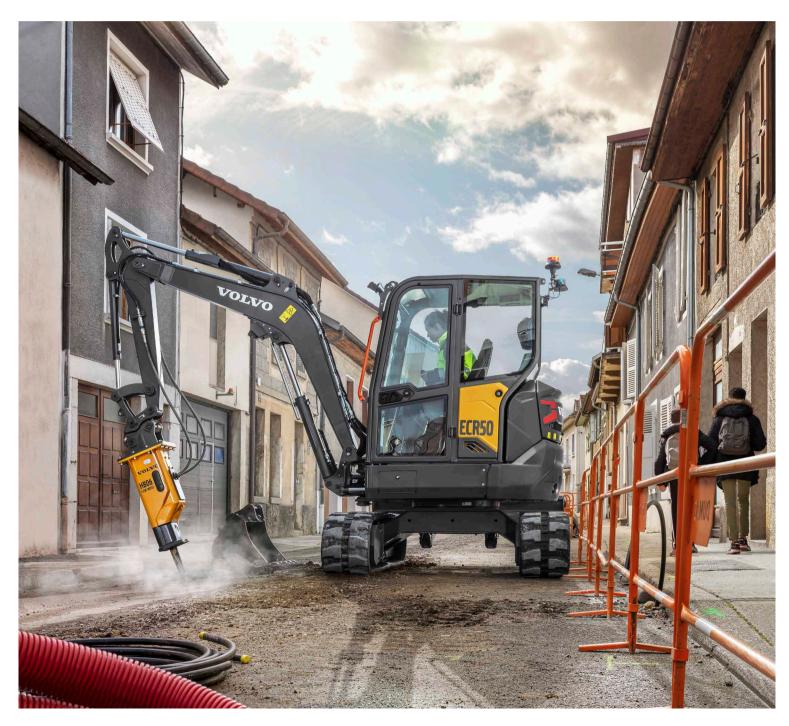


Volvo Construction Equipment Building Tomorrow



Volvo Compact Excavators, ECR50F 5.1 t / 11,133 lb 42 hp



# WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

## Small machines, big results

With decades of experience in the design and manufacture of compact excavators and wheel loaders, our range of compact machinery is designed with customer success in mind. Built from the same DNA as large Volvo machinery, our compact range sets the standard for efficiency performance and uptime – complemented by an extensive range of Volvo attachments for maximum versatility.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts – such as our award-winning electric compact excavator – to ensure we offer our customers machines which deliver big results long into the future.



## Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

### Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today..

#### There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

## **BUILDING TOMORROW**

## Big versatility, low operating cost

With zero tail swing, the F-generation ECR50 is the ultimate all-rounder, delivering outstanding agility, versatility and ease-of-operation. A true 5 t machine ready to take on any job – anywhere – this compact excavator combines quality, reliability and innovation to deliver optimum profitability.

### Intuitively efficient

Quickly and easily get to grips with the new ECR50. With the intuitive jogwheel and 5" color display, operators benefit from easy-to-navigate menus. Achieve precise and efficient work with ease thanks to the proportional fingertip controls, large and easy to control travel pedals and automatic two-speed travel.



### Switch it up

Changing between hydraulic attachments is as easy as child's play. In the new ECR50 you can pre-program the hydraulic settings best suited to all your attachments in just a few steps. You can then choose whether operators select pre-defined settings only, or leave the option for operators to make final hydraulic adjustments from the cab.



### True 5 t performer

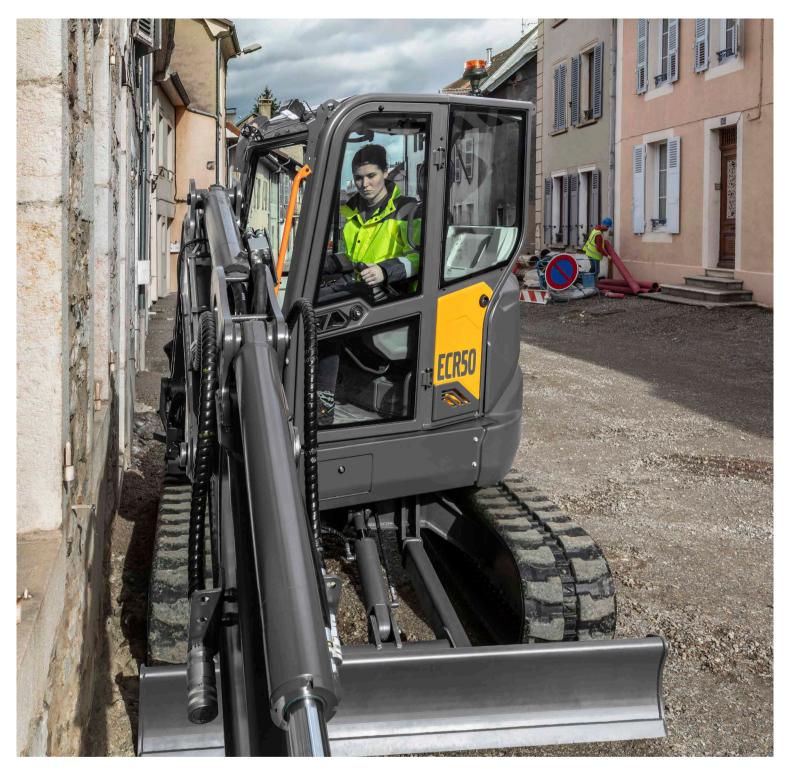
Take on tough work with confidence and control. With bestin-class lifting capacity, the F-generation ECR50 is a true 5 t machine. Outstanding stability and hydraulic power contribute towards unrivalled digging performance, lifting capacity and tractive force.



### Maximum uptime

Spend less time carrying out maintenance. A 50-hour greasing interval, easily accessed service points and wide-opening engine hood all help to keep uptime to a maximum. With auto engine shutdown, hours not worked are not recorded, keeping your machine efficient for longer while reducing maintenance costs. The patented multifunction hydraulic oil filter, provides outstanding protection to the hydraulic system.





# DURABLE By Design

The zero tail swing radius of the F-generation ECR50 enables easy access and work in confined spaces, while also reducing the risk of machine damage. The in-track boom swing ensures the swing post and cylinder remain within the track width when digging in offset alongside obstacles. Sturdy digging equipment, undercarriage and hoods further contribute towards outstanding durability.

