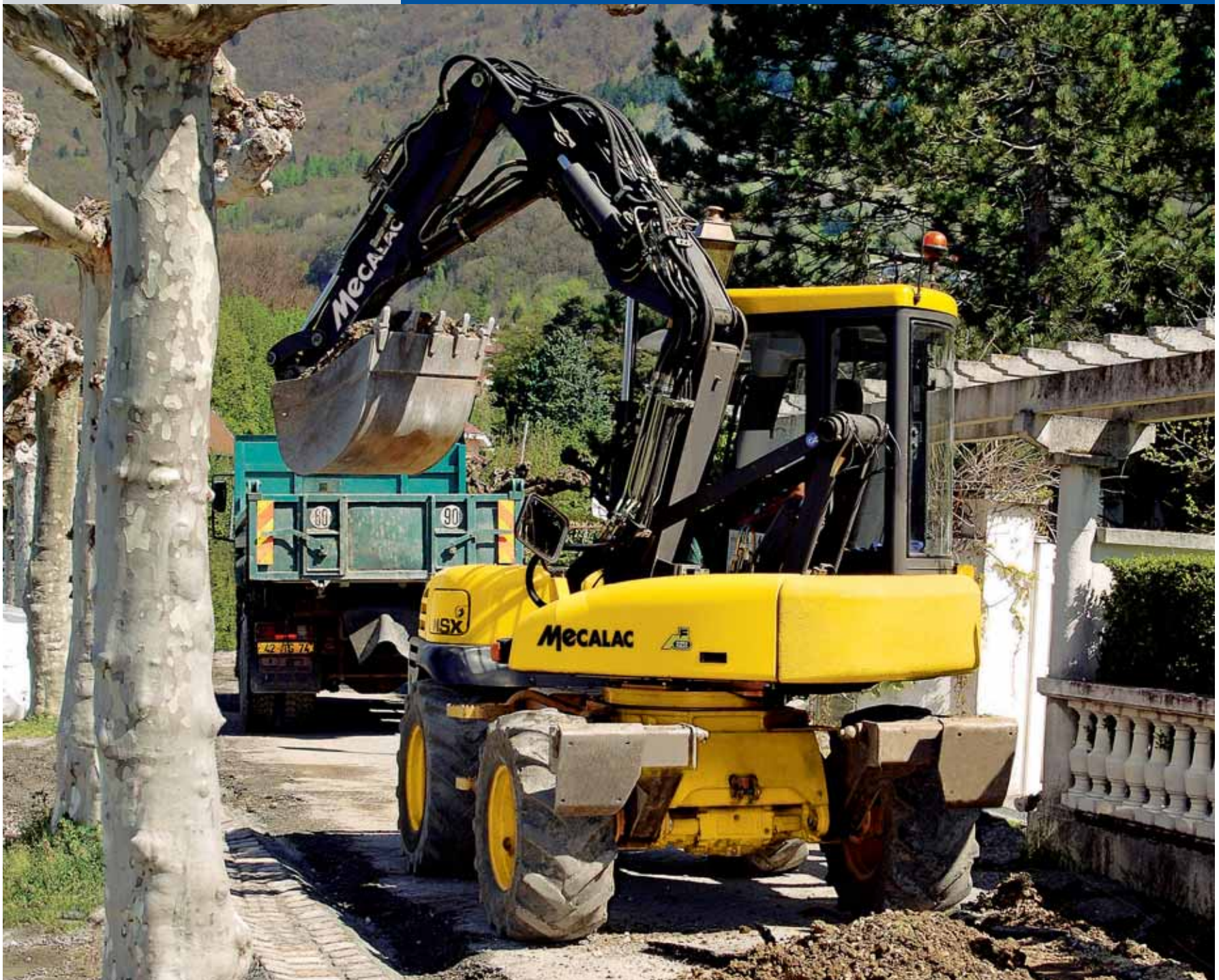


Mecalac

MULTIFUNCTIONS WHEELED MACHINE **10MSX**



> Experience of your worksite

MULTIFUNCTIONS WHEELED MACHINE

10MSX

COMPACT, FAST AND

35 years of experience, working alongside our clients, has enabled us to develop original solutions...

