain
Track guards
Undercover (4.5 mm)

Service
Spare parts

ALTERNATIVE EQUIPMENT

Engine
Block heater, 120 V / 240 V
Fuel filler pump: 35 l/min, 50 l/min with automatic shut-off

Hydraulic system
Pilot-operated wrist control joysticks:
- Semi-long joysticks
- Control joystick, with 3 switches each
- Control joystick, with 5 switches each

Cab and interior
Seat:
- Fabric seat
- Fabric seat, with heater
- Fabric seat, with heater and air suspension

Track shoes
LC: 500 / 600 / 700 / 750 mm track shoes with triple grousers
LCM: 600 / 700 / 800 / 900 mm track shoes with triple grousers

Superstructure
Counterweight, 2,100 kg / 2,450 kg

Digging equipment
Boom: 4.6 m monoblock
4.6 m 2-piece
Arm: 2.1 / 2.5 / 3.0 m

Undercarriage
LC
LCM

OPTIONAL EQUIPMENT (Standard in certain markets)

Engine
Diesel coolant heater
Tropical cooling kit

Electric
Extra lamps:
- Cab-mounted 3, (front 2, rear 1)
- Counterweight-mounted 1

Overload warning device
Rotating warning beacon
Travel alarm

Hydraulic system
Hose rupture valve: boom, arm
Hydraulic piping
- Hammer & shears:
  - 1 pump flow
  - 2 pump flow
  - Pump flow control for hammer & shears
  - Additional return filter
  - Extra piping for slope & rotator
  - 1 switch control
  - 2 switch control
  - Pedal control
- Slope & rotator
- Grapple
- Oil leak (drain) line
- Quick fit piping

Volvo hydraulic quick-fit, S6 size
Hydraulic oil, ISO VG 32
Hydraulic oil, ISO VG 68
Hydraulic oil, biodegradable 32
Hydraulic oil, biodegradable 46
Joystick control pattern changer
Boom floating function

Cab and interior
Air-conditioner, manual
Heater & air-conditioner, automatic
Falling object guard (FOG)
Cab mounted falling object protective structures (FOPS)
Rain shield, front
Sun shield, front, roof, rear
Sunlight protection, roof (steel)
Safety screen for front window
Lower wiper
Anti-vandalism kit
Specific key

Digging equipment
Long last bushing

Superstructure
Undercover (heavy duty 4.5 mm)

Undercarriage
Undercover (heavy duty 10 mm)
Front dozer blade (for LC only)

Service
Hand lamp
Tool kit:
- Full scale
- Daily maintenance

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

VOLVO

Construction Equipment

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