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**M HYDREMA** 

**COMPACT WHEELED EXCAVATORS** 

HYDREMA A Telematics

Since 1959 Hydrema has developed, manufactured, sold and serviced high-tech construction machines. Efficient, innovative and high-quality machines. Our products distinguish themselves from other products on the market through their technical and physical capabilities. Very well suited to perform specialized tasks in construction and installation work.

earthmc





# The perfect wheeled excavator for the city.

### Stronger, cleaner and quieter than ever before.

The MX G series combines Hydrema's tradition of ultra-compact wheeled excavators with the latest technology, making them quieter, cleaner and stronger than ever before.

The MX14G, MX16G, MX17G, MX18G and MX20G are strong, compact machines with top-class breakout force, engine power and digging performance. The perfect match for construction sites in the city.

Equipped with the latest Cummins Stage V engine with 175 hp they are packed with power while also meeting the latest emission requirements.

The exhaust gas is treated in one compact unit, consisting of two catalysts and a diesel particulate filter (DPF).

Furthermore the engine is able to run on 100% bio diesel fuels that meet the EN 15940 specification, such as hydrotreated vegetable oil (HVO).

The ROPS-approved cab is among the biggest on the market. Together with its low noise level at only 68dB(A), high comfort and simple controls, the operator has an excellent environment to focus on the tasks at hand.

Learn more about the MX G series, its features, lifting capacities and more in this brochure.



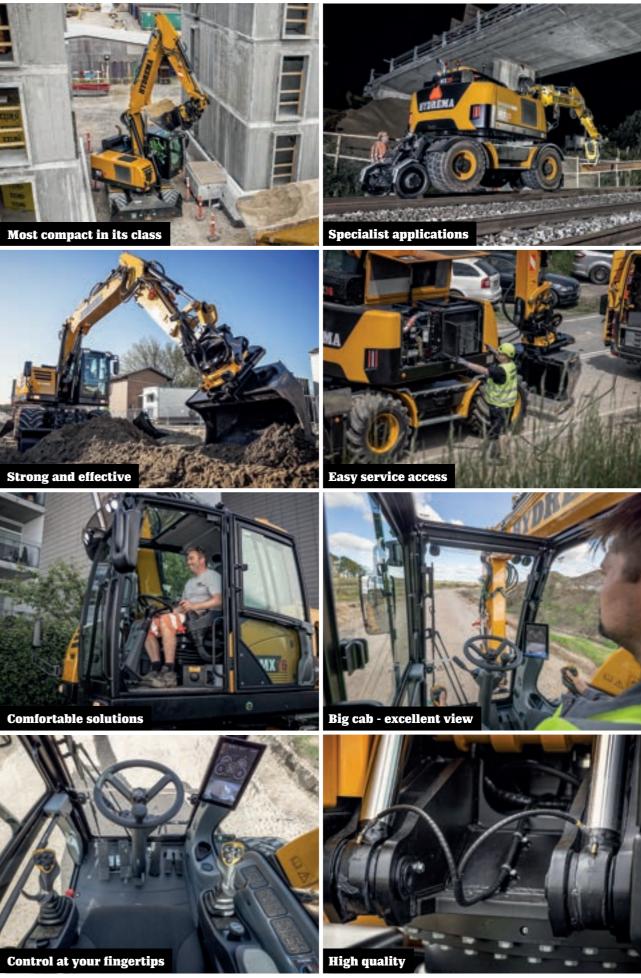
# **ADVANTAGES**

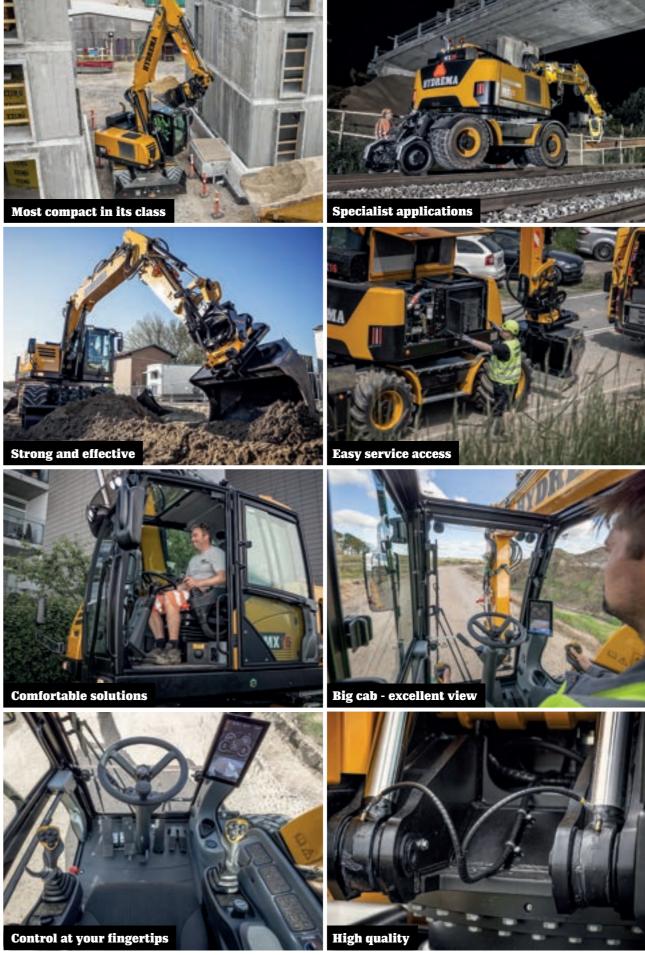
The short slew radius allows for work in confined spaces, such as narrow streets, busy roads, and other areas with limited space.

Strong, compact machines with top-class breakout force, engine power and digging performance.

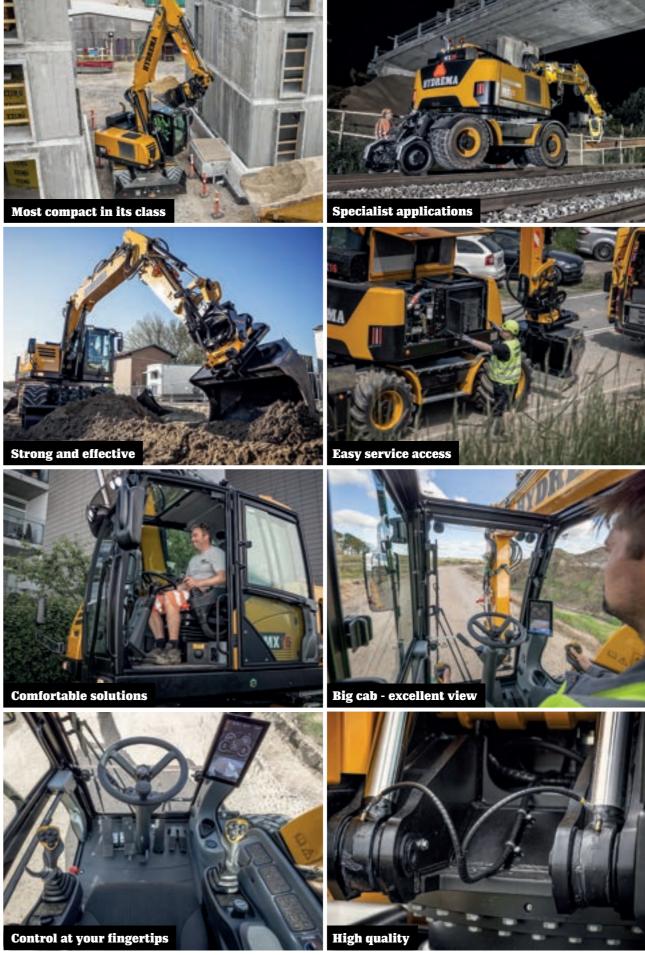
Great view and high comfort in the biggest cab in its class.