- boom ram mounted on parallelogram
- turret with total rotation, independent of the engine
- standard operating modes: to standard ISO 10968.

... and continually innovative solutions:

- > **ACTIVE LOCK*** hydraulic quick-release coupling
- > **ACTIVE CONTROL**, load sensing, flow sharing, cylinders coupling **
- > **SENSO DRIVE****, closed circuit hydrostatic travel

* details page 5

** details page 9

A Tier 3 engine which gives its full potential at low speed, making for an efficient, quiet machine

**50 kW / 68 hp
at 2100 rpm**

99 dB(A)

**27 km/h
on the road**

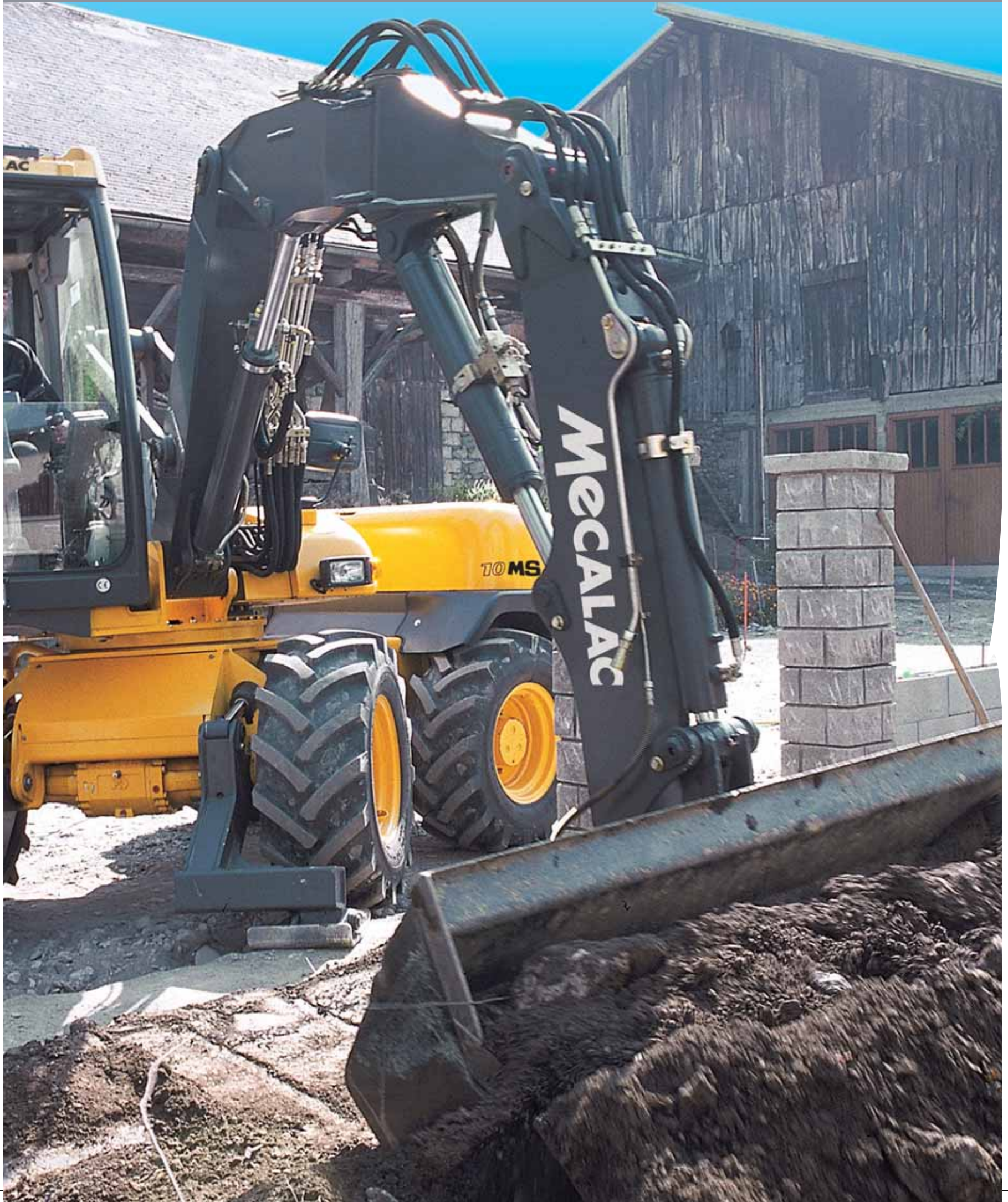
Power and speed
for very short cycle times

Complete equipment
as standard

Accessory compatibility
with the 8CX,
11CX and 11CXi,
12MSX and 12MXT models.