## The ultimate all-rounder

### **DURABLE BY DESIGN**

- Zero tail swing
- In-track boom swing
- New digging equipment
- Undercarriage and hoods from larger size machine

### **INTUITIVELY EFFICIENT**

- Simple controls layout
- Intuitive jogwheel and 5" color display
- Proportional fingertip controls
- Large travel pedals
- Automatic two-speed travel



### **VERSATILE PERFORMER**

- True 5 tonne machine
- Stability and hydraulic performance
- Pre-set hydraulic modes and multiple auxiliary line options
- Compatible with a wide range of attachments



- 50-hour greasing intervals
  - Patented multifunction hydraulic filter, protecting the hydraulic system
  - Easily accessed service points, wide-opening engine hood
  - Auto engine shutdown
  - Genuine Volvo Parts

## **Volvo ECR50F in detail**

Engine		
Engine		D2.4H
Max. power at	r/min (r/s)	2 200 (36.7)
Gross	kW (hp)	31.2 (42)
According to ISO 3046-1 and SAE J		
Max. torque	Nm (ft lbf)	160 (117.9)
at engine speed	r/min	1 500
No. of cylinders		4
Displacement	cm <sup>3</sup> (in <sup>3</sup> )	2 434 (148.5)
Bore	mm (in)	87 (3.4)
Stroke	mm (in)	102.4 (4.03)
Compression ratio		18:1
Electrical system		
Voltage	V	12
Battery	V	1 X 12
Battery capacity	Ah	74
Alternator	V/Ah	12 / 70
Swing system		
Max, slew speed	r/min	8.5
Max, slew torque	daNm (ft lbf)	1,379 (10,171)
Undercarriage	. ,	
Rubber track width	mm (in)	400 (15.7)
Steel track width	mm (in)	380 (15)
Bottom/top rollers per side		5/1
Track tension		by grease piston
Blade (width x height)	mm (in)	2 000 x 361 (78.7 x 14.2)
Digging Performances		
Standard bucket width (blade, W/O side cutter)	mm (in)	600 (23.6)
Standard bucket mass	kg (lb)	113 (249.1)
Standard bucket rated capacity	l (ft³)	144 (5.09)
Bucket rotation	0	199
Bucket breakout force (ISO)	daN (lbf)	3,618 (8,134)
Short arm tearout force (ISO)	daN (lbf)	2,595 (5,834)
With short arm	mm (ft in)	1,400 (4'7")
Long arm tearout force (ISO)	daN (lbf)	2,178 (4,896)
With long arm	mm (ft in)	1,800 (5'11")
Weight and Ground Pressure		
Operating weight according to ISO 6016	6 kg (lb)	5,050 (11,133)
Ground pressure (cab)	kPa (psi)	28.4 (4.12)
Ground pressure (canopy)	kPa (psi)	27.7 (4.02)
Transport weight	kg (lb)	4,975 (10,968)
With rubber tracks	mm (in)	400 (15.7)
With short arm	mm (in)	1,400 (55.1)
With fuel tank capacity	%	100
With canopy	-kg (-lb)	110 (242.5)
With extra counterweight	+kg (+lb)	170 (374.8)
23	mm	1,800
24	in	70.9
With long arm and additional counterweight	+kg (+lb)	197 (434.3)
With steel tracks	+kg (+lb)	120 (264.5)
Steel tracks	mm (in)	380 (14.9)
With rubber pads	+kg (+lb)	160 (352.7)
Rubber pads	mm (in)	400 (15.7)

Hydraulic system		
Pump type		Variable displacement, load-sensing piston pump.
Maximum system flow	l/min (gal/min)	120 (31.7)
Maximum operating pressure (main pump)	MPa (psi)	26 (3,771)
Breaker & shear X1 maximum flow	l/min (gal/min)	75 (19.8)
Breaker & shear X1 maximum pressure	MPa (psi)	22 (3,191)
Slope & rotator X3 maximum flow	l/min (gal/min)	40 (10.6)
Slope & rotator X3 maximum pressure	MPa (psi)	22 (3,191)

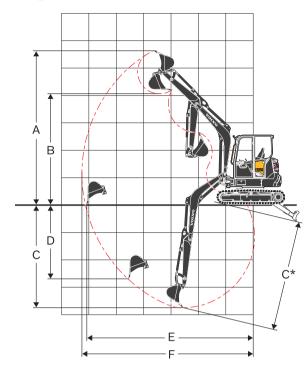
Travel System		
Max, drawbar pull	daN (lbf)	3,830 (8,610)
Max. travel speed low	km/h (mi/h)	2.7 (1.7)
Max. travel speed high	km/h (mi/h)	4.4 (2.7)
Gradeability	0	20
Service Refill		
Fuel tank	l (gal)	70 (18.5)
Hydraulic system, total	l (gal)	70 (18.5)
Hydraulic tank	l (gal)	49 (12.9)
Engine oil	l (gal)	8.4 (2.2)
Engine coolant	l (gal)	9 (2.4)
Travel reduction unit	l (gal)	2 X 0.8 (2 × 0.2)
Sound Level		
Interior sound level according to	o ISO 6396	
L <sub>pA</sub>	dB	74
p. ,		-

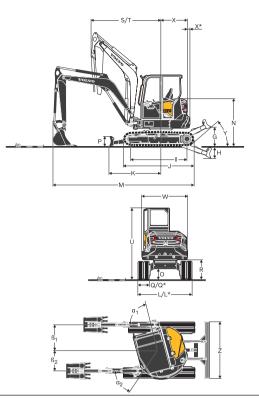
∟рА	uВ	74
External sound level according (2000/14/EC) and 474-1:200	to ISO 6395 and EU Noise Directive 6 +A1:200	
L <sub>WA</sub>	dB	96

### Cab

Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO2-eq.