Highly customizable to suit your needs.













machine, as it is able to work both very close to and far away from the machine.

This allows you to work in locations with little to no room, such as close to buildings in cities or within the boundaries of a traf-

The MX wheeled excavator series are popular as compact city excavators because they drive efficiently between workplaces.

quickly between sites, here the increased engine power and torque really come into their own when driving on roads or in hilly terrain.

The electronically regulated drive motor has an automatic retarder. Together with a new, updated power regulation and cruise control, it ensures optimal performance and comfort while driving.

For added comfort, the optional boom suspension minimizes bounce during travel.



# The hydraulics gives excellent performance.

# High performance machines with extensive breakout force, engine power and lifting capacity.

#### **Immensely powerful**

The MX G-series is packed with power, and if you take a closer look at its data and lifting charts, you realize that it is one of the most competitive machines in terms of performance on the market.

Individually optimized excavator arm for each model works at high speed, great precision and high breakout force. A very productive machine despite its compact size. At the same time, the lifting capacity is right up there with the very best of the wheeled excavators.

The powerful 175 hp Cummins Stage V engine provides plenty of power for digging. Max torque is 780 Nm, 15 per cent more than the previous generation.

This means the excavator has 165 hp available at 1500 rpm so most work can be carried out with the lowest possible fuel consumption and noise levels.

#### High hydraulic power

A dual-circuit electronically-controlled hydraulic system effectively adjusts the hydraulic power for any task.

The combination of high engine power and the industry's highest hydraulic output ensures flow of up to 407 l/min.

The large amount of available power allows the MXG series to perform demanding work functions at lower revs.

#### **Re-engineered slew function**

Hydrema's wheeled excavators have a separate hydrostatic circuit with a separate hydraulic pump for the slew function.

This makes it possible to regenerate the slew brake energy and keep the slew function completely independent of other excavator functions.

Combined with a hydraulic-electronic Mode-Control and ECO mode, this ensures greater efficiency, a better fuel economy and smooth, predictable movements when using several functions simultaneously.

The re-engineered slew function provides smoother movements of the uppercarriage. Angle sensors have been added and new software continuously adapts the hydraulics and slew braking function for all loads.

The machine is equipped with hose burst valves on all load-bearing cylinders on the excavator arm and stabilizers to increase safety during lifting jobs.













### **EXCELLENT WORKING CONDITIONS:**

# **Spacious cab with** first-class comfort.

#### Working environment and visibility

The spacious ROPS-approved cab is quiet ensuring a comfortable working environment.

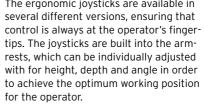
The view from the operator's seat can be supplemented by up to two external cameras that stream to the display which is located on the right-hand front cab pillar.

The different camera angles can be combined to improve both clarity and safety by means of an optional 360-degree camera system. The view this affords is of particular benefit when working in confined spaces or in busy or densely populated areas.

A fully opening hinged front window enables unimpaired communication to and from the cab.

#### Comfort

The cab is equipped with an adjustable, air-cushioned seat with further options of ventilation and automatic weight adjustment.



The machine is equipped with strategically positioned keypad panels operating through a CAN-BUS control system for simple intelligent operation.

The noise level in the cab is 68 dB(A) making it a healthy and comfortable environment for the operator to work in.

The effective air-conditioning system ensures the correct temperature and excellent air quality.

an optional extra.

#### Operation

The clear 10" touch display enables the operator to finely adjust the machine's



The ergonomic joysticks are available in

An integrated 14 L cool box is available as

many functions quick and easy. This can be done either by using the touch function, or the integrated display controller which is ergonomically located in the armrest.

Along with the straightforward design of the main screen, the camera is also integrated. This means that the operator receives all the necessary data combined into a single user interface, which results in easy operation and an enhanced overview.

The innovative "Quick menu" enables the operator to organize the most frequently used functions in a special quick selection menu, thus making operation of the machine even more efficient.

The joystick's roller functions can be individually adjusted in both direction and sensitivity, Additionally the functions can be transferred between the two joysticks. This ensures a high degree of flexibility and optimum operation at all times.







# **Intelligent service** and maintenance.

### Maximize uptime with professional service and Hydrema Telematics.

#### Easy access to service

The MX is designed for quick and easy service. The bonnet opens simply via push button activation to allow access to the engine, filters, radiator and other service points.

The majority of components can be easily reached whilst your feet remain securely planted on the ground.

All drainage points are equipped with valves that enable drainage to take place in an eco-friendly manner without spillage.

An optional reversible cooling fan can help keep the radiator clean.

All notifications concerning service and daily maintenance appear on the large in cab display.

#### **Hydrema Telematics**

All Hydrema machines come as standard with the advanced Hydrema Telematics system.

This collects important operational and machine data, thus enabling you to plan and manage your machines in a completely new way saving both time and money.

You can see all the machine data on your mobile phone, tablet or PC, and optimize operations based on this information.

Should you need to know the fuel consumption or CO2 emission for a specific job, you can find this in the Telematics report. Most of the data is displayed on clear and simple graphs.

#### **Telematics and uptime**

In the event of any stoppages, our service department will often be able to remotely identify the fault via the

Telematics portal and help you get the machine up and running again.

Software updates can be performed seamlessly using Hydrema's advanced "Over the air" update system.

High uptime is a prerequisite for efficient operation.



Easy access to all machine data to manage efficiency and consumption.

Simple reports that contain all the important data, such as machine hours and location.

Information about the current job, such as fuel consumption and CO<sub>2</sub> emission.

Dynamic location tracking with Geoleash.

