

MECALAC EXCAVATOR/LOADERS



Mecalac

The agile excavator/loader



7.30 am. We started digging the trench.

The site was narrow and limited by overhead cables. The Mecalac dug at the front and loaded the lorry directly at the rear. No problem digging offset alongside the wall, to the right or to the left. Operation in "excavator" mode was particularly easy, without having to use the pedals.

8.15 am. The Mecalac transformed itself into a tool holder.

In a twinkling, thanks to the automatic quickhitch system, the bucket was disconnected and the breaker fitted. The progressiveness and precision of the movements made it possible to use the breaker alongside existing services. The machine's power easily broke down granite.

8.50 am. Gentle positioning and fitting of a pipe.

The machine was perfectly stable. Total visibility towards the front. I followed the site technician's instructions to the



millimetre. The work went quickly and well. Tomorrow, demolition and recycling site: I will handle far heavier loads with my Mecalac.

9.25 am. Backfilling of the trench.

Click Clack, the bucket was in place and I switched to “loader” mode. With my left hand on the steering wheel and my right hand on the manipulator where all the controls are grouped together, I appreciated the flexibility of the machine which makes it possible to work with an offset and to pivot 360° despite the narrowness of the street.

A genuine excavator... but also a loader

The machine is the result of a perfectly mastered concept, the intelligence of which has won over more than 4000 users on sites all over the world. Thanks to its exclusive quickhitch link system, a Mecalac is a genuine excavator but also a loader. It also performs handling and tool-holder functions. It is a, “main contractor” machine, operational from A to Z on tough sites.

Power... but also compactness

Powered by an intercooled 4 cylinder engine, atmospheric version for the 12MX and turbo version for the 12MXT and the 14MXT, the Mecalac can be used with perfect ease on large sites. Its power and compactness confirm its vocation as “main contractor” on all sites, even the narrowest ones.

Profitability... but also comfort

Versatility, strength and simplicity are the keys to profitability. On the Mecalac the operating mode, chosen by the operator, adapts instantly to his work habits and enables the machine to be mastered very quickly. The cab, a model of functionality and ergonomic design, offers ideal working conditions for optimum efficiency in complete safety.

Compactness

Full 360° rotation in 3,2 metres. The Mecalac is 100% operational in the narrow configuration (roads with traffic, urban, areas, tunnels, galleries, etc.).

The design

The Mecalac meets visibility requirements, both at the front and at the rear. It conveys power, strength and flexibility. It reflects indisputably remarkable performances.

The quickhitch system

Without leaving the cab, you can change tools in a few seconds thanks to an automatic mechanical locking system.

The swiss-army knife of excavators

Intercooler turbo 4-cylinder

Turbocharged Cummins engine as standard which makes it the favourite machine for large sites. The engine is transverse mounted for better stability and easier maintenance.

Accessibility

Access to every vital part has been designed to simplify maintenance as much as possible: wide covers facilitating the maintenance operations essential to the safety and optimum operation of the machine.

Choice of operating modes

Now Mecalac have gone further with a new feature choice of operating modes. A simple selector switch on the dashboard enables the operator to choose the operating mode to suit the desired function.

In “excavator” mode, the machine becomes an excavator with a two part operating sequence. Selecting this mode automatically synchronises the equipment’s movements without having to use the pedals.

In “loader” mode, the machine is operated like a traditional loader: with your left hand on the steering wheel and your right hand on the right manipulator where the forward/reverse, low or high speed, bucket open/close and boom up/down controls are grouped together.

The “Mecalac” mode enables simultaneous or independent control of all the rams in order to perform all the specific tasks which only a Mecalac can successfully complete.

4-part operating sequence

The boom cylinder mounted on parallelogram, associated with the kinematics, means that rotation in a radius of 1,36 m can be achieved. The standard 33° left or right hydraulic offset system enables excavation, loading and or levelling work to be carried out in tight situations.





A very comfortable panoramic cab

Compact on the outside and spacious on the inside, the cab provides panoramic visibility thanks to its large glazed surface area; this is a basic safety factor. Particular attention has been paid to ventilation and heating: retractable windscreen, sliding right-hand side window, opening rear panel, very efficient de-misting and heating.



The ergonomic design of the operator's cab

It has been designed to suit all shapes and sizes: seat and arm rests adjustable in all directions, tilting steering column* and manipulator consoles adjustable independently of the seat. Also notable is the possibility of electric locking of the accelerator* and brake. As far as safety is concerned, apart from the essential devices, the machine is equipped with an on-board monitor displaying in real time engine speed, water and oil temperatures, diesel level, oil pressure, condition of filter, etc...

* option



New-generation directional control block

Irrespective of the movements of the rams, their supply retains its proportionality. The resulting operating comfort, precision and progressiveness improve the machine's productivity.



Hydraulic telescopic independent outriggers

These increase the machine's stability efficiently. Controlled separately or together from the cab, the pads can be inverted between right and left.

* option on 12 MX/12MXT



Articulated chassis and oscillating rear axle

The articulated chassis permits a minimum turning circle whilst keeping the bucket or the tool in line with the machine's path. The oscillating rear axle offers exceptional on- and off-road qualities with a clearance of +/-10%. The oscillation is locked in the cab, irrespective of the Mecalac's position. The two axles have oil-bath multi-disc brakes and a limited-slip differer.

Power control, load sensing, variable displacement equipment pump

Its performances are increased while at the same time limiting the stress on the engine: fuel consumption is reduced.

An on-board monitor for immediate information

Instantaneous, continuous display of engine speed, water and oil temperatures, diesel level, oil pressure and condition of filters, etc...

Thus, with these innovations, the machine meets all the requirements of the contractor and of his operator: efficiency and profitability and simplicity.

The rear cradle

Its reinforced structure provides effective protection of the engine and pumps a retractable roll bar* protects the rear cover.

* option

Mecalac at work

The main advantages when using Mecalac are spelt **VERSITALE AND AGILE**; it can handle most jobs specialized machines often handle and a few more...

Excavating

As an excavator Mecalac can load a hauler standing in any direction from the excavator making you able to perform excavations in places where other excavators cannot quite reach. In tight spots and from difficult angles Mecalac is the tool of choice for any contractor.

Loading

As a loader Mecalac displays the same advantages as it does as an excavator, the Mecalac is able to turn the hydraulic loading arm 360°, making it easy to load and unload without moving the machine itself.

Handling

The Mecalac operates on any terrain, turning through 360° from -3 metres to +6 metres. Thanks to its compact design and original kinematics, it offers a high degree of flexibility.

Tool holding

The Mecalac can be equipped instantaneously with a wide range of tools including rock hammer, brush cutter, sweeper, snow plough, etc.





Engine

Rated output, at

ISO 3046 / DIN 6271

r/s (r/min)

Mecalac 8CX
Isuzu 4JB1
43,3 (2 600)
42 (57)

Mecalac 8CXi
Isuzu 4JB1
43,3 (2 600)
42 (57)

Backhoe bucket capacity

kW (hp)

l

Lifting capacity

along undercarriage (max.)

at reach/pin height

Reach (max.)

Digging depth (max.)

Breakout force (max.)

Operating weight

without bucket

with loader bucket

t

m

m

m

kN

t

t

2

4/1,5

5,96

3,65

42

6,26

6,50

2,2

4/1,5

5,96

3,65

42

6,26

6,50



Engine

Rated output, at

ISO 3046 / DIN 6271

r/s (r/min)

kW (hp)

Mecalac 12MX
Cummins 4B3.9C.13
36,7 (2 200)
54 (74)

Mecalac 12MXT
Cummins 4BT3.9C.13
36,7 (2 200)
64 (87)

Mecalac 14MXT
Cummins 4BTA3.9C
36,7 (2 200)
80 (109)

Backhoe bucket capacity

Lifting capacity

along undercarriage (max.)

at reach/pin height

Reach (max.)

Digging depth (max.)

Breakout force (max.)

Operating weight

without bucket

with loader bucket

l

t

m

m

m

kN

t

t

255

2,4

4/1,5

7,56

4

56

8,77

9,07

255

2,4

4/1,5

7,56

4

56

8,82

9,12

500

2,5

4/1,5

8,5

4,65

71

12,80

13,32



Technology on Human Terms

The Volvo Construction Equipment Group is one of the world's leading manufacturers of construction machines, with a product range encompassing wheel loaders, excavators, articulated haulers, rigid haulers, motor graders and more.

The tasks they face vary considerably, but they all share one vital feature: technology which helps Man to perform better. Safely, efficiently and with care of the environment. We refer to it as Technology on Human Terms.

The sheer width of the product range means it is always possible to choose exactly the right machine and attachment for the job. Each machine also comes with the quality, continuity and safety which is represented

by the Volvo name. The safety of the service and parts organisation. The safety of always having immediate access to leading-edge research and technical development. A machine from Volvo meets the very highest demands in all kinds of jobs, under all conditions. The world over.

The Volvo Construction Equipment Group develops, manufactures and markets Volvo, Euclid, Pel-Job, Mecalac and Champion products. We are a Volvo company with production facilities on three continents and a market presence in over 100 countries.

For more information please visit our web site:
<http://www.volvo.com>

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 1 433 1014 English
Printed in Sweden 98.03-3 CSE
Volvo, Eskilstuna