QUIET



MULTIFUNCTIONS WHEELED MACHINE

10MSX

MECALAC, THE CONCI



Whether you are in the building or road industries, local authorities, cable or pipe layers, landscape gardeners, working in urban areas... Mecalac endeavour to meet your requirements for compactness, performance and cost-effectiveness.



COMPACTNESS

The Mecalac uses only one lane, irrespective of the job to be done, and remains efficient, even in the most restricted places

PERFORMANCE

Picking up the heaviest loads up and positioning them precisely and safely are usual jobs for the Mecalac.

Unloading a lorry, handling a pallet 3 metres below ground, or setting it down over a wall are also part of daily work.





Efficiency of the operating sequence, quick-release coupling, compactness and speed of cycles give the Mecalac all its flexibility.

COST-EFFECTIVENESS

A single Mecalac on the site for digging, loading, handling and lots of other jobs ...

The tool is changed from the cab in just a few seconds thanks to **ACTIVE LOCK** a Mecalac quick-release coupling with mechanical locking and hydraulic overlock.



MULTIFUNCTIONS WHEELED MACHINE

10MSX

SPECIFIC ADVANTAGES

The 10MSX benefits from the experience gained with the 12MXT and 14MBX. In addition, certain technical choices make it particularly attractive in this 7 tonne category.

Together with the articulated and oscillating undercarriage, the transverse arrangement of the engine in the rear section have made it possible to lower the centre of gravity, providing excellent stability.

This choice also gives the operator an excellent view of the back of the machine.

The combination of this undercarriage with constant four wheel drive gives the 10MSX excellent handling abilities (outside turning radius of 4.85 m).

Furthermore, its lightness coupled with its excellent abilities, enable it to work in the most difficult terrain, which makes it the ideal machine for landscaping work.



PERFORMANCE IN ANY SITUATION



The 68 hp/50 kW engine gives all the power necessary for a high road speed, but also permits very short cycle times, essential to the profitability of your pipe or cable laying site.

The hydraulic offset, available as standard, also contributes to the machine's efficiency because it makes it possible, to dig a trench with vertical sides, outside it's own width.

The independent stabilizers are standard and make the machine better balanced. They make it possible to keep the machine horizontal, irrespective of the differences in ground level.

Working at low speed, which guarantees a long life, the 10MSX's engine is also characterized by very low diesel consumption and sound levels.



EASY MAINTENANCE AND SERVICING...

Easy access to reliable components enables the 10MSX to remain always operational on your sites : two wide side doors provide access to the pumps and facilitate cleaning of the water/oil coolers. A wide cover on the hydraulic compartment, situated at a convenient height, gives access to the load sensing SX14 control valve. The equipment's hydraulic circuit is particularly simple to adjust.

The number of greasing points is particularly small, thanks to the one-shot lubrication of the parallelogram and of the inner toothed crown*.

Simplicity of daily service has been the subject of particular attention. This helps to guarantee that regular servicing takes place.

*** As an option:**

- simultaneous greasing of the parallelogram, of the inner toothed crown and equipment
- automatic one-shot lubrication



MULTIFUNCTIONS WHEELED MACHINE

10MSX

TO WORK BETTER AND

Cab comfort and easy operation, precision and progressiveness of the controls contribute to making the Mecalac a high-productivity machine.

A PANORAMIC, COMFORTABLE CAB:

The cab, in order to meet the FOPS and ROPS safety requirements, is particularly spacious. With large glazed areas, you can see all of the equipment and site environment. Separated from the engine, it has a very low sound level.



Comfort equipment : foldaway front windscreen, high-performance ventilation, filtering sun visor, multi-adjustable seat, (pneumatic seat as an option), very efficient air conditioning*, heating and defrosting, adjustable steering column...

