

## PRESS RELEASE

# Handling solutions for today and tomorrow

- "Oxygen" label for alternative energies
- Connected, sustainable solutions
- A new 100% electric rough-terrain platform

**Munich, April 8, 2019** — the Manitou group, a world leader in rough-terrain handling, presents a wide range of connected, sustainable solutions dedicated to construction and mining at the BAUMA trade fair. A 100% electric platform is premiered as part of the new "Oxygen" label, which is devoted to alternative energies. It reinforces the group's committed CSR policy, offering efficient, sustainable solutions to its users.



The Manitou group presents an innovative booth at Bauma, with a strong focus on alternative energies. A corner of the booth entirely devoted to the "Oxygen" label illustrates the group's global thinking in this field,

and highlights its capacity for innovation to meet tomorrow's material handling needs using green energy. The new initiative consists of three levels:

- **Oxygen:** all the low-carbon solutions intended for the market.
- **Oxygen Lab:** all the low-carbon prototypes and solutions in the process of being tested/evaluated.
- **Oxygen Concept:** range of concept trucks and future trends towards which the group will direct its low-carbon solutions.



This strengthened ambition confirms Manitou group's interest in offering users ever more sustainable solutions, while maintaining a level of performance and cost-efficiency that are in line with users' expectations. The group also provides an offering that conforms with new fossil fuel standards and regulations, particularly in Europe.

Arnaud Sochas, Innovation Manager for Manitou group, explains the approach: *“Players in the construction market (rental companies and manufacturers) are faced with an increasing demand for flexible, low-carbon solutions, especially for urban work sites. In this context, it has become essential to focus on the requirements of zero emissions and low noise levels on extended work areas. With the Oxygen label, the Manitou group wants to provide a concrete response to these needs. Our approach obviously includes electric machines, but our primary aim is to provide a proportional solution tailored to each application. These solutions must be cost-effective for the user, and we are working on reducing their total cost of ownership while at the same time reducing their environmental impact”.*

The Manitou group has established a list of mandatory eligibility criteria for the Oxygen label:

- **Use of an alternative energy to diesel, which can be used on a continual or temporary basis in zero emission mode**
- **Reduction of environmental impact** (emissions: CO<sub>2</sub>, particulates, decibels)
- **Reduction in energy consumption** (based on the standard UTAC cycle: handling, loading, road and idle)
- **Reduction of TCO** (a common criterion for all Manitou solutions)



### **200 ATJ e Oxygen, a new 100% electric platform!**

Integrating seamlessly into the new “Oxygen” label, the ATJ 200 e Oxygen platform is the group's first 100% electric all-terrain platform model. With a working height of up to 20 m for a maximum capacity of 230 kg, this model provides the same performance as a diesel-powered model while reducing total cost of

ownership for the user. François Desbrière, head of platform development, describes this innovation: *“This model responds to strong demand from rental companies, and more generally from various constructors. With the 200 ATJ e Oxygen, we offer a versatile machine with very good autonomy. The electric engine provides flexibility when traveling, optimizing operator safety”.*

Equipped with a 48 V battery, it can achieve up to one working day's autonomy in adverse weather conditions. The low-voltage battery allows technicians to work on it without special certification. With a weight of 7,200 kg and a length of 6 m, it is also easily transportable. Another engine located inside the turret drives a pump that provides hydraulic flow for all the platform movements. This model's new features also give it an excellent ability to climb slopes of up to 45°. The reduction in total cost of ownership for the user is estimated at 20% compared to a diesel-powered equivalent (fuel cost included).

On display for the first time, this platform will be marketed early next year. A hybrid version of the 200 ATJ e Oxygen will also be launched at a later stage, during 2020.

Key characteristics of the 200 ATJ e Oxygen:

Working height	Capacity	Dimensions (L x W)	Battery	Weight
20 m	230 kg	2.32 m x 8.35 m	48 V / 460 AH	7,200 kg

This model is equipped with a new, easy-to-use dashboard with enhanced intuitiveness. On the basket/platform, the dashboard takes the form of a screen, which indicates, among other things, the amount of battery remaining and ongoing operations. It also optimizes operator safety with indicator lights to prevent the risk of excess loads or tipping over. It is worth noting that the 10 m 100 VJR vertical platform is on display with a new "Safe Man System". This consists of a cable at controller height to prevent mishaps when working high up and so improve operator safety when traveling.

