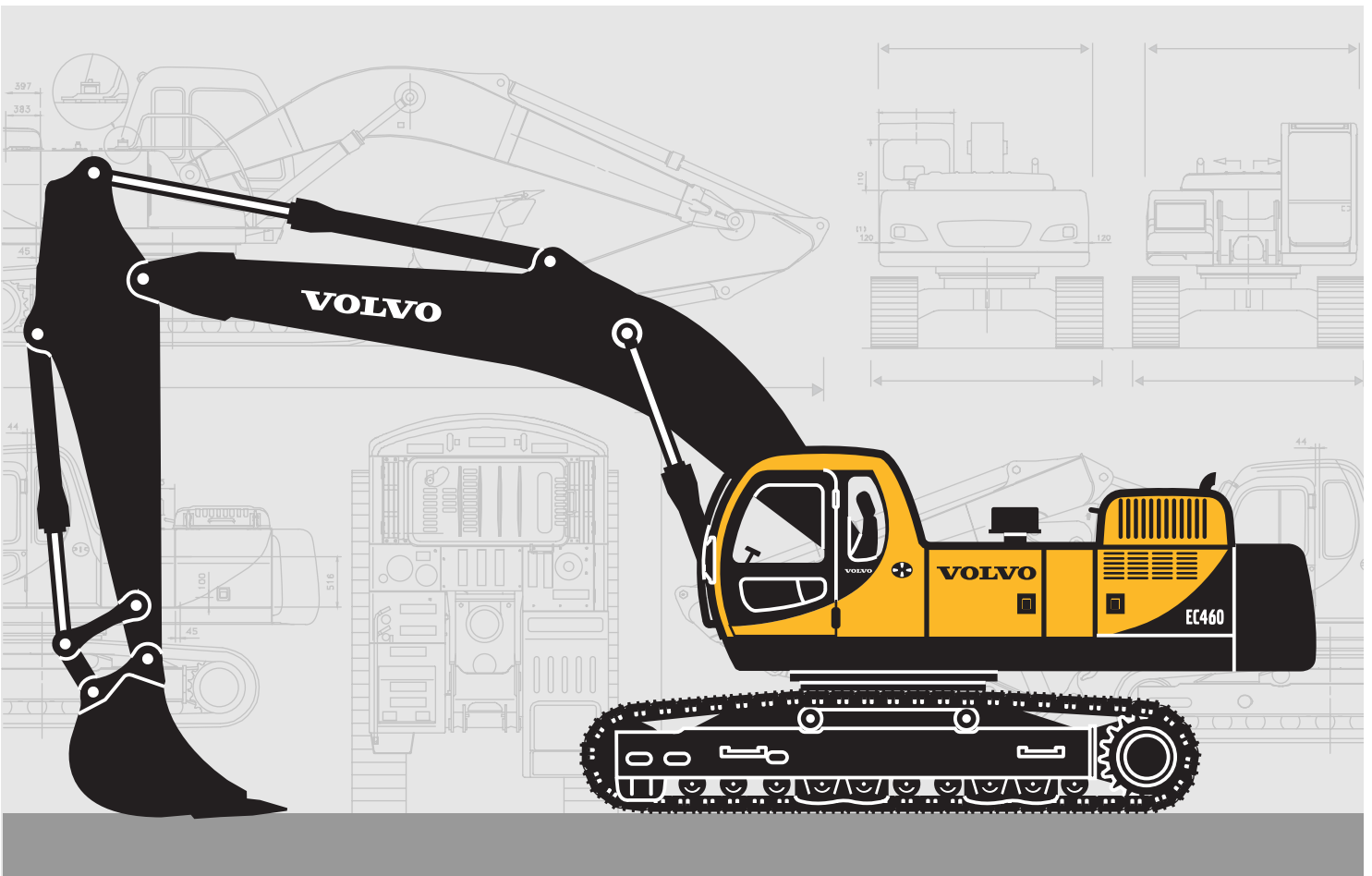


VOLVO EXCAVATOR

# EC460



- **Engine power, gross:**  
239 kW 321 hp
- **Operating weight:**  
44.3 ~ 46.0 t  
97,570 ~ 101,470 lb
- **Buckets (SAE):**  
1750 ~ 3850 l  
2.29 ~ 5.04 yd<sup>3</sup>
- 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
- Long undercarriage for good stability
- Prepared for a number of optional items