* Option.

ADVANCED TECHNOLOGIES

SENSO DRIVE

The **SENSO DRIVE** (closed circuit hydrostatic transmission) offers many **operational benefits** (accuracy, progressive approach...), **economic benefits** (maximum yield/optimised consumption) and **incomparable operational comfort** (progressive acceleration, safe and effective braking, power control).

ACTIVE CONTROL INSIDE :

LOAD SENSING : optimum equipment pressure suited to the effort requested,

FLOW SHARING : pump output shared among all controls, simultaneous movement

CYLINDER COUPLING : Simultaneous control of boom cylinders and tandem drive with a single joystick or control the equipment in 3 stages without using the pedal.

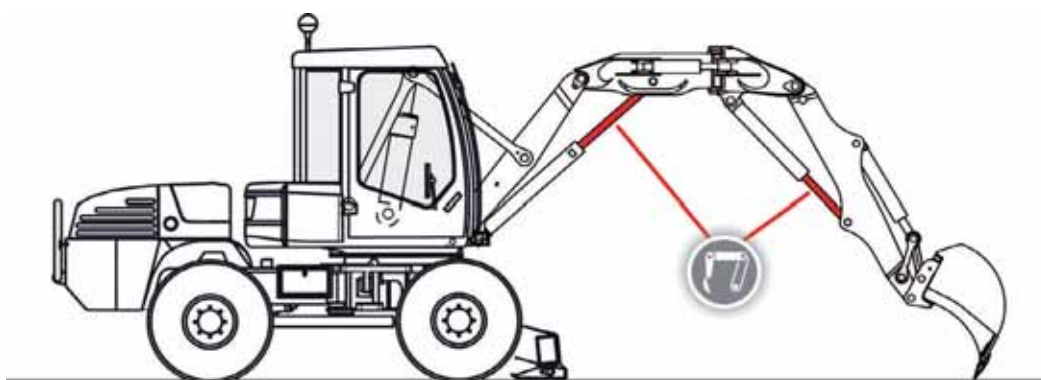


STANDARD OPERATION - COMPLYING WITH STANDARD ISO 10968:

In **Excavator Mode**, the Mecalac, with its 3-part equipment, behaves like a standard excavator with 2-part equipment, thanks to the patented **cylinder coupling system**. (see plan 1 below).

In **Loader Mode**, the Mecalac behaves like a standard loader, the operator having his left hand on the steering wheel and his right hand on the manipulator. (see picture 2 below).

In **Mecalac Modes**, the operator controls each equipment and accessory cylinder individually to meet particular situations.

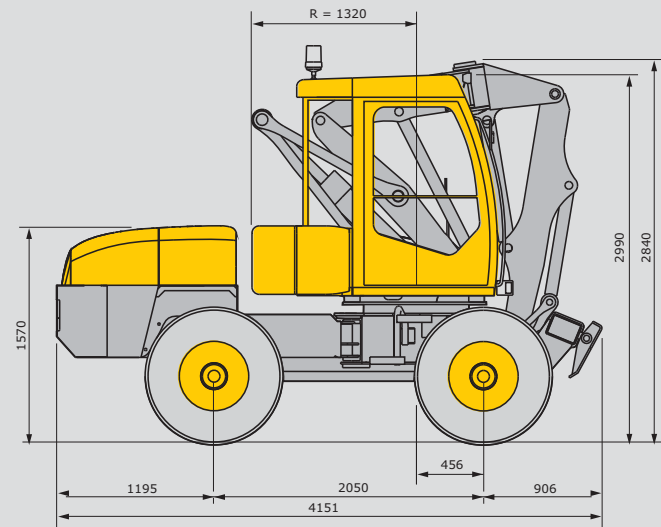


1 - Cylinder coupling system



2 - Loader driving mode

TECHNICAL FEATURES



WEIGHT

- Unladen ready for work without bucket 7100 kg
- With bucket 7400 kg

ENGINE

- Turbocharged engine - Tier 3
- Type CUMMINS - 4BT 3,3
- Diesel 4 cylinders in line
- Power output 50 kW (68 hp to 2100 rpm)
- Maximum torque 245 Nm to 1600 rpm
- Cubic capacity 3300 cm³
- Cooling : water
- Air filter dry, cartridge
- External soundproofing 99 dB(A)