**MRT 2550 h Oxygen Lab**

To represent this label, the Manitou group has worked on a hybrid prototype of the MRT 2550 model capable of operating in 100% electric mode. Retaining the same characteristics as the diesel-powered version (25 m lifting height for a capacity of 5 t), this solution also allows the two forms of energy to be used as needed (transport, handling). The "zero emissions" mode provides high versatility and complete flexibility on any type of work site (inside / outside / urban), day or night. Thanks to its reduced fuel consumption and optimized maintenance due to the Stage V engine, the user's TCO is reduced significantly. This solution is entirely autonomous in energy, and can be charged via the diesel engine for a day's work if there is no electrical charging area.





### **MT 625 e Oxygen, a futuristic concept!**

The Manitou group expresses its vision for the future of material handling with a particularly avant-garde concept-truck. Designed to accommodate an electric engine, this model sports specifically designed lighting and incorporates blue elements to illustrate a non-polluting compact telehandler concept. The cabin has also been redesigned with new intuitive interfaces. Natural, contemporary and sustainable materials, such as

wood, are also provided in the cabin, an example of the group's eco-design policy.

### **Responding to mining activity requirements**

The range of machines dedicated to mining is expanding. The MHT 12330 complements a wide range that addresses the various issues related to mining sites. With a lifting height of 12 m, the very high capacity model ranges from 33 t with forks to 36 t with hook. Equipped with a 245 hp Deutz stage V engine, this model also benefits from special protective covers on the work road lights. The controls and cabin are identical to the MT telehandler range, making them easier to use.



There is also a substantial range of mining attachments, with a fork positioner (width 2,900 mm) with side shift and a capacity of 33 t to 12 m. Designed specially for the high tonnage MHT 12330 telehandler, this positioner assists in the handling of heavy loads used in mines (including spare parts).

The Manitou group also presents its mining maintenance attachments. The TH 63 / 12000 tire clamp is a good example. It can be used to transport tires of up to 12 t for wheel rims of up to 63". This clamp is particularly recommended for the maintenance of dumpers used in open-pit mining operations. Another solution on display is a platform dedicated to underground mining applications. Designed to withstand impacts of up to 3 t, this attachment has reinforced safeguards, allowing up to three people (1,200 kg) to be accommodated and providing greater safety for operators working on high-risk sites.



Recently presented at the Intermat trade show, the innovative Variowinch hydraulic winch incorporates a patented hydraulic regulation system. This significantly increases the hook's maximum speed with low loads (the hook has a top speed of 60 m/min), while maintaining a normal speed with maximum loads of up to 7.2 t, with continuous speed variation depending on the load. The Variowinch system reduces noise pollution, prevents excessive fuel consumption, and delivers high productivity thanks to its optimized speed. It is now fitted on the MRT 2470, 3050 and 3255.

### **New range of Manitou Compact Equipment**

The group has drawn inspiration from its existing models of compact wheel and track loaders to produce a specific range for the Manitou brand. The stated objective is clear: to expand the market for compact loaders throughout Europe. Already well established in the United States with its Gehl and Mustang by Manitou brands, the group wants to expand this offering to all European constructors. The numerous applications include demolition, leveling and excavation.



Two models from the range are on display at Bauma with the Manitou 1900R wheel loader and the Manitou 2150 RT track loader. In total, this range consists of 16 models, including 11 wheel loaders and 5 compact track loaders.

#### Main specifications:

	<b>Max. lifting height</b>	<b>Max. capacity</b>	<b>Engine specification</b>	<b>Hydraulic flow rate</b>
1900 R	4,013 mm	862 kg	69 hp/51 kW	70 l/min 119 l/min (high flow)
2150 RT	3,251 mm	975 kg	72 hp/53 kW	82 l/min 135 l/min (high flow)

## Many new developments

The Manitou group presents a new design for its Gehl brand. The six models displayed at Bauma have a distinctive appearance and are more easily identifiable. Some of the main changes include new black cabins and attachments and silver gray wheel rims. There are also new stickers on the cabins and articulated arms.

As a further development, the Gehl AL T-750 telescopic articulated loader is now available in Europe and on the North American continent. Thanks to its very dense network of Manitou dealerships in Europe, the group wants to significantly expand the market for articulated and compact loaders in the medium and long term.



The MT range of telescopic loaders has also evolved. Nine models with lifting heights ranging from 11 to 18 m are now available on the market with engines compatible with Stage V standards. Easy Step access is now fitted as standard on these models. The engine hood has been redesigned to optimize the operator's visibility over the right hand side of the machine. Inside the cabin, a new "Harmony" dashboard is provided. An

intuitive user interface allows the operator to quickly check the levels of fuel, oil and AdBlue. A pop-up system warns the operator of any overload or technical failure, enabling downtime to be avoided.

Changes have been made to the boom head of the ultra-compact MT 420 telehandler. With a new, sleeker design, the forged boom head optimizes visibility over pallet-loading on the ground, improving operator safety during travel. Visibility over the forks is also improved, thanks to the new "TFF" floating forks carriage presented for the first time on this machine. Its design is patented, with plates oriented along the line of sight of the operator to the end of the forks.