**VOLVO**



## 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 .....	M11-C	
Power output at .....	33 r/s	<b>2000 rpm</b>
Net (ISO 9249/DIN 6271) ...	221 kW	<b>296 hp</b>
Gross (SAE J1349) .....	239 kW	<b>321 hp</b>
Max. torque .....	1177 N·m at 1500 rpm	
	<b>868 lb-ft at 1500 rpm</b>	
No. of cylinders .....	6	
Displacement .....	10.8 l	<b>659 cu.in</b>
Bore .....	125 mm	<b>4.92"</b>
Stroke .....	147 mm	<b>5.79"</b>



## 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 .....	200 Ah
Alternator .....	24 V / 50 A



## SERVICE REFILL CAPACITIES

Fuel tank .....	665 l	<b>176 gal</b>
Hydraulic system, total .....	540 l	<b>143 gal</b>
Hydraulic tank .....	285 l	<b>75 gal</b>
Engine oil .....	34 l	<b>9 gal</b>
Engine coolant .....	49 l	<b>13 gal</b>
Swing reduction units .....	2 x 6.0 l	<b>2 x 1.6 gal</b>
Travel reduction units .....	2 x 5.0 l	<b>2 x 1.3 gal</b>



## SWING SYSTEM

The superstructure is swung by the means of two axial piston motors and planetary reduction units. Automatic swing holding brakes and anti-rebound valves are standard.

Max. swing speed ..... 8.0 rpm



## UNDERCARRIAGE

The undercarriage has an X-shaped frame.

The greased and sealed track chain is standard.

No. of track pads .....	2 x 52
Link pitch .....	216 mm <b>8.5"</b>
Shoe width, triple grouser .....	600/700/750(Std.)/800/900 mm
	<b>24"/28"/30"(Std.)/32"/36"</b>
Shoe width, double grouser ...	600 mm <b>24"</b>
No. of lower track rollers .....	2 x 10
No. of upper rollers .....	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.

Max. tractive effort .....	320.7 kN
	<b>72,100 lb</b>
Max. travel speed(1st/2nd) .....	2.8 / 4.3 km/h
	<b>1.7/2.7 mph</b>
Gradeability .....	35° <b>70 %</b>



## 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 arm flow 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 330 l/min **2 x 87 gpm**

#### Pilot pump:

Type ..... Gear pump

Maximum flow ..... 30 l/min **7.9 gpm**

### Hydraulic motors

Travel ..... 2 x variable displacement axial piston motors

Swing ..... 2 x fixed displacement piston motors with mechanical brakes

### Relief valve setting

Attachment ..... 31.4/34.3 MPa **4550/4980 psi**

Travel circuit ..... 31.3 MPa **4550 psi**

Swing circuit ..... 24.5 MPa **3560 psi**

Pilot circuit ..... 3.9 MPa **570 psi**

### Hydraulic cylinders

Boom ..... 2  
bore x stroke ..... Ø 165 mm x 1590 mm  
**Ø 6.5" x 62.6"**

Arm ..... 1  
bore x stroke ..... Ø 190 mm x 1880 mm  
**Ø 7.5" x 74.0"**

Bucket ..... 1  
bore x stroke ..... Ø 165 mm x 1335 mm  
**Ø 6.5" x 52.6"**



## 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)	106 dB(A)
Operator's position (ISO 6396)	
with the door closed	
mean value of $L_{PA}$ (sound pressure level)	75 dB(A)