ELECTRICAL CIRCUIT

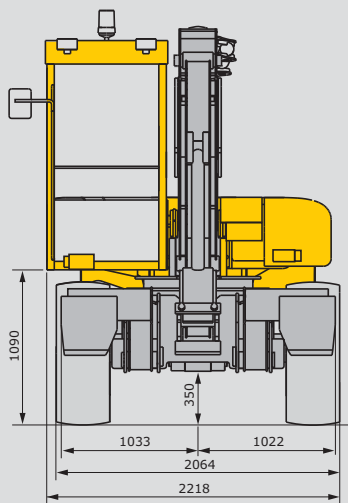
- Voltage 12 V
- Batteries 175 A
- Alternator 12 V / 60 A
- Starter motor 12 V / 2.2 kW

CHASSIS

- Articulated type
- turning circle inside 2.77 m
- outside 4.85 m
- Front chassis equipped with 2 independent front stabilizers.

Tanks

- Hydraulic oil, capacity 60 l
- Diesel, capacity 100 l

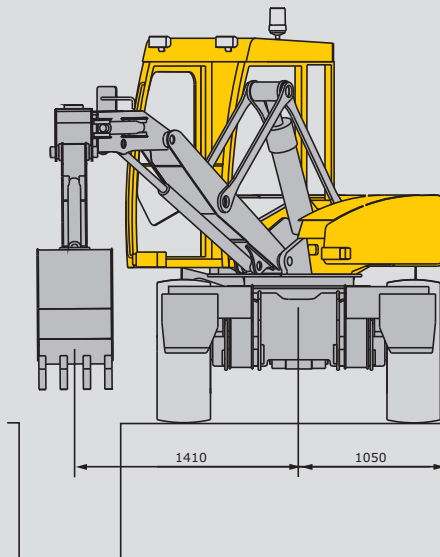


TURRET

- Total 360° rotation.
- Inner toothed crown wheel drive.
- Slewing by hydraulic motor with brake.
- Rotation speed 9 rpm.
- Hydraulic motor 560 cm³/max. pressure 230 bars.
- Cross-over valve dampened for the setting in motion and progressive stopping of the turret in rotation.

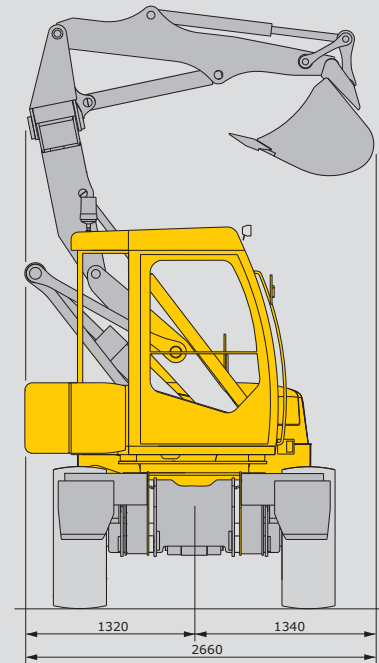
STEERING

- Hydraulic: ORBITROL unit; priority valve, actuated by load sensing signal.
- Anti-shock valves 175 bars



CAB

- ROPS and FOPS approved.
- Unit body fixed on 4 anti-vibration mountings, retractable windscreen under the cab roof, sliding door window, opening rear panel.
- Controls incorporated in consoles situated on either side of the seat, and adjustable in relation to the seat.
- Suspended and dampened seat, adjustable in terms of height and longitudinally with seat belt.
- Electronic control panel with all the safety and supervision information, visual indications and audible alarm.
- Waterheated, ventilation with large air flow, 320 m³/H, great capacity of demisting and defrosting.
- Visibility and easy access to fuses and electric components.



- Patented operator assistance system, giving the possibility of 4 modes :
 - **MECALAC 1+2**, for handling and precision work.
 - **EXCAVATOR**, for use as an excavator, for earthwork and levelling work.
 - **LOADER**, for re-handling and levelling.
- Tilting steering column.
- Soundproofing in cab 69 dBA
- Air conditioning (option).
- Stereo radio CD player (option).

