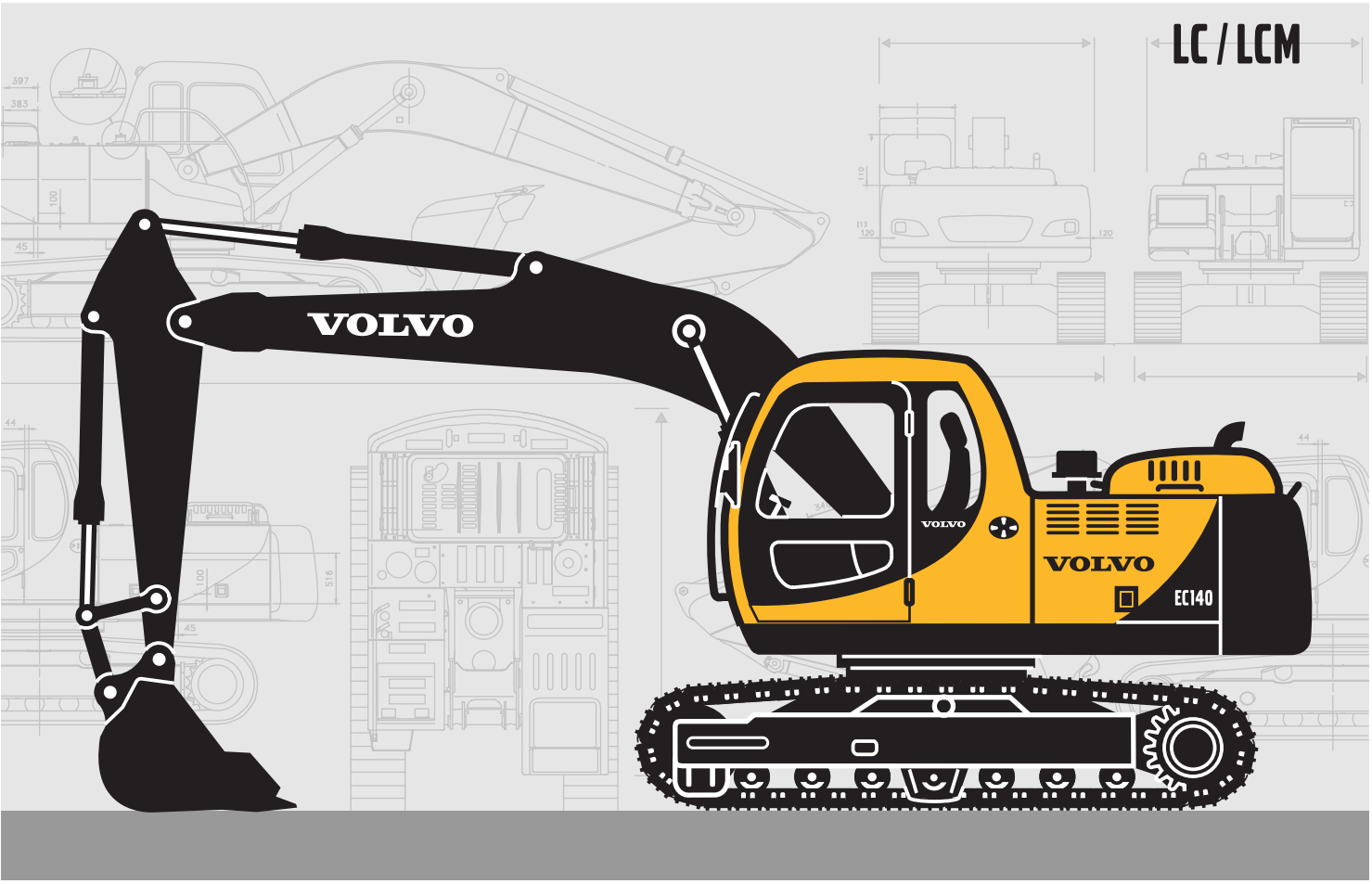
VOLVO EXCAVATOR

EC140

LC / LCM



- **Engine power, gross:**
  79.4 kW **107 hp**
- **Operating weight:**
  LC: 13.2 ~ 13.7 t
  29020 ~ 30190 lb
  LCM: 14.5 ~ 15.3 t
  31880 ~ 33690 lb
- **Buckets (SAE):**
  600 ~ 950 l
  0.78 ~ 1.24 yd³

- Low-emission, turbocharged Cummins diesel engine with direct injection
- Integrated mode selection system and electronically controlled system (ACS)
- 2 variable displacement axial piston pumps. Independent and simultaneous movements of the digging equipment are controlled by the “Automatic sensing work mode.”
- Cab
  – Ergonomic environment
  – Low sound level
  – Filtered air
  – Hydraulic dampening mounts
- Strong attachment, produced by robotic welding
- High lifting, breakout and tearout forces for tough digging conditions
- Undercarriage
  – LC: Long undercarriage for good stability
  – LCM: Uses 20 ton class undercarriage components and offers higher ground clearance
- Hammer/shear and Volvo quick coupler piping as standard equipment
- Prepared for a number of optional items

VOLVO

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ENGINE

The engine is a low-emission, turbocharged, 4-stroke diesel engine with water cooling, direct injection and aftercooler, especially developed for excavator use.
The machine can work at any job site, contributing to good fuel economy, low sound level, less wear and a longer life.

