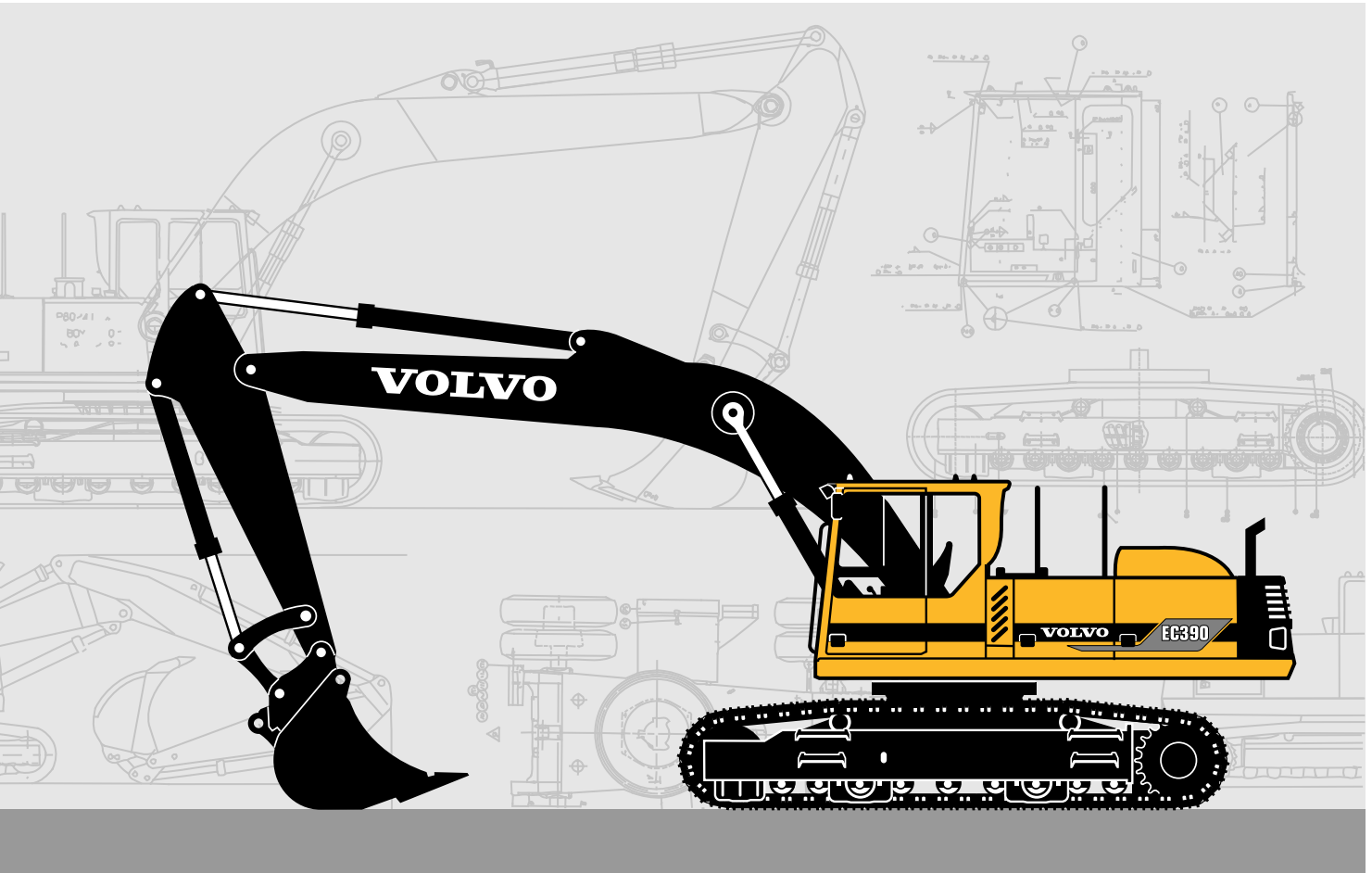


VOLVO EXCAVATOR

EC390



- **Engine power, gross:**
190 kW, 258 hp
- **Operating weight:**
39,0 – 40,9 t,
85,980 – 90,170 lb
- **Buckets:** 1 600 – 3 000 l,
2.09 – 3.92 yd³
- Low emission, turbocharged Volvo diesel engine with direct injection
- Mode selector and electronically controlled Speed Sensing Control
- 3 pumps in 3 circuits. Each movement of the digging equipment is prioritized by its own circuit, ensuring independent movements and good precision.
- Care Cab
 - computerized monitoring system, Contronic E
 - ergonomic environment
 - low sound level
 - filtered air
- Rugged digging equipment with spherical steel bearings
- High lifting, breakout and tearout forces for tough digging conditions
- Long undercarriage for good stability
- Swing circuit in oil bath
- Prepared for a number of optional items of equipment
- Low transport dimensions
- High travel speed – 4,5 km/h,
2.8 mph

VOLVO



ENGINE

The engine is a low-emission, turbocharged, 4-stroke diesel engine with intercooler, specially developed for excavator use. The machine can work at low engine speeds, contributing to good fuel economy, low sound level, less wear and longer life. Daily checkup of oil and coolant levels etc. is done directly from the cab.

