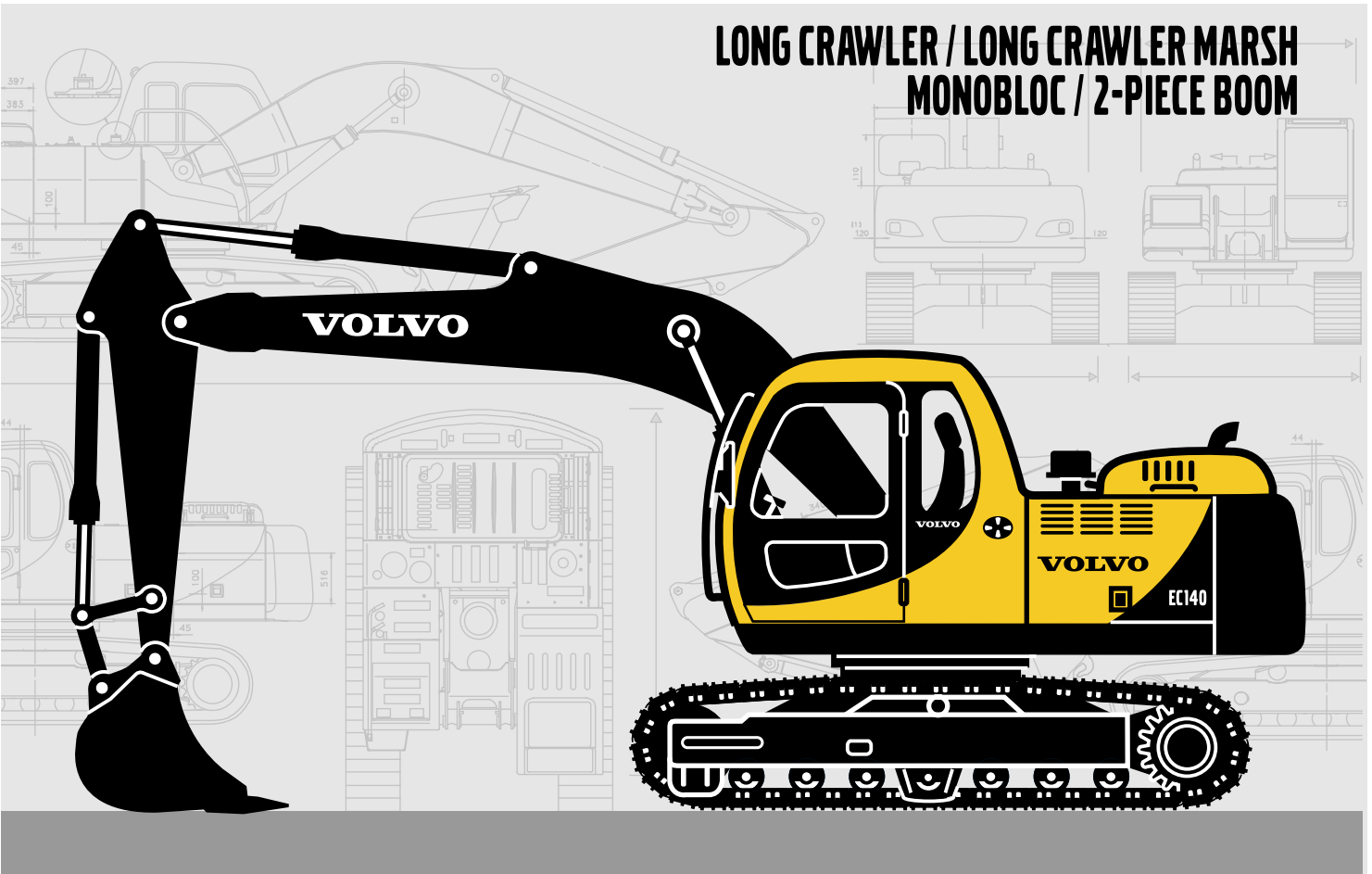


VOLVO EXCAVATOR

EC140

**LONG CRAWLER / LONG CRAWLER MARSH
MONOBLOC / 2-PIECE BOOM**



- Engine power, gross:
79.4 kW (107 hp)
- Operating weight:
 - LC: 13.2 ~ 14.0 t
 - LCM: 14.2 ~ 15.4 t
- Buckets (SAE):
350 ~ 750 l
- 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 digging equipment, 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
- Auxiliary hydraulic valve as standard
- 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	B3.9-C
Power output at	35 r/s (2100 rpm)
Net (ISO 9249/DIN 6271)	73.5 kW (100 ps / 99 hp)
Gross (SAE J1349).....	79.4 kW (108 ps / 107 hp)
Max. torque	431 N·m (44 kg·m) at 1600 rpm
No. of cylinders	4
Displacement	3.9 l
Bore	102 mm
Stroke	120 mm