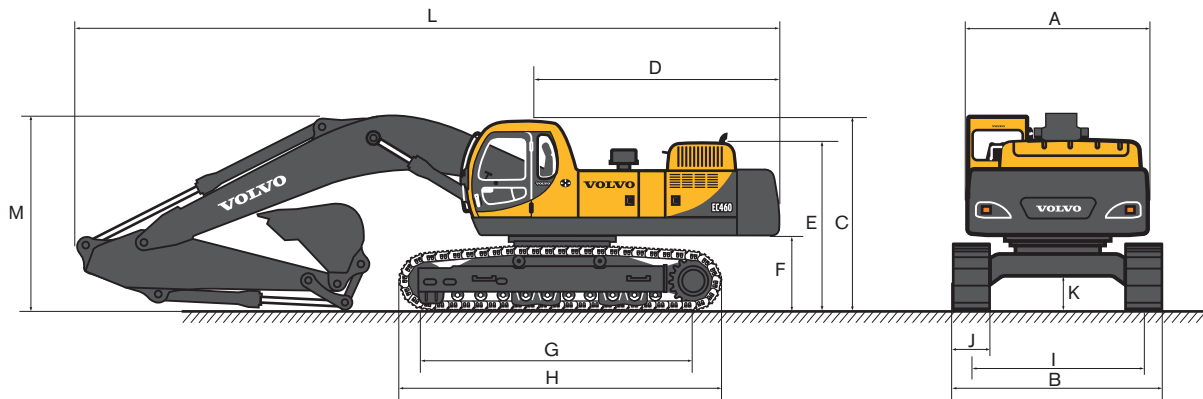


## GROUND PRESSURE

• Machine with Std. 7.0 m, 23' 0" boom, Std. 3.35 m, 11' 0" arm, 1730 kg, 3,810 lb bucket and 9300 kg, 20,510 lb counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm 24"	44500 kg 98,120 lb	77.5 kPa 11.2 psi	3470 mm 11' 5"
	700 mm 28"	45000 kg 99,230 lb	66.7 kPa 9.7 psi	3570 mm 11' 9"
	Std. 750 mm Std. 30"	45240 kg 99,750 lb	62.8 kPa 9.1 psi	3620 mm 11' 11"
	800 mm 32"	45550 kg 100,330 lb	58.8 kPa 8.5 psi	3670 mm 12' 0"
	900 mm 36"	46020 kg 101,470 lb	53.0 kPa 7.7 psi	3770 mm 12' 4"
Double grouser	600 mm 24"	44250 kg 97,570 lb	76.5 kPa 11.1 psi	3470 mm 11' 5"

## DIMENSIONS

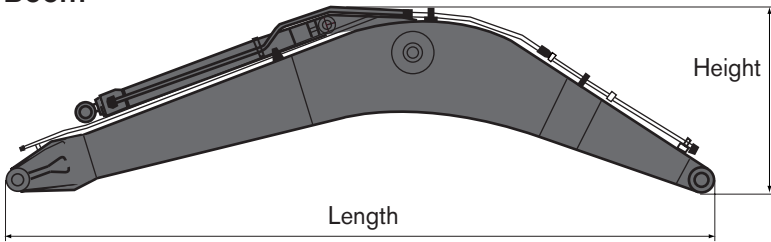


Boom	unit	6.3 m, 20' 8"		Std. 7.0 m, 23' 0"		
Arm		2.55 m, 8' 4"	2.55 m, 8' 4"	Std. 3.35 m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
A. Overall width of upper structure	mm, ft-in	2990, 9' 10"	2990, 9' 10"	2990, 9' 10"	2990, 9' 10"	2990, 9' 10"
B. Overall width	mm, ft-in	3620, 11' 11"	3620, 11' 11"	3620, 11' 11"	3620, 11' 11"	3620, 11' 11"
C. Overall height of cab	mm, ft-in	3230, 10' 7"	3230, 10' 7"	3230, 10' 7"	3230, 10' 7"	3230, 10' 7"
D. Tail swing radius	mm, ft-in	3730, 12' 3"	3730, 12' 3"	3730, 12' 3"	3730, 12' 3"	3730, 12' 3"
E. Overall height of engine hood	mm, ft-in	2850, 9' 4"	2850, 9' 4"	2850, 9' 4"	2850, 9' 4"	2850, 9' 4"
F. Counterweight clearance*	mm, ft-in	1250, 4' 1"	1250, 4' 1"	1250, 4' 1"	1250, 4' 1"	1250, 4' 1"
G. Tumbler length	mm, ft-in	4370, 14' 4"	4370, 14' 4"	4370, 14' 4"	4370, 14' 4"	4370, 14' 4"
H. Track length	mm, ft-in	5370, 17' 7"	5370, 17' 7"	5370, 17' 7"	5370, 17' 7"	5370, 17' 7"
I. Track gauge	mm, ft-in	2870, 9' 5"	2870, 9' 5"	2870, 9' 5"	2870, 9' 5"	2870, 9' 5"
J. Shoe width-Std.	mm, in	750, 30"	750, 30"	750, 30"	750, 30"	750, 30"
K. Min. ground clearance*	mm, ft-in	525, 1' 9"	525, 1' 9"	525, 1' 9"	525, 1' 9"	525, 1' 9"
L. Overall length	mm, ft-in	11390, 37' 4"	12090, 39' 8"	12040, 39' 6"	12090, 39' 8"	11870, 38' 11"
M. Overall height of boom	mm, ft-in	4120, 13' 6"	3980, 13' 1"	3650, 12' 0"	3860, 12' 8"	4790, 15' 9"

\* Without shoe grouser

## DIMENSIONS

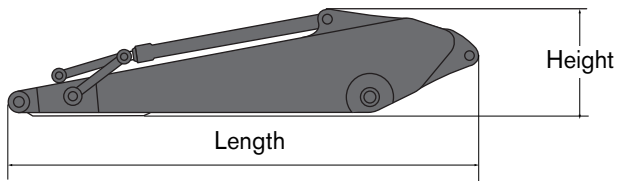
### •Boom



Description	6.3 m, 20' 8"	Std. 7.0 m, 23' 0"
Length	6550 mm, 21' 6"	7240 mm, 23' 9"
Height	2000 mm, 6' 7"	1840 mm, 6' 0"
Width	960 mm, 3' 2"	960 mm, 3' 2"
Weight *	3870 kg, 8,530 lb	3925 kg, 8,650 lb