Air filter: 3-stage, includes pre-cleaner

Automatic idling system: Reduces the engine speed to an idling speed when levers and pedals are not activated.

Maker	CUMMINS	
Model	B3.9-C	
Power output at	35 r/s	**2100 rpm**
Net (ISO 9249/DIN 6271)	73.5 kW	**99 hp**
Gross (SAE J1349)	79.4 kW	**107 hp**
Max. torque	431 N·m at 1600 rpm	
	318 lb·ft at 1600 rpm	
No. of cylinders	4	
Displacement	3.9 l	**239 cu.in**
Bore	102 mm	**4.02"**
Stroke	120 mm	**4.72"**

ELECTRICAL SYSTEM

Well-protected electrical system with high capacity.
Double lock harness plugs are waterproof to ensure secure connections and prevent corrosion.
The relays and solenoid valves are shielded to prevent accidental damage or terminal contact.
The master switch, for disconnecting the battery, is standard.

ACS system, providing integrated mode selection functions and self-diagnostic mode, is standard.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	150 Ah
Alternator	24 V / 50 A

SERVICE REFILL CAPACITIES

Fuel tank	260 l	**69 gal**
Hydraulic system, total	235 l	**62 gal**
Hydraulic tank	130 l	**34 gal**
Engine oil	17.5 l	**5 gal**
Engine coolant	23.6 l	**6 gal**
Swing reduction unit	3.8 l	**1.0 gal**
Travel reduction units		
LC	2 x 3.5 l	**2 x 0.9 gal**
LCM	2 x 5.8 l	**2 x 1.5 gal**

SWING SYSTEM

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

Max. swing speed	10.9 rpm

UNDERCARRIAGE

The undercarriage has an X-shaped frame.
The greased and sealed track chain is standard.

No. of track pads		
LC	2 x 46	
LCM	2 x 42	
Link pitch		
LC	171 mm	**6.7"**
LCM	190 mm	**7.5"**
Shoe width, triple grouser		
LC	500 / 600 (Std.) / 700 / 750 mm	
	20" / 24" (Std.) **/ 28" / 30"**	
LCM	600 (Std.) / 700 / 800 / 900 mm	
	24" (Std.) **/ 28" / 32" / 36"**	
No. of lower track rollers		
LC	2 x 7	
LCM	2 x 6	
No. of upper rollers		
LC	2 x 1	
LCM	2 x 2	

DRIVE

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

LC

Max. tractive effort	109.8 kN
	24700 lb
Max. travel speed(1st/2nd)	3.2 / 5.5 km/h
	2.0 / 3.4 mph
Gradeability	35° **70 %**

LCM

Max. tractive effort	140.2 kN
	31530 lb
Max. travel speed(1st/2nd)	2.5 / 4.3 km/h
	1.6 / 2.7 mph
Gradeability	35° **70 %**

Courtesy of Machine.Market

HYDRAULIC SYSTEM

The hydraulic system, named "Automatic Sensing Work Mode", is designed for high productivity, high digging capacity, high maneuvering precision and good fuel economy.
The summation system, boom priority, arm priority, swing priority, and regeneration system of the boom and arm flows are provided for the best operation.

The following important functions are included in the system.

Summation system: Providing full use of the pump oil flow.

Boom priority: Providing priority to the boom operation for fast raising during loading or deep excavation.

Arm priority: Providing priority to the arm operation for faster cycle times during leveling and for increased bucket filling factors while digging.
Swing priority: Providing priority to the swing operation for faster swing during simultaneous operations.

Regeneration system: Enhancing the cylinder life cycle, preventing cavitation and providing priority to other movements during simultaneous operations.

Power boost: All digging and lifting forces are increased.

Holding valves: Boom and arm holding valves are standard.

Power Max: All function speeds are increased.

Pumps
- Main pumps:
  - Type ····· 2 x variable displacement axial piston pumps
  - Maximum flow ····· 2 x 120 l/min **2 x 32 gpm**
- Pilot pump:
  - Type ····· Gear pump
  - Maximum flow ····· 21 l/min **5.5 gpm**

Hydraulic motors
- Travel ····· 2 x variable displacement axial piston motors
- Swing ····· Fixed displacement piston motor with mechanical brake

Relief valve setting
- Attachment ····· 31.4/34.3 MPa **4550/4980 psi**
- Travel circuit ····· 34.3 MPa **4980 psi**
- Swing circuit ····· 24.5 MPa **3560 psi**
- Pilot circuit ····· 3.9 MPa **570 psi**

Hydraulic cylinders
- Boom ····· 2
  - bore x stroke ····· Ø 105 mm x 985 mm **Ø 4.1" x 38.8"**
- Arm ····· 1
  - bore x stroke ····· Ø 120 mm x 1045 mm **Ø 4.7" x 41.1"**
- Bucket ····· 1
  - bore x stroke ····· Ø 100 mm x 865 mm **Ø 3.9" x 34.1"**

CAB

Easily accessible cab with a wide door and lined with sound-absorbing material.
The cab, which is supported by hydraulic dampening mounts to reduce shock and vibration, has all-around visibility.
The front windshield can slide up into the ceiling, and the lower front glass can be removed.

Integrated air-conditioning and heating system:
The pressurized and filtered cab air is supplied by a 4-speed fan. The air is distributed via 8 vents.

Ergonomic operator's seat: The adjustable seat and control consoles move independently to accommodate the operator well. The seat has eight different adjustments and a seat belt to meet any operator's requirement.