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



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	11.2 rpm
------------------------	----------



SERVICE REFILL CAPACITIES

Fuel tank	260 l
Hydraulic system, total	235 l
Hydraulic tank	130 l
Engine oil	17.5 l
Engine coolant	23.6 l
Swing reduction unit	3.8 l
Travel reduction units	
LC	2 X 3.5 l
LCM	2 X 5.8 l



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
LCM	190 mm
Shoe width, triple grouser	
LC	500/600/700/750 mm
LCM	600/700/800/900 mm
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 hydraulically released.

The travel motors, brake and planetary gears are well-protected in the track frame.

LC	
Max. tractive effort	109.8 kN (11200 kg)
Max. travel speed (1st/2nd).....	3.2/5.5 km/h
Gradeability	35° (70 %)

LCM	
Max. tractive effort	140.2 kN (14300 kg)
Max. travel speed (1st/2nd).....	2.5/4.3 km/h
Gradeability	35° (70 %)



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: gives priority to the boom operation for fast raising when loading or deep excavating.

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

Swing priority: supplies priority to the swing operation for faster swing during simultaneous operations.

Regeneration system: enhances the cylinder life cycle to prevent cavitation and provides 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 pump:

Type 2 X variable displacement axial piston pumps
Maximum flow 2 X 120 l/min

Pilot pump:

Type Gear pump
Maximum flow 21 l/min

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 (320/350 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

Monobloc boom 2
bore X stroke \varnothing 105 mm X 985 mm
1st boom of 2-piece boom 2
bore X stroke \varnothing 110 mm X 955 mm
2nd boom of 2-piece boom 1
bore X stroke \varnothing 160 mm X 765 mm
Arm 1
bore X stroke \varnothing 120 mm X 1045 mm
Bucket 1
bore X stroke \varnothing 100 mm X 865 mm



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: Approved according to the Directive 86/662/EEC.

Exterior noise (ISO 6395)

mean value of L_{WA} (sound power level) 98 dB(A)

Operator's position (ISO 6396)

with the door closed

mean value of L_{PA} (sound pressure level) 72 dB(A)



GROUND PRESSURE

- LC undercarriage with 4.6 m boom, 2.5 m arm, 520 l (394 kg) bucket and 1750 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	13160 kg	39.2 kPa (0.40 kg/cm ²)	2490 mm
	600 mm	13370 kg	33.3 kPa (0.34 kg/cm ²)	2590 mm
	700 mm	13580 kg	29.4 kPa (0.30 kg/cm ²)	2690 mm
	750 mm	13690 kg	27.5 kPa (0.28 kg/cm ²)	2740 mm

- LCM undercarriage with 4.6 m boom, 2.5 m arm, 520 l (394 kg) bucket and 1750 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm	14220 kg	35.3 kPa (0.36 kg/cm ²)	2590 mm
	700 mm	14430 kg	30.4 kPa (0.31 kg/cm ²)	2690 mm
	800 mm	14820 kg	27.5 kPa (0.28 kg/cm ²)	2790 mm
	900 mm	15040 kg	24.5 kPa (0.25 kg/cm ²)	2890 mm

- LC undercarriage with 4.6 m boom, 2.5 m arm, 520 l (394 kg) bucket and 2100 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	13510 kg	40.2 kPa (0.41 kg/cm ²)	2490 mm
	600 mm	13720 kg	34.3 kPa (0.35 kg/cm ²)	2590 mm
	700 mm	13930 kg	30.4 kPa (0.31 kg/cm ²)	2690 mm
	750 mm	14040 kg	28.4 kPa (0.29 kg/cm ²)	2740 mm

- LCM undercarriage with 4.6 m boom, 2.5 m arm, 520 l (394 kg) bucket and 2100 kg counterweight.