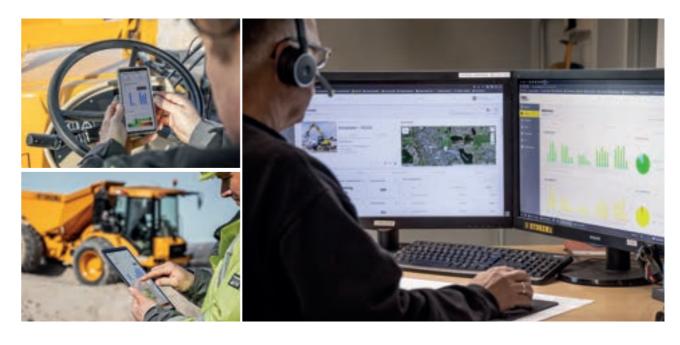
Anti-theft protection with notification if the machine is moved.

Alarms in the event of stoppages.

Management of service and mainten. with deadlines and if desired, alarms.

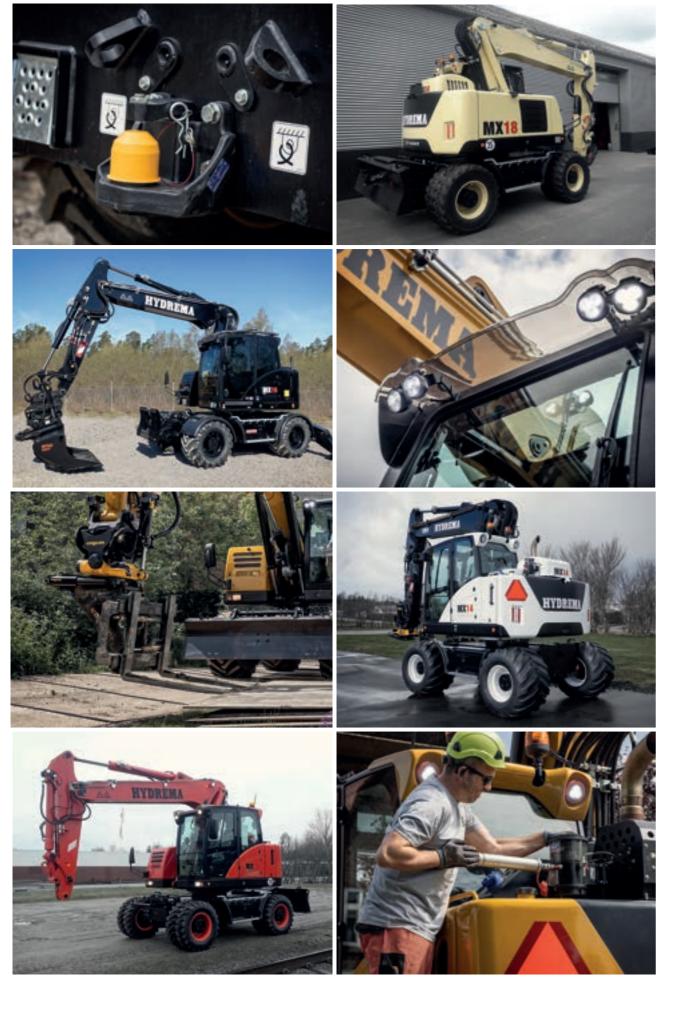
Quick and effective remedying of faults by means of contact to Hydrema Service.

Rapid "over the air" update of software.









### **CONFIGURATIONS:**

# **Build the machine** of your dreams.

## In addition to the comprehensive standard equipment, you can choose from a wide range of optional equipment. E.g.

The MX G series has modular undercarriage. Dozer blade, stabilizers and tiltable BM hitch can be mounted to suit your needs.

### Light it up

Extensive LED light packages are available, where up to 11 powerful LED work lights can change night into day.

#### Avoid daily greasing

working conditions.

tailor the machine to different surfaces.

Tires

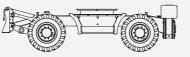
A KS80 towing hitch for trailers are available, capable of towing heavy loads up to 8-tons. Hereby allowing you to carry tools and materials with you.

In addition to electric and hydraulic lines, a trailer brake system is available for maximum safety.

A wide range of tires are available to

**Towing Hitch** 

# UNDERCARRIAGE VARIANTS Δ1 A1V Δ3 A3V





The automatic lubrication system allocates the amount of grease the machine needs. The intelligent system adjusts the amount of grease needed to suit the

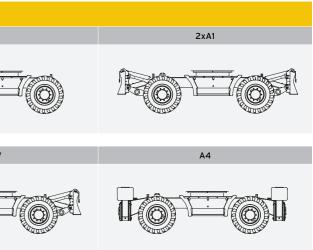
#### **Engcon improve flexibility**

Make your excavator even more versatile with an Engcon tiltrotator with a fully automatic quick hitch system with EC-oil.

This means that the hydraulic tools can be connected or disconnected without the operator having to leave the cab.

#### **Customized colours**

As an option, Hydrema offers to paint your new machine in customized colours to match your preferences, ensuring your excavator will stand out and make a unique impression.



# **Years of experience** combined with intelligent technology.



#### Excavator

Compact excavator with two-piece boom for all models. Build in high tensile steel with closed profiles. 2,0 M, 2,5 M or 3,0 M dipper available. Hydraulic quick hitch and tilt rotator as options.

#### Undercarriage

6 possible undercarriage variants:

Rear dozer blade (A1) Front dozer blade (A1V) Front/rear dozer blade (2xA1) Front dozer bl./rear stabilizers (A3) Front stabilizers/rear dozer bl. (A3V) Front/rear stabilizers (A4)

All undercarriages options are illustrated on page 17.

#### Axles

ZF axles with planetary reduction in the hubs. Brakes in all hubs for optimal excavation brake. Front axle with center bolt and pendulum lock. Oscillating angle: +/- 8º

#### Steering

Hydraulic steering with emergency steering. Joystick steering (max. 20 km/h) as an option.

#### **Hydraulic system**

Dual-circuit system with Load Sensing and high pressure hydrostatic slew system with separate pumps. Electronic power control of the pump for working hydraulics. Mode Control for precision work and ECO Mode for fuel economy. Up to 3 hydraulic circuits for implements (2 as standard), adjustable from the cabin. Circuit 3 with priority of oil flow. Adjustable pressure and oil quantity for up to 10 tools.

Oli quantity:	
Pump 1: Working hydraulics	319 I/min
Pump 2: Slew hydraulics	88 I/min
System pressure:	
Working hydraulics	350 Bar
Slew hydraulics	395 Bar
Hydraulic circuit 1, ZV1:	30-200 L/Min
Hydraulic circuit 2, ZV2:	15-100 I/min
Hydraulic circuit 3, ZV3:	50-200 I/min

### Engine

Cummins B 4.5L Stage V engine with DOC, DPF and SCR catalytist with AdBlue additive. 16-valve Common-Rail Turbo-diesel with intercooler. Max. 175 hp (129 kW) at 2200 rpm. Max. torque: 780 Nm at 1500 rpm. 165 hp (121 kW) is achieved already at 1500 rpm. Fuel tank 280 L. Ad Blue tank: 31.5 L.