The latest range of MC rough-terrain forklifts is now available worldwide (except in North America). There is a range of models on offer with lifting capacities of 1.8 t, 2.5 t and 3 t, providing a solution suited to the constraints of load transportation on hard-to-access sites or in the event management sector.

Available in 2 or 4 wheel drive, the MC machines are highly versatile and can negotiate any type of surface while providing compactness and maneuverability.

Visibility is optimized thanks to a clear cabin roof and a completely redesigned dashboard. This ensures operator safety while traveling and makes it safer for any people moving around the machine. Access to components is simplified and oil changes only have to be carried out every 2000 hours.

Thanks to these developments, preventive maintenance costs are reduced by 22%\* compared to the previous range, thereby reducing total cost of ownership for the user.

### **Every machine ordered is a connected machine!**

The Internet of things, or IoT, is a growing market. The Manitou group has been using this technological advance to connect, as standard, every new machine ordered\*\* since the beginning of January 2019. The data collected enable users to be offered a new experience and new services. Olivier le Pesquer, head of TCO for Service Development, says: *“Connected machines are an essential source of data in our goal of reducing TCO for users”*.

### **Two year warranty included**

All connected machines ordered are now guaranteed for two years. The user still has the option of extending the warranty by one to four years. This peace of mind can be extended to six years by covering the machine with the maximum warranty extension. or a total of 6,000 hours of use.

There are now two levels of cover. The first, “ESSENTIAL COVERAGE”, relates to the engine and transmission and the second, “TOTAL COVERAGE”, concerns all the components, including mechanical, electrical, electronic and hydraulic parts of the machine.

With this expanded service, the Manitou group provides added convenience for operators using their machine on a daily basis.

\*Calculation made over 5 years and for annual use of 750 h.

\*\*Applies to all Manitou machines in Europe apart from industrial forklifts, warehousing equipment, TMM/TMT, excavators, scissor platforms and compact articulated loaders.

## CSP CUSTOMER SERVICE PLATFORM

### After-sales service: A single point of contact for rental companies and key accounts

With a view to providing increasingly high standards of service, Manitou group has deployed the “Customer Service Platform” (CSP), in Germany, the UK, Benelux and Australia. The platform provides customers running a large fleet with a simplified way of managing their machines. There is a single point of contact for all their equipment, distributed over a number of sites. This means the customer has just one telephone number to ring for all the work to be carried out, such as maintenance or repairs, with the aim of a response being provided within 24 hours of the call. As part of a continuous improvement approach, experience statistics and feedback are taken into account to develop this solution. After being implemented for two years in Germany, the platform has proven its value. More than 900 requests from rental companies were processed in 2018 in Germany by the “Customer Service Platform”.



### MyManitou: the customer-oriented app!

In its quest to provide its users with new solutions, Manitou group is currently developing a new mobile application to allow users to find out all about their machine.

As part of the group's drive towards digital transformation, the new smartphone app “MyManitou” is primarily designed and engineered to provide instant service. The transmission of data in real time makes it possible for operators to know the location, fuel consumption and fuel level of their machine or machines (up to five) at all times, and to detect any technical problems. To avoid productivity-sapping downtime, users can easily contact their dealership via “MyManitou” to anticipate any work on the machine by a technician.

All the necessary documentation is also available, including the warranty, the maintenance contract, and the machine instruction manual.

All these elements enable owners and users to draw on a wealth of useful information to understand their machine and adjust their usage to reduce their total cost of ownership. Maxime Deroch, president of the Services & Solutions division, says: *“We are very proud to offer our customers this service, which allows them to work without worrying about their machine. They are free to focus on their core business. With the benefit of a connected machine, they can reduce their TCO, save time and improve safety”.*

This application will be available by the end of April on *Google Play* and *Apple store*.



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Manitou Group, a world leader in rough-terrain handling, invents, produces, distributes, and services equipment for construction, agriculture, and industry.

The group's product lines include fixed, rotating, and heavy tonnage rough-terrain telehandlers, rough-terrain, semi-industrial, and industrial masted forklifts trucks, skid-steer loaders on wheels and tracks, articulated loaders, backhoe loaders, aerial work platforms, truck-mounted forklifts, warehousing equipment, and attachments.

Through its iconic brands - Manitou, Gehl and Mustang by Manitou - and its network of 1,500 dealers worldwide, the Group offers the best solutions by creating optimum value for its customers.

Headquartered in France, the Group recorded revenue of 1.9 billion euros across 140 countries in 2018, and it employs 4,400 people, all committed to satisfying customers.