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm	14570 kg	36.3 kPa (0.37 kg/cm ²)	2590 mm
	700 mm	14780 kg	31.4 kPa (0.32 kg/cm ²)	2690 mm
	800 mm	15170 kg	28.4 kPa (0.29 kg/cm ²)	2790 mm
	900 mm	15390 kg	25.5 kPa (0.26 kg/cm ²)	2890 mm

BUCKET & ARM COMBINATION

● LC undercarriage, Volvo GP bucket (curved side) and 1750 kg / 2100 kg* counterweight.

Bucket		Direct fit - GP bucket				Quick fit - GP bucket	
Bucket capacity (SAE / CECE)		350 / 320 l	500 / 450 l	600 / 540 l	750 / 670 l	500 / 450 l	600 / 540 l
Cutting width		600 mm	800 mm	900 mm	1100 mm	800 mm	900 mm
Weight		330 kg	390 kg	420 kg	490 kg	375 kg	410 kg
No. of teeth		3	4	4	5	4	4
Arm options	2.1 m	◎/◎*	◎/◎*	◎/◎*	○/◎*	◎/◎*	◎/◎*
	2.5 m	◎/◎*	◎/◎*	◎/◎*	□/○*	◎/◎*	◎/◎*
	3.0 m	◎/◎*	◎/◎*	○/○*	△/□*	◎/◎*	□/○*

● LCM undercarriage, Volvo GP bucket (curved side) and 1750 kg / 2100 kg* counterweight.

Bucket		Direct fit - GP bucket				Quick fit - GP bucket	
Bucket capacity (SAE / CECE)		350 / 320 l	500 / 450 l	600 / 540 l	750 / 670 l	500 / 450 l	600 / 540 l
Cutting width		600 mm	800 mm	900 mm	1100 mm	800 mm	900 mm
Weight		330 kg	390 kg	420 kg	490 kg	375 kg	410 kg
No. of teeth		3	4	4	5	4	4
Arm options	2.1 m	◎/◎*	◎/◎*	◎/◎*	○/◎*	◎/◎*	◎/◎*
	2.5 m	◎/◎*	◎/◎*	◎/◎*	□/○*	◎/◎*	◎/◎*
	3.0 m	◎/◎*	◎/◎*	○/◎*	□/□*	◎/◎*	○/◎*

◎ : Applicable for material density up to 2.0 t/m³

○ : Applicable for material density up to 1.8 t/m³

□ : Applicable for material density up to 1.5 t/m³

△ : Applicable for material density up to 1.2 t/m³

● Max. permitted sizes for direct fit buckets:

Description	Counter-weight	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
GP bucket 1.5 t/m ³	1750/2100 kg	900 / 975 l	825 / 900 l	725 / 775 l	950 / 1025 l	875 / 950 l	750 / 825 l
GP bucket 1.8 t/m ³	1750/2100 kg	775 / 850 l	725 / 775 l	625 / 675 l	825 / 900 l	750 / 825 l	675 / 725 l

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

2. "Max. permitted sizes" are for reference only and are not necessarily available from the factory.