Sound level (Preliminary): According to the Directive 86/662/EEC.
- Exterior noise (ISO 6395)
  - mean value of L_{WA} (sound power level) 100 dB(A)
- Operator's position (ISO 6396)
  - with the door closed
  - mean value of L_{PA} (sound pressure level) 74 dB(A)

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GROUND PRESSURE

• ***LC*** *undercarriage with Std. 4.6 m,* ***15' 1"*** *boom, Std. 2.5 m,* ***8' 2"*** *arm, 394 kg,* ***870 lb*** *bucket and 1750 kg,* ***3,860 lb*** *counterweight.*

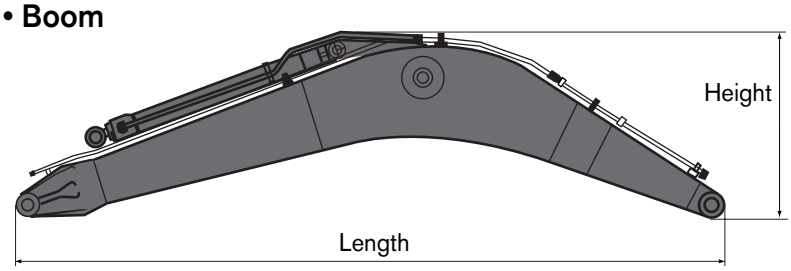
Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm, **20"**	13160 kg, **29,020 lb**	39.2 kPa, **5.7 psi**	2490 mm, **8' 2"**
	Std. 600 mm, **24"**	13370 kg, **29,480 lb**	33.3 kPa, **4.8 psi**	2590 mm, **8' 6"**
	700 mm, **28"**	13580 kg, **29,940 lb**	29.4 kPa, **4.3 psi**	2690 mm, **8' 10"**
	750 mm, **30"**	13690 kg, **30,190 lb**	27.5 kPa, **4.0 psi**	2740 mm, **9' 0"**

• ***LCM*** *undercarriage with Std. 4.6 m,* ***15' 1"*** *boom, Std. 3.0 m,* ***9' 10"*** *arm, 394 kg,* ***870 lb*** *bucket and 1750 kg,* ***3,860 lb*** *counterweight.*

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	Std. 600 mm, **24"**	14460 kg, **31,880 lb**	35.9 kPa, **5.2 psi**	2590 mm, **8' 6"**
	700 mm, **28"**	14670 kg, **32,350 lb**	30.9 kPa, **4.5 psi**	2690 mm, **8' 10"**
	800 mm, **32"**	15060 kg, **33,210 lb**	27.9 kPa, **4.0 psi**	2790 mm, **9' 2"**
	900 mm, **36"**	15280 kg, **33,690 lb**	24.9 kPa, **3.6 psi**	2890 mm, **9' 6"**

DIMENSIONS

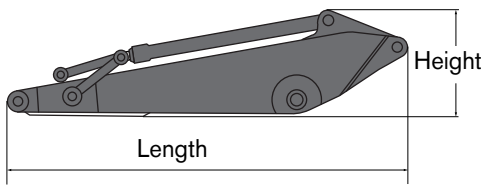
• **Boom**



Description	Std. 4.6 m, **15' 1"**
Length	4770 mm, **15' 8"**
Height	1295 mm, **4' 3"**
Width	545 mm, **1' 9"**
Weight *	970 kg, **2,140 lb**

* Includes cylinder, piping and pin

• **Arm**



Description	2.1 m, **6' 11"**	Std.(LC) 2.5 m, **8' 2"**	Std.(LCM) 3.0 m, **9' 10"**
Length	2800 mm, **9' 2"**	3190 mm, **10' 6"**	3690 mm, **12' 1"**
Height	760 mm, **2' 6"**	760 mm, **2' 6"**	760 mm, **2' 6"**
Width	300 mm, **1' 0"**	300 mm, **1' 0"**	335 mm, **1' 1"**
Weight *	525 kg, **1,160 lb**	575 kg, **1,270 lb**	685 kg, **1,510 lb**

* Includes cylinder, linkage and pins

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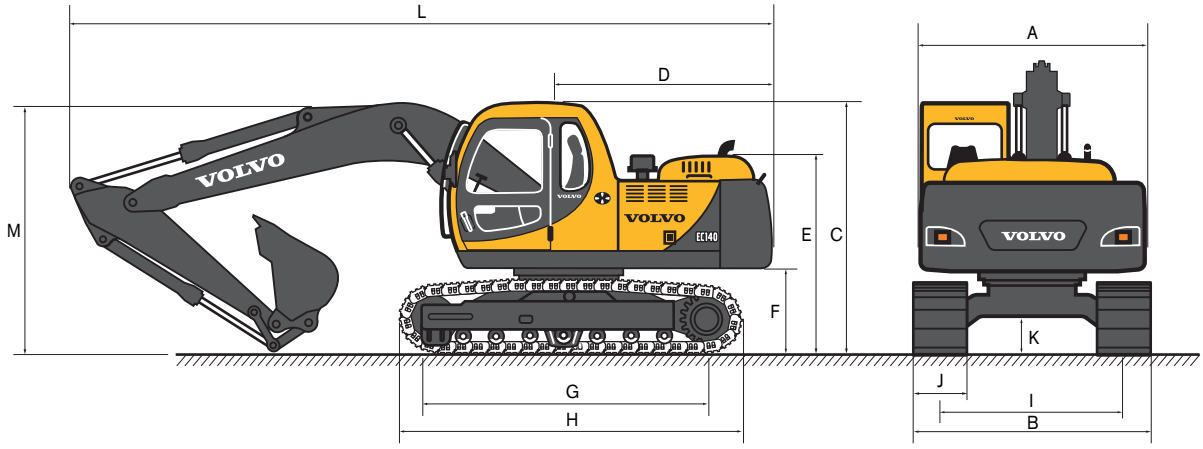
DIMENSIONS