\* Includes cylinder, piping and pin

### •Arm



Description	2.55 m, 8' 4"	Std. 3.35 m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
Length	3620 mm, 11' 11"	4555 mm, 14' 11"	5115 mm, 16' 9"	6080 mm, 19' 11"
Height	1235 mm, 4' 1"	1140 mm, 3' 9"	1230 mm, 4' 0"	1230 mm, 4' 0"
Width	600 mm, 2' 0"	600 mm, 2' 0"	600 mm, 2' 0"	600 mm, 2' 0"
Weight *	2110 kg, 4,650 lb	2365 kg, 5,210 lb	2505 kg, 5,520 lb	2905 kg, 6,410 lb

\* Includes cylinder, linkage and pins

## BUCKET & ARM COMBINATION

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

- Max. permitted sizes for pin on buckets:

Counterweight: 9300 kg, **20,510 lb**

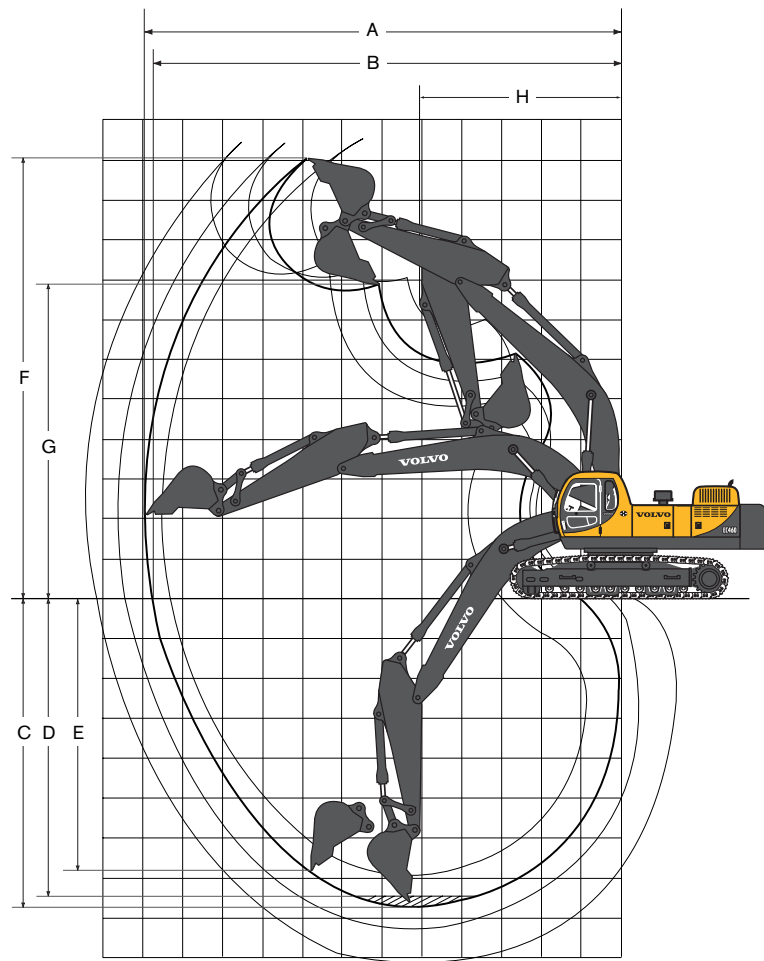
Boom	unit	6.3 m, 20' 8"	Std. 7.0 m, 23' 0"			
Arm		2.55 m, 8' 4"	2.55 m, 8' 4"	Std. 3.35 m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
GP bucket 1.5 t/m <sup>3</sup> , <b>2,530 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3850, <b>5.04</b>	3375, <b>4.41</b>	3075, <b>4.02</b>	2825, <b>3.70</b>	2475, <b>3.24</b>
GP bucket 1.8 t/m <sup>3</sup> , <b>3,030 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3350, <b>4.38</b>	2950, <b>3.86</b>	2675, <b>3.50</b>	2475, <b>3.24</b>	2175, <b>2.84</b>
RB bucket 1.8 t/m <sup>3</sup> , <b>3,030 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3100, <b>4.05</b>	2725, <b>3.56</b>	2475, <b>3.24</b>	2275, <b>2.98</b>	2000, <b>2.62</b>
RB bucket 2.0 t/m <sup>3</sup> , <b>3,370 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	2875, <b>3.76</b>	2525, <b>3.30</b>	2300, <b>3.01</b>	2125, <b>2.78</b>	1850, <b>2.42</b>