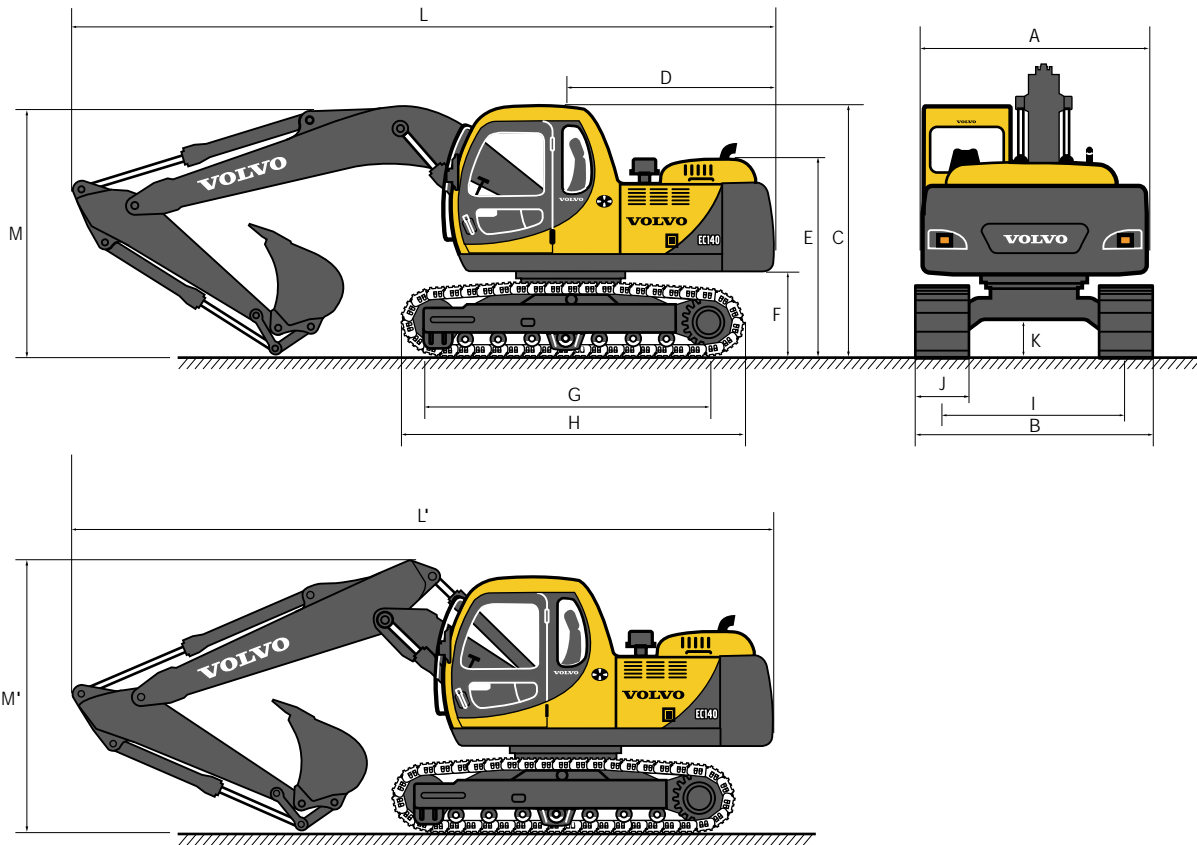
● Max. permitted sizes for quick fit buckets:

Description	Counter-weight	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
GP bucket 1.5 t/m ³	1750/2100 kg	850 / 925 l	775 / 850 l	675 / 750 l	900 / 975 l	825 / 900 l	725 / 800 l
GP bucket 1.8 t/m ³	1750/2100 kg	750 / 825 l	675 / 750 l	600 / 650 l	800 / 850 l	725 / 775 l	625 / 700 l

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

2. "Max. permitted sizes" are for reference only and are not necessarily available from the factory.

DIMENSIONS

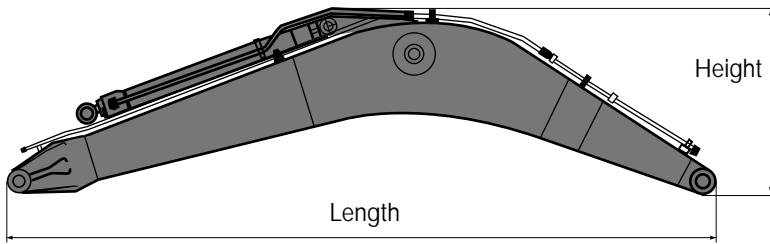


Undercarriage	unit	LC			LCM		
		2.1 m	2.5 m	3.0 m	2.1 m	2.5 m	3.0 m
A. Overall width of upper structure	mm	2450	2450	2450	2450	2450	2450
B. Overall width	mm	2590	2590	2590	2690	2690	2690
C. Overall height of cab	mm	2770	2770	2770	2960	2960	2960
D. Tail swing radius	mm	2200	2200	2200	2200	2200	2200
E. Overall height of engine hood	mm	2180	2180	2180	2370	2370	2370
F. Counterweight clearance*	mm	900	900	900	1090	1090	1090
G. Tumbler length	mm	3000	3000	3000	3000	3000	3000
H. Track length	mm	3740	3740	3740	3790	3790	3790
I. Track gauge	mm	1990	1990	1990	1990	1990	1990
J. Shoe width	mm	600	600	600	700	700	700
K. Min. ground clearance*	mm	430	430	430	570	570	570
L. Overall length	mm	7750	7750	7640	7730	7750	7730
L'. Overall length	mm	7740	7680	7450	7750	7680	7530
M. Overall height of boom	mm	2610	2780	3190	2670	2790	3060
M'. Overall height of boom	mm	2710	2860	3340	2790	2920	3310