TRANSMISSION

- Closed-circuit hydrostatic with "automotive" type automatic control **SENSO DRIVE**.
- Electrically-operated direction-of-travel changeover switch on steering column without need to stop.
- Two speed ranges in both directions of travel: "site" and "road".
- Inching control making it possible, with the diesel engine at constant speed, to reduce the speed until the machine is stationary.
- Hydraulic travel motor and pump are variable-displacement making it possible to vary the gear ratio continuously over the entire speed range from 0 to 27 kph

Max. tractive effort 3300 daN
 Max. pressure 480 bars
 Max. pump displacement ... 112 l/min (56 cm³)
 Engine 80 cm³

Axles and wheels

- 4 drive wheels of the same size.
 - As standard equipped with 405/70-19 tyres.
 - On option equipped with 405/70-19 tyres.
- +/- 8° oscillating undercarriage
- Rigid front and rear driving axles
- Oscillation locking by 2 rams
- On rear axle, single-ratio transfer gearbox giving the power directly to the rear axle and to the front axle via a transmission shaft. Limited-slip differential on the two axles.

Brakes

- Service brake:
 - hydrostatic braking
 - mechanical brake: oil-bath multi-disc in the two axles.
- Parking and emergency brakes. Spring ram operating by lack of pressure on the front axle.



HYDRAULIC

• Single-pump fluid circuit

- variable capacity piston pump 45 cm³
- max. pressure 280 bars
- max. displacement 90 l/min

• SX14 type directional control valve : **ACTIVE CONTROL**

- Proportional load sensing with individual balance for each element: boom, boom jib, dipper, bucket and accessory (option).
- Proportionality of functions always respected irrespective of pressure level of each element.
- Hydraulically-assisted proportional controls of functions, by manipulators or foot-operated controls supplied at low pressure with standby accumulator.

• Ancillary functions by solenoid-operated valves.

- Independently-controlled left and right stabilizers.
- Unlocking of the tool holder.
- Lifting of arm rest safety feature.
- Hydraulic locking of the equipment in road position.



EQUIPMENT

- Made up of 3 parts : boom, boom jib, and dipper.
- Boom controlled by a patented system of conrods and rams permitting a clearance of 145°.
- Right and left offset by hydraulic ram +/- 30°.
- Main bearings fitted with sealing rings and lubrication by the rings.
- Boom cylinder with end-of-travel damper.
- Tool quick hitch system **ACTIVE LOCK**.
 - Connection with automatic mechanical locking.
 - Hydraulically-controlled unlocking.

Performances of the equipment

Handling

- For lifting and handling, the Mecalac must be provided with safety valves.