- Max. permitted sizes for hook on buckets:

Counterweight: 9300 kg, **20,510 lb**

Boom	unit	6.3 m, 20' 8"	Std. 7.0 m, 23' 0"			
Arm		2.55 m, 8' 4"	2.55 m, 8' 4"	Std. 3.35 m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
GP bucket 1.5 t/m <sup>3</sup> , <b>2,530 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3700, <b>4.84</b>	3250, <b>4.25</b>	2925, <b>3.83</b>	2700, <b>3.53</b>	2350, <b>3.07</b>
GP bucket 1.8 t/m <sup>3</sup> , <b>3,030 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3250, <b>4.25</b>	2825, <b>3.70</b>	2575, <b>3.37</b>	2350, <b>3.07</b>	2050, <b>2.68</b>
RB bucket 1.8 t/m <sup>3</sup> , <b>3,030 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	3000, <b>3.92</b>	2625, <b>3.43</b>	2375, <b>3.11</b>	2175, <b>2.84</b>	1900, <b>2.49</b>
RB bucket 2.0 t/m <sup>3</sup> , <b>3,370 lb/yd<sup>3</sup></b>	l, yd <sup>3</sup>	2775, <b>3.63</b>	2425, <b>3.17</b>	2200, <b>2.88</b>	2025, <b>2.65</b>	1750, <b>2.29</b>

## WORKING RANGES



### • Pin on bucket

Boom	unit	6.3 m, 20' 8"	Std. 7.0 m, 23' 0"			
Arm		2.55 m, 8' 4"	2.55 m, 8' 4"	Std. 3.35m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
A. Max. digging reach	mm, ft-in	10810, 35' 6"	11520, 37' 10"	12100, 39' 8"	12630, 41' 5"	13370, 43' 10"
B. Max. digging reach on ground	mm, ft-in	10570, 34' 8"	11290, 37' 0"	11890, 39' 0"	12420, 40' 9"	13180, 43' 3"
C. Max. digging depth	mm, ft-in	6320, 20' 9"	6940, 22' 9"	7740, 25' 5"	8290, 27' 2"	9190, 30' 2"
D. Max. digging depth (8' level)	mm, ft-in	6140, 20' 2"	6770, 22' 3"	7590, 24' 11"	8160, 26' 9"	9080, 29' 9"
E. Max. vertical wall digging depth	mm, ft-in	5130, 16' 10"	5870, 19' 3"	6920, 22' 8"	7430, 24' 5"	7920, 26' 0"
F. Max. cutting height	mm, ft-in	11130, 36' 6"	11570, 38' 0"	11220, 36' 10"	11480, 37' 8"	11490, 37' 8"
G. Max. dumping height	mm, ft-in	7500, 24' 7"	7940, 26' 1"	7790, 25' 7"	8050, 26' 5"	8140, 26' 8"
H. Min. front swing radius	mm, ft-in	4450, 14' 7"	5020, 16' 6"	5050, 16' 7"	4980, 16' 4"	5090, 16' 8"















### • Digging forces with pin on bucket

Boom	unit	6.3 m, 20' 8"	Std. 7.0 m, 23' 0"			
Arm		2.55 m, 8' 4"	2.55 m, 8' 4"	Std. 3.35m, 11' 0"	3.9 m, 12' 10"	4.8 m, 15' 9"
Bucket tip radius	mm, in	1850, 73"	1850, 73"	1850, 73"	1850, 73"	1850, 73"
Breakout force-bucket (Normal / Power boost)	SAE	kN lb 218.8 / 239.3 49,190 / 53,800	218.8 / 239.3 49,190 / 53,800	218.8 / 239.3 49,190 / 53,800	218.8 / 239.3 49,190 / 53,800	218.8 / 239.3 49,190 / 53,800
Tearout force-arm (Normal / Power boost)	SAE	kN lb 227.4 / 248.7 51,130 / 55,920	227.4 / 248.7 51,130 / 55,920	188.5 / 206.1 42,380 / 46,350	170.2 / 186.2 38,280 / 41,870	155.6 / 170.2 34,990 / 38,280
Rotation angle, bucket	°	183°	183°	183°	183°	183°

## 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.

### EC460 (Std. shoe 750 mm, 30", counterweight 9300 kg, 20,510 lb)

 Across under-carriage  Along under-carriage	Lifting hook related to ground level m / ft	4.5 m, 15'		6 m, 20'		7.5 m, 25'		9 m, 30'		Max.reach				Max. m / ft		
		 		 		 		 		 		 				
