Mecalac

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ANEW REFERENCE

A NEW STANDARD IS BORN BASED UPON COMPACTNESS AND MOBILITY

Joining such a level of compactness with the mobility of a four-wheel drive frame is simply revolutionary.





151117R THE SECRET TO STABILITY

DESIGN: A STRONG AND STRATEGIC COMPONENT OF THE MECALAC IDENTITY

"Our strength? Offering each client the most efficient solution. A deep analysis of users' work process allows us to provide the right industrial and versatile answer to their requests. This approach allows to offer better fitted machines based on the real needs of the jobsite. At Mecalac, design has always been part of our creation process. It is a strong and strategic component of our brand identity and products and is not limited to mere aesthetics. Our design is functional and secure. It blends ergonomics with smooth flowing lines".

Patrick Brehmer, Head of Marketing, Product Management & Design The complete integration of the counterweight and of the equipment inside the frame print have enabled to combine compactness and stability.









Optimize security for the operator as for the workers' team of both urban and suburban construction sites:

- maintenance feet on the ground
- oscillation locking by the brake pedal and the joystick
- reduced access height
- excellent compactness
- optional integrated and automated cameras
- excellent visibility

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DRIVING USER-FRIENDLINESS

PARKING, WORK OR ROAD MODE, IN ONE SINGLE SWITCH.

Thanks to the unique central selector, the driver can switch into road or parking mode in a single movement, thus sparing 7 to 10 manipulations. With this unique global exclusivity, everything can be done instantly by selecting the desired configuration.

With this unique, worldwide exclusive, everything can be done instantly by selecting the desired configuration. This guarantees faultless and ultrasafe driving on construction sites, leaving the driver free to calmly focus on the tasks at hand and take full control of the machine.





CONNECT 'ATTACHED' TO VERSATILITY

IN ORDER TO MAKE ITS MACHINES EVER SAFER AND MORE VERSATILE, MECALAC INTRODUCES CONNECT, ITS PATENTED QUICK COUPLER, NOTABLE FOR ITS LIGHTNESS, INTEGRATION, USER-FRIENDLINESS, REVERSABILITY AND ITS PERFECT SAFETY. Controlled from the cab, there is zero risk of it detaching from the tool either while it is being connected or while in operation. It is equipped with a detection system that alerts the driver if the tool is improperly secured (with visual and audible signals). Not only that, but it is also reversible and has an automatic play compensation function, making the CONNECT quick coupler the ultimate connection between tool and machine!















SPACE & PANORAMIC VISION

GLOBALVISIBILITY HAS BEEN THOUGHT OVER TO OPTIMIZE THE OPERATOR'S DIRECT VISION.

At the rear of the machine, the lines of the hood have been designed and the rounded window is now in one single piece for a more open view. The Mecalac arm boom can lay completely when folded, which offers a great side visibility. The 2 piece windshield is foldable and the door windows can be opened to be at the forefront of the worksite. Thanks to the view mirrors and the 2 cameras, the cabin offers a new vision to the operator who can stay focused on the worksite environment while managing his machine.













ACCESSIBILITY

CLIMB UPAND DOWN EASILY

Thanks to its perfectly centered turret, the cabin is perfectly accessible to the driver, without requiring too much effort or taking any risk. The exclusive Mecalac system of a slide swing door allows for easy opening and closing whether the operator is on the ground or seated in the cab.









FILL UP YOUR TANK EFFORTLESSLY

THE TANK HAS A CAPACITY OF 220 LITRES AND IS EXTREMELY EASY TO ACCESS SINCE IT IS LOCATED IN THE FRAME, JUST ABOVE THE FOORBOARD THAT LEADS TO THE CABIN.

Besides helping lower the centre of gravity, the lower-down position of the tank and its increased capacity also mean that the driver or fleet manager no FRONTer has to carry out any operations at height, nor is there anything in the way when driving the vehicle. With the majority of other excavators still mounting the fuel tank in the upper carriage, filling up a 15MWR is as simple as it is safe. Because daily upkeep should always be risk-free.