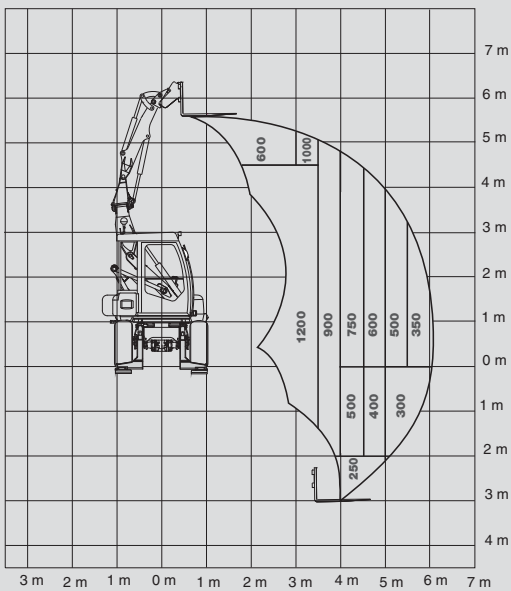
As a back-hoe

- Max. penetration force 2950 daN
- Max. digging force 4850 daN

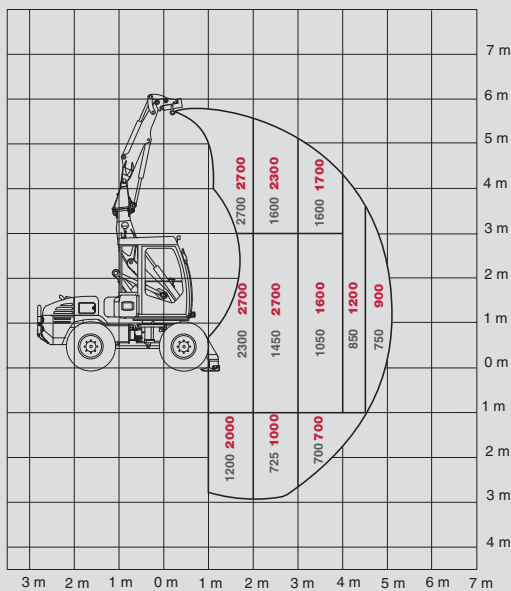
As a loader

- Max. digging force 3650 daN

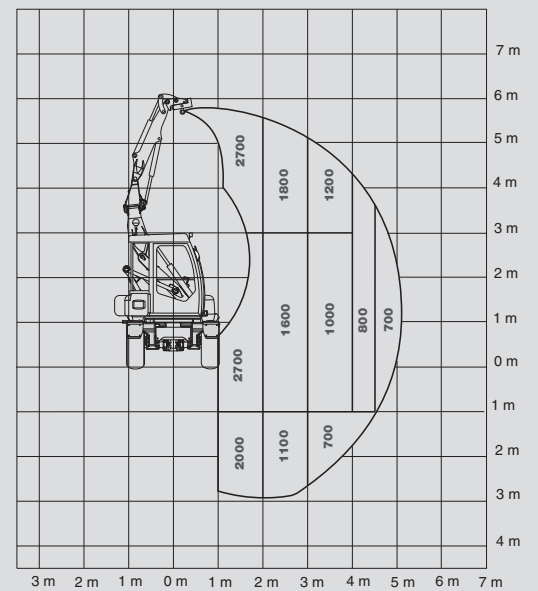
TECHNICAL FEATURES



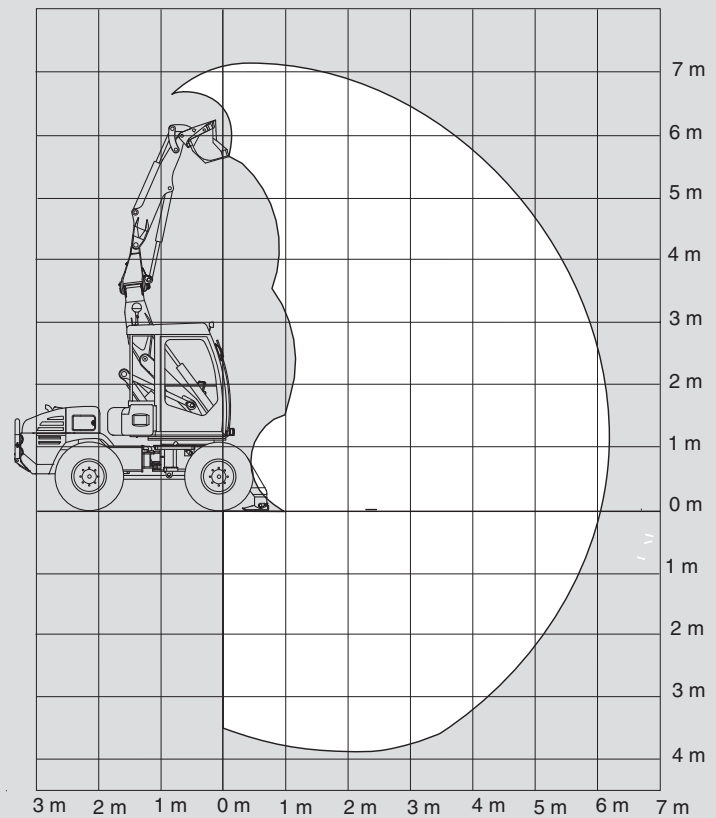
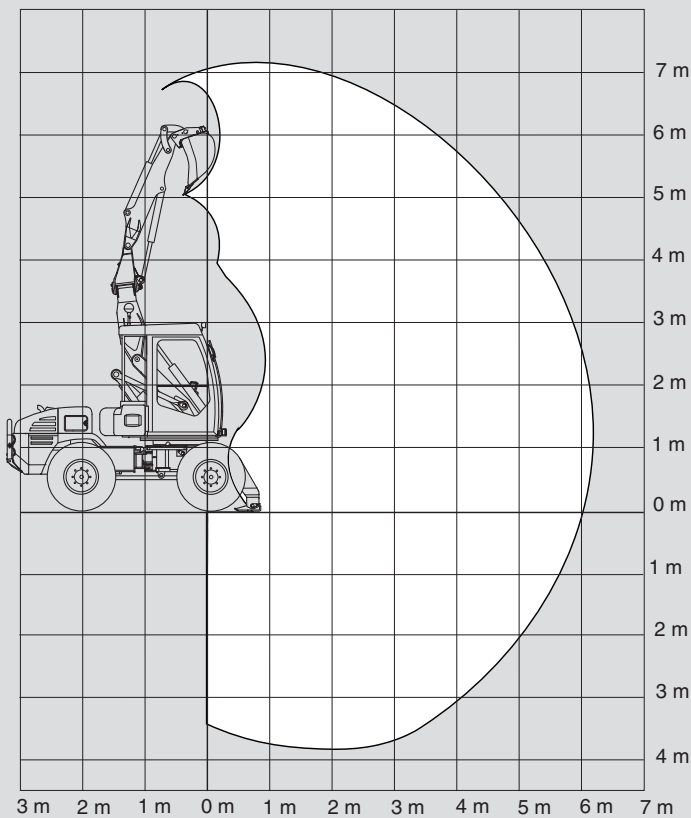
Lifting capacities in kg (ISO 10567)