## **Specifications**





pesc/ptionUnitFCRSUPArmArmft in1,4004'7"1,8005'11"ArmMaximum cutting heightmmft in5,63418'finBMaximum dump heightmmft in3,78712's"4,05213'a"CDigging depthmmft in3,77612's"4,05213'a"CMaximum digging depthmmft in3,77612's"4,05213'a"DMaximum digging reach at ground levelmmft in2,3357's"2,7008'a"FMaximum digging reach at ground levelmmft in5,74818'10"6,13720'2"GHighest position dozer blademmft in2,0006'7"2,0006'7"JTrack lengthmmft in2,0006'7"2,0006'7"JTrack lengthmmft in2,5218'3"2,5218'3"JTrack lengthmmft in2,1806'1"1,6606'1"JTrack lengthmmft in2,51817'4"5,01816'6"MOverall lengthmmft in5,19817'4"5,01816'6"JTowber lengthmmft in3,59912'2"35912'2"MOverall lengthmmft in5,19817'4"5,01816'6"MTrack lengthmmft in3,59812'2"35912'2" <tr<< th=""><th>DIM</th><th colspan="8">DIMENSIONS</th></tr<<>	DIM	DIMENSIONS							
A       Maximum cutting height       mm       ft in       5,369       17'7"       5,634       18'6"         B       Maximum dung height       mm       ft in       3,77       12'5"       4,052       13'4"         C       Digging depth       mm       ft in       3,771       12'5"       4,052       13'4"         C       Maximum digging depth       mm       ft in       3,776       12'2"       4,144       13'7"         D       Maximum digging reach at ground level       mm       ft in       5,879       19'3"       6,260       20'6"         F       Maximum digging reach at ground level       mm       ft in       5,879       19'3"       6,260       20'6"         G       Highest position dozer blade       mm       ft in       2,521       8'3"       2,521       8'3"         K       Dozer blade, maximum reach at ground level       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       mm       ft in       2,192       8'3"       2,521       8'3"         K       Dozer blade, maximum reach at ground level       mm       ft in       1,860       6'1"       1,860       6'1"	Des	cription	U	nit	it ECR50F				
B       Maximum dump height       mm       ft in       3,787       12'5"       4,052       13'4"         C       Digging depth       mm       ft in       3,776       12'2"       4,144       13'7"         C*       Maximum digging depth       mm       ft in       3,776       12'2"       4,144       13'7"         D       Maximum vertical wall digging depth       mm       ft in       3,776       12'2"       4,144       13'7"         D       Maximum vertical wall digging depth       mm       ft in       3,778       19'3"       6,260       20'6"         F       Maximum digging reach       mm       ft in       5,748       18'10"       6,137       20'2"         F       Maximum digging reach       mm       ft in       5,748       18'10"       6,137       20'2"         F       Maximum digging reach       mm       ft in       5,748       18'10"       6,137       20'2"         H       Lowest position dozer blade       mm       ft in       6,10       2'0"       610       2'0"         J       Track length       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       <	Arm		mm	ft in	1,400	4'7"	1,800	5'11"	
C       Digging depth       mm       ft in       3,374       111"       3,768       12'4"         C*       Maximum digging depth       mm       ft in       3,716       12'2"       4,144       13'7"         D       Maximum digging reach at ground level       mm       ft in       5,748       18'10"       6,137       20'2"         F       Maximum digging reach       mm       ft in       5,879       19'3"       6,260       20'6"         G       Highest position dozer blade       mm       ft in       441       1'5"       441       1'5"         H       Lowest position dozer blade       mm       ft in       610       2'0"       610       2'0"         J       Track length       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       mm       ft in       1,860       6'1"       1,860       6'1"         L       Overall length       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       3,59       12'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in	А	Maximum cutting height	mm	ft in	5,369	17'7"	5,634	18'6"	
C*Maximum digging depthmmft in $3,716$ $12'2''$ $4,144$ $13'7''$ DMaximum vertical wall digging depthmmft in $2,335$ $7'8''$ $2,700$ $8'10''$ EMaximum digging reach at ground levelmmft in $5,748$ $18'10''$ $6,137$ $20'2''$ FMaximum digging reachmmft in $5,879$ $19'3''$ $6,260$ $20'6'''$ GHighest position dozer blademmft in $4411$ $1'5''$ $4411$ $1'5'''$ HLowest position dozer blademmft in $2,000$ $6'7'''''''''''''''''''''''''''''''''''$	В	Maximum dump height	mm	ft in	3,787	12'5"	4,052	13'4"	
DMaximum vertical wall digging depthmmft in $2,335$ $7'8"$ $2,700$ $8'10"$ EMaximum digging reach at ground levelmmft in $5,748$ $18'10"$ $6,137$ $20'2"$ FMaximum digging reachmmft in $5,748$ $18'10"$ $6,260$ $20'6"$ GHighest position dozer blademmft in $2,000$ $6'7"$ $2,000$ $6'7"$ HLowest position dozer blademmft in $2,020$ $6'7"$ $2,000$ $6'7"$ JTrack lengthmmft in $2,020$ $6'7"$ $2,000$ $6'7"$ JTrack lengthmmft in $1,860$ $6'1"$ $1,860$ $6'1"$ LOverall width with 400mm rubber tracksmmft in $2,000$ $6'7"$ $2,000$ $6'7"$ MOverall lengthmmft in $5,198$ $17'1"$ $5,018$ $16'6"$ M*Transport lengthmmft in $359$ $1'2"$ $359$ $1'2"$ Overall lengthmmft in $359$ $1'2"$ $361$ $1'2"$ QShoe width (rubber)mmft in $359$ $1'2"$ $361$ <td>С</td> <td>Digging depth</td> <td>mm</td> <td>ft in</td> <td>3,374</td> <td>11'1"</td> <td>3,768</td> <td>12'4"</td>	С	Digging depth	mm	ft in	3,374	11'1"	3,768	12'4"	
E         Maximum digging reach at ground level         mm         ft in         5,748         18'10"         6,137         20'2"           F         Maximum digging reach         mm         ft in         5,748         18'10"         6,137         20'2"           F         Maximum digging reach         mm         ft in         5,879         19'3"         6,260         20'6"           G         Highest position dozer blade         mm         ft in         2,000         6'7"         2,000         6'7"           I         Tumbler length         mm         ft in         2,521         8'3"         2,521         8'3"           J         Track length         mm         ft in         2,000         6'7"         2,000         6'7"           J         Track length         mm         ft in         5,183         17'1"         5,018         16'6"           M         Overall width with 400mm rubber tracks         mm         ft in         5,018         16'6"           M         Transport length         mm         ft in         5,018         17'1"         5,018         16'6"           N         Overall height of engine hood         mm         ft in         359         12"         9 </td <td>C*</td> <td>Maximum digging depth</td> <td>mm</td> <td>ft in</td> <td>3,716</td> <td>12'2"</td> <td>4,144</td> <td>13'7"</td>	C*	Maximum digging depth	mm	ft in	3,716	12'2"	4,144	13'7"	