OPTIMAL PRIMARIEE

15MWR machine is equipped with numerous technical characteristics for optimal construction site management on all types of terrain.

- naturally balanced
- all terrain capacity
- manœuverability
- agility
- compactness
- lifting power





PERFORMANCE

NATURALLY BALANCED

THE NEW 15MWR BENEFITS FROM 360° ISO STABILITY: THIS MEANS THE MACHINE'S STABILITY REMAINS THE SAME REGARDLESS OF THE ROTATION ANGLE OF THE UPPER CARRIAGE.

Lift, place, move, unload... all without moving. The new 15MWR transforms worksite logistics thanks to its incredible stability in any position and on any terrain. Whatever the conditions, it stays balanced both when travelling in transfer operations between sites as well as during work phases. This enables an impressive 360° lifting performance - an extraordinary feat.







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PERFORMANCE

GROUND CLEARANCE

THE LOWERED CENTER OF GRAVITY HAS ABSOLUTELY NO INCIDENCE ON THE GROUND CLEARANCE HEIGHT, WHICH IS AN EXCLUSIVE 'MADE IN MECALAC' PARADOX.

Thanks to the lowering of the engine on the turret, the 15MWR offers excellent visibility and compactness uncompromising the machine's mobility (wheel dimensions and axle oscillation).



PERFORMANCES

MANŒUVERABILITY & COMPACTNESS

The new 15MWR can be equipped with 4 steering wheels thus allowing you to do a U-turn practically on the spot and effectively overcome all obstacles. The aim: ensuring maximum mobility in narrow spaces.



AGILITY

Efficiency of movement

When the leeway is limited, the 15MWR is a powerful ally. Its perfectly integrated and light offset and its 3-part arm allow the machine to work outside its pattern.

MOBILITY

Best manoeuvrability

The 3 direction modes enable the 15MWR to get out of any situation.

COMPACTNESS AT WORK

in the service of security

With its 360° rotation and the exceptional angular displacement of the boom, the 15MWR only takes up one lane to carry out its tasks, thus preserving the safety of pedestrians and of car drivers. The well thought out dimensions of the machine are ideal in an urban context.





for minimum bulk

This useful compactness frees 100% performances and 100% functions, therefore reducing the impact of urban construction sites on the environment.





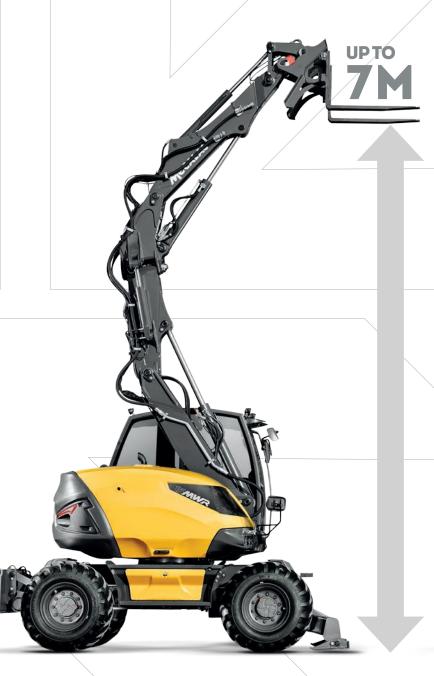












AN UNRIVALLED COMPACTNESS/LIFTING CAPACITY RATIO:

The unique architecture of the new 15MWR makes this powerful and precise handling machine capable of lifting up to 6.5 tons to 3 meters and 360°!



360°



AMPLITUDE

Equipped with a loader bucket or with pallet forks, the 15MWR allows for an unusual range of amplitude whether this is positive for loading a truck or negative for offloading pallets.