Air filter: 3-stage

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

Make	Volvo
Model	TD 103 KAE
Power output at	28,3 r/s, 1700 rpm
Net (ISO 9249 / SAE J1349)	182 kW, 247 hp
Gross (SAE J1349)	190 kW, 258 hp
No. of cylinders	6
Displacement, total	9,6 l, 586 in³
Bore	120,65 mm, 4.75 in
Stroke	140 mm, 5.51 in



ELECTRICAL SYSTEM

Well-protected electrical system with high capacity. Electrical distribution box based on printed circuit boards contains clearly arranged fuses and relays. The distribution box is prepared for connection of optional equipment. Battery disconnecter is standard.

Advanced **Contronic E monitoring system**, offering exhaustive information on machine status and enabling the operator to seek specific information and make his own adjustments, is standard. Alarms are indicated on the display in the form of flashing lights, with supplementary information in plain text.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	170 Ah
Alternator	28 V / 55 A
Alternator rating	1540 W



SWING SYSTEM

The superstructure is rotated by means of an axial piston motor and a planetary gearbox. Swing priority with 3 power positions. Automatic swing holding brake. The swing circle runs in an oil bath.

Swing speed..... **8.6 rpm**

* Empty bucket – extended equipment.



SERVICE REFILL CAPACITIES

Fuel tank	720 l, 190 gal
Hydraulic system, total	470 l, 124 gal
Diesel engine oil	37,5 l, 9.9 gal
Cooling system incl. glycol	58 l, 15.3 gal
Swing ring	24 l, 6.3 gal



UNDERCARRIAGE

Undercarriage with robust frame construction. Permanently lubricated rollers and front idlers. Three derailing shields are standard.

The undercarriage is operated by means of rocker pedals.

Track chain size	D85
No. of track shoes	2 x 51
Track gauge, standard	700 mm, 27.6 in
optional	600/800/900 mm
.....	23.6/31.5/35.4 in
No. of bottom rollers	2 x 9
No. of top rollers,	2 x 2
optional, skid rails	2 x 1



DRIVE

Each track is powered by an axial piston motor. The track brakes are of the multi-disc type, spring-applied and hydraulically released. Travel motor, brakes and planetary gears are well protected in the track frame.

Max. tractive force	374 kN, 84,080 lbf
Max. travel speed	4,5 km/h, 2.8 mph
Gradeability	49° (115%)



CARE CAB

Easily accessible cab with wide door opening. Lined with sound-absorbent material. The cab mountings are vibration-inhibiting. Large glazed surfaces all around. The upper windshield pane can be slid up under the ceiling and the lower one can be removed. Sliding side window in the cab door.

Cab heater and defroster: Pressurized and filtered cab air is supplied by a 3-speed fan underneath the operator's seat. The air passes through the cab heater and can be distributed via 14 nozzles. Prepared for air conditioning.

Ergonomic operator's seat: Electrically heated operator's seat with adjustable suspension and headrest. The fore/aft position, height and angle of the seat are adjustable, as is the lumbar support. Individually adjustable armrests and control levers.

Exterior noise (ISO 6393)	
mean value of L _{WA} (sound power level)	108 dB(A)
Operator's position (ISO 6394)	
with the door closed	
mean value of L _{pA} (sound pressure level)	74 dB(A)



GROUND PRESSURE

Machine with 7,0 m, **23'** boom, 2,9 m, **9'6"** stick, 300 kg, **660 lb** quick fit, 1 750 kg, **3860 lb** bucket and 7 300 kg, **16,100 lb** counterweight.

Track gauge	Operating weight	Ground pressure
600 mm, 23.6 in	39 200 kg, 86,420 lb	69,4 kPa, 10.1 psi
700 mm, 27.6 in	39 700 kg, 87,520 lb	60,2 kPa, 8.73 psi
800 mm, 31.5 in	40 200 kg, 88,630 lb	53,3 kPa, 7.73 psi
900 mm, 35.4 in	40 700 kg, 89,730 lb	48,0 kPa, 6.96 psi



HYDRAULIC SYSTEM

The three-circuit hydraulic system, named "Excellence", is designed for high digging capacity, high manoeuvring precision and good fuel economy.

The three working pumps are power-controlled, and each can be directed to its own particular equipment movement for precision work. One pump is prioritized to the swing movement.