Boom / Arm	unit	LC: Std. 4.6 m, 15' 1"			LCM: Std. 4.6 m, 15' 1"		
		2.1 m, 6' 11"	Std. 2.5 m, 8' 2"	3.0 m, 9' 10"	2.1 m, 6' 11"	2.5 m, 8' 2"	Std. 3.0 m, 9' 10"
A. Overall width of upper structure	mm, ft-in	2450, 8' 0"	2450, 8' 0"	2450, 8' 0"	2450, 8' 0"	2450, 8' 0"	2450, 8' 0"
B. Overall width	mm, ft-in	2590, 8' 6"	2590, 8' 6"	2590, 8' 6"	2590, 8' 6"	2590, 8' 6"	2590, 8' 6"
C. Overall height of cab	mm, ft-in	2770, 9' 1"	2770, 9' 1"	2770, 9' 1"	2920, 9' 7"	2920, 9' 7"	2920, 9' 7"
D. Tail swing radius	mm, ft-in	2200, 7' 3"	2200, 7' 3"	2200, 7' 3"	2200, 7' 3"	2200, 7' 3"	2200, 7' 3"
E. Overall height of engine hood	mm, ft-in	2180, 7' 2"	2180, 7' 2"	2180, 7' 2"	2330, 7' 8"	2330, 7' 8"	2330, 7' 8"
F. Counterweight clearance*	mm, ft-in	900, 2' 11"	900, 2' 11"	900, 2' 11"	1090, 3' 7"	1090, 3' 7"	1090, 3' 7"
G. Tumbler length	mm, ft-in	3000, 9' 10"	3000, 9' 10"	3000, 9' 10"	3000, 9' 10"	3000, 9' 10"	3000, 9' 10"
H. Track length	mm, ft-in	3740, 12' 3"	3740, 12' 3"	3740, 12' 3"	3790, 12' 5"	3790, 12' 5"	3790, 12' 5"
I. Track gauge	mm, ft-in	1990, 6' 6"	1990, 6' 6"	1990, 6' 6"	1990, 6' 6"	1990, 6' 6"	1990, 6' 6"
J. Shoe width-Std.	mm, in	600, 24"	600, 24"	600, 24"	600, 24"	600, 24"	600, 24"
K. Min. ground clearance*	mm, ft-in	430, 1' 5"	430, 1' 5"	430, 1' 5"	570, 1' 10"	570, 1' 10"	570, 1' 10"
L. Overall length	mm, ft-in	7750, 25' 5"	7750, 25' 5"	7640, 25' 1"	7730, 25' 4"	7750, 25' 5"	7730, 25' 4"
M. Overall height of boom	mm, ft-in	2610, 8' 7"	2780, 9' 1"	3190, 10' 6"	2670, 8' 9"	2790, 9' 2"	3060, 10' 0"

* Without shoe grouser

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BUCKET & ARM COMBINATION

Note: Bucket size based on SAE-J296, heaped material with a 1:1 angle of repose.

• **LC:** Max. permitted **sizes for pin on buckets:**
Counterweight: 1750 kg, **3,860 lb**

Description	unit	2.1m, **6' 11"** Arm	Std. 2.5 m, **8' 2"** Arm	3.0m, **9' 10"** Arm
GP bucket 1.5 t/m³, **2,530 lb/yd³**	l, **yd³**	900, **1.18**	825, **1.08**	725, **0.95**
GP bucket 1.8 t/m³, **3,030 lb/yd³**	l, **yd³**	775, **1.01**	725, **0.95**	625, **0.82**

• **LCM:** Max. permitted **sizes for pin on buckets:**
Counterweight: 1750 kg, **3,860 lb**

Description	unit	2.1m, **6' 11"** Arm	2.5 m, **8' 2"** Arm	Std. 3.0m, **9' 10"** Arm
GP bucket 1.5 t/m³, **2,530 lb/yd³**	l, **yd³**	950, **1.24**	875, **1.14**	750, **0.98**
GP bucket 1.8 t/m³, **3,030 lb/yd³**	l, **yd³**	825, **1.08**	750, **0.98**	675, **0.88**

• **LC:** Max. permitted **sizes for hook on buckets:**
Counterweight: 1750 kg, **3,860 lb**

Description	unit	2.1m, **6' 11"** Arm	Std. 2.5 m, **8' 2"** Arm	3.0m, **9' 10"** Arm
GP bucket 1.5 t/m³, **2,530 lb/yd³**	l, **yd³**	850, **1.11**	775, **1.01**	675, **0.88**
GP bucket 1.8 t/m³, **3,030 lb/yd³**	l, **yd³**	750, **0.98**	675, **0.88**	600, **0.78**

• **LCM:** Max. permitted **sizes for hook on buckets:**
Counterweight: 1750 kg, **3,860 lb**