#### **Driving hydraulics** & Transmission

Constant 4 wheel hydrostatic drive. Electronically controlled drive motor with automatic retarder. ZF 2-speed soft shift powershift transmission with electro-hydraulic gearshift system. Choose between manual or automatic gearshift.

#### MX14G MX16G MX17G MX18G MX20G

Road gear (km/h)	37	37	34	34	34
Off-road gear (km/h)	0-9	0-9	0-9	0-9	0-9
Creep gear (km/h)	4	4	3,5	3,5	3,5
Max. traction (kN)	104/(111)	111	111	111	111

Speeds are specified for a standard machine with dozer blade and standard tyres fitted. If the machine is carrying extra weight such as stabilizers, tilt rotators and heavy appliances or othe equipment, the maximum speed may be lower

#### **Electrical system**

Standard 24V system with 70 Amp. alternator. Batteries: 2x 12V, 100Ah. Robust and protected wiring. Only waterproof plugs are used on the exterior, which guarantees long life and trouble-free functionality. All fuses and relays are located beside the cab and can easily be inspected via the service hatch. The machine is equipped with electronic emergency operation in case of a breakdown in the electronic units. Automatic battery isolator.

#### Automatic circuit breaker

The automatic circuit breaker shuts off all electrical systems when the operator switches off the machine and vacates the cab. Sensors in the doors reactivate the system when the operator returns. The timer and shutdown procedure are controlled via the instrument panel. An emergency circuit breaker is also located in the cab as a safety measure.

### Operation

Joysticks with 4 proportional servo functions, 1 proportional roller and 4 buttons. Optional hydraulics controlled by rollers. Two-piece boom, dozerblade and stabilizers operated with foot pedals independently of other features. Pressure and oil volume for optional hydraulics can be controlled electronically from the instrument panel. Joysticks with up to 3 rollers and 7 push buttons as option. Multi-adjustable armrests.

### Slew system

Hydrostatic high pressure slewing system. Brake energy from slew partially regenerated to the diesel engine. The mechanical slew brake is an integrated planetary gear. Smoth slew system with angle sensors.

Slewing speed

Slewing torque

#### Brakes

Dual circuit system with oil immersed brakes on all wheels. Parking brake integrated in transmission. Automatic excavation brake is standard.

#### Cab

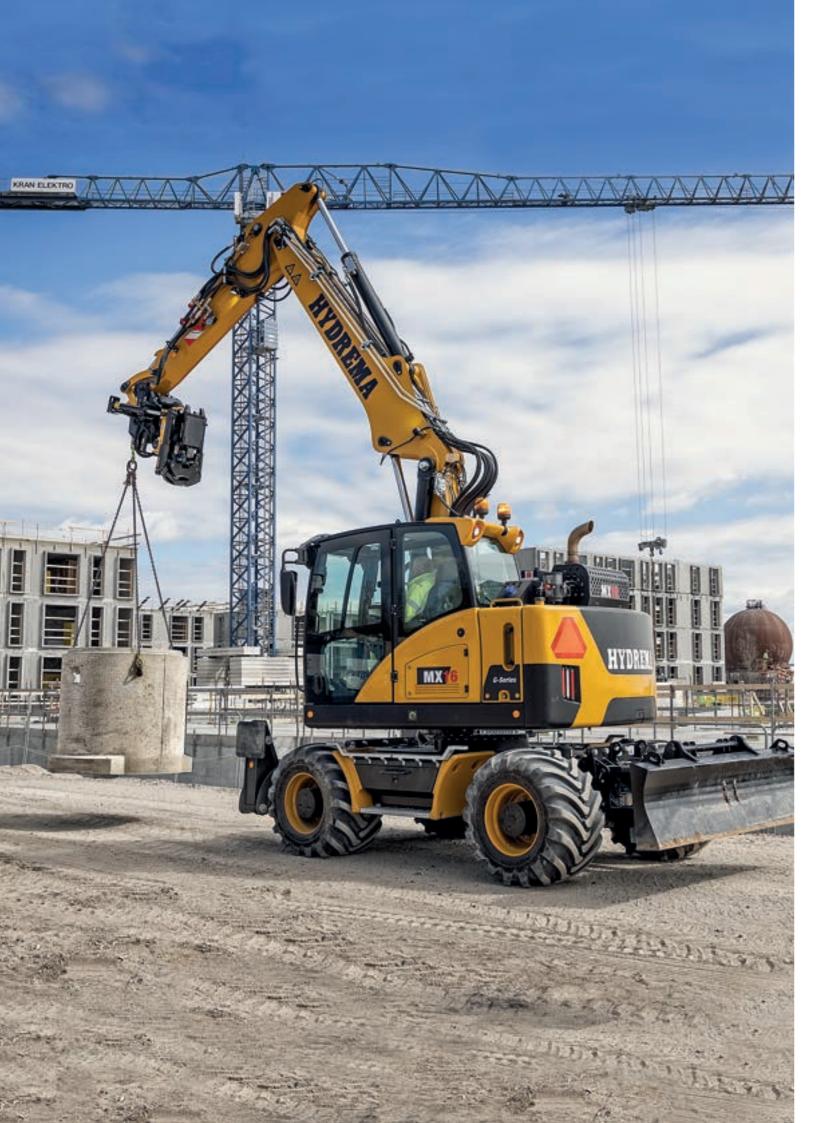
Spacious ROPS cab with sliding window in the door, 2-part front window with sliding top and removable bottom, skylight. Adjustable steering column and arm-rests. Air conditioning with 7 adjustable air nozzles. Air suspended seat. Large 10" display, simple to operate via touch or the display controller in the armrest. Large rear view mirrors with electronic adjustment. Rear view camera integrated into the display. Storage space under and behind the seat. Automatic entry and exit light