F       Maximum digging reach       mm       ft in       5,879       19'3"       6,260       20'6"         G       Highest position dozer blade       mm       ft in       441       1'5"       441       1'5"         H       Lowest position dozer blade       mm       ft in       610       2'0"       610       2'0"         I       Tumbler length       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       mm       ft in       2,521       8'3"       2,521       8'3"         L       Overall width with 400mm rubber tracks       mm       ft in       2,600       6'7"       2,000       6'7"         L       Overall length       mm ft in       5,188       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       359       1'2"       359       1'2"       7"         N       Overall height of engine hood       mm       ft in       359       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       359       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in <td>D</td> <td>Maximum vertical wall digging depth</td> <td>mm</td> <td>ft in</td> <td>2,335</td> <td>7'8"</td> <td>2,700</td> <td>8'10"</td>	D	Maximum vertical wall digging depth	mm	ft in	2,335	7'8"	2,700	8'10"	
G       Highest position dozer blade       mm       ft in       441       1'5"       441       1'5"         H       Lowest position dozer blade       mm       ft in       610       2'0"       610       2'0"         I       Tumbler length       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       mm       ft in       2,521       8'3"       2,521       8'3"         K       Dozer blade, maximum reach at ground level       mm       ft in       1,860       6'1"       1,860       6'1"         L       Overall width with 400mm rubber tracks       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       6,075       19'11"       5,950       19'6"         N       Overall height of engine hood       mm       ft in       359       1'2"       359       1'2"         P       Dozer blade height       mm       ft in       359       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       359       1'2"       2,479       8'2"         Front slew radius       mm       ft	Е	Maximum digging reach at ground level	mm	ft in	5,748	18'10"	6,137	20'2"	
H       Lowest position dozer blade       mm       ft in       610       2'0"       610       2'0"         I       Tumbler length       mm       ft in       2,000       6'7"       2,000       6'7"         J       Track length       mm       ft in       2,521       8'3"       2,521       8'3"         K       Dozer blade, maximum reach at ground level       mm       ft in       2,000       6'7"       2,000       6'7"         L       Overall width with 400mm rubber tracks       mm       ft in       2,000       6'7"       2,000       6'7"         M       Overall length       mm       ft in       5,918       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       6,075       19'11"       5,950       19'6"         N       Overall height of engine hood       mm       ft in       359       1'2"       359       1'2"         P       Dozer blade height       mm       ft in       359       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       361       1'2"       361       1'2"         Q       Shoe width (rubber)       mm	F	Maximum digging reach	mm	ft in	5,879	19'3"	6,260	20'6"	
ITumbler lengthmmft in2,000 $6'7''$ 2,000 $6'7''$ JTrack lengthmmft in2,521 $8'3''$ 2,521 $8'3''$ KDozer blade, maximum reach at ground levelmmft in1,860 $6'1''$ 1,860 $6'1'''$ LOverall width with 400mm rubber tracksmmft in2,000 $6'7'''$ 2,000 $6'7'''''''''''''''''''''''''''''''''''$	G	Highest position dozer blade	mm	ft in	441	1'5"	441	1'5"	
J       Track length       mm       ft in       2,521       8'3"       2,521       8'3"         K       Dozer blade, maximum reach at ground level       mm       ft in       1,860       6'1"       1,860       6'1"         L       Overall width with 400mm rubber tracks       mm       ft in       2,000       6'7"       2,000       6'7"         M       Overall length       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       5,198       17'1"       5,018       16'6"         N       Overall height of engine hood       mm       ft in       359       1'2"       359       1'2"         Q       Shoe width (rubber)       mm       ft in       361       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       400       1'4"       400       1'4"         R       Ground clearance to superstructure       mm       ft in       645       2'1"       645       2'1"         S       Front slew radius       mm<	Н	Lowest position dozer blade	mm	ft in	610	2'0"	610	2'0"	
K       Dozer blade, maximum reach at ground level       mm       ft in       1,860       6'1"       1,860       6'1"         L       Overall width with 400mm rubber tracks       mm       ft in       2,000       6'7"       2,000       6'7"         M       Overall length       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       6,075       19'11"       5,950       19'6"         N       Overall height of engine hood       mm       ft in       1,700       5'7"       1,700       5'7"         O       Minimum ground clearance       mm       ft in       359       1'2"       359       1'2"         P       Dozer blade height       mm       ft in       361       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       400       1'4"       400       1'4"         R       Ground clearance to superstructure       mm       ft in       2,428       7'12"       2,479       8'2"         S       Front slew radius with maximum offset       mm       ft in       1,951       6'5"       1,995       6'7"         U       Ov	T	Tumbler length	mm	ft in	2,000	6'7"	2,000	6'7"	