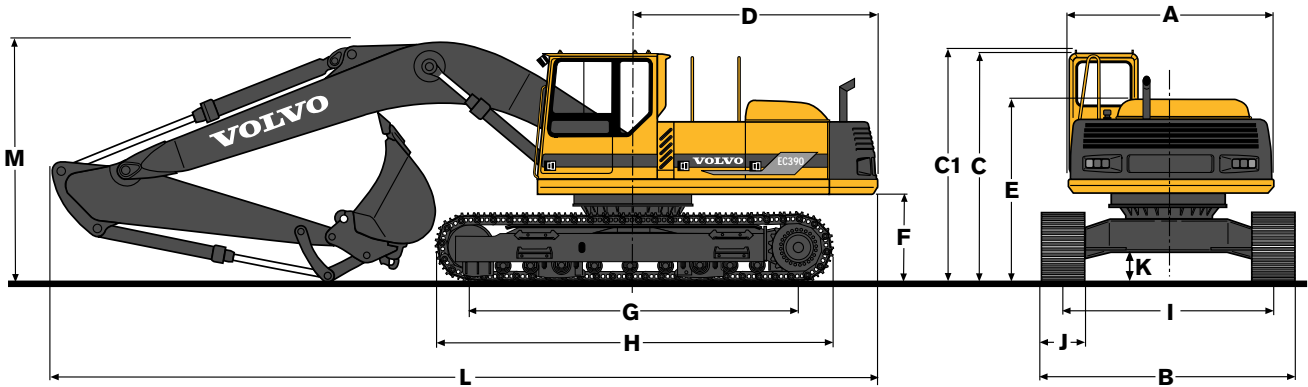
The following important functions are included in the system:

- Power Booster (HLD)** – All digging, lifting and tractive forces are increased
- Swing priority** – Power distribution between boom lift and swing movement to obtain best performance
- Decelerator** – Permits digging speed to be varied during a digging cycle (saves fuel)
- Float position** – For more efficient topsoil stripping and grapple work and better operator comfort and fuel economy

Automatic Decelerator and Speed Sensing Control are also included for optimum utilization of the engine. Hose rupture valves on the boom cylinders are standard.

Pump P1 (swing, bucket, optional equipment)		
Max. pressure	31 MPa	4500 psi
Max. flow	203 l/min	53.6 gpm
Pumps P2 and P3 (boom, stick, bucket, travel motors, optional equipment)		
Max. pressure	31 MPa	4500 psi
Max. pressure with HLD	35 MPa	5080 psi
Max. flow	2 x 253 l/min	2 x 66.8 gpm
Servo pump		
Pressure	6,5 MPa	940 psi
Flow	21 l/min	5.5 gpm
Fan pump		
Pressure	21 MPa	3050 psi
Flow	29 l/min	7.7 gpm

DIMENSIONS



A: 2 950 mm 9'8"	L: 10 600 mm 34'9"	(6,0 m, 19'8" boom, 2,2 m, 7'3" stick – ME equipment)
B: 3 500/ 3 600/ 3 700/ 3 800 mm 11'6"/11'10"/12'2"/12'6"	L: 10 500 mm 34'5"	(6,0 m, 19'8" boom, 2,4 m, 7'10" , 2,9 m, 9'6" and 3,5 m, 11'6" stick)
C: 3 190 mm 10'6"	L: 11 600 mm 38'1"	(7,0 m, 23' boom, 2,4 m, 7'10" stick)
C1: 3 240 mm 10'8"	L: 11 500 mm 37'9"	(7,0 m, 23' boom, 2,9 m, 9'6" and 3,5 m, 11'6" stick)
D: 3 300 mm 10'10"	M: 3 340 mm 10'11"	(6,0 m, 19'8" boom, 2,2 m, 7'3" stick – ME equipment)
E: 2 540 mm 8'4"	M: 3 250 mm ¹⁾ 10'8"	(6,0 m, 19'8" boom, 2,4 m, 7'10" stick)
F: 1 260 mm 4'2"	M: 3 390 mm ¹⁾ 11'1"	(6,0 m, 19'8" boom, 2,9 m, 9'6" stick)
G: 4 260 mm 14'	M: 3 570 mm ¹⁾ 11'9"	(6,0 m, 19'8" boom, 3,5 m, 11'6" stick)
H: 5 260 mm 17'3"		
I: 2 900 mm 9'6"	M: 3 350 mm ¹⁾ 11'	(7,0 m, 23' boom, 2,4 m, 7'10" stick)
J: 600/700/800/900 mm 23.6"/27.6"/31.5"/35.4"	M: 3 490 mm ²⁾ 11'5"	(7,0 m, 23' boom, 2,9 m, 9'6" stick)
K: 490 mm 19.3"	M: 3 510 mm ³⁾ 11'6"	(7,0 m, 23' boom, 3,5 m, 11'6" stick)