#### Noise level

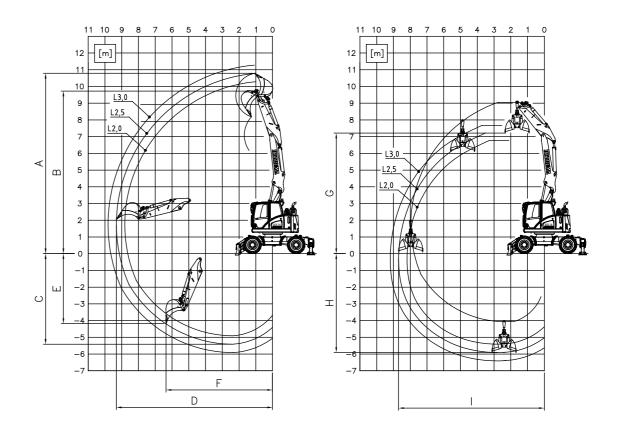
Cab: 68 dB Exterior: 102 dB

10.8 rpm

50 kNm



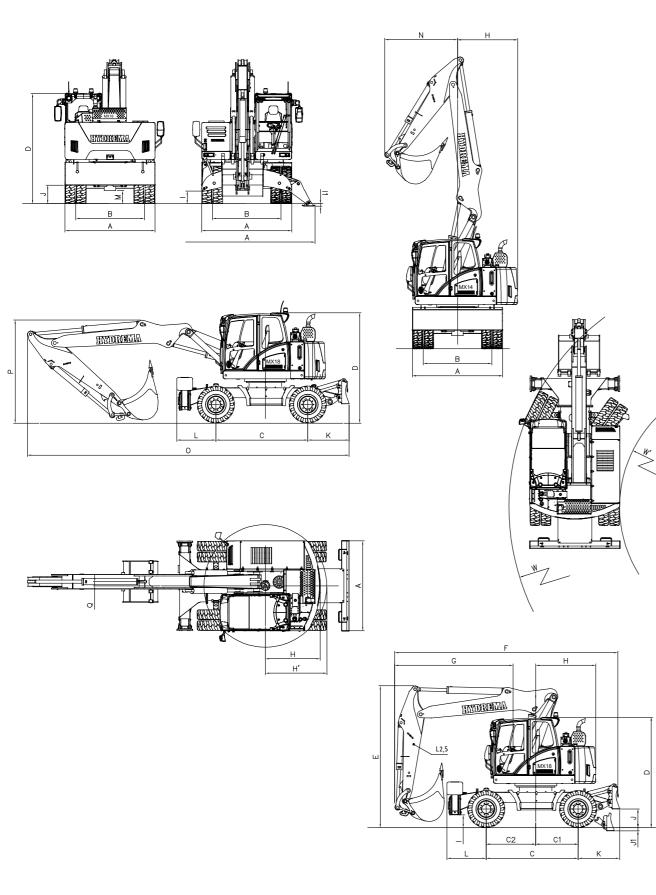
# Working area and breakout force.



				MX14G			MX16G			MX17G			MX18G		MX20G		;
	Length of dipper	м	2.0	2.5	3.0	2.0	2.5	3.0	2.0	2.5	3.0	2.0	2.5	3.0	2.0	2.5	3.0
Α	Strike height	ММ	9790	10250	-	10280	10780	11270	10280	10780	11270	10680	11180	11670	10680	11180	11670
в	Lifting height	ММ	8730	9190	-	9520	9720	10210	9520	9720	10210	9610	10110	10600	9610	10110	10600
с	Digging depth	MM	4410	4900	-	4910	5410	5910	4910	5410	5910	5330	5830	6330	5330	5830	6330
D	Range	ММ	8300	8780	-	8820	9320	9820	8820	9320	9820	9220	9720	10220	9220	9720	10220
Е	Vertical digging depth	ММ	3200	3700	-	3720	4180	4660	3720	4180	4660	4030	4490	4970	4030	4490	4970
F	Horizontal digging depth	ММ	4780	6080	-	6170	6360	6000	6170	6360	6000	6440	6650	6840	6440	6650	6840
G	Lifting height	ММ	MM 6210 6710 -			6710 7210 7710			6710 7210 7710			7110 7610 8110			7110	7610	8110
н	Working depth	ММ	5320	5820	-	5410	5910	6410	5410	5910	6410	5820	6320	6820	5820	6320	6820
Т	Range	ММ	7640	8120	-	8190	8690	9190	8190	8690	9190	8570	9070	9570	8570	9070	9570
	Bucket rotation angle	0	175	175	-	175	175	175	175 175		175 175		175 175		175	175	175
	Breakout force, directly mo	ounted	l bucket														
	Breakout force, bucket (ISO)	kN		106			106			126			138			138	
	Digging force (ISO)	kN	kN 82 70 -		93	82	72	93	82	72	111	97	86	111	97	86	
	Max. recommended bucket	size															
	Standard bucket	М³	M <sup>3</sup> 0.8				0.9			1.0			1.0			1.0	
	Max. recommended bucket	mended bucket size with rotor tilt															
	Standard bucket	M <sup>3</sup> 0.6				0.7			0.8			0.8			0.8		

The working area is specified with Hydrema standard bucket and 1800 mm grab height.

# Dimensions and weight.



DIME	ENSIONS	MX14
A	Width across:	
	Blade	2550
	Support, lowered	3870
	Tire 10.00-20	2530
	Tire 600/40-R22.5	2520
	Tire 650/45-R22.5	2570
	Tire 710/40-R22,5	2730
в	Track width with standard tires	1942
с	Wheelbase	2600
C1	Distance, pivot center to rear axle	1200
C2	Distance, pivot center to front axle	1400
D	Clearance height, cab	3120
Е	Transport height	4000
F	Length, road transport	6500
G	Overhang, front (with 2.5 M stick)	3330
н	Rear distance, pivot center - counterweight	1550
H1	Swing radius, rear	1733
I	Ground clearance, stabilizer	350
11	Ground clearance, wheels, lower stabilizer	50
J	Ground clearance, blade	510
J1	Ground clearance, wheels, lower blade	75
к	Overhang, blade	1175
L	Overhang, stabilizer	1110
м	Ground clearance, axles	360
N	Swing radius, front	
	with 2.0 M dipper	1660
	with 2.5 M dipper	1950
	with 3.0 M dipper	-
0	Total length during transport, 2.5 M dipper	8100
Р	Height of two-piece boom during shipping, 2.5 M dipper	3000
Q	Center shift, two-piece boom	118
w	Outside turn radius	6700
W1	Inside turn radius	3600

MACH	INE WEIGHT	MX14G
Chass	is	
A1	Blade	16,000
A3	Blade + stabilizer	17,200
2XA1	Front and rear blade	17,100
A4	Front and rear stabilizer	17,300

Weight stated with 200 kg quick hitch and 400 kg bucket

MX16G	MX17G	MX18G	MX20G
Milim	eters		
2550	2550	2550	2550
3870	3870	3870	3870
2530	2530	2530	2530
2520	2520	2520	2520
2570	2570	2570	2570
2730	2730	2730	2730
1942	1942	1942	1942
2600	2600	2600	2600
1200	1200	1200	1200
1400	1400	1400	1400
3120	3120	3120	3120
4000	4000	4000	4000
6320	6320	6320	6320
3330	3330	3330	3330
1640	1700	1700	1700
1792	1839	1839	1839
350	350	350	350
50	50	50	50
510	510	510	510
75	75	75	75
1175	1175	1175	1175
1110	1110	1110	1110
360	360	360	360
1650	1650	1720	1720
1990	1990	2060	2060
2320	2320	2410	2410
8720	8720	9120	9120
2920	2920	2920	2920
118	118	118	118
6700	6700	6700	6700
3600	3600	3600	3600