L         Overall width with 400mm rubber tracks         mm         ft in         2,000         6'7"         2,000         6'7"           M         Overall length         mm         ft in         5,198         17'1"         5,018         16'6"           M*         Transport length         mm         ft in         6,075         19'11"         5,950         19'6"           N         Overall height of engine hood         mm         ft in         1,700         5'7"         1,700         5'7"           O         Minimum ground clearance         mm         ft in         359         1'2"         359         1'2"           P         Dozer blade height         mm         ft in         361         1'2"         361         1'2"           Q         Shoe width (rubber)         mm         ft in         400         1'4"         400         1'4"           R         Ground clearance to superstructure         mm         ft in         2,428         7'12"         2,479         8'2"           T         Front slew radius with maximum offset         mm         ft in         1,510         6'5"         1,995         6'7"           U         Overall height         mm         ft in         1,70	J	Track length	mm	ft in	2,521	8'3"	2,521	8'3"	
M       Overall length       mm       ft in       5,198       17'1"       5,018       16'6"         M*       Transport length       mm       ft in       6,075       19'11"       5,950       19'6"         N       Overall height of engine hood       mm       ft in       1,700       5'7"       1,700       5'7"         O       Minimum ground clearance       mm       ft in       359       1'2"       359       1'2"         P       Dozer blade height       mm       ft in       361       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       400       1'4"       400       1'4"         R       Ground clearance to superstructure       mm       ft in       645       2'1"       645       2'1"         S       Front slew radius       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       1,708       5'7"       1,708       5'7"         V       Overall width of superstructure       mm       ft in	К	Dozer blade, maximum reach at ground level	mm	ft in	1,860	6'1"	1,860	6'1"	
M*       Transport length       mm       ft in       6,075       19'11"       5,950       19'6"         N       Overall height of engine hood       mm       ft in       1,700       5'7"       1,700       5'7"         O       Minimum ground clearance       mm       ft in       359       1'2"       359       1'2"         P       Dozer blade height       mm       ft in       361       1'2"       361       1'2"         Q       Shoe width (rubber)       mm       ft in       400       1'4"       400       1'4"         R       Ground clearance to superstructure       mm       ft in       645       2'1"       645       2'1"         S       Front slew radius       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       1,708       5'7"       1,708       5'7"         V       Overall width of superstructure       mm       ft in       951       3'1"       1,032       3'5"         X       Tail slew radius       mm       ft in	L	Overall width with 400mm rubber tracks	mm	ft in	2,000	6'7"	2,000	6'7"	
N         Overall height of engine hood         mm         ft in         1,700         5'7"         1,700         5'7"           O         Minimum ground clearance         mm         ft in         359         1'2"         359         1'2"           P         Dozer blade height         mm         ft in         361         1'2"         361         1'2"           Q         Shoe width (rubber)         mm         ft in         400         1'4"         400         1'4"           R         Ground clearance to superstructure         mm         ft in         645         2'1"         645         2'1"           S         Front slew radius         mm         ft in         2,428         7'12"         2,479         8'2"           T         Front slew radius with maximum offset         mm         ft in         1,951         6'5"         1,995         6'7"           U         Overall height         mm         ft in         2,540         8'4"         2,540         8'4"           W         Overall width of superstructure         mm         ft in         1,708         5'7"         1,708         5'7"           X         Tail slew radius         mm         ft in         951	Μ	Overall length	mm	ft in	5,198	17'1"	5,018	16'6"	
O         Minimum ground clearance         mm         ft in         359         1'2"         359         1'2"           P         Dozer blade height         mm         ft in         361         1'2"         361         1'2"           Q         Shoe width (rubber)         mm         ft in         400         1'4"         400         1'4"           R         Ground clearance to superstructure         mm         ft in         645         2'1"         645         2'1"           S         Front slew radius         mm         ft in         2,428         7'12"         2,479         8'2"           T         Front slew radius with maximum offset         mm         ft in         1,951         6'5"         1,995         6'7"           U         Overall height         mm         ft in         2,540         8'4"         2,540         8'4"           W         Overall width of superstructure         mm         ft in         1,708         5'7"         1,708         5'7"           X         Tail slew radius         mm         ft in         951         3'1"         1,032         3'5"           X <sup>1</sup> Additional counterweight overhang         mm         ft in         80	M*	Transport length	mm	ft in	6,075	19'11"	5,950	19'6"	
P       Dozer blade height       mm       ft in       361       1'2"         Q       Shoe width (rubber)       mm       ft in       400       1'4"       400       1'4"         R       Ground clearance to superstructure       mm       ft in       645       2'1"       645       2'1"         S       Front slew radius       mm       ft in       2,428       7'12"       2,479       8'2"         T       Front slew radius with maximum offset       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       2,540       8'4"       2,540       8'4"         W       Overall width of superstructure       mm       ft in       1,708       5'7"       1,708       5'7"         X       Tail slew radius       mm       ft in       951       3'1"       1,032       3'5"         X <sup>1</sup> Additional counterweight overhang       mm       ft in       80       0'3"       incl.         Y       Angle of approach       °       31       2,000       6'7"       2,000       6'7"         Z       Dozer blade width       mm       ft in       2,000       6'7"	Ν	Overall height of engine hood	mm	ft in	1,700	5'7"	1,700	5'7"	