¹⁾ 3 240 mm **10'8"** without bucket

²⁾ 3 320 mm **10'11"** without bucket

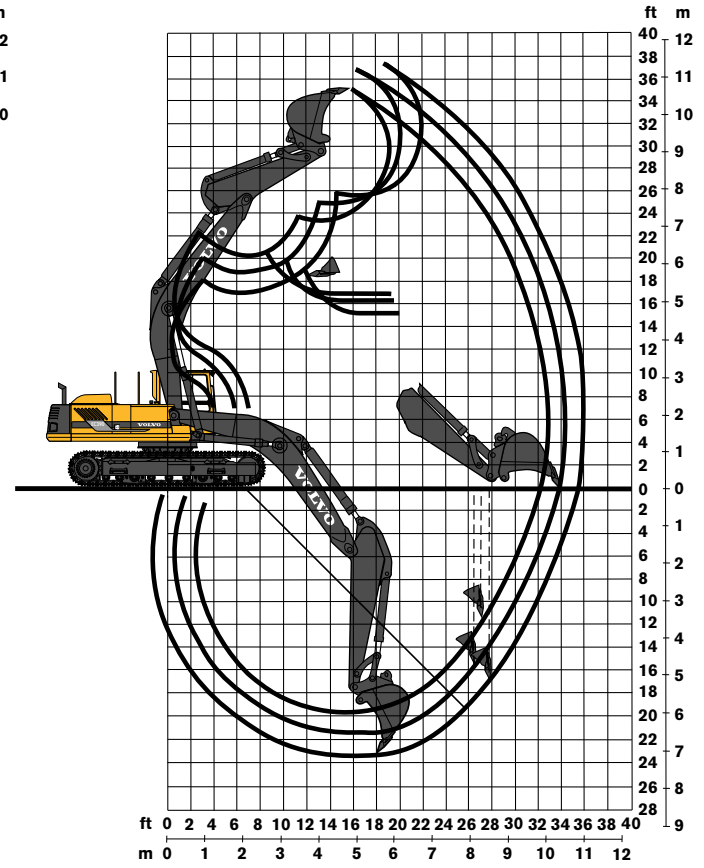
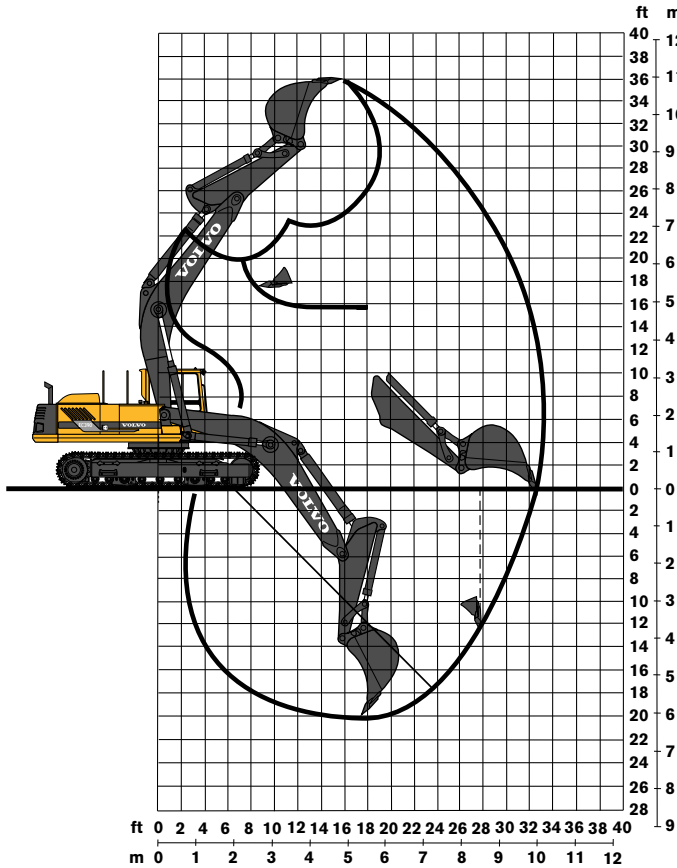
³⁾ 3 330 mm **10'11"** without bucket