* Without shoe grouser

DIMENSIONS

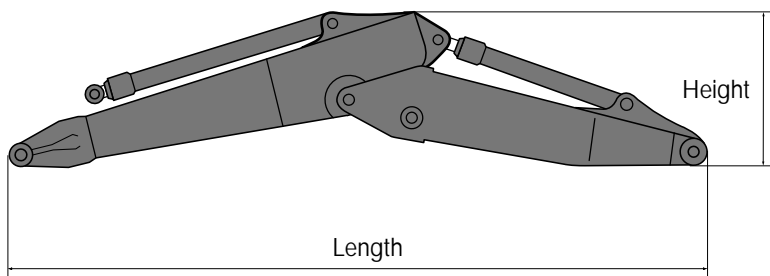
● Monobloc boom



Description	4.6 m
Length	4770 mm
Height	1295 mm
Width	545 mm
Weight *	970 kg

* Includes cylinder, piping and pin

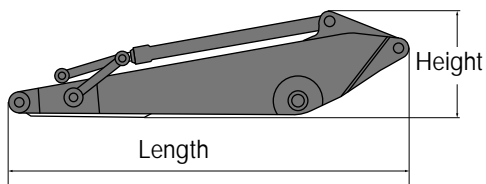
● 2-piece boom



Description	4.6 m
Length	4765 mm
Height	1225 mm
Width	545 mm
Weight *	1065 kg

* Includes cylinder, piping and pins

● Arm













Description	2.1 m	2.5 m	3.0 m
Length	2800 mm	3190 mm	3690 mm
Height	760 mm	760 mm	760 mm
Width	300 mm	300 mm	335 mm
Weight *	525 kg	575 kg	685 kg

* Includes cylinder, linkage and pins

LIFTING CAPACITY (At the arm end 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.

EC140 LC (Shoe 600 mm, Counterweight 1750 kg)











 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm
			 kg		 kg		 kg		 kg	
Monobloc boom 4.6 m + Arm 2.1 m	6 m			*3340	*3340			3140	*3520	4889
	4.5 m			*3490	*3490			2260	3510	5971
	3 m	*6240	*6240	3380	*4350	2190	3430	1920	3000	6533
	1.5 m			3180	5170	2110	3340	1790	2830	6710
	0 m	*5190	*5190	3040	5020	2050	3270	1830	2900	6535
	-1.5 m	5530	*9490	3010	4980			2060	3290	5977
	-3 m	5660	*8260	3080	5060			2750	4460	4900
	-4.5 m									
Monobloc boom 4.6 m + Arm 2.5 m	6 m			*2850	*2850			2700	*3210	5396
	4.5 m			*3090	*3090	2260	*3210	2030	*3100	6389
	3 m	*5340	*5340	3410	*3970	2200	3440	1750	2740	6916
	1.5 m	5750	*6300	3190	*5090	2110	3340	1640	2600	7083
	0 m	5490	*5780	3030	5010	2030	3250	1660	2650	6918
	-1.5 m	5460	*9290	2970	4940	2000	3220	1840	2950	6395
	-3 m	5550	*8730	3010	4980			2350	3800	5405
	-4.5 m									
Monobloc boom 4.6 m + Arm 3.0 m	6 m				2270		*2800	2250	*2720	6028
	4.5 m				2270		*2770	1750	*2560	6929
	3 m			*3430	2190	*3430	*3140	1530	2430	7416
	1.5 m	5850	*7310	3180	2080	*4620	3310	1440	2310	7572
	0 m	5430	*6240	2980	1980	4970	3210	1450	2340	7418
	-1.5 m	5330	*8390	2890	1930	4860	3150	1580	2570	6934
	-3 m	5380	*9090	2890	1960	4870	3180	1940	3150	6037
	-4.5 m	5590	*7220					3070	*4520	4473

- Notes :
- Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting 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.

LIFTING CAPACITY (At the arm end 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.

EC140 LC (Shoe 600 mm, Counterweight 2100 kg)