Q         Shee width (rubber)         mm         ft in         400         1'4"         400         1'4"           R         Ground clearance to superstructure         mm         ft in         645         2'1"         645         2'1"           S         Front slew radius         mm         ft in         2,428         7'12"         2,479         8'2"           T         Front slew radius with maximum offset         mm         ft in         1,951         6'5"         1,995         6'7"           U         Overall height         mm         ft in         2,540         8'4"         2,540         8'4"           W         Overall width of superstructure         mm         ft in         1,708         5'7"         1,708         5'7"           X         Tail slew radius         mm         ft in         951         3'1"         1,032         3'5"           X <sup>1</sup> Additional counterweight overhang         mm         ft in         80         0'3"         incl.           Y         Angle of approach         °         3'1         2,000         6'7"         2,000         6'7"           Q         Dozer blade width         mm         ft in         2,000         6'7"	0	Minimum ground clearance	mm	ft in	359	1'2"	359	1'2"	
R       Ground clearance to superstructure       mm       ft in       645       2'1"         S       Front slew radius       mm       ft in       2,428       7'12"       2,479       8'2"         T       Front slew radius with maximum offset       mm       ft in       1,951       6'5"       1,995       6'7"         U       Overall height       mm       ft in       2,540       8'4"       2,540       8'4"         W       Overall width of superstructure       mm       ft in       1,708       5'7"       1,708       5'7"         X       Tail slew radius       mm       ft in       951       3'1"       1,032       3'5"         X <sup>1</sup> Additional counterweight overhang       mm       ft in       80       0'3"       incl.         Y       Angle of approach       °       31       31       2,000       6'7"         Z       Dozer blade width       mm       ft in       2,000       6'7"       2,000       6'7"         Q       Maximum boom swing angle to the left       °       75       5       5       5	Ρ	Dozer blade height	mm	ft in	361	1'2"	361	1'2"	
S       Front slew radius       mm       ft in $2,428$ $7'12"$ $2,479$ $8'2"$ T       Front slew radius with maximum offset       mm       ft in $1,951$ $6'5"$ $1,995$ $6'7"$ U       Overall height       mm       ft in $2,540$ $8'4"$ $2,540$ $8'4"$ W       Overall width of superstructure       mm       ft in $1,708$ $5'7"$ $1,708$ $5'7"$ X       Tail slew radius       mm       ft in $951$ $3'1"$ $1,032$ $3'5"$ X <sup>1</sup> Additional counterweight overhang       mm       ft in $80$ $0'3"$ incl.         Y       Angle of approach       ° $3'1"$ $2,000$ $6'7"$ $2,000$ $6'7"$ Z       Dozer blade width       mm       ft in $2,000$ $6'7"$ $2,000$ $6'7"$	Q	Shoe width (rubber)	mm	ft in	400	1'4"	400	1'4"	
TFront slew radius with maximum offsetmmft in1,951 $6'5"$ 1,995 $6'7"$ UOverall heightmmft in2,540 $8'4"$ 2,540 $8'4"$ WOverall width of superstructuremmft in1,708 $5'7"$ 1,708 $5'7"$ XTail slew radiusmmft in951 $3'1"$ 1,032 $3'5"$ X'Additional counterweight overhangmmft in80 $0'3"$ incl.YAngle of approach°313132,000 $6'7"$ ZDozer blade widthmmft in2,000 $6'7"$ 2,000 $6'7"$ $\alpha_1$ Maximum boom swing angle to the left°75 $10000$ $10000$	R	Ground clearance to superstructure	mm	ft in	645	2'1"	645	2'1"	
	S	Front slew radius	mm	ft in	2,428	7'12"	2,479	8'2"	
W       Overall width of superstructure       mm       ft in       1,708       5'7"       1,708       5'7"         X       Tail slew radius       mm       ft in       951       3'1"       1,032       3'5"         X       Additional counterweight overhang       mm       ft in       80       0'3"       incl.         Y       Angle of approach       °       31       31       32,000       6'7"         Z       Dozer blade width       mm       ft in       2,000       6'7"       2,000       6'7"         Q1       Maximum boom swing angle to the left       °       75       75       75	Т	Front slew radius with maximum offset	mm	ft in	1,951	6'5"	1,995		
X       Tail slew radius       mm       ft in       951       3'1"       1,032       3'5"         X <sup>1</sup> Additional counterweight overhang       mm       ft in       80       0'3"       incl.         Y       Angle of approach       °       31       31       31       31         Z       Dozer blade width       mm       ft in       2,000       6'7"       2,000       6'7"         α <sub>1</sub> Maximum boom swing angle to the left       °       75       75       75	U	Overall height	mm	ft in	2,540	8'4"	2,540	8'4"	
X <sup>1</sup> Additional counterweight overhang     mm     ft in     80     0'3"     incl.       Y     Angle of approach     °     31       Z     Dozer blade width     mm     ft in     2,000     6'7"     2,000     6'7"       Q1     Maximum boom swing angle to the left     °     75     75	W	Overall width of superstructure	mm	ft in	1,708	5'7"	1,708	5'7"	
Y         Angle of approach         °         31           Z         Dozer blade width         mm ft in         2,000         6'7"         2,000         6'7"           α1         Maximum boom swing angle to the left         °         75         75	Х	Tail slew radius	mm	ft in	951		1,032	3'5"	
Y     Angle of approach     31       Z     Dozer blade width     mm     ft in     2,000     6'7"     2,000     6'7"       α1     Maximum boom swing angle to the left     °     75	X1	Additional counterweight overhang	mm	ft in	80	0'3"	in	cl.	
α1   Maximum boom swing angle to the left   °   75	Υ	Angle of approach	1	•			1		
α <sub>1</sub> Maximum boom swing angle to the left 75	Z	Dozer blade width			2,000	-	,	6'7"	
	α1	Maximum boom swing angle to the left				· · · · · · · · · · · · · · · · · · ·	5		
<b>5</b>	βı	Maximum boom offset to the right		ft in	891	2'11"	891	2'11"	
α2Maximum boom swing angle to the right°55	α2	Maximum boom swing angle to the right		0			5		
$\beta_2$ Maximum boom offset to the left mm ft in 690 2'3" 690 2'3"	β2	Maximum boom offset to the left	mm	ft in	690	2'3"	690	2'3"	