		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb		t	lb
Boom 6.3 m 20' 8" + Arm 2.55 m 8' 4"	7.5 25'													11.2 25,280	*12.2 *27,210	7.2 / 23.4
	6 20'					*13.2 *28,750	*13.2 *28,750	10.6 22,880	*12.3 *27,120					9.3 20,620	*11.2 *24,840	8.1 / 26.5
	4.5 15'	*19.2 *41,180	*19.2 *41,180	14.6 31,420	*14.9 *32,340	10.4 22,450	*13.0 *28,250							8.3 18,320	*10.8 *23,790	8.7 / 28.4
	3 10'			13.9 30,070	*16.9 *36,650	10.1 21,820	*13.9 *30,230							7.8 17,240	*10.8 *23,710	8.9 / 29.3
	1.5 5'			13.4 29,000	*18.5 *40,090	9.9 21,250	*14.8 *32,010							7.7 17,030	*11.1 *24,390	8.9 / 29.3
	0 0'	20.2 43,400	*20.7 *49,320	13.2 28,410	*19.2 *41,550	9.7 20,910	15.0 32,250							8.0 17,660	*11.7 *25,890	8.7 / 28.4
	-1.5 -5'	20.2 43,510	*24.7 *53,580	13.1 28,310	*18.7 *40,530	9.7 20,920	*14.5 *31,330							8.8 19,420	*12.7 *27,890	8.1 / 26.6
-3 -10'	20.5 44,120	*21.9 *47,350	13.3 28,720	*16.7 *35,940									10.5 23,270	*12.3 *27,000	7.2 / 23.6	
-4.5 -15'																
Boom 7.0 m 23' 0" + Arm 2.55 m 8' 4"	7.5 25'							10.7 23,040	*11.0 *24,330					9.4 20,990	*11.3 *25,050	8.1 / 26.3
	6 20'					*12.7 *27,450	*12.7 *27,450	10.6 22,760	*11.3 *24,770					8.0 17,720	*11.2 *24,590	8.9 / 29.1
	4.5 15'			14.2 30,640	*14.7 *31,690	10.2 22,090	*12.3 *26,690	7.8 16,720	*11.2 *24,460	7.2 15,990	10.9 24,130	9.4 / 30.8				
	3 10'			13.5 29,140	*16.8 *36,240	9.9 21,330	*13.4 *29,030	7.6 16,410	11.5 24,860	6.9 15,140	10.4 22,930	9.6 / 31.6				
	1.5 5'			13.0 28,090	*18.3 *39,520	9.6 20,700	*14.3 *31,020	7.5 16,100	11.4 24,530	6.8 14,970	10.3 22,740	9.6 / 31.6				
	0 0'			12.8 27,600	*18.8 *40,800	9.4 20,320	14.7 31,620	7.4 15,950	11.3 24,370	7.0 15,430	10.7 23,510	9.4 / 30.8				
	-1.5 -5'	*19.2 42,610	*19.2 *45,320	12.8 27,550	*18.5 *40,080	9.4 20,260	*14.6 31,540							7.6 16,730	11.6 *25,540	8.9 / 29.1
-3 -10'	20.1 43,160	*21.8 *47,390	12.9 27,880	*17.1 *37,050	9.5 20,610	*13.3 *28,530							8.7 19,390	*11.5 *25,270	8.1 / 26.4	
-4.5 -15'	*18.1 *38,890	*18.1 *38,890	13.3 28,780	*14.0 *29,600									*10.7 *23,530	*10.7 *23,530	6.8 / 22.2	
Boom 7.0 m 23' 0" + Arm 3.35 m 11' 0"	7.5 25'							*9.6 *21,170	*9.6 *21,170					*7.9 *17,490	*7.9 *17,490	8.8 / 28.6
	6 20'							*10.2 *22,290	*10.2 *22,290	8.0 17,150	*9.8 *21,540	7.2 16,040	*7.7 *16,920	9.5 / 31.2		
	4.5 15'	*17.3 *36,960	*17.3 *36,960	*13.2 *28,570	*13.2 *28,570	10.3 22,300	*11.3 *24,500	7.8 16,830	*10.2 *22,360	6.6 14,560	*7.7 *16,910	10.0 / 32.8				
	3 10'	20.7 44,740	*22.0 *47,120	13.7 29,510	*15.5 *33,450	9.9 21,420	*12.5 *27,140	7.6 16,380	*10.9 *23,710	6.3 13,790	*7.9 *17,370	10.2 / 33.5				
	1.5 5'	*14.2 *34,160	*14.2 *34,160	13.1 28,160	*17.4 *37,520	9.6 20,640	*13.6 *29,570	7.4 15,950	11.3 24,410	6.2 13,570	*8.3 *18,300	10.2 / 33.6				
	0 0'	*17.4 *40,630	*17.4 *40,630	12.7 27,370	*18.4 *39,840	9.3 20,100	*14.4 *31,210	7.3 15,650	11.2 24,080	6.3 13,870	*9.0 *19,910	10.0 / 32.8				
	-1.5 -5'	19.4 41,740	*24.8 *53,920	12.6 27,090	*18.6 *40,230	9.2 19,870	14.5 31,150	7.2 15,570	11.1 23,990	6.7 14,820	*10.2 *22,580	9.5 / 31.2				
-3 -10'	19.6 42,140	*23.3 *50,540	12.6 27,220	*17.8 *38,550	9.3 19,970	*14.0 *30,270							7.6 16,760	*11.3 *24,900	8.8 / 28.7	
-4.5 -15'	20.0 43,000	*20.5 *44,120	12.9 27,800	*15.8 *33,920									9.3 20,750	*11.4 *25,090	7.7 / 24.9	