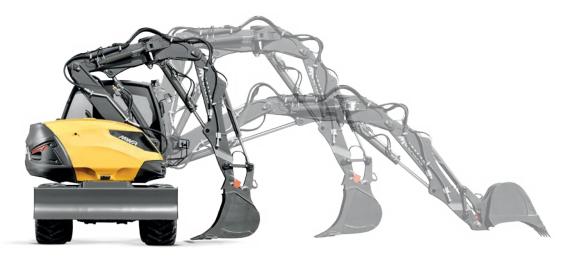








LARGE DIGGING AMPLITUDE





UNIQUE OVERFLOW HEIGHT





STATIC LOAD





SETUP YOUR MWR

The new 15MWR comes standard equipped with a number of features, while at the same time remaining attentive to the specifications required by various types of customers: landscape and earthwork contractors, public works' professionals, municipal authorities, etc. So, from the color scheme to the choice of tires, heating/AC or cameras, not to mention the various attachments, buckets and hydraulic tools which can be used, there are many different ways to tailor your new 15MWR to your brand and business.

CUSTOM COLORS

You wish to get your MWR with your brand colors?
Customize your Mecalac with your own RAL color codes.

Color examples



TIRES CHOICES

Simple MITAS 18-19.5 (standard) Simples MICHELIN XF 18R19.5 Twin MITAS 10.00-20 16PR NB38 Twin CALIBER 315/70 R22.5 Large ALLIANCE 600/40 R22.5



CAB - COMFORTAND SAFETY

Air conditionning

Rotating beacon

LED rotating beacon

Travel alarm

Lynx shout type adaptative travel alarm

Additional front working light

Additional rear working light

Cabin sun visor

Heated penumatic seat

Switch command ISO / SAE

FRAME

4 steered wheels

Steering direction inversion

Front blade and rear stabiliser

Rubber protective pads under stabilisers

Clamshell grab support

Mudguards

HEAVY COUNTERWEIGHT (+450 KG)

ENGINE

Particles filter (DPF)

Automatic temporised engine stop

Electric gas oil pump with automatic stop

Anti-theft device - electronic immobilizer with 6 keys

AUXILIARY LINES

Additional auxiliary line

Additional proportional auxiliairy line

Hammer return line

ANTIDROP SAFETY VALVES

Safety valves on boom, adjustable boom, dipperstick

Safety valves on boom, adjustable boom, dipperstick, bucket

QUICK COUPLING

'Connect' quick coupling with hook

Without quick-coupler option

MECALAC VERSATILE ATTACHMENT

Mecalac versatile attachment

Two-piece boom attachment

Offset two-piece boom attachment

LUBRICATION

Standard manual greasing: single point for turret and first boom (standard)

Centralized, manual lubrication for turret and equipment (except axles between connecting rod and quick coupling system)

Centralized, automatic lubrication for turret and equipment

OIL CHOICES

Hydraulic oil Total (ISO 46) (standard)

Hydraulic oil Panolin (HLP 46)

Hydraulic organic oil Total (BIOHYDRAN TMP 46)

Hydraulic oil for cold weather (ISO 32)

Hydraulic oil for hot weather (ISO 68)

Hydraulic oil for very hot weather (ISO 100)









DIGGING BUCKETS

TYPE	WIDTH (mm)	number of teeth	VOLUME (I)	WEIGHT (kg)
	450	3	235	319
	500	3	270	331
DIGGING BUCKET with teeth	600	3	335	358
DIGGING BOCKET WITH LEETI	850	4	515	434
	1000	4	625	485
	1200	5	770	551
	450	-	235	295
	500	-	270	306
DIGGING BUCKET without teeth	600	-	335	333
GGING BUCKET WITHOUT TEETH	850	-	515	401
	1000	-	625	452
	1200	-	770	510

NARROW BUCKET

TYPE	WIDTH (mm)	number of teeth	VOLUME (I)	WEIGHT (kg)
NARROW BUCKET	300	2	95	275