<sup>1</sup>: Option

## **Specifications**

#### LIFTING CAPACITY ECR50F

These capacities are given for a machine equipped with a cabin, 400mm (1'4") rubber tracks

The secapacities are given for a machine equipped with a cabin, 400mm (14.) rubber tracks and without a bucket or quick-coupler. The below values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground. Loads market with an asterisk (\*) are limited by machine's hydraulic lifting capacity rather than tipping load. Caution: In accordance with standard EN 474-5, the machine must be equipped to carry out handling operations. It is the operator's obligation to know and follow the applicable national and local safety regulations.



	1:64:00		Lifting point radius (A)										
	Lifting point	Lifting	2.0 m (6.6 ft) 3.0 m (9.8 ft			(9.8 ft)	4.0 m (13.1 ft) 5.0 m (16.4 ft)				Max.	Max.	
	height (B) m (ft)	capacity	Along under- carriage	Across under- carriage	Along under- carriage	Across under- carriage	Along under- carriage	Across under- carriage	Along under- carriage	Across under- carriage	Along under- carriage	Across under- carriage	m (ft in)
	3 (9.8)	kg (lb)					1,050* (2,315*)	817 (1,801)			904 (1,993)	647 (1,426)	4.58 (15'0")
	2 (6.6)	kg (lb)			1,583* (3,490*)	1,207 (2,661)	1,114 (2,456)	791 (1,744)			792 (1,746)	565 (1,246)	4.94 (16'2")
Arm: 1,400mm (4'7'')	1 (3.3)	kg (lb)			1,665 (3,671)	1,126 (2,482)	1,078 (2,377)	758 (1,671)	777 (1,713)	554 (1,221)	759 (1,673)	539 (1,188)	5.04 (16'6")
+ Dozer blade up	0 (0)	kg (lb)			1,626 (3,585)	1,092 (2,407)	1,054 (2,324)	737 (1,625)			787 (1,735)	557 (1,228)	4.88 (16'0")
	-1 (-3.3)	kg (lb)	2,567 (5,659)	2,083 (4,592)	1,626 (3,585)	1,092 (2,407)	1,052 (2,319)	734 (1,618)			900 (1,984)	634 (1,398)	4.44 (14'7")
	-2 (-6.6)	kg (lb)	2,786 (6,142)	2,128 (4,691)	1,658 (3,655)	1,120 (2,469)					1,252* (2,760*)	873 (1,925)	3.56 (11'8")
	3 (9.8)	kg (lb)					880* (1,940*)	880* (1,940*)	855* (1,885*)	621 (1,369)	847* (1,867*)	612 (1,349)	5.00 (16'5")
Arm: 1,800mm	2 (6.6)	kg (lb)			1,282* (2,826*)	1,282* (2,826*)	1,063* (2,344*)	861 (1,898)	852 (1,878)	613 (1,351)	760 (1,676)	545 (1,202)	5.33 (17'6")
(5'11'') + 170kg (375	1 (3.3)	kg (lb)			1,805 (3,979)	1,230 (2,712)	1,161 (2,560)	821 (1,810)	834 (1,839)	597 (1,316)	731 (1,612)	523 (1,153)	5.42 (17'9")
lb) Additional counterweight + Dozer blade up	0 (0)	kg (lb)	1,064* (2,346*)	1,064* (2,346*)	1,741 (3,838)	1,173 (2,586)	1,128 (2,487)	791 (1,744)	820 (1,808)	584 (1,287)	752 (1,658)	535 (1,179)	5.28 (17'4")
+ Dozer blade up	-1 (-3.3)	kg (lb)	2,134* (4,705*)	2,134* (4,705*)	1,726 (3,805)	1,160 (2,557)	1,115 (2,458)	779 (1,717)			838 (1,847)	595 (1,312)	4.88 (16'0")
	-2 (-6.6)	kg (lb)	3,432 (7,566)	2,239 (4,936)	1,746 (3,849)	1,178 (2,597)	1,132 (2,496)	795 (1,753)			1,070 (2,359)	753 (1,660)	4.13 (13'7")
	3 (9.8)	kg (lb)					1,050* (2,315*)	817 (1,801)			1,081* (2,383*)	647 (1,426)	4.58 (15'0")
	2 (6.6)	kg (lb)			1,583* (3,490*)	1,207 (2,661)	1,213* (2,674*)	791 (1,744)			1,104* (2,434*)	565 (1,246)	4.94 (16'2")
Arm: 1,400mm (4'7'')	1 (3.3)	kg (lb)			2,171* (4,786*)	1,126 (2,482)	1,431* (3,155*)	758 (1,671)	1,150* (2,535*)	554 (1,221)	1,143* (2,520*)	539 (1,188)	5.04 (16'6")
+ Dozer blade down	0 (0)	kg (lb)			2,383* (5,254*)	1,092 (2,407)	1,562* (3,444*)	737 (1,625)			1,193* (2,630*)	557 (1,228)	4.88 (16'0")
	-1 (-3.3)	kg (lb)	2,567* (5,659*)	2,083 (4,592)	2,248* (4,956*)	1,092 (2,407)	1,498* (3,303*)	734 (1,618)			1,243* (2,740*)	634 (1,398)	4.44 (14'7")
	-2 (-6.6)	kg (lb)	2,786* (6,142*)	2,128 (4,691)	1,708* (3,765*)	1,120 (2,469)					1,252* (2,760*)	873 (1,925)	3.56 (11'8")
Arm: 1,800mm (5'11") + 170kg (375 Ib) Additional counterweight + Dozer blade down	3 (9.8)	kg (lb)					880* (1,940*)	880* (1,940*)	855* (1,885*)	621 (1,369)	847* (1,867*)	612 (1,349)	5.00 (16'5")
	2 (6.6)	kg (lb)			1,282* (2,826*)	1,282* (2,826*)	1,063* (2,344*)	861 (1,898)	979* (2,158*)	613 (1,351)	838* (1,847*)	545 (1,202)	5.33 (17'6")
	1 (3.3)	kg (lb)			1,934* (4,264*)	1,230 (2,712)	1,313* (2,895*)	821 (1,810)	1,072* (2,363*)	597 (1,316)	882* (1,944*)	523 (1,153)	5.42 (17'9")
	0 (0)	kg (lb)	1,064* (2,346*)	1,064* (2,346*)	2,305* (5,082*)	1,173 (2,586)	1,501* (3,309*)	791 (1,744)	1,139* (2,511*)	584 (1,287)	982* (2,165*)	535 (1,179)	5.28 (17'4")
	-1 (-3.3)	kg (lb)	2,134* (4,705*)	2,134* (4,705*)	2,312* (5,097*)	1,160 (2,557)	1,530* (3,373*)	779 (1,717)			1,116* (2,460*)	595 (1,312)	4.88 (16'0")
	-2 (-6.6)	kg (lb)	3,432* (7,566*)	2,239 (4,936)	1,972* (4,348*)	1,178 (2,597)	1,255* (2,767*)	795 (1,753)			1,155* (2,546*)	753 (1,660)	4.13 (13'7")

## Equipment

STANDARD EQUIPMENT
Engine
Volvo 4-cylinders, vertical, in-line, electronically controlled, water-cooled, diesel engine; meeting EU Stage V or EPA Tier 4f environmental regulations. Diesel Oxidation Catalyst and Diesel Particulate Filter exhaust after treatment system with 6000 hours service interval.
Engine restart prevention system: starter motor is protected against ignition when the engine is already running.
Safe engine start function: the left console must be raised to operate the starter.
Time adjustable auto-idling system.
Eco mode.
Dry-type dual element air filter.
Plastic fuel tank with drain plug.
Protective strainer on the fuel filling pipe.
Fuel filter with water separator.
Drivetrain
Axial piston hydraulic motors equipped with an epicyclic reduction gears.
Automatic two speed travel.
Multi-disc track brakes, spring-applied and hydraulic released.
5 bottom flanged rollers lubricated for life.
Grease tensioning wheel lubricated for life.
Electric / Electronic control system
Maintenance free battery.
IP67 protected electrical system and high quality connectors.
Battery cut-off switch protected in engine compartment.
In-cab 12V power socket.
In-cab diagnostic port.
In-cab fuse box.
One LED working light on top front left of the cab.
Swing system
Radial piston hydraulic motor with direct engagement on the ball internal crown wheel (no reduction gears).
Integrated shockless valve.
Automatic multi-disc slew brake.
Centralized and remote lubrication of crown wheel & ball bearing.
Undercarriage
"X" shape, box welded fabricated frame with sloping side members.
2 Tie-down points on the dozer blade.
2 Tie-down points on the frame.
2 Integrated lifting points.
Sturdy removeable protecting covers for track motors and slew system.
400HB weld-on edge on dozer blade
Hydraulic system
Variable displacement, load-sensing piston pump.
Closed centre flow-sharing main control valve.
Single and double acting hydraulic circuit for auxiliaries.
In-cab electrically controled changeover valve for main auxiliary circuit.
Proportional controls with flow and direction adjustment for all auxiliary circuits.
Cylinder cushoning on boom up and arm out.
Large hinged and key-locked access panel.
Patented filtering and filling element.
Single layer cooling system.

Plastic tank with drain plug.