MX16G	MX17G	MX18G	MX20G
K	g		
17,300	18,300	18,700	-
18,600	19,500	20,100	20,100
18,500	19,400	20,000	-
18,700	19,600	20,200	-

# Lifting capacity.

#### MX14G : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A1, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Re	ach in Me	ter									
		3.0			4.0			5.0			6.0			7.0			Max.		
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	
8.0	5.0*	5.0*	5.0*	4.3*	3.9	4.3*													
6.0	3.9*	3.9*	3.9*	4.4*	4.1	4.4*	3.2	2.8	4.5*	2.3	2.0	3.9*							
4.0	5.1*	5.1*	5.1*	4.4	3.7	5.4*	3.0	2.6	5.4*	2.2	1.9	5.1*	1.7	1.4	4.0*				
2.0	5.8	4.8	12.4*	3.7	3.1	9.7*	2.7	2.3	7.7*	2.0	1.7	6.0	1.6	1.3	4.6	1.3	1.1	2.5*	
0.0	5.1	4.1	13.3*	3.3	2.8	10.2*	2.4	2.0	8.0	1.9	1.6	5.8	1.5	1.2	4.5				
-2.0	5.2	4.2	14.3*	3.3	2.7	10.4*	2.4	2.0	7.9	1.9	1.5	5.8							
-3.0	5.4	4,4	14.1*	3.4	2.8	9.8*	2.5	2.1	6.8*										

MX14	G:MAX	LIFTING	G CAPAC		TONNE	wiтн сн	ASSIS	2 X A1, C		2.5 <mark>м.</mark> W	EIGHT		IITCH 15	O KG. IS	0 10567	7*		
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.0*	5.0*	5.0*	4.3*	4.1	4.3*												
6.0	3.9*	3.9*	3.9*	4.4*	4.3	4.4*	4.2	2.9	4.5*	3.1	2.1	3.9*						
4.0	5.1*	5.1*	5.1*	5.4*	4.0	5.4*	4.0	2.8	5.4*	3.0	2.0	5.1*	2.3	1.5	4.0*			
2.0	8.2	5.1	12.4*	5.2	3.4	9.7*	3.7	2.4	7.7*	2.8	1.8	6.3*	2.2	1.4	5.3	1.8	1.2	2.5*
0.0	7.5	4.5	13.3*	4.7	3.0	10.2*	3.4	2.2	8.0*	2.6	1.7	6.5*	2.1	1.3	5.2			
-2.0	7.5	4.5	14.3*	4.7	2.9	10.4*	3.4	2.1	8.0*	2.6	1.7	5.9*						
-3.0	7.7	4.7	14.1*	4.8	3.0	9.8*	3.5	2.2	6.8*									

MX14	<mark>G</mark> : МАХ	LIFTIN	G CAPAC	CITY IN "	TONNE	WITH CH	ASSIS	A3, DIPF	PER 2.5	M. WEIG	HT QUI	ск нітс	H 150 K	G. ISO 1	0567*			
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.0*	5.0*	5.0*	4.4*	4.2*	4.3*												
6.0	3.9*	3.9*	3.9*	4.4*	4.3	4.4*	4.5*	3.0	4.5*	3.9*	2.1	3.9*						
4.0	5.1*	5.1*	5.1*	5.4*	4.0	5.4*	5.4*	2.8	5.4*	4.1	2.1	5.1*	3.1	1.5	4.0*			
2.0	12.4*	5.2	12.4*	7.3	3.4	9.7*	5.1	2.5	7.7*	3.8	1.9	6.2	3.0	1.5	4.8	2.5*	1.2	2.5*
0.0	11.5	4.5	13.3*	6.8	3.0	10.2*	4.8	2.2	8.0*	3.7	1.7	6.0	2.9	1.4	4.7			
-2.0	11.6	4.6	14.3*	6.8	3.0	10.4*	4.8	2.2	8.0*	3.6	1.7	5.9*						
-3.0	11.8	4.8	14.1*	6.9	3.1	9.8*	4.9	2.3	6.8*									

MX14	<mark>G</mark> : МАХ	LIFTIN	G CAPAC		TONNE	WITH CH	ASSIS /	4, DIPI	PER 2.5	M. WEIG	HT QUI	ск нітс	:H 150 K	G. ISO 1	0567*			
								Re	ach in Me	ter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.0*	5.0*	5.0*	4.3*	4.2*	4.3*												
6.0	3.9*	3.9*	3.9*	4.4*	4.4	4.4*	4.5*	3.0	4.5*	3.9*	2.2	3.9*						
4.0	5.1*	5.1*	5.1*	5.4*	4.1	5.4*	5.4*	2.8	5.4*	5.1*	2.1	5.1*	4.0*	1.6	4.0*			
2.0	12.4*	5.3	12.4*	9.7*	3.5	9.7*	6.7	2.5	7.7*	5.0	1.9	6.3*	3.9	1.5	5.0	2.5*	1.2	2.5*
0.0	13.3*	4.6	13.3*	9.3	3.1	10.2*	6.3	2.3	8.0*	4.8	1.7	6.2	3.8	1.4	4.9			
-2.0	14.3*	4.7	14.3*	9.2	3.0	10.4*	6.3	2.2	8.0*	4.7	1.7	5.9*						
-3.0	14.1*	4.8	14.1*	9.3	3.1	9.8*	6.4	2.3	6.8*									

\* Table values are in accordance with ISO 10567 (75% of stability or 87% of hydraulic capacity). If lifting via the standard mounted lifting hook, allow for a maximum of 12 tons. If lifting without quick hitch and directly in the outer hole in the slewing arm, values can be used by adding approx. 150 kg.