LOADER BUCKETS

TYPE	WIDTH (mm)	number of teeth	VOLUME (I)	WEIGHT (kg)
LOADER BUCKETS with teeth	2250	7	1000	614
LOADER BUCKETS without teeth	2250	-	1000	591

4X1BUCKETS

TYPE	WIDTH (mm)	number of teeth	VOLUME (I)	WEIGHT (kg)
4X1 BUCKET with teeth	2520	7	750	782
PROTECTION 4X1 BUCKET with teeth		-	-	14
4X1 BUCKET without teeth	2520	-	750	759
PROTECTION 4X1 BUCKET without teeth		-	-	5
BOLTED COUNTERBLADE 7 boreholes - center-to-center borehole distance 380	2520	-	-	71
KIT DE RACCORDEMENT	-	-	-	8

PALLET FORK

TYPE	Specifications	WEIGHT (kg)
PALLET FORK	to be used with 4 safety valves	410

DITCHING BUCKET

TYPE	Specifications	WIDTH (mm)	VOLUME (I)	WEIGHT (kg)
DITCHING BUCKET 1 COUPLING		2000	590	509
BOLTED COUNTER BLADE - Jagged	borehole center-to-center distance 185	2000	-	38
BOLTED COUNTER BLADE	borehole center-to-center distance 185	2000	-	57

HANDLING PLATE AND HAMMER PLATE

TYPE	Specifications	WEIGHT (kg)
HANDLING PLATE with hook	to be used with 3 safety valves	122

HANDLING JIB

TYPE	Specifications	WEIGHT (kg)
HANDLING JIB	length 4100 mm, lifting capacity 500 Kg	177

CLAMSHELL BUCKET SUPPORT

TYPE	Specifications	WEIGHT (kg)
CLAMSHELL BUCKET SUPPORT	-	124

RIPPER TOOTH

TYPE		WEIGHT (kg)
RIPPER TOOTH	-	293

HAMMER PLATE

TYPE	Specifications	WEIGHT (kg)
HAMMER PLATE no boreholes	-	139
HAMMER PLATE with boreholes	contact your dealer	136





WEIGHT	DATA
In running order, without bucket, with 75 kg operator, fuel tank full without	
optional equipment, standard tires	400001
- Rear blade - Front stabilisers + blade	13300 kg 13890 kg
- Front stabilisers + blade - Large tires 600/40	+160 kg
- Twin tires 10-20	+390 kg
- "Heavy" counterweight	+450 kg
- Offset two-piece boom attachment	+200 kg
ENGINE	
Turbocharged engine with chilled air inlet (stage 4)	EGR valve and catalytic
Diesel 4 in-line cylinders	DEUTZ TCD 3,6 L4
Horsepower (DIN 70020) and Engine speed	100 kW (136 ch) at 2300 rpm
Max. torque	500 N.m at 1600 rpm
Cubic capacity	3621 cm ³
Cooling	water
Air filterdry, cartridge (with clogging indicator in the cabin)	•
Fuel consumption (depending on operating conditions)	8 at 14 l/h
Sound power level (LWA)	101 dB(A)
Fuel tank capacity	220 l
ELECTRICAL SYSTEM	40.14
Voltage	12 V
Batteries	1 x 95 Ah/800 A
Alternator	120 A
Starter	4 kW
Electric sockets sealed	•
UNDERCARRIAGE	
Rigid	•
Internal turning radius	
- 4 steered wheels (optional)	1,93 m
- 2 steered wheels	4,44 m
Outside turning radius	
- 4 steered wheels (optional)	4,44 m
- 2 steered wheels	7,36 m
Blade fitted on a parallelogram:	
- lift height above ground	426 mm
- max. blade depth below ground	150 mm
Stabilisers controlled independently or in pairs	•
TRANSMISSION	
Open-circuit hydrostatic transmission	•
Driving direction inversion on joystick	•
Hydraulic motor coupled to a 2-speed ZF gearbox	Type "Powershift"
Continuously variable transmission rate over the BF: from 0 to 35 km/h whole speed range of the machine	from 0 to 35 km/h
'Cruise Control" and "Speed Control"	9200 daN
Max. traction force	8300 daN
Max. pressure	350 bar
Pump flow-rate	160 l/min
Hydraulic engine	107 cm ³