Description	unit	2.1m, **6' 11"** Arm	2.5 m, **8' 2"** Arm	Std. 3.0m, **9' 10"** Arm
GP bucket 1.5 t/m³, **2,530 lb/yd³**	l, **yd³**	900, **1.18**	825, **1.08**	725, **0.95**
GP bucket 1.8 t/m³, **3,030 lb/yd³**	l, **yd³**	800, **1.05**	725, **0.95**	625, **0.82**

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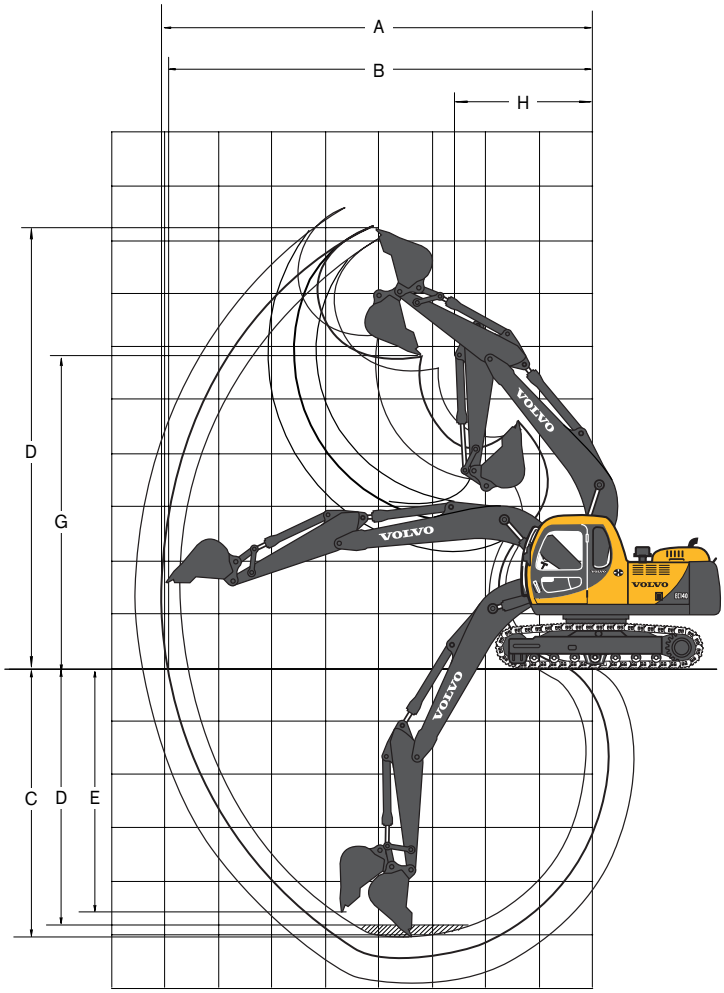
WORKING RANGES



• Std. 4.6 m, **15' 1"** boom with pin on bucket

Arm	**unit**	**LC**			**LCM**		
		2.1 m, **6' 11"**	Std. 2.5 m, **8' 2"**	3.0 m, **9' 10"**	2.1 m, **6' 11"**	2.5 m, **8' 2"**	Std. 3.0 m, **9' 10"**
A. Max. digging reach	mm, **ft-in**	7960, **26' 1"**	8330, **27' 4"**	8820, **28' 11"**	7960, **26' 1"**	8330, **27' 4"**	8820 **28' 11"**
B. Max. digging reach on ground	mm, **ft-in**	7810, **25' 7"**	8190, **26' 10"**	8690, **28' 6"**	7780, **25' 6"**	8160, **26' 9"**	8660, **28' 5"**
C. Max. digging depth	mm, **ft-in**	5130, **16' 10"**	5530, **18' 2"**	6030, **19' 9"**	4980, **16' 4"**	5380, **17' 8"**	5880, **19' 3"**
D. Max. digging depth (8' level)	mm, **ft-in**	4870, **16' 0"**	5310, **17' 5"**	5850, **19' 2"**	4710, **15' 5"**	5160, **16' 11"**	5690, **18' 8"**
E. Max. vertical wall digging depth	mm, **ft-in**	4580, **15' 0"**	5060, **16' 7"**	5500, **18' 1"**	4430, **14' 6"**	4900, **16' 1"**	5330, **17' 6"**
F. Max. cutting height	mm, **ft-in**	8180, **26' 10"**	8420, **27' 7"**	8770, **28' 9"**	8340, **27' 4"**	8570, **28' 1"**	8930, **29' 4"**
G. Max. dumping height	mm, **ft-in**	5740, **18' 10"**	5980, **19' 7"**	6320, **20' 9"**	5900, **19' 4"**	6130, **20' 1"**	6470, **21' 3"**
H. Min. front swing radius	mm, **ft-in**	2610, **8' 7"**	2670, **8' 9"**	2830, **9' 3"**	2610, **8' 7"**	2670, **8' 9"**	2830, **9' 3"**