### MX166 : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A1, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Rea	ach in Me	eter									
		3.0			4.0			5.0			6.0			7.0			Max.		
н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	
8.0	5.6*	5.6*	5.6*	5.4	4.7	5.7*	3.6	3.2	5.3*										
6.0	4.2*	4.2*	4.2*	5.1	4.7	5.1*	3.7	3.2	5.4*	2.7	2.3	5.3*	2.0	1.7	4.2*				
4.0	7.1*	6.9	7.1*	4.9	4.2	7.0*	3.4	3.0	6.8*	2.6	2.2	6.2*	2.0	1.7	5.3				
2.0	7.3	6.2	11.3*	4.2	3.6	11.4*	3.0	2.6	8.6*	2.3	2.0	6.6	1.8	1.5	5.1	1.4	1.1	3.7*	
0.0	6.0	4.9	14.7*	3.8	3.1	12.1*	2.8	2.3	8.7	2.1	1.8	6.4	1.7	1.4	5.0				
-2.0	5.9	4.8	16.9*	3.7	3.1	12.3*	2.7	2.3	8.7	2.1	1.8	6.3	1.7	1.4	5.0				
-4.0	6.3	5.3	15.3*	4.1	3.4	10.3*													

MX16	G:MAX	LIFTING	G CAPAC	ITY IN T	TONNE	WITH CH	IASSIS 2	2 X A1, C	DIPPER 2	2.5 M. W	EIGHT		ITCH 15	0 KG. IS	0 10567	*		
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	4.9	5.7*	4.7	3.3	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	4.9	5.1*	4.8	3.4	5.4*	3.5	2.5	5.3*	2.7	1.8	4.2*			
4.0	7.1*	7.1*	7.1*	6.4	4.4	7.0*	4.5	3.1	6.8*	3.4	2.3	6.2*	2.6	1.8	5.5*			
2.0	10.0	6.5	11.3*	5.7	3.8	11.4*	4.1	2.7	8.6*	3.1	2.1	7.0*	2.5	1.7	5.8	1.9	1.2	3.7*
0.0	8.5	5.2	14.7*	5.2	3.3	12.1*	3.8	2.5	9.5*	2.9	1.9	7.2	2.4	1.5	5.7			
-2.0	8.4	5.1	16.9*	5.2	3.3	12.3*	3.7	2.4	9.6*	2.9	1.9	7.2	2.4	1.5	5.4*			
-4.0	8.9	5.6	15.3*	5.6	3.7	10.3*												

MX16	G:MAX	LIFTING	G CAPAC		TONNE	with CH		A3, DIPF	PER 2.5	M. WEIG		ск нітс	H 150 K	G. ISO 10	0567*			
								Re	ach in Me	ter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	4.9	5.7*	5.3*	3.4	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	4.9	5.1*	5.4*	3.4	5.4*	4.7	2.5	5.3*	3.6	1.9	4.2*			
4.0	7.1*	7.1*	7.1*	7.0	4.5	7.0*	6.1	3.2	6.8*	4.5	2.4	6.2*	3.5	1.8	5.5			
2.0	11.3*	6.6	11.3*	8.1	3.8	11.4*	5.6	2.8	8.6*	4.3	2.1	6.8	3.4	1.7	5.3	2.6	1.3	3.7*
0.0	12.9*	5.3	14.7*	7.5	3.4	12.1*	5.3	2.5	8.8	4.1	2.0	6.5	3.2	1.6	5.2			
-2.0	12.7	5.2	16.9*	7.5	3.4	12.3*	5.2	2.5	8.8	4.0	1.9	6.5	3.2	1.6	5.1			
-4.0	13.4	5.6	15.3*	7.9	3.7	10.3*												

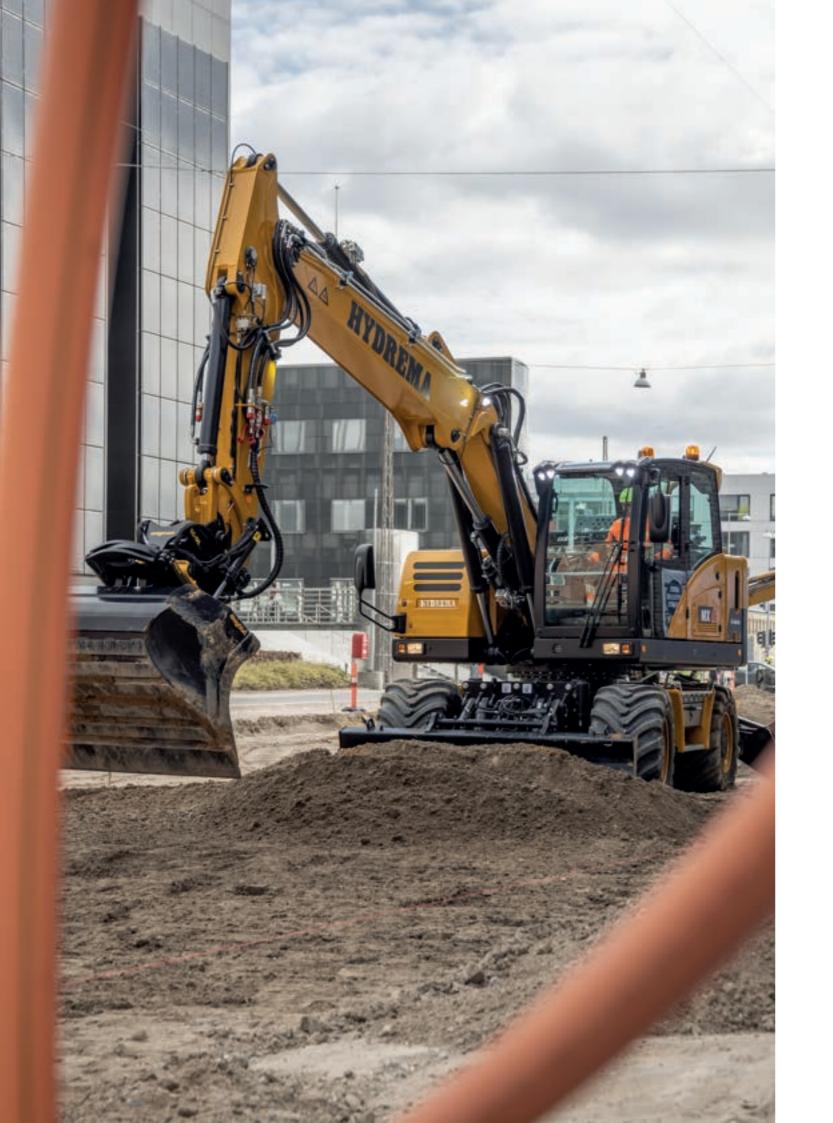
MX16	G:MAX	LIFTING	G CAPAC	СІТҮ ІМ Т	ONNE	wiтн сн	IASSIS	A4, DIPI	PER 2.5	M. WEIG	HT QUI	ск нітс	H 150 K	G. ISO 1	0567*			
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	5.0	5.7*	5.3*	3.4	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	5.0	5.1*	5.4*	3.5	5.4*	5.3*	2.5	5.3*	4.2*	1.9	4.2*			
4.0	7.1*	7.1*	7.1*	7.0*	4.5	7.0*	6.8*	3.2	6.8*	5.7	2.4	6.2*	4.4	1.8	5.5*			
2.0	11.3*	6.6	11.3*	10.7	3.9	11.4*	7.2	2.8	8.6*	5.4	2.2	6.9	4.3	1.7	5.4	3.3	1.3	3.7*
0.0	14.7*	5.4	14.7*	10.1	3.4	12.4*	6.9	2.5	9.1	5.2	2.0	6.7	4.2	1.6	5.3			
-2.0	16.9*	5.3	16.9*	10.0	3.4	12.3*	6.8	2.5	9.0	5.2	1.9	6.7	4.1	1.6	5.3			
-4.0	15.3*	5.7	15.3*	10.3*	3.8	10.3*												

\* Table values are in accordance with ISO 10567 (75% of stability or 87% of hydraulic capacity). If lifting via the standard mounted lifting hook, allow for a maximum of 12 tons. If lifting without quick hitch and directly in the outer hole in the slewing arm, values can be used by adding approx. 150 kg.