AXLES AND WHEELS	DATA
4-wheel drive	•
Rigid drive axle on the rear	steering as an option
Drive axl over front chassis oscillates to +/- 10°; oscillation block involves 2	
hydraulic cylinders	steering as standard
BRAKES	
Double circuit central braking system	•
Oil-immersed multi-disk brakes on each axle	•
TURRET	
Full rotation 360°	•
Driven by internal crown slewing wheel	•
Swivel with hydraulic motor with brake	•
Rotation speed	10 rpm
Rotation torque	3800 daNm
Hydraulic engine	1260 cm ³
Max. pressure	260 bar
Shock absorber for progressive turret rotation, start and stop anks, capacity	
Shock absorber for progressive turier rotation, start and stop ariks, capacity	· ·
CAB	
Extremely comfortable panoramic cab without frame on the rear left side	ROPS and FOPS
Monocoque cab fastened to 4 spring posts	•
Front windshield partially or fully removable	under the cab roof
Sliding door	•
Opening door window	•
Opening door window	
Position adjustable, seat adapts to the shape of the operator	seat adjustable in both height and width with seatbelt
Controls integrated into consoles located on either side of the seat and adjustable	
relative to the seat	•
Water hashing a set on a second instantial ICO 10000	high flow fan, high capacity for demisting
Water heating system compliant with ISO 10263	and defrosting
Controls assisted by ergonomic, proportional control levers	•
7" color SCREEN combining saftety and monitoring information of the machine functions	•
Fuel levels and coolant temperature indicated on the dashboard	•
Front working light	•
Rear storage area	refrigerated with air conditionning option
•	
ATTACHMENT	
Mecalac variable range kinematics consisting of 4 parts: boom, adjustable boom, offset boom and dipperstick	enabling a angle of 140°
Standard right and left offset with a hydraulic cylinder	2.30 m/machine axis (with multipurpose Mecalac equipment)
End bearings equipped with sealing rings and greasing via the rings	•
Boom cylinders with end of travel shock absorbers	•
CONNECT quick coupler	•
•	

HYDRAULIC SYSTEM	DATA
Variable displacement pump	maximum 130 cm ³
Maximum flow rate	270 l/min
Maximum working pressure	350 bar
Proportional Load Sensing with individual balancing of each element: boom, adjustable boom, dipper stick, bucket and ancillary	•
Proportionality of functions always achieved irrespective of the pressure level of each element: "flow sharing"	•
Anti-cavitation overpressure relief valve in each element	•
Hydraulically-assisted proportional function controls using joystick or foot pedals supplied at low pressure with emergency accumulator	•
Associated functions controlled by solenoid-operated valves	•
Attachments circuit - Max. flow rate - Adjustable flow rate to the monitor - Proportional function	standard 180 I •
Hydraulic oil	122 l

OPERATING MODES

WORKING MODE

- Turret rotation and dipperstick control with the left control lever
- Bucket and intermediate boom or boom control with the right control lever
- Travelling control using foot pedals
- Operating the excavator in ISO mode
- Immediate use of auto-idle function
- Display of engine speed (rpm)
- Sceen display in Working Mode