Digging forces with pin on bucket:		**unit**	2.1 m, **6' 11"**	Std. 2.5 m, **8' 2"**	3.0 m, **9' 10"**	2.1 m, **6' 11"**	2.5 m, **8' 2"**	Std. 3.0 m, **9' 10"**
Bucket tip radius		mm, **in**	1250, **49"**	1250, **49"**	1250, **49"**	1250, **49"**	1250, **49"**	1250, **49"**
Breakout force-bucket (Normal / Power boost)	SAE	kN **lb**	78.7 / 86.1 **17,710 / 19,360**	78.7 / 86.1 **17,710 / 19,360**	78.7 / 86.1 **17,710 / 19,360**	78.7 / 86.1 **17,710 / 19,360**	78.7 / 86.1 **17,710 / 19,360**	78.7 / 86.1 **17,710 / 19,360**
Tearout force-arm (Normal / Power boost)	SAE	kN **lb**	67.1 / 73.3 **15,080 / 16,490**	59.8 / 65.4 **13,450 / 14,710**	53.2 / 58.2 **11,970 / 13,100**	67.1 / 73.3 **15,080 / 16,490**	59.8 / 65.4 **13,450 / 14,710**	53.2 / 58.2 **11,970 / 13,100**
Rotation angle, bucket		°	179°	179°	179°	179°	179°	179°

Courtesy of Machine.Market

LIFTING CAPACITY (At the arm end without bucket)

Note: For lift capacity including bucket, simply subtract actual weight of the pin on bucket or the bucket with quick coupler from the following values.

EC140LC (Std. shoe 600 mm, **24"**, Counterweight 1750 kg, **3,860 lb**)

Across under-carriage / Along under-carriage	Lifting hook related to ground level m / ft	3 m, **10'**				4.5 m, **15'**				6 m, **20'**				Max.reach				Max. m/ft
		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	
Boom 4.6 m **15' 1"** + Arm 2.1 m **6' 11"**	6 **20'**					*3.3	***7,510**	*3.3	***7,510**					3.1	**7,140**	*3.5	***7,770**	4.9 / **15.7**
	4.5 **15'**					*3.5	***7,640**	*3.5	***7,640**					2.3	**5,030**	3.5	**7,820**	6.0 / **19.5**
	3 **10'**	*6.2	***13,300**	*6.2	***13,300**	3.4	**7,300**	*4.4	***9,420**	2.2	**4,730**	3.4	**7,390**	1.9	**4,250**	3.0	**6,630**	6.5 / **21.4**
	1.5 **5'**					3.2	**6,860**	5.2	**11,130**	2.1	**4,560**	3.3	**7,200**	1.8	**3,960**	2.8	**6,240**	6.7 / **22.0**
	0 **0'**	*5.2	**11,860**	*5.2	***12,170**	3.0	**6,570**	5.0	**10,810**	2.1	**4,430**	3.3	**7,060**	1.8	**4,040**	2.9	**6,400**	6.5 / **21.4**
	-1.5 **-5'**	5.5	**11,900**	*9.5	***20,580**	3.0	**6,500**	5.0	**10,720**					2.1	**4,560**	3.3	**7,280**	6.0 / **19.6**
	-3 **-10'**	5.7	**12,170**	*8.3	***17,840**	3.1	**6,660**	5.1	**10,910**					2.8	**6,160**	4.5	**9,990**	4.9 / **15.9**
	-4.5 **-15'**																	
Boom 4.6 m **15' 1"** + Arm 2.5 m **8' 2"**	6 **20'**					*2.9	***6,370**	*2.9	***6,370**					2.7	**6,110**	*3.2	***7,080**	5.4 / **17.4**
	4.5 **15'**					*3.1	***6,760**	*3.1	***6,760**	2.3	**4,870**	*3.2	***7,120**	2.0	**4,520**	*3.1	***6,840**	6.4 / **20.9**
	3 **10'**	*5.3	***11,390**	*5.3	***11,390**	3.4	**7,370**	*4.0	***8,600**	2.2	**4,740**	3.4	**7,410**	1.8	**3,870**	2.7	**6,070**	6.9 / **22.7**
	1.5 **5'**	5.8	**12,410**	*6.3	***15,590**	3.2	**6,880**	*5.1	***11,020**	2.1	**4,550**	3.3	**7,190**	1.6	**3,630**	2.6	**5,730**	7.1 / **23.2**
	0 **0'**	5.5	**11,800**	*5.8	***13,460**	3.0	**6,540**	5.0	**10,780**	2.0	**4,380**	3.3	**7,020**	1.7	**3,670**	2.7	**5,850**	6.9 / **22.7**
	-1.5 **-5'**	5.5	**11,740**	*9.3	***20,920**	3.0	**6,410**	5.0	**10,630**	2.0	**4,330**	3.2	**6,960**	1.8	**4,080**	3.0	**6,530**	6.4 / **20.9**
	-3 **-10'**	5.6	**11,950**	*8.7	***18,860**	3.0	**6,500**	5.0	**10,730**					2.4	**5,260**	3.8	**8,490**	5.4 / **17.6**
	-4.5 **-15'**																	
Boom 4.6 m **15' 1"** + Arm 3.0 m **9' 10"**	6 **20'**													2.3	**5,060**	*2.7	***6,050**	6.0 / **19.5**
	4.5 **15'**									2.3	**4,880**	*2.8	***6,130**	1.8	**3,910**	*2.6	***5,650**	6.9 / **22.6**
	3 **10'**					*3.4	**7,420**	*3.4	***7,450**	2.2	**4,710**	*3.1	***6,870**	1.5	**3,390**	2.4	**5,380**	7.4 / **24.3**
	1.5 **5'**	5.9	**12,600**	*7.3	***15,680**	3.2	**6,870**	*4.6	***10,000**	2.1	**4,480**	3.3	**7,130**	1.4	**3,180**	2.3	**5,100**	7.6 / **24.8**
	0 **0'**	5.4	**11,680**	*6.2	***14,520**	3.0	**6,430**	5.0	**10,690**	2.0	**4,270**	3.2	**6,910**	1.5	**3,200**	2.3	**5,170**	7.4 / **24.3**
	-1.5 **-5'**	5.3	**11,450**	*8.4	***19,280**	2.9	**6,230**	4.9	**10,450**	1.9	**4,160**	3.2	**6,790**	1.6	**3,500**	2.6	**5,680**	6.9 / **22.7**
	-3 **-10'**	5.4	**11,570**	*9.1	***19,650**	2.9	**6,250**	4.9	**10,470**					1.9	**4,330**	3.2	**7,030**	6.0 / **19.7**
	-4.5 **-15'**	5.6	**12,050**	*7.2	***15,350**									3.1	**7,020**	*4.5	***10,010**	4.5 / **14.3**