 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm	
			 kg		 kg		 kg		 kg		
Monobloc boom + Arm 2.1 m	6 m			*3340	*3340			3350	*3520	4889	
	4.5 m			*3490	*3490			2420	*3590	5971	
	3 m	*6240	*6240	3620	*4350	2360	3640	2070	3180	6533	
	4.6 m	1.5 m			3420	*5410	2280	3550	1940	3010	6710
	0 m	*5190	*5190	3280	5330	2220	3480	1980	3090	6535	
	-1.5 m	5960	*9490	3250	5300			2230	3500	5977	
	-3 m	6080	*8260	3320	5370			2970	4740	4900	
	-4.5 m										
Monobloc boom + Arm 2.5 m	6 m			*2850	*2850			2890	*3210	5396	
	4.5 m			*3090	*3090	2430	*3210	2180	*3100	6389	
	3 m	*5340	*5340	3650	*3970	2370	*3500	1890	2910	6916	
	4.6 m	1.5 m	6180	*6300	3430	*5090	2270	3550	1780	2760	7083
	0 m	*5780	*5780	3270	5320	2200	3460	1800	2820	6918	
	-1.5 m	5890	*9290	3210	5250	2170	3430	2000	3140	6395	
	-3 m	5980	*8730	3250	5300			2550	4040	5405	
	-4.5 m										
Monobloc boom + Arm 3.0 m	6 m					2430	*2800	2410	*2720	6028	
	4.5 m					2440	*2770	1900	*2560	6929	
	3 m			*3430	*3430	2350	*3140	1660	*2550	7416	
	4.6 m	1.5 m	6270	*7310	3420	*4620	2240	3520	1560	2460	7572
	0 m	5850	*6240	3220	5280	2150	3410	1580	2500	7418	
	-1.5 m	5750	*8390	3130	5170	2100	3360	1720	2740	6934	
	-3 m	5810	*9090	3130	5180	2120	3390	2110	3360	6037	
	-4.5 m	6020	*7220					3310	*4520	4473	

- Notes :
1. Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 2. The above loads are in compliance with SAE and ISO 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 end 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.

EC140 LC (Shoe 600 mm, Counterweight 2100 kg)











 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm	
			 kg		 kg		 kg		 kg		
2-piece boom 4.6 m + Arm 2.1 m	7.5 m							*5370	*5370	2907	
	6 m	*4620	*4620	3890	*4350			3230	*3830	5016	
	4.5 m	*5250	*5250	3840	*4470	2410	3720	2360	*3440	6075	
	4.6 m	3 m		3650	*5180	2370	3670	2020	3130	6627	
	+ Arm	1.5 m			3420	5530	2280	3580	1890	2960	6802
	2.1 m	0 m			3270	5360	2210	3500	1930	3040	6630
		-1.5 m	5940	*8350	3240	5320	2210	3500	2170	3440	6081
	-3 m										
2-piece boom 4.6 m + Arm 2.5 m	7.5 m	*4360	*4360					*3600	*3600	3746	
	6 m	*3690	*3690	*3590	*3590			2480	*2740	5532	
	4.5 m	*3720	*3720	3630	*3830	2160	3480	1830	*2490	6504	
	4.6 m	3 m	*6630	*6630	3440	*4590	2110	3420	1550	*2450	7022
	+ Arm	1.5 m			3200	5320	2010	3320	1450	2440	7187
	2.5 m	0 m	*4840	*4840	3020	5120	1930	3230	1490	2510	7024
		-1.5 m	5620	*8400	2950	5040	1900	3190	1680	2820	6510
	-3 m			2990	*4570			2380	*3590	5246	
2-piece boom 4.6 m + Arm 3.0 m	7.5 m	*3400	*3400	*3080	*3080			*2720	*2720	4646	
	6 m			*3060	*3060	2150	*2670	2020	*2180	6167	
	4.5 m	*2580	*2580	*3320	*3320	2180	*3130	1540	*2000	7050	
	4.6 m	3 m		3470	*4120	2100	3420	1320	*1960	7529	
	+ Arm	1.5 m			3200	*5080	1990	3300	1240	*2050	7682
	3.0 m	0 m			2980	5080	1880	3180	1260	2190	7531
		-1.5 m	5490	*7500	2870	4960	1830	3120	1410	2420	7055
	-3 m	5560	*7470	2880	4970	1860	3150	1780	*2880	6176	

- Notes :
- Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting 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.

LIFTING CAPACITY (At the arm end 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.