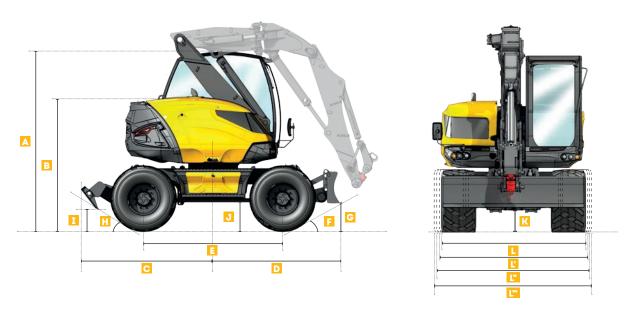
DRIVING MOD

- Deactivation of the manual engine speed control. (The engine speed varies depending on how far the travel pedal is depressed)
- Turning on road headlights
- Turning on rotating beacon
- Locking of machine hydraulic functions (attachment, slewing, outriggers)
- Deactivation of oscillation lock (only if oscillation lock selector is on AUTO) and is not activated via the right joystick
- Deactivation of the travel alarm
- Deactivation of the overload alarm
- Display of speed in km/h
- · Deactivation of idle function via keypad and joystick
- Speed controller
- Screen display in Road Mode

PARKING MODE

- Engage parking brake
- Turn the transmission into Neutral
- · Deactivation of the accelerator pedal
- Set engine rpm into idle
- Lock hydraulic and electrical controls
- Screen display in Economy Mode
- Lock oscillating axle





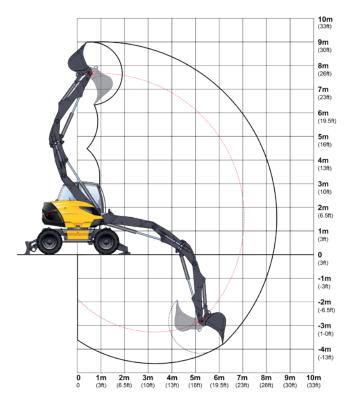
MACHINE DIMENSIONS	COMMON TO ALL BOOM KINEMATICS
A Cab height (without attachment)	3127 mm
B Cover height	2325 mm
C Overhang of lower frame on stabilisers side	2312 mm
Overhang of lower frame on blade side	2225 mm
E Wheelbase	2450 mm
Blade crossing angle	31°
G Height with blade raised	450 mm
H Stabilisers crossing angle	42°
Height with stabilisers raised	437 mm
Ground clearence at axle	490 mm
K Ground clearance at gearbox	380 mm
L Width with 18-19,5 tires	2390 mm
L' Width with 10,00-20 twin tires	2505 mm
Width with 600 tires	2520 mm
Width with Caliber tires	2580 mm



MECALACVERSATILE ATTACHMENT







MACHINE DIMENSIONS	MECALAC VERSATILE ATTACHMENT
M Overall length with attachment	5200 mm
N Overall height of structures	3660 mm
 Height in folded position 	5815 mm
P Tail swing radius	1570 mm
O Front radius	1845 mm

LIFTING FORCE WITH LOADING HOOK - WITH BLADE AND STABILISERS ON GROUND

All the weights are given in kg.

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	3	M	4,5	M	6	M
3M	8000	8000	6600	4400	4600	2200
OM	8000	8000	8000	3400	5200	2000
-15M	8000	8000	8000	3300	3900	1900

Break-out force	8170 daN
Penetration/Tear-out force	5500 daN
Maximum reach	8300 mm
Maximum digging depth	4550 mm

LIFTING FORCE WITH LOADING HOOK - ON WHEELS

All the weights are given in kg.

PERFORMANCE DIGGING BUCKET

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	3	M	4,5	5M	6	М
3M	8000	6500	4600	3400	2400	1700
OM	8000	6000	3700	2600	2200	1500
-1.5 M	8000	4500	3700	2300	2100	1400

WORKING CONDITIONS AT LIFTING HOOK

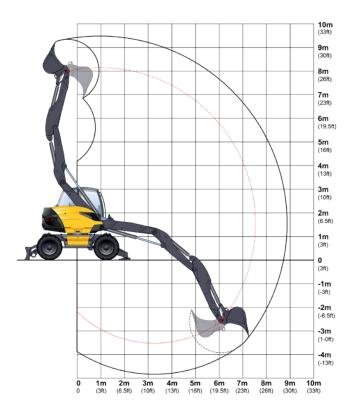
- On horizontal, compact ground
- Equipment used without offset
- Oscillation axle blocked
- Without tools (bucket, shovel...) with handling plate and loading hook of 8 T
- Wheels 18-19.5
- 75% of the tipping load or 87% of the hydraulic capacity
- Maximum values determined for optimal position of boom and cylinders