Notes : 1. Machine in “Fine Mode - F” (Power Boost), for lift capacities.
2. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift 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
5. Contains metric and U.S. measurement charts.

Courtesy of Machine.Market

LIFTING CAPACITY (At the arm end without bucket)

Note: For lift capacity including bucket, simply subtract actual weight of the pin on bucket or the bucket with quick coupler from the following values.

EC140LCM (Std. shoe 600 mm, **24"**, Counterweight 1750 kg, **3,860 lb**)

Across under-carriage / Along under-carriage	Lifting hook related to ground level m / ft	3 m, **10'**				4.5 m, **15'**				6 m, **20'**				Max.reach				Max. m/ft
		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	
Boom 4.6 m **15' 1"** + Arm 2.1 m **6' 11"**	6 **20'**					*3.3	***7,390**	*3.3	***7,390**					3.1	**7,180**	*3.5	***7,760**	5.0 / **16.2**
	4.5 **15'**					*3.6	***7,760**	*3.6	***7,760**					2.3	**5,220**	3.6	***7,930**	6.1 / **19.7**
	3 **10'**	6.5	***14,020**	*6.6	***14,020**	3.5	**7,680**	*4.5	***9,650**	2.3	**5,010**	3.6	**7,790**	2.0	**4,470**	3.1	**6,940**	6.6 / **21.5**
	1.5 **5'**					3.3	**7,250**	5.4	**11,710**	2.2	**4,850**	3.5	**7,600**	1.9	**4,220**	3.0	**6,600**	6.7 / **22.0**
	0 **0'**	*5.6	**12,610**	*5.6	***13,020**	3.2	**6,980**	5.2	**11,410**	2.2	**4,730**	3.4	**7,470**	1.9	**4,340**	3.1	**6,830**	6.5 / **21.3**
	-1.5 **-5'**	5.8	**12,670**	*9.4	***20,420**	3.2	**6,930**	5.2	**11,350**					2.2	**4,960**	3.5	**7,870**	5.9 / **19.3**
	-3 **-10'**	6.0	**12,970**	*8.1	***17,380**	3.3	**7,130**	5.3	***11,340**					3.0	**6,890**	4.9	***10,870**	4.7 / **15.4**
	-4.5 **-15'**																	
Boom 4.6 m **15' 1"** + Arm 2.5 m **8' 2"**	6 **20'**					*2.8	***6,320**	*2.8	***6,320**					2.7	**6,210**	*3.2	***7,090**	5.5 / **17.9**
	4.5 **15'**					*3.2	***6,890**	*3.2	***6,890**	2.4	**5,160**	*3.2	***7,130**	2.1	**4,710**	*3.1	***6,820**	6.5 / **21.1**
	3 **10'**	*5.7	***12,080**	*5.7	***12,080**	3.6	**7,750**	*4.1	***8,840**	2.3	**5,020**	*3.6	***7,770**	1.8	**4,090**	2.8	**6,360**	6.9 / **22.8**
	1.5 **5'**	*5.8	**13,060**	*5.8	***14,220**	3.3	**7,270**	*5.2	***11,260**	2.2	**4,830**	3.5	**7,590**	1.7	**3,870**	2.7	**6,070**	7.1 / **23.2**
	0 **0'**	5.8	**12,540**	*6.0	***13,970**	3.2	**6,940**	5.2	**11,370**	2.1	**4,670**	3.4	**7,420**	1.8	**3,950**	2.8	**6,240**	6.9 / **22.6**
	-1.5 **-5'**	5.7	**12,500**	*9.6	***20,810**	3.1	**6,840**	5.2	**11,250**	2.1	**4,630**	3.4	**7,380**	2.0	**4,440**	3.1	**7,050**	6.3 / **20.7**
	-3 **-10'**	5.9	**12,740**	*8.6	***18,500**	3.2	**6,950**	5.2	**11,390**					2.6	**5,830**	4.1	**9,360**	5.3 / **17.1**
	-4.5 **-15'**																	
Boom 4.6 m **15' 1"** + Arm 3.0 m **9' 10"**	6 **20'**													2.3	**5,190**	*2.7	***5,980**	6.1 / **19.9**
	4.5 **15'**									2.4	**5,170**	*2.8	***6,170**	1.8	**4,090**	*2.6	***5,630**	7.0 / **22.9**
	3 **10'**	*4.5	***9,610**	*4.5	***9,610**	*3.6	***7,690**	*3.6	***7,690**	2.3	**4,990**	*3.2	***6,970**	1.6	**3,590**	2.5	***5,640**	7.4 / **24.4**
	1.5 **5'**	6.1	**13,220**	*7.6	***16,280**	3.3	**7,240**	*4.7	***10,250**	2.2	**4,750**	3.5	**7,520**	1.5	**3,400**	2.4	**5,400**	7.6 / **24.8**
	0 **0'**	5.7	**12,390**	*6.3	***14,680**	3.1	**6,830**	5.2	**11,270**	2.1	**4,550**	3.3	**7,300**	1.5	**3,460**	2.5	**5,530**	7.4 / **24.2**
	-1.5 **-5'**	5.6	**12,200**	*8.8	***20,120**	3.0	**6,650**	5.1	**11,060**	2.0	**4,460**	3.3	**7,200**	1.7	**3,820**	2.7	**6,120**	6.9 / **22.5**
	-3 **-10'**	5.7	**12,360**	*9.0	***19,390**	3.1	**6,690**	5.1	**11,110**					2.1	**4,780**	3.4	**7,690**	5.9 / **19.3**
	-4.5 **-15'**	5.9	**12,890**	*6.9	***14,570**									3.5	**8,390**	*4.6	***10,450**	4.2 / **13.3**