ME = Mass Excavation

WORKING RANGES

Monobloc boom 6,0 m, **19'8"** and
stick 2,2 m, **7'3"** – ME digging equipment

Monobloc boom 6,0 m, **19'8"** and
stick 2,4/2,9/3,5 m, **7'10"/9'6"/11'6"**



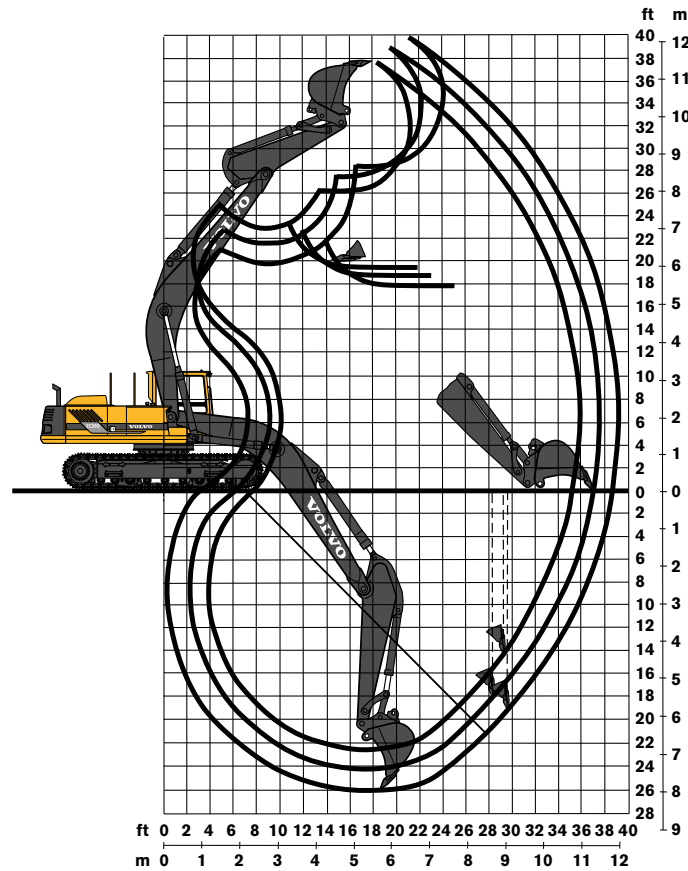
Monobloc boom	6,0 m, 19'8"	6,0 m, 19'8"	6,0 m, 19'8"	6,0 m, 19'8"
Stick	2,2 m, 7'3"	2,4 m, 7'10"	2,9 m, 9'6"	3,5 m, 11'6"
Max. reach	10,2 m, 33'6"	10,0 m, 32'10"	10,6 m, 34'9"	11,1 m, 36'5"
Max. reach at ground level	10,0 m, 32'10"	9,8 m, 32'2"	10,4 m, 34'1"	10,9 m, 35'9"
Max. digging depth	5,8 m, 19'	6,0 m, 19'8"	6,5 m, 21'4"	7,1 m, 23'4"
Max. height ground – tooth tip	10,8 m, 35'5"	10,7 m, 35'1"	11,2 m, 36'9"	11,4 m, 37'5"
Max. dumping height	7,0 m, 23'	7,1 m, 23'4"	7,6 m, 24'11"	7,8 m, 25'7"
Max. practical dumping height	4,8 m, 15'9"	5,1 m, 16'9"	4,9 m, 16'1"	4,6 m, 15'1"
Practical digging depth for a material with a 45° angle of repose	5,2 m, 17'1"	5,0 m, 16'5"	5,4 m, 17'9"	5,8 m, 19'
Max. vertical digging depth	3,7 m, 12'2"	3,6 m, 11'10"	4,7 m, 15'5"	5,0 m, 16'5"
Min. front swing radius	3,1 m, 10'2"	3,2 m, 10'6"	3,1 m, 10'2"	3,1 m, 10'2"

Digging forces with pin-on GP bucket:	3 000 l, 3.92 yd³		1 900 l, 2.49 yd³	
Breakout force	260 kN, 58,450 lbf	255 kN, 57,330 lbf	255 kN, 57,330 lbf	255 kN, 57,330 lbf
Tearout force	208 kN, 46,760 lbf	204 kN, 45,860 lbf	181 kN, 40,690 lbf	159 kN, 35,740 lbf
Rotation angle, bucket	155°	175°	175°	175°

Max. permitted buckets for quick fit:				
GP bucket (1,8 t/m ³ , 3030 lb/yd³)	–	2 910 l, 3.81 yd³	2 630 l, 3.44 yd³	2 400 l, 3.14 yd³
RB bucket (2,0 t/m ³ , 3370 lb/yd³)	–	2 580 l, 3.37 yd³	2 330 l, 3.05 yd³	2 100 l, 2.75 yd³
Max. permitted pin-on buckets:				
GP bucket (1,8 t/m ³ , 3030 lb/yd³)	3 010 l, 3.94 yd³	3 010 l, 3.94 yd³	2 720 l, 3.56 yd³	2 470 l, 3.23 yd³
RB bucket (2,0 t/m ³ , 3370 lb/yd³)	2 670 l, 3.49 yd³	2 670 l, 3.49 yd³	2 410 l, 3.15 yd³	2 190 l, 2.86 yd³

WORKING RANGES

Monobloc boom 7,0 m, **23'** and
stick 2,4/2,9/3,5 m, **7'10"/9'6"/11'6"**















Monobloc boom	7,0 m, 23'	7,0 m, 23'	7,0 m, 23'
Stick	2,4 m, 7'10"	2,9 m, 9'6"	3,5 m, 11'6"
Max. reach	11,1 m, 36'5"	11,6 m, 38'1"	12,1 m, 39'8"
Max. reach at ground level	10,9 m, 35'9"	11,4 m, 37'5"	12,0 m, 39'4"
Max. digging depth	6,9 m, 22'8"	7,4 m, 24'3"	8,0 m, 26'3"
Max. height ground – tooth tip	11,5 m, 37'9"	12,0 m, 39'4"	12,2 m, 40'
Max. dumping height	7,9 m, 25'11"	8,4 m, 27'7"	8,6 m, 28'3"
Max. practical dumping height	5,9 m, 19'4"	5,7 m, 18'8"	5,5 m, 18'1"
Practical digging depth for a material with a 45° angle of repose	5,8 m, 19'	6,1 m, 20'	6,5 m, 21'4"
Max. vertical digging depth	4,4 m, 14'5"	5,5 m, 18'1"	5,8 m, 19'
Min. front swing radius	3,9 m, 12'10"	3,7 m, 12'2"	3,7 m, 12'2"

Digging forces with pin-on GP bucket:	1 900 l, 2.49 yd³		
Breakout force	255 kN, 57,330 lbf	255 kN, 57,330 lbf	255 kN, 57,330 lbf
Tearout force	204 kN, 45,860 lbf	181 kN, 40,690 lbf	159 kN, 35,740 lbf
Rotation angle, bucket	175°	175°	175°

