

V O L V O



Volvo Excavators 49.0-52.3 t 418 hp

**EC500**

Volvo Construction Equipment

# EC500

A popular machine across the globe now comes  
in a bigger size with more power.



# Daha fazla güçle yeni bir seviyeye ulaşın

Volvo'nun en popüler makinelerinden biri olan EC500, dünya çapındaki maden sahaları, taş ocakları ve ağır inşaat sahalarında kullanılmak üzere daha büyük bir formatta sunuluyor. Güçlü ve verimli EC500, yaklaşık %15'e kadar artan yakıt verimliliği ve daha düşük Toplam Sahip Olma Maliyeti ile öne çıkıyor. Bakımı kolaylaştırılmış ve modern bir kabinle donatılmış olan EC500, işletme sahiplerinden operatörlere kadar herkesin ihtiyaçlarını karşılıyor.



## Operatör konforu

- Daha hassas kontroller
- Daha sessiz kabin
- Daha fazla konfor için kişiselleştirilmiş ayarlar
- Standart olarak ROPS kabini



## Yakıt Verimliliği

- %15'e kadar iyileştirme
- Motor pompası optimizasyonu 1600rpm (devir/dakika) kadar düşük motor devri
- Akıllı Ana Kontrol Valfi



## Smart View ile Engel Tespiti

- Şantiye (İş sahası) ve Operatör için Artırılmış Güvenlik
- Ekran Dışındaki Nesneler için Radar Uyarısı
- Yüksek Çözünürlüklü Ekran
- Diğer Engellerden Ayrı İnsan Tespit Alarmı



## Verimlilik

- Volvo Aktif Kontrol
- Dig Assist ile On-Board Weighing
- Elektro-hidrolik sistem
- Boom/Kule Dönüş Öncelik Fonksiyonları
- Otomatik power boost



## Bakım Kolaylığı

- Zemin seviyesinden servis erişimi
- Uzun servis aralıkları
- Gruplandırılmış filtreler ve yağlama noktaları
- Hızlı ve kolay yağ değişimi

# Volvo EC500 in Detail

## Engine

The next-generation Volvo diesel engine uses Volvo Advanced Combustion Technology (V-ACT) to deliver lower emissions, superior performance and fuel efficiency. The engine uses precise, high pressure fuel injectors, turbo charger and intercooler, and electronic engine controls to optimize machine performance.

**Air Filter:** 3-stage and precleaner

**Automatic Idling System:** Reduces engine speed to idle when the levers and pedals are not activated resulting in less fuel consumption and low cab noise levels.

Engine	Volvo	Volvo D13J
Max power at	r/min	1 600
Net, ISO 9249/SAE J1349	kW	311
	hp	423
Gross, ISO 14396/SAE J1995	kW	312
	hp	424
Max torque	Nm	2 070
at engine speed	r/min	1 300
No. of cylinders		6
Displacement	l	12.80
Bore	mm	131
Stroke	mm	158

## Electrical System

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. The master switch is standard. Contronics provides advanced monitoring of machine functions and important diagnostic information.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	200
Alternator	V/A	28 V / 180 A

## Undercarriage

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.

### Fixed undercarriage

Track shoe		2 x 52
Link pitch	mm	216
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
Shoe width, triple grouser (HD)	mm	600 (HD)
Shoe width, double grouser	mm	600
Bottom rollers		2 x 9
Top rollers		2 x 2

### Retractable undercarriage

Track shoe		2 x 52
Link pitch	mm	216
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
Shoe width, triple grouser (HD)	mm	600 (HD)
Shoe width, double grouser	mm	600
Bottom rollers		2 x 9
Top rollers		2 x 3

## Swing system

The swing system uses an axial piston motors, driving a planetary gearbox for maximum torque. An automatic holding brake and anti-rebound valve are standard.

Max. slew speed	r/min	9.30
Max. slew torque	kNm	166

## Travel System

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

Max. drawbar pull	kN	333
Max. travel speed (low)	km/h	3.10
Max. travel speed (high)	km/h	5.10
Gradeability	°	35

## Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

**Integrated air-conditioning and heating system:** The pressurized and filtered cab air is supplied by an automatically-controlled fan. The air is distributed throughout the cab from 9 vents.

**Ergonomic operator's seat:** The adjustable seat and joystick console move independently to accommodate the operator. The seat has nine different adjustments plus a seat belt for the operator's comfort and safety.

<b>Service Refill</b>		
Fuel tank	l	640
DEF/AdBlue® tank	l	45
Hydraulic system, total	l	480
Hydraulic tank	l	235
Engine oil	l	55
Engine coolant	l	60
Slew reduction unit	l	2 x 8.8
Travel reduction unit	l	2 x 8.0
<b>Sound Level</b>		
Sound level in cab according to ISO 6396		
L <sub>pA</sub>	dB	71
External sound level according to ISO 6395 and EU Directive 2000/14/EC		
L <sub>WA</sub>	dB	107

## Hydraulic system

The hydraulic system, also known as the "Automatic Sensing Work Mode," is designed for high-productivity, high-digging capacity, high-maneuvering precision and excellent fuel economy. The summation system, boom, arm and swing priority along with boom and arm regeneration provides optimum performance.

The following important functions are included in the system:

**Summation system:** Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity.

**Boom priority:** Gives priority to the boom operation for faster raising when loading or performing deep excavations.

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

**Swing priority:** Gives priority to swing functions for faster simultaneous operations.

**Regeneration system:** Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.

**Power boost:** All digging and lifting forces are increased.

**Holding valves:** Boom and arm holding valves prevent the digging equipment from creeping.

### Main pump: 2 x Variable displacement axial piston pumps

Maximum flow	l/min	2 x 376
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Pilot pump: Gear pump

Maximum flow	l/min	1 x 34
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### Max. pressure

Implement	MPa	32.4 / 35.3
Travel circuit	MPa	32.40
Slew circuit	MPa	25.80
Pilot circuit	MPa	3.90

## Hydraulic Motors

**Travel:** Variable displacement axial piston motor with mechanical brake

**Swing:** Fixed displacement piston motor with mechanical brake

## Hydraulic Cylinders

Boom		2
Bore x Stroke	ø x mm	165 x 1 590
Arm		1
Bore x Stroke	ø x mm	190 x 1 850
Bucket		1
Bore x Stroke	ø x mm	165 x 1 335
ME Bucket		1
Bore x Stroke	ø x mm	175 x 1 335
Bucket for LR boom		1
Bore x Stroke	ø x mm	140 x 1 140











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