Notes : 1. Machine in “Fine Mode - F” (Power Boost), for lift capacities.
2. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift 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
5. Contains metric and U.S. measurement charts.

Courtesy of Machine.Market

STANDARD EQUIPMENT

Engine

Low-emission engine with air heater, complying with EPA (Environment Protection Association, USA) emission standards
2-stage air filter with indicator
Pre-cleaner
Electric engine shut-off
Fuel filter and water separator
Alternator, 50 AMP

Electronic control system

Advanced control system (ACS)
Integrated mode selection system
Self-diagnostic system
Machine status indication
Engine speed sensing power control
Automatic idling system
One-touch power boost
Automatic engine warm-up
Safety stop/start function
Adjustable monitor
Master disconnect switch
Engine restart prevention circuit
Travel Alarm

Powerful halogen lights:
- Frame mounted 2
- Boom mounted 2

Batteries, 2 x 12V/150Ah
Start motor, 24V/3.7kW
Pump flow control for hammer & shear

Hydraulic system

Automatic sensing work mode
- Summation system
- Boom priority
- Arm priority
- Swing priority

Boom and arm flow regeneration
Swing anti-rebound valve
Boom and arm holding valves
Pilot-operated, wrist control joysticks, with 3 switches ea.
Multi-stage filtering system
Cylinder cushions
Cylinder contamination seals
Auxiliary hydraulic valve
Straight travel circuit
Volvo quick coupler piping
Hammer/shear piping, with 1 pump flow
Automatic two-speed travel motors
Hydraulic oil, ISO VG 46

Superstructure

Access way with handrail
Full height counterweight
- 1750 kg, **3,860 lbs**

Tool storage area
Punched metal anti-slip plates

Cab and interior

Air-conditioner
Heater
Hydraulic dampening cab mounts
Adjustable operator seat and control consoles
Flexible antenna
Hydraulic safety lock lever
Cab, all-weather sound suppressed, includes:
- Ashtray
- Fabric seat with heater
- Cigar lighter
- Clear tinted roof hatch
- Door locks
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt
- Safety glass
- Sliding rear window
- Sun shield, front
- Windshield wiper with intermittent feature

Master ignition key
Stereo cassette radio (AM/FM)
Vandal guard preparation

Undercarriage

Hydraulic track adjusters
Greased and sealed track chain
Track guides

Track shoes

LC: Std. track shoes 600 mm, **24"** with triple grousers
LCM: Std. track shoes 600 mm, **24"** with triple grousers

Attachment

Std. boom: 4.6 m, **15' 1"**
Std. arm (LC): 2.5 m, **8' 2"**
Std. arm (LCM): 3.0 m, **9' 10"**

OPTIONAL EQUIPMENT

Engine

Alternator, 70 AMP
Block and oil pan heater, 120V
Fuel warmer
Tropical kit
Fuel filler pump: 50 lpm (13.2 gpm), with automatic shut-off

Electronic control system

Extra work lights-(4):
- Cab mounted-3, (front 2, rear 1)
- Counterweight mounted-1,

Rotating warning beacon

Hydraulic system

Hydraulic piping
- Hammer & shear:
  2 pump flow
  Extra piping for slope & rotator
- Slope & rotator
- Grapple
- Oil leak line

Volvo hydraulic quick coupler-S6 size
Hydraulic oil, ISO VG 32
Hydraulic oil, ISO VG 68

Superstructure

Undercover (heavy duty), 4.5 mm, (.18")

Cab and interior

Fabric seat
Fabric seat, with heater and air suspension
Control joystick, with 5 switches ea.
Falling object guard (FOG)
Cab mounted falling object protective structures (FOPS)
Rain shield, front
Safety screen for front window
Vandalism kit

Undercarriage

Undercover (heavy duty), 10 mm, (.39")
Skid rails

Track shoes

LC: 500 / 700 / 750 mm
20" / 28" / 30"
track shoes with triple grousers
LCM: 700 / 800 / 900 mm
28" / 32" / 36"
track shoes with triple grousers

Attachment

Arms: 2.1 m / 2.5 / 3.0 m
6' 11"/ 8' 2"/ 9' 10"

Service

Tool kit

*Specifications may vary by the region without notice.
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VOLVO

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