- Notes :
- Machine in "Fine Mode-F" (Power Boost), for lift capacities.
  - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift Capacity Standards.
  - Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
  - Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load
  - Contains metric and U.S. measurement charts.



## 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.

### EC460 (Std. shoe 750 mm, 30", counterweight 9300 kg, 20,510 lb)

 Across under-carriage  Along under-carriage	Lifting hook related to ground level m / ft	4.5 m, 15'		6 m, 20'		7.5 m, 25'		9 m, 30'		Max.reach				Max. m / ft								
																						
		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb		t	lb	t	lb				
Boom 7.0 m 23' 0" + Arm 3.9 m 12' 10"	7.5 25'									8.2	17,440	*8.9	*17,480	*6.6	*14,490	*6.6	*14,490	9.4 / 30.6				
	6 20'								*9.4	*20,580	*9.4	*20,580	8.1	17,330	*9.1	*19,920	*6.4	*14,050	*6.4	*14,050	10.1 / 33.0	
	4.5 15'					*12.2	*26,310	*12.2	*26,310	10.4	22,490	*10.5	*22,920	7.9	16,920	*9.6	*21,030	6.1	13,380	*6.4	*14,040	10.5 / 34.5
	3 10'	*20.1	*43,200	*20.1	*43,200	13.8	29,860	*14.5	*31,390	10.0	21,540	*11.9	*25,730	7.6	16,410	*10.4	*22,580	5.8	12,710	*6.5	*14,350	10.8 / 35.3
	1.5 5'	*18.7	42,930	*18.7	*44,800	13.1	28,330	*16.6	*35,920	9.6	20,670	*13.1	*28,430	7.4	15,910	*11.1	*24,150	5.7	12,500	*6.9	*15,080	10.8 / 35.3
	0 0'	*18.8	41,670	*18.8	*43,610	12.7	27,330	*18.0	*38,900	9.3	20,020	*14.0	*30,440	7.2	15,520	11.1	23,960	5.8	12,730	*7.4	*16,280	10.5 / 34.6
	-1.5 -5'	19.2	41,350	*23.8	*54,410	12.5	26,870	*18.5	*40,010	9.1	19,670	14.4	30,960	7.1	15,330	11.0	23,750	6.1	13,490	*8.2	*18,240	10.1 / 33.1
	-3 -10'	19.3	41,570	*24.0	*52,060	12.5	26,860	*18.1	*39,150	9.1	19,640	*14.2	*30,760	7.1	15,440	11.1	23,870	6.8	15,030	*9.7	*21,450	9.4 / 30.7
-4.5 -15'	19.7	42,270	*21.7	*46,910	12.6	27,260	*16.6	*35,780	9.3	20,020	*12.9	*27,550					8.1	18,030	*10.8	*23,850	8.3 / 27.2	
-6 -20'	*17.5	*37,170	*17.5	*37,170	13.1	*27,550	*13.1	*27,550									*10.6	*23,330	*10.6	*23,330	6.8 / 22.0	
Boom 7.0 m 23' 0" + Arm 4.8 m 15' 9"	9 30'												*7.7	*14,940	*7.7	*14,940	*6.5	*14,370	*6.5	*14,370	9.3 / 30.2	
	7.5 25'												*7.5	*16,680	*7.5	*16,680	*6.2	*13,670	*6.2	*13,670	10.2 / 33.4	
	6 20'												*7.9	*17,320	*7.9	*17,320	5.8	12,870	*6.1	*13,400	10.9 / 35.6	
	4.5 15'								*9.2	*20,040	*9.2	*20,040	7.9	17,010	*8.6	*18,700	5.3	11,830	*6.1	*13,480	11.3 / 37.0	
	3 10'	*17.0	*36,440	*17.0	*36,400	*12.8	*27,550	*12.8	*27,550	10.1	21,710	*10.6	*23,070	7.6	16,380	*9.4	*20,480	5.1	11,240	*6.3	*13,870	11.5 / 37.7
	1.5 5'	20.3	43,730	*21.2	*45,790	13.3	28,570	*15.1	*32,690	9.6	20,660	*12.1	*26,130	7.3	15,760	*10.3	*22,350	5.0	11,020	*6.6	*14,600	11.5 / 37.7
	0 0'	19.3	41,550	*22.7	*51,500	12.6	27,200	*16.9	*36,600	9.2	19,810	*13.2	*28,670	7.1	15,240	11.0	23,700	5.1	11,150	*7.1	*15,740	11.3 / 37.1
	-1.5 -5'	18.9	40,630	*24.4	*53,680	12.3	26,420	*17.9	*38,810	8.9	19,250	*14.0	*30,290	6.9	14,890	10.8	23,320	5.3	11,680	*7.9	*17,540	10.9 / 35.7
-3 -10'	18.8	40,490	*24.5	*53,100	12.1	26,140	*18.1	*39,160	8.8	19,030	14.1	30,300	6.9	14,790	10.8	23,200	5.8	12,790	9.0	19,930	10.2 / 33.5	
-4.5 -15'	19.0	40,910	*23.1	*49,880	12.2	26,300	*17.3	*37,420	8.9	19,150	*13.6	*29,240	6.9	15,040	*10.7	*22,730	6.7	14,860	*10.1	*22,300	9.3 / 30.3	
-6 -20'	19.5	41,890	*20.1	*43,180	12.5	26,950	*15.2	*32,580	9.1	19,790	*11.6	*24,310					8.5	19,050	*10.4	*22,950	8.0 / 25.8	