EC140 LCM (Shoe 700 mm, Counterweight 1750 kg)











 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm	
			 kg		 kg		 kg		 kg		
Monobloc boom + Arm 2.1 m	6 m			*3300	*3300			3210	*3520	5034	
	4.5 m			*3550	*3550	2410	*3580	2380	*3600	6050	
	3 m	*6590	*6590	3610	*4460	2360	3670	2050	3190	6568	
	4.6 m	1.5 m			3400	*5510	2280	3580	1940	3040	6708
	0 m	*5580	*5580	3280	5380	2220	3520	2000	3150	6496	
	-1.5 m	5980	*9410	3260	5350			2280	3610	5894	
	-3 m	6110	*8060	3340	*5330			3120	*4910	4746	
	-4.5 m										
Monobloc boom + Arm 2.5 m	6 m			*2830	*2830			2780	*3220	5527	
	4.5 m			*3150	*3150	2430	*3220	2150	*3080	6463	
	3 m	*5670	*5670	3640	*4080	2360	*3550	1870	2920	6949	
	4.6 m	1.5 m	*5800	*5800	3410	*5200	2270	3570	1780	2790	7081
	0 m	5910	*6020	3270	5370	2200	3490	1820	2870	6882	
	-1.5 m	5900	*9600	3220	5310	2180	3470	2040	3240	6317	
	-3 m	6010	*8560	3270	5370			2650	4250	5266	
	-4.5 m										
Monobloc boom + Arm 3.0 m	6 m					2450	*2810	2340	*2700	6145	
	4.5 m					2430	*2800	1870	*2550	6996	
	3 m	*4500	*4500	*3550	*3550	2350	*3190	1650	*2560	7447	
	4.6 m	1.5 m	6220	*7590	3400	*4740	2240	3550	1570	2490	7570
	0 m	5840	*6320	3210	5320	2140	3440	1590	2550	7384	
	-1.5 m	5760	*8760	3130	5220	2100	3390	1750	2810	6863	
	-3 m	5830	*8970	3150	5240			2180	3510	5914	
	-4.5 m	6070	*6880					3600	*4560	4245	

- Notes :
1. Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 2. The above loads are in compliance with SAE and ISO 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 end 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.

EC140 LCM (Shoe 700 mm, Counterweight 2100 kg)











 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm
			 kg		 kg		 kg		 kg	
Monobloc boom 4.6 m + Arm 2.1 m	6 m			*3300	*3300			3410	*3520	5034
	4.5 m			*3550	*3550	2580	*3580	2540	*3600	6050
	3 m	*6590	*6590	3850	*4460	2530	*3810	2200	3370	6568
	1.5 m			3640	*5510	2450	3790	2090	3220	6708
	0 m	*5580	*5580	3520	5700	2390	3730	2150	3330	6496
	-1.5 m	6410	*9410	3500	5670			2450	3820	5894
	-3 m	6540	*8060	3580	*5330			3340	*4910	4746
	-4.5 m									
Monobloc boom 4.6 m + Arm 2.5 m	6 m			*2830	*2830			2970	*3220	5527
	4.5 m			*3150	*3150	2600	*3220	2300	*3080	6463
	3 m	*5670	*5670	3880	*4080	2530	*3550	2010	3090	6949
	1.5 m	*5800	*5800	3660	*5200	2440	3780	1920	2960	7081
	0 m	*6020	*6020	3510	5680	2360	3700	1960	3050	6882
	-1.5 m	6330	*9600	3460	5620	2340	3680	2200	3430	6317
	-3 m	6440	*8560	3510	5680			2850	4500	5266
	-4.5 m									
Monobloc boom 4.6 m + Arm 3.0 m	6 m					2610	*2810	2500	*2700	6145
	4.5 m					2600	*2800	2000	*2550	6996
	3 m	*4500	*4500	*3550	*3550	2510	*3190	1780	*2560	7447
	1.5 m	6650	*7590	3650	*4740	2400	*3740	1690	2640	7570
	0 m	6270	*6320	3450	5630	2310	3650	1720	2710	7384
	-1.5 m	6190	*8760	3370	5540	2270	3600	1900	2990	6863
	-3 m	6260	*8970	3390	5560			2350	3720	5914
	-4.5 m	6490	*6880					3860	*4560	4245

- Notes :
- Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting 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.

LIFTING CAPACITY (At the arm end 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.