## Equipment

STANDARD EQUIPMENT
Cab
FOPS on top level 1 (Falling Object Protective Structure).
TOPS (Tip-Over Protective Structure).
ROPS (Roll-Over Protective Structure).
Cushioned operator station.
Height adjustable seat, consoles and joysticks; all suspended together.
Retractable 50mm (2.0 in) orange seat belt with warning indicator.
Highly visible orange handrail and cab entry step.
Large door access.
Large and roomy uncluttered floor with easy to clean floor mat.
Gas-strutt assisted front window opening.
Full opening front bay with in-cab storage for the front lower window.
Front windscreen wiper and washer nozzle.
Right hand side sliding window.
Heating system.
Multiple adjustable air vents.
Filtered air inlet with large size and easy to replace element.
Cab inside light.
LCD dislplay.
Large capacity key-locked toolbox.
Digging equipment
Monobloc box welded 2.75m (9.0 ft) boom.
Boom cylinder rod protection.
In-track swing frame: the boom offset cylinder is below the cab.
Integrated lifting point on the boom.
Monobloc box welded arm.
Long-life steel bushings.
Hardened, pre-lubricated and corrosion resistant pins.
Remote greasing point for arm cylinder with ground level access.
50 hours greasing intervals.
Instrumentation and monitoring
High contrast LCD display with day and night modes enabling good readability whatever lighting conditions.
Gauges for fuel and coolant temperature levels, engine speed, auxiliary and boom offset flows.
Icones & graphics for engine and work modes.
Colour coded messages and help menu.
Hourmeter.
Self-acting emergency engine shutdown. Prevents failures in case of coolant overheating or too low engine oil pressure.
Warning lights for hydraulic filter and air filter restriction.
Several warning lights, coupled to an audible signal, in the event of malfunction (overheating, drop in oil pressure, low battery voltage)
Machine control system
Finger tip control for boom offset.
Finger tip control for auxiliary circuit.
Breaker toggle switch on right joystick.
Jogwheel for easy navigation and engine speed adjustment.
Automatic locking device for the controls when the left console is raised.
Pressure accumulator to lower the equipment on the ground when the engine is switched off.
Two speed change button on the dozer lever.
Large travel pedals.
Official approval
Machine conforming to European directive 2006/42/EC.
Noise emissions in the environment conforming to directive 2000/14/EC.
Hand Arm Vibrations - Whole Body Vibrations compliant with directive 2002/44/EC.
Electromagnetic compatibility (EMC) conforming to European directive 2004/108/EC and its amendments.
Object handling device conforming to EN 474-1 and EN 474-5 standards.
FOPS on top level 1 conforming to ISO 10262 standard.
TOPS conforming to ISO 12117 and EN 13531 standards.
ROPS conforming to ISO 3471-1 and / SAE J1040 standards.

STANDARD AND OPTIONAL EQUIPMENT	
• = Standard	
o = Optional	
Engine	
ECO mode	•
Engine auto idling with time adjustment	•
Engine auto shutdown with time adjustment	0
_35lpm (9.25 gpm) fuel filling pump with auto-stop	0
Hydraulics	
Proportional finger tip control for boom offset	•
Proportional finger tip control for accessories	•
Single and double acting main accessory circuit	•
"Detent" mode for main accessory circuit	•
Work modes to match machine settings to accessories in use	•
Bucket or grapple change over valve	0
Breaker & shear X1	•
- Max. flow: 75 l/min (19.8 gal/min)	
- Pressure: 22 MPa (3,191 psi)	
Slope & rotator X3	0
- Max. flow: 40 l/min (5.3 gal/min)	
- Pressure: 22 Mpa (3,191 psi)	
Hydraulic drain including flat face coupling for accessories	0
Flat face hydaulic quick couplings for main and second accessories circuits	0
Single acting circuit for quick couplers	0
Double acting circuit for quick couplers	0
Boom and arm safety lifting valves with lifting mode and overload indicator	0
Boom, arm and dozer blade safety lifting valves with lifting mode and overload indicator	0
Safety valve certification	0
Mineral hydraulic oil VG46	0
Bio hydraulic oil VG46 (PANOLIN®)	0
Mineral hydraulic oil VG68	0
Mineral hydraulic oil VG32	0
Bio hydraulic oil VG32 (PANOLIN®)	0
Undercarriage	
400mm (15.8 in) rubber tracks	0
400mm (15.8 in) rubber pads on steel chain	0
380mm (15.0 in) steel tracks	0
400mm (15.8 in) add-on rubber pads on steel shoe	0
Standard dozer blade	•
Floating dozer blade	0
Angle and floating dozer blade	0
Machine exterior	
Right rearview mirror	0
Left rearview mirror	0
Front left LED workligt on cab roof	•
Front right LED workligt on cab roof	0
Rear right LED worklight on cab roof	0
Amber flashing LED beacon	0
2 x cab mounted LED worklights illuminating left & right sides of the machine	0
Green flashing LED beacon (lights-up when the operator has buckled the seat belt)	0

## Equipment

STANDARD AND OPTIONAL EQUIPMENT	
• = Standard	
o = Optional	
Protected LED worklight on the boom	0
Additional counterweight	0
Several level of paint customisation (RAL specifications) to match with your corporate identity	0
Canopy	
Vinyl low back seat	0
Vinyl high back seat	0
Head rest	0
3" Seat belt	0
Height adjustable arm rests	•
Large size monoblock travel pedals	
Bottle holder	•
Lockable seat backrest storage box	0
1 x 12V power socket	•
Control pattern change	0
Travel alarm	0
Codelocked anti-theft device	0
Additional hour meter	
Large capacity, key-lockable toolbox	0
Cab	
	•
Heater Manual air conditioning	
Manual air conditioning	0
Vinyl low back seat	0
Vinyl high back seat	0
Textile high back seat	0
Head rest	0
3" Seat belt	0
Height adjustable arm rests	•
Large size monoblock travel pedals	•
Bottle holder	•
Large capacity storage box	0
Lockable seat backrest storage box	0
Storage net	0
Coat hook	•
Ceiling light	•
Radio preparation	0
Radio (AUX, USB, SD, Bluetooth, DAB+)	0
1 x 12V power socket	•
2 x USB charging ports	0
Control pattern change	0
Travel alarm	0
Codelocked anti-theft device	0
Additional hour meter	0
Large capacity, key-lockable toolbox	•
Digging equipment	
Standard arm	0
Long arm + additional counterweight	0
Service and maintenance	
In-cab diagnostick socket	•
Service reminder	•
Tool kit	0
Attachments	
Volvo quick coupler mechanical or hydraulic (pin-on)	0
LH hydraulic quick coupler with lifting hook (HS03)	0
Symetrical-type hydraulic quick coupler with lifting hook (S40)	0
Hydraulic side tilting quick coupler with lifting hook (HS03 & S40)	0
Tiltrotators (S40)	0
A choice of 30cm (11.8 in) / 62L (16.4 gal) up to 90cm (35.4 in) / 235L (62 gal) general purpose buckets	0
A choice of general purpose, twin pick or spade nose teeth	
	0
Bolt-on side cutters for general purpose buckets	0
A choice of fix or hydraulic tiltable ditching buckets	0
Hydraulic breaker HB06LN	0
Telematics	

Care Track

#### SELECTION OF VOLVO OPTIONAL EQUIPMENT

#### Extra hour meter



#### Green beacon



Track types

**Custom colors** 





Extra counterweight



**Tilt Quick Coupler** 



Not all products are available in 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 Construction Equipment