- Notes :
- Machine in "Fine Mode-F" (Power Boost), for lift capacities.
  - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift Capacity Standards.
  - Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
  - Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load
  - Contains metric and U.S. measurement charts.

## 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  
"Power Max" mode system  
Automatic idling system  
One-touch power boost  
Automatic engine warm-up  
Safety stop/start function  
Adjustable monitor  
Master disconnect switch

Engine restart prevention circuit  
Powerful halogen lights:  
- Frame mounted 2  
- Boom mounted 4  
Batteries, 2 x 12V/200Ah  
Start motor, 24V/7.8kW  
Travel alarm

### Hydraulic system

Automatic sensing work mode  
- Summation system  
- Boom priority  
- Arm priority  
- Swing priority  
Arm flow regeneration  
Swing anti-rebound valves  
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  
Automatic two-speed travel motors  
Hydraulic oil, ISO VG 46

### Superstructure

Access way with handrail  
Full height counterweight  
- 9300 kg, **20,510 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  
- Cigar lighter  
- Clear tinted roof hatch  
- Door locks  
- Fabric seat with heater  
- 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

Std. track shoes 750 mm, **30"** with triple grousers

### Attachment

Std. boom: 7.0 m, **23' 0"**  
Std. arm: 3.35 m, **11' 0"**

## 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

Pump flow control for hammer & shear  
Extra work lights-4:  
- Cab mounted-3, (front 2, rear 1)  
- Counterweight mounted-1  
Rotating warning beacon

### Superstructure

Undercover (heavy duty), 4.5 mm, (.18")  
Service walk  
Counterweight removal system

### Hydraulic system

Hydraulic piping  
- Hammer & shear:  
1 pump flow  
2 pump flow  
Additional return filter  
Extra piping for slope & rotator  
- Slope & rotator  
- Grapple  
- Oil leak line  
Volvo quick coupler piping  
Volvo hydraulic quick coupler-S3 size  
Hydraulic oil, ISO VG 32  
Hydraulic oil, ISO VG 68

### 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

Full track guides  
Undercover (heavy duty), 10 mm, (.39")

### Track shoes

600 / 700 / 800 / 900 mm  
**24" / 28" / 32" / 36"**  
track shoes with triple grousers  
600 mm, **24"** track shoes with double grousers

### Attachment

Boom: 6.0 m, **19' 8"** heavy duty  
Arms: 2.55 m / 3.9 m / 4.8 m  
**8' 4" / 12' 10" / 15' 9"**

### Service

Tool kit

\*Specifications may vary by the region without notice.

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\*Materials and specifications are subject to change without notice.

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# VOLVO

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