EC140 LCM (Shoe 700 mm, Counterweight 2100 kg)

 Across under-carriage  Along under-carriage	Lifting hook related to ground level	3 m		4.5 m		6 m		Max.reach		Max. mm
			 kg		 kg		 kg		 kg	
2-piece boom 4.6 m + Arm 2.1 m	7.5 m	*5430	*5430					*5040	*5040	3230
	6 m	*4630	*4630	4150	*4310			3300	*3770	5157
	4.5 m	*5440	*5440	4070	*4530	2590	3970	2470	*3430	6152
	3 m			3870	*5260	2530	3910	2150	3320	6662
	1.5 m			3640	5880	2440	3810	2040	3170	6800
	0 m			3510	5720	2380	3740	2100	3280	6592
	-1.5 m	6380	*8180	3480	5690			2390	3750	5999
	-3 m									
2-piece boom 4.6 m + Arm 2.5 m	7.5 m	*4550	*4550					*3830	*3830	3998
	6 m	*4010	*4010	*3900	*3900			2860	*3050	5660
	4.5 m	*4060	*4060	4120	*4180	2610	*3820	2230	*2810	6576
	3 m			3900	*4950	2540	3920	1960	*2770	7054
	1.5 m			3660	*5790	2440	3810	1870	*2880	7185
	0 m	*5490	*5490	3500	5710	2360	3720	1910	3000	6988
	-1.5 m	6300	*8680	3440	5650	2330	3700	2140	3370	6433
	-3 m			3490	*4640			3250	*4330	4746
2-piece boom 4.6 m + Arm 3.0 m	7.5 m			*3660	*3660			*3010	*3010	4849
	6 m			*3380	*3380	2630	*3200	2410	*2510	6282
	4.5 m	*2870	*2870	*3650	*3650	2620	*3460	1940	*2320	7116
	3 m			3940	*4500	2530	*3770	1730	*2290	7559
	1.5 m			3660	*5440	2410	3790	1650	*2360	7681
	0 m	*5760	*5760	3450	5670	2300	3670	1680	*2570	7498
	-1.5 m	6160	*8300	3360	5560	2250	3620	1850	2930	6985
	-3 m	6240	*7500	3370	*5120			2300	*3260	5990

- Notes :
1. Machine in "Fine Mode-F" (Power Boost), for lifting capacities
 2. The above loads are in compliance with SAE and ISO 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

Low-emission engine with air heater, complying with EPA (Environment Protection Agency, USA) emission standards
2-stage air filter with indicator
Air pre-cleaner
Electric engine shut-off
Fuel filter and water separator

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 2
Batteries, 2 X 12V/150Ah
Start motor, 24V/3.7kW

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
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

Cab and interior

Hydraulic dampening cab mounts
Adjustable operator seat and control console
Flexible antenna
Hydraulic safety lock lever
Cab, all-weather sound suppressed, includes :

- Ashtray
- Cigar lighter
- 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

Master ignition key

Undercarriage

Hydraulic track adjusters
Greased and sealed track chain
Track guards

ALTERNATIVE EQUIPMENT

Engine

Alternator, 50A / 70A
Fuel filler pump: 35 lpm / 50 lpm / 50 lpm, with automatic shut-off

Hydraulic system

Pilot-operated wrist control joysticks
- Semi-long joysticks
- Joysticks, with 3 switches ea.
- Joysticks, with 5 switches ea.

Superstructure

Counterweight, 1750kg / 2100kg

Cab and interior

Leather 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

Digging equipment

Boom: 4.6 m monobloc
4.6 m 2-piece
Arm: 2.1 / 2.5 / 3.0 m

Undercarriage

LC (Long crawler)
LCM (Long crawler marsh)

OPTIONAL EQUIPMENT (Standard in certain markets)

Engine

Block and oil pan heater: 120V, 240V
Fuel warmer
Tropical kit

Electronic control system

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

Hydraulic system

Hose rupture protection valve: boom, arm
Hydraulic piping
- Hammer & shear:
1 pump flow / 2 pump flow
Extra piping for slope & rotator
- Slope & rotator
- Grapple
- Oil leak line
Volvo hydraulic quick-fit, S6 size
Hydraulic oil, ISO VG 32
Hydraulic oil, ISO VG 68

Superstructure

Undercover (heavy duty)

Cab and interior

Air-conditioner
Heater
Falling object guard (FOG)
Cab mounted falling object protective structures (FOPS)
Rain shield, front
Sun shield, front
Clear tinted roof hatch
Stereo cassette radio (AM/FM)
Safety mesh for front window
Anti-vandalism kit
Sliding rear window
Specific key

Digging equipment

Reinforced linkage

Undercarriage

Skid rails
Undercover (heavy duty)

Service

Hand lamp
Spare parts
Tool kit

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

VOLVO

Volvo Construction
Equipment Group

Ref. No. 21 2 435 1616 English, global
Printed in Korea 2000.09-1 KOR
Volvo, Seoul