Max. permitted buckets for quick fit:			
GP bucket (1,8 t/m ³ , 3030 lb/yd³)	2 310 l, 3.02 yd³	2 090 l, 2.73 yd³	1 880 l, 2.46 yd³
RB bucket (2,0 t/m ³ , 3370 lb/yd³)	2 050 l, 2.68 yd³	1 850 l, 2.42 yd³	1 670 l, 2.18 yd³
Max. permitted pin-on buckets:			
GP bucket (1,8 t/m ³ , 3030 lb/yd³)	2 410 l, 3.15 yd³	2 190 l, 2.86 yd³	1 980 l, 2.59 yd³
RB bucket (2,0 t/m ³ , 3370 lb/yd³)	2 130 l, 2.79 yd³	1 940 l, 2.54 yd³	1 750 l, 2.29 yd³













LIFTING CAPACITY (At the stick top without bucket. Unit: pounds.)

 Across carriage  Along carriage	Lifting hook related to ground level	Reach from machine centerline												
		15'		20'		25'		30'		Max. reach				
												Max. ft.		
Mass excavation equipment 6,0 m, 19'8" boom 2,2 m, 7'3" stick 700 mm, 27.6" track shoes	25'	28,850*	28,850*									20,250*	20,250*	18.9
	20'	29,820*	29,820*	26,160*	26,160*							21,700	18,950*	22.8
	15'	34,080*	34,080*	25,310	27,470*	18,330	20,160*					18,110	18,070*	25.2
	10'	35,880	39,490*	24,000	29,500*	17,720	24,590*					16,460	18,440*	26.4
	5'	34,520	41,910*	23,010	30,830*	17,200	24,770*					15,910	19,680*	26.6
	0'	34,110	40,100*	22,500	30,410*	16,940	23,800*					16,330	22,520*	25.8
	-5'	34,090	35,500*	22,460	27,640*							17,930	21,730*	24.0
	-10'	27,820*	27,820*	20,970*	20,970*							19,440*	19,440*	20.8
6,0 m, 19'8" boom 2,4 m, 7'10" stick 700 mm, 27.6" track shoes	25'	27,660*	27,660*									17,460*	17,460*	19.2
	20'	28,780*	28,780*	25,380*	25,380*							16,260*	16,260*	23.1
	15'	33,100*	33,100*	25,290	26,840*	18,250	19,410*					16,390*	16,390*	25.4
	10'	36,010	38,680*	23,980	29,020*	17,620	24,210*					16,170	16,940*	26.6
	5'	34,480	41,670*	22,970	30,570*	17,080	24,570*					15,610	18,400*	26.8
	0'	33,960	40,480*	22,410	30,440*	16,770	23,890*					15,990	21,520*	26.0
	-5'	33,890	36,280*	22,300	28,020*							17,510	22,070*	24.2
	-10'	29,040*	29,040*	22,110*	22,110*							20,270*	20,270*	21.1
6,0 m, 19'8" boom 2,9 m, 9'6" stick 700 mm, 27.6" track shoes	30'	18,830*	18,830*									16,290*	16,290*	15.8
	25'			19,000*	19,000*							13,730*	13,730*	21.6
	20'	25,330*	25,330*	23,570*	23,570*	13,530*	13,530*					12,970*	12,970*	25.1
	15'	30,980*	30,980*	25,440*	25,440*	18,210	22,240*					12,540*	12,540*	27.3
	10'	37,040*	37,040*	24,320	28,040*	17,600	23,380*					12,980*	12,980*	28.4
	5'	35,140	41,210*	23,230	30,130*	17,020	24,190*					13,790*	13,790*	28.6
	0'	34,270	41,440*	22,550	30,680*	16,630	24,090*					14,390	15,290*	27.9
	-5'	34,060	38,340*	22,290	29,060*	16,530	22,220*					15,600	18,290*	26.2
-10'	32,190*	32,190*	22,480	24,550*							18,420	19,390*	23.3	
-15'	21,370*	21,370*									17,040*	17,040*	18.1	
6,0 m, 19'8" boom 3,5 m, 11'6" stick 700 mm, 27.6" track shoes	25'			17,100*	17,100*							10,440*	10,440*	23.7
	20'			19,820*	19,820*	15,300*	15,300*					10,070*	10,070*	26.9
	15'	26,750*	26,750*	23,460*	23,460*	18,220	19,870*					9,660*	9,660*	29.0
	10'	34,210*	34,210*	24,500	26,360*	17,540	22,170*	10,240*	10,240*			10,240*	10,240*	30.0
	5'	35,430	39,500*	23,260	28,980*	16,880	23,360*	12,050*	12,050*			10,870*	10,870*	30.2
	0'	34,100	41,300*	22,390	30,250*	16,380	23,830*					12,360*	12,360*	29.5
	-5'	33,620	39,600*	21,960	29,550*	16,130	22,890*					13,950	14,720*	27.9
	-10'	33,720	34,790*	21,970	26,320*	16,260	19,320*					16,020	18,200*	25.3
-15'	26,090*	26,090*	18,930*	18,930*							17,080*	17,080*	21.1	

* Load capacity limited by machine's hydraulic lifting capacity.

