

# The EC55B excavator in detail

## Engine

Low-emission, water-cooled, 4-cylinder, 16 valve, direct injection diesel engine meeting STEP 2 environmental regulations.

Type .....	Yanmar 4TNV94L-XVC1
Cubic capacity .....	3.05 l
Max. power (SAE J 1349) .....	38 kW (52 hp)
Installed horsepower (ISO 9249/DIN 6271) .....	
.....	37 kW (50 hp) at 2100 rpm
Maximum torque .....	201 Nm at 1400 rpm
Bore x stroke .....	94 mm x 110 mm

## Electrical equipment

Voltage .....	12 V
Battery .....	12 V - 100 AH
Alternator .....	12 V - 55 A
Starter .....	12 V - 2.3 kW

## Hydraulic system

Variable displacement Total Power Control hydraulic system. The system provides total independence of all movements and of travel. It incorporates in addition the following functions:

- Priority to the boom for faster raising
- Priority to the dipper for fast cycle times when doing levelling and earth work
- Boom anti-lowering device

Control ..... power-assisted hydraulic controls

Variable displacement double pump for the equipment (boom, dipper and bucket) and travel circuits:

Maximum delivery .....	2 x 52.5 litres/min.
Maximum operating pressure .....	210 bar

Gear pump for the slewing, offset and blade circuits:

Maximum delivery .....	33.6 litres/min.
Maximum operating pressure .....	210 bar

Gear pump for the power assistance circuit:

Maximum delivery .....	9.5 litres/min.
Maximum operating pressure .....	33 bar

Double-acting hydraulic circuit for accessories:

Maximum delivery .....	52.5 litres/min.
Maximum operating pressure .....	210 bar

End-of-stroke cushions:

On boom cylinder .....	at the end of the rod extension
On dipper cylinder .....	on both sides
On offset cylinder .....	on both sides

## Slewing system

Turret slewing is provided by an axial piston hydraulic motor which drives a ball internal slew ring with remote lubrication.

Slewing speed .....	10 rpm
Turntable braking .....	automatic brake

## Bucket performances

Excavation force .....	4070 daN
Tear-out force .....	2730 daN

## Undercarriage

The rollers and the tensioning wheels are lubricated for life.

Bottom/top rollers per side .....	5 / 1
Width of the standard tracks (rubber) .....	400 mm
Width of the optional tracks (steel) .....	380 mm
Track tension .....	by grease piston
Blade (width x height) .....	1920 x 360 mm
Safety valve on the blade cylinder.	

## Travel system

Each track is driven by an axial piston hydraulic motor equipped with two gears and an epicyclic reduction gear. Braking is provided automatically by a multiple disc brake.

Max. speed (low speed/high speed) .....	2.6 - 4.3 kph
Max. tractive effort .....	4280 daN
Permitted slope .....	35° (70%)

## Capacities

Fuel tank .....	90 litres
Hydraulic reservoir .....	90 litres
Total capacity of the hydraulic circuit .....	130 litres
Engine oil sump .....	10.1 litres
Coolant .....	12.1 litres

## Weights

Operational weight and ground pressure:

Rubber tracks .....	5200 kg - 0.33 kg/cm <sup>2</sup>
Steel tracks .....	5330 kg - 0.36 kg/cm <sup>2</sup>

## Sound levels

Results of dynamic measurements:

Sound level exterior (L <sub>W</sub> A) .....	98 dB(A)
Sound level in the cab (L <sub>p</sub> A) .....	78 dB(A)
The sound levels conform to EC directive n° 86/662 and its amendments.	