TWO-PIECE BOOMATTACHMENT







MACHINE DIMENSIONS	TWO-PIECE BOOM ATTACHMENT
M Overall length with attachment	5200 mm
N Overall height of structures	3710 mm
 Height in folded position 	6120 mm
P Tail swing radius	1570 mm
Front radius	1600 mm

LIFTING FORCE WITH LOADING HOOK - WITH BLADE AND STABILISERS ON GROUND

All the weights are given in kg.

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	3	M	4,5	M	6	M	7.5	M
3M	8000	8000	6500	4400	4600	2300	3300	1400
OM	8000	8000	8000	3500	5400	2000	2800	1300
-15M	8000	8000	8000	3200	4100	1900	-	-

PERFORMANCE DIGGING BUCKET	
Break-out force	8170 daN
Penetration/Tear-out force	6200 daN
Maximum reach	8900 mm
Maximum digging depth	4800 mm

LIFTING FORCE WITH LOADING HOOK - ON WHEELS

All the weights are given in kg.

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	31	M	4,5	M	6	M	7.5	M
3M	8000	6600	4700	3500	2400	1700	1500	1000
OM	8000	6000	3800	2700	2200	1500	1400	900
-1.5M	8000	4700	3600	2400	2100	1400	-	-

WORKING CONDITIONS AT LIFTING HOOK

- On horizontal, compact ground
- Oscillation axle blocked
- Without tools (bucket, shovel...) with handling plate and loading hook of 8 T
- Wheels 18-19,5
- 75% of the tipping load or 87% of the hydraulic capacity
- Maximum values determined for optimal position of boom and cylinders



OFFSETTWO-PIECE BOOMATTACHMENT



MACHINE DIMENSIONS	OFFSET TWO-PIECE BOOM ATTACHMENT
M Overall length with attachment	5200 mm
N Overall height of structures	3720 mm
 Height in folded position 	6120 mm
P Tail swing radius	1570 mm
Front radius	1600 mm

LIFTING FORCE WITH LOADING HOOK - WITH BLADE AND STABILISERS ON GROUND

All the weights are given in kg.

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	3M		4,5M		6M		7.5 M	
3M	8000	8000	6400	4400	4500	2500	2900	1300
OM	8000	8000	8000	3400	5200	1900	2700	1200
-15M	8000	8000	8000	3000	4000	1800	-	-

WORKING CONDITIONS AT LIFTING HOOK

- On horizontal, compact ground
- Equipment used without offset
- Oscillation axle blocked
- Without tools (bucket, shovel...) with handling plate and loading hook of 8 T
- Wheels 18-19.5
- 75% of the tipping load or 87% of the hydraulic capacity
- Maximum values determined for optimal position of boom and cylinders



PERFORMANCE DIGGING BUCKET	
Break-out force	8170 daN
Penetration/Tear-out force	6200 daN
Maximum reach	8800 mm
Maximum digging depth	4700 mm

LIFTING FORCE WITH LOADING HOOK - ON WHEELS

All the weights are given in kg.

	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	3M		4,5 M		6M		7.5 M	
3M	8000	6500	4700	3400	2500	1700	1400	900
OM	8000	5900	3600	2500	2100	1400	1300	800
-1.5M	8000	4400	3400	2200	2000	1300	-	-



MECALAC FRANCE S.A.S.

2, avenue du Pré de Challes Parc des Glaisins - CS 40230 Annecy-le-Vieux FR - 74942 Annecy Cedex Tel: +33 (0) 4 50 64 01 63