**AL:** Lift along the length of the machine with the support lowered



AQ: Lift across the machine with the support lowered



F: Lift 360° with support raised





### MX17G : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A1, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	5.3	5.7*	4.1	3.6	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	5.1*	5.1*	4.2	3.7	5.4*	3.1	2.7	5.3*	2.3	2.0	4.2*			
4.0	7.1*	7.1*	7.1*	5.5	4.8	7.0*	3.9	3.4	6.8*	2.9	2.6	6.2*	2.3	2.0	5.4*			
2.0	8.3	7.1	11.3*	4.9	4.2	11.4*	3.5	3.0	8.5*	2.7	2.3	6.9*	2.2	1.8	5.7	1.6	1.4	3.7*
0.0	7.0	5.8	14.7*	4.4	3.7	12.1	3.2	2.8	9.5*	2.5	2.2	7.1	2.0	1.7	5.6			
-2.0	6.8	5.7	16.9*	4.4	3.7	12.3*	3.2	2.7	9.6*	2.5	2.1	7.0	2.0	1.7	5.4*			
-4.0	7.3	6.1	15.2*	4.7	4.0	10.3*												

### MX176 : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS 2 X A1, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Rea	ach in Me	ter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	5.5	5.7*	5.3*	3.8	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	5.1*	5.1*	5.3	3.8	5.4*	4.0	2.8	5.3*	3.0	2.1	4.2*			
4.0	7.1*	7.1*	7.1*	7.0*	5.0	7.0*	5.0	3.6	6.8*	3.8	2.7	6.2*	3.0	2.1	5.4*			
2.0	11.1	7.4	11.3*	6.5	4.4	11.4*	4.6	3.2	8.5*	3.6	2.5	6.9*	2.8	2.0	6.1*	2.2	1.5	3.7*
0.0	9.7	6.1	14.7*	6.0	3.9	12.1*	4.3	2.9	9.5*	3.4	2.3	7.8*	2.7	1.8	6.2			
-2.0	9.5	6.0	16.9*	5.9	3.9	12.3*	4.3	2.9	9.6*	3.3	2.2	7.7*	2.7	1.8	5.4			
-4.0	10.1	6.5	15.2*	6.3	4.3	10.3*												

### MX17G : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A3, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	5.5	5.7*	5.3*	3.8	5.3*									
6.0	4.2*	4.2*	4.2*	5.1*	5.1*	5.1*	5.4*	3.9	5.4*	5.2	2.9	5.3*	4.0	2.2	4.2*			
4.0	7.1*	7.1*	7.1*	7.0*	5.1*	7.0*	6.7	3.6	6.8*	5.0	2.7	6.2*	3.9	2.1	5.4*			
2.0	11.3*	7.4	11.3*	9.0	4.4	11.4*	6.2	3.2	8.5*	4.8	2.5	6.9*	3.8	2.0	5.8	2.9	1.5	3.7*
0.0	14.4	6.2	14.7*	8.4	4.0	12.1*	5.9	3.0	9.5*	4.6	12.3	7.2	3.7	1.9	5.7			
-2.0	14.3	6.1	16.9*	8.4	3.9	12.3*	5.9	2.9	9.6*	4.5	2.3	7.2	3.6	1.9	5.4*			
-4.0	14.9	6.5	15.2*	8.8	4.3	10.3*												

### MX17G : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A4, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\*

								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	5.6*	5.6*	5.6*	5.7*	5.6	5.7*	5.3*	3.9	5.3*									
6.0	4.2*	4.2*	4.2*	5,1*	5.1*	5.1*	5.4*	3.9	5.4*	5.3*	2.9	5.3*	4.2*	2.2	4.2*			
4.0	7.1*	7.1*	7.1*	7.0*	5.1	7.0*	6.8*	3.6	6.8*	6.2*	2.8	6.2*	4.9	2.1	5.4*			
2.0	11.3*	7.5	11.3*	11.4*	4.5	11.4*	8.0	3.3	8.5*	6.0	2.5	6.9*	4.7	2.0	6.0	3.6	1.5	3.7*
0.0	14.7*	6.3	14.7*	11.2	4.0	12.1*	7.7	3.0	9.5*	5.8	2.3	7.4	4.6	1.9	5.8			
-2.0	16.9*	6.2	16.9*	11.1	4.0	12.3*	7.6	2.9	9.6*	5.7	2.3	7.3	4.6	1.9	5.4*			
-4.0	15.2*	6.6	15.2*	10.3*	4.4	10.3*												

\* Table values are in accordance with ISO 10567 (75% of stability or 87% of hydraulic capacity). If lifting via the standard mounted lifting hook, allow for a maximum of 12 tons. If lifting without quick hitch and directly in the outer hole in the slewing arm, values can be used by adding approx. 150 kg.

AL: Lift along the length of the machine with the support lowered



AQ: Lift across the machine with the support lowered





#### MX18G : MAX LIFTING CAPACITY IN TONNE WITH CHASSIS A1, DIPPER 2.5 M. WEIGHT QUICK HITCH 150 KG. ISO 10567\* Reach in Meter 5.0 7.0 3.0 4.0 6.0 Max. Н AL AQ F AL AQ F AL AQ AQ AQ AQ F F AL F AL F AL 8.0 6.7\* 6.7\* 6.7\* 6.1 5.3 6.9\* 4.2 3.7 6.8\* 6.0 5.6\* 6.0 5.2 6.5\* 4.1 3.6 6.8\* 3.0 2.6 6.0\* 2.3 2.0 5.5\* 5.6\* 5.6\* 3.2 7.6\* 2.8 6.4\* 2.2 1.9 5.8\* 4.0 8.7 5.3 9.6\* 3.7 2.4 7.4 10.3\* 4.5 2.0 4.5 11.3\* 2.8 9.0\* 2.5 2.1 7.2 2.0 1.7 5.6 7.5 6.3 11.7\* 3.8 3.3 1.4 1.2 3.9\* 0.0 6.5 5.3 14.4\* 4.0 3.3 11.7\* 3.0 2.5 9.2\* 2.3 1.9 6.9 1.9 1.6 5.4 -2.0 6.5 5.3 16.5\* 4.0 3.4 11.9\* 2.9 2.4 9.3\* 2.3 1.9 6