The above values have been calculated in compliance with ISO standard 10567. They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load, with the machine on firm, level ground. Working pressure with HLD = 35 MPa (350 bar/**5080 psi**)

LIFTING CAPACITIES (At the stick top without bucket. Unit: pounds.)

 Across carriage  Along carriage	Lifting hook related to ground level	Reach from machine centerline														
		15'		20'		25'		30'		Max. reach		Max. ft				
																
7,0 m, 23' boom 2,4 m, 7'10" stick 700 mm, 27.6" track shoes	25'			21,810*	21,810*											
	20'	27,500*	27,500*	22,850*	22,850*	18,280	20,450*					16,880*	16,880*	23.8		
	15'	33,490*	33,490*	24,020	25,120*	17,490	21,220*					16,180	16,390*	27.0		
	10'			22,480	27,630*	16,650	22,300*	12,930	17,580*			14,030	16,530*	29.0		
	5'			21,440	29,140*	15,970	23,070*	12,580	18,600			12,870	16,560*	30.1		
	0'	24,710*	24,710*	20,930	29,010*	15,560	23,020*					12,480	18,440	30.2		
	-5'	32,550	33,810*	20,820	27,280*	15,460	21,760*					12,600	18,720	29.6		
	-10'	28,990*	28,990*	21,040	23,800*	15,760	18,400*					13,490	18,750*	28.0		
-15'	21,550*	21,550*	17,260*	17,260*							15,560	18,010*	25.3			
											15,730*	15,730*	21.2			
7,0 m, 23' boom 2,9 m, 9'6" stick 700 mm, 27.6" track shoes	30'			19,120*	19,120*							15,090*	15,090*	21.4		
	25'			20,080*	20,080*	17,150*	17,150*					13,380*	13,380*	26.0		
	20'	25,380*	25,380*	21,410*	21,410*	18,210	19,180*					12,680*	12,680*	29.0		
	15'	31,080*	31,080*	23,890*	23,890*	17,480	20,230*	13,150	17,190*			12,470*	12,470*	30.9		
	10'	34,040	37,420*	22,790	26,660*	16,660	21,560*	12,760	18,600*			12,470*	12,470*	30.9		
	5'			21,600	28,630*	15,940	22,610*	12,370	18,370			11,720	13,470*	31.8		
	0'	29,860*	29,860*	20,930	29,070*	15,460	22,910*	12,110	18,080			11,720	13,470*	31.8		
	-5'	31,960	35,820*	20,680	27,910*	15,250	22,110*					11,450	15,020*	32.0		
-10'	31,420*	31,420*	20,790	25,070*	15,360	19,640*					12,180	17,370*	29.9			
-15'	24,750*	24,750*	19,760*	19,760*							13,790	16,970*	27.4			
											15,520*	15,520*	23.6			
7,0 m, 23' boom 3,5 m, 11'6" stick 700 mm, 27.6" track shoes	25'					16,580*	16,580*					10,170*	10,170*	28.0		
	20'			19,600*	19,600*	17,720*	17,720*	12,700*	12,700*			9,770*	9,770*	30.8		
	15'	28,240*	28,240*	22,210*	22,210*	17,630	18,980*	13,160	17,030*			9,650*	9,650*	32.6		
	10'	34,800*	34,800*	23,180	25,260*	16,730	20,530*	12,680	17,720*			9,650*	9,650*	32.6		
	5'	32,820	35,730*	21,780	27,700*	15,920	21,870*	12,220	18,260			10,140*	10,140*	33.5		
	0'	31,870	35,330*	20,880	28,770*	15,310	22,550*	11,860	17,870			10,290	11,150*	33.6		
	-5'	31,620	37,320*	20,470	28,250*	14,990	22,230*	11,690	17,680			10,320	11,550*	33.1		
	-10'	31,740	33,590*	20,450	26,110*	14,960	20,540*					10,920	13,990*	31.6		
-15'	27,790*	27,790*	20,800	21,920*	15,340	16,460*					12,170	16,210*	29.3			
											14,750	15,430*	25.8			
7,0 m, 23' boom 3,5 m, 11'6" stick 900 mm, 35.4" track shoes	25'					16,580*	16,580*					10,170*	10,170*	28.0		
	20'			19,600*	19,600*	17,720*	17,720*	12,700*	12,700*			9,770*	9,770*	30.8		
	15'	28,240*	28,240*	22,210*	22,210*	18,040	18,980*	13,490	17,030*			9,650*	9,650*	32.6		
	10'	34,800*	34,800*	23,730	25,260*	17,150	20,530*	13,020	17,720*			10,140*	10,140*	33.5		
	5'	33,650	35,730*	22,320	27,700*	16,330	21,870*	12,550	18,330*			10,140*	10,140*	33.5		
	0'	32,700	35,330*	21,430	28,770*	15,730	22,550*	12,190	18,350			10,620	11,550*	33.1		
	-5'	32,440	37,320*	21,020	28,250*	15,400	22,230*	12,020	17,840*			10,920	13,990*	31.6		
	-10'	32,560	33,590*	20,990	26,110*	15,370	20,540*					11,230	13,990*	31.6		
-15'	27,790*	27,790*	21,350	21,920*	15,750	16,460*					12,510	16,210*	29.3			
											15,150	15,430*	25.8			

* Load capacity limited by machine's hydraulic lifting capacity.

The above values have been calculated in compliance with ISO standard 10567.

They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load, with the machine on firm, level ground. Working pressure with HLD = 35 MPa (350 bar/**5080 psi**)

STANDARD EQUIPMENT

Engine and electrical system

Contronic E – computerized monitoring and alarm system
 Battery disconnect and main fuel cock
 Decelerator – electronic idling speed
 Automatic idling speed
 Electronically controlled pump regulation (SSC)
 3-stage air filter with indicator
 Hour meter
 Tachometer
 Fuel level gauge
 Temperature gauge for coolant and hydraulic oil
 Electric preheating coil
 24 V electrical system with 2 batteries
 Well-protected electrical system based on printed circuit board
 Water separating fuel filter

Undercarriage

Swing circle in oil bath
 Hydraulic track tensioner
 Derailing shields, 3 per side
 Eyes for towing and tying, 4 pcs

Superstructure

Counterweight 7 300 kg, **16,100 lb**
 Access way with ladder

Safety and comfort

Safety bar to prevent accidental actuation via levers and pedals
 Hose rupture valve on boom cylinder
 Overload alarm
 Working lights(halogen):
 4 front, 1 rear
 Interior lighting in cab and engine compartment
 Rear-view mirrors:1 interior, 3 exterior
 Cab heating and filtered air intake
 Ergonomic, electrically heated operator's seat with seat belt
 Skylight of special plastic
 Sliding side window in cab door
 Emergency exit through rear window
 Tinted window glass (clear front)
 Interior sun visor
 Upper and lower windscreen wipers with intermittent function
 Windscreen washer

Air horn
 Silencer with spark arrester
 Oil draining cock on the engine
 Selectable swing holding brake automatics

Hydraulic system

Float position on boom
 3 variable axial piston pumps
 Mode Selector
 Power Boost (HLD)
 Wrist type control levers with four switches each
 Hydraulic cylinders with internal end dampening
 Swing priority
 Two speed travel motors with brake valves and brakes of multi-disc type
 Return filter of full flow type 13 µm (abs), 2000 h exchange interval
 Servo accumulator
 Hydraulically driven, thermostatically controlled cooling fan for the hydraulic oil cooler

Digging equipment

Spherical steel link bearings in all large pivot points
 Safety lifting hook – 14 t, **30,860 lb**
 Friction-welded piston rod eyes
 Attachment points for extra hydraulics

ALTERNATIVE EQUIPMENT

Undercarriage

Top rollers
 Skid rails

Track shoes

600/700/800/900 mm,
23.6"/27.6"/31.5"/35.4" track shoes with triple grousers and mud holes

Digging equipment

Boom
 6,0 m, **19'8"** monobloc
 7,0 m, **23'** monobloc

Stick

2,2 m, **7'3"** (Mass Excavation)
 2,4 m, **7'10"**
 2,9 m, **9'6"**
 3,5 m, **11'6"**

Buckets

Pin-on buckets and buckets for quick fit S3

GP-bucket
 2 800 l, **3.66 yd³**
 2 600 l, **3.40 yd³**
 2 400 l, **3.14 yd³**
 2 300 l, **3.00 yd³**
 2 100 l, **2.75 yd³**
 1 900 l, **2.49 yd³**

Rock bucket (RB)

2000 l, **2.62 yd³**
 1800 l, **2.35 yd³**
 1600 l, **2.09 yd³**

Pin-on bucket

GP-bucket (Mass excavation)
 3 000 l, **3.92 yd³**

Hydraulic quick fit S3

OPTIONAL EQUIPMENT

Engine and electrical system

Diesel-powered cab and engine heater with digital timer
 Electric engine heater, 220 V
 Protective net in front of the cooler
 Alternator 80 A
 Oil bath filter for improved filtering of the intake air
 Coolant filter

Undercarriage

Lockable storage box

Safety and comfort

Protective net for windscreen
 Protective bars for skylight (FOPS 3449-approved)
 Protective cab roof (FOGS ISO 10262-approved)
 Fire extinguisher
 Rotating warning beacon
 Vandal protective guards
 Extra headlights on boom
 Hydraulically powered fuelling pump, 90 l/min, **23.8 gpm** with overfilling protection
 Extra circulation pump for heating system – interval heating

Extra hose rupture valves – stick cylinder
 Exterior sun visor
 Rear window jalousie
 Air conditioning
 Microfilter for cab
 Food heater
 Radio with tape player
 Tool kit
 Service walk
 Travel alarm/Swinging alarm

Hydraulic system

Biodegradable hydraulic oil
 Hydraulic equipment for:
 A. Slope bucket/rotator
 B. Hammer/shears/grapple/clam shell
 C. Quick fit
 D. Hand tool
 E. Generator for lifting magnet (4th working pump)

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

**Volvo Construction
 Equipment**

One West Pack Square, Asheville, NC 28801

Ref. No. 22 1 430 0101 American English
 Printed in USA 9703 – 3,0 EXC