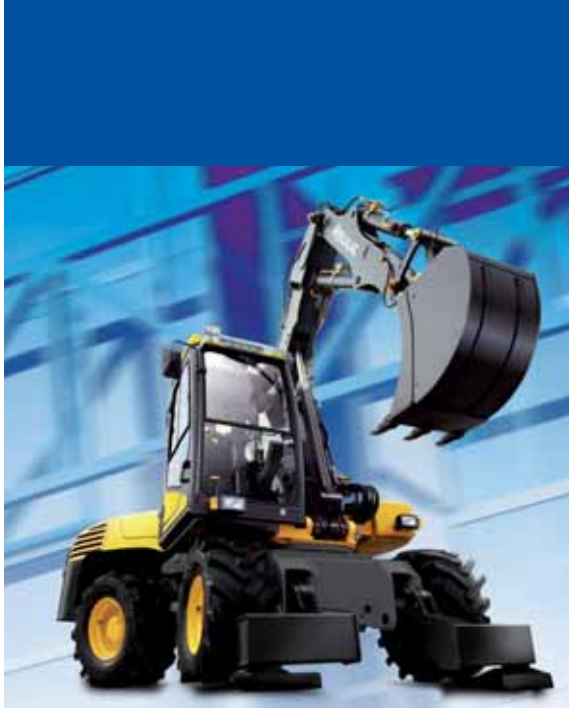
■ Lifting capacities in kg (ISO 10567)
 ■ Lifting capacities with optimum configuration



Lifting capacities with optimum configuration







Our mission is to design, develop, manufacture and distribute quality product. Our innovative machines perform many varied and demanding tasks within your environment.

Customers are the heart of our company. We provide them with our knowledge, experience and the team spirit that drives Mecalac.



Your dealer



Mecalac

Parc des Glaisins - 2, av. du Pré de Challes - F-74940 Annecy-le-Vieux - Tél. : +33 (0)4 50 64 01 63 - Fax : +33 (0)4 50 64 02 79 - www.mecalac-ahlmann.com

The Mecalac Group S.A. manages **MECALAC** and **AHLMANN** Brands.

☑ kalistene conseil 04 50 69 01 97 - 10MSX-GB - 04/10 In order to adapt their products continuously to suit the needs of users and the development of new techniques, Mecalac reserves the right to change specifications or design without prior notice. The illustrations do not necessarily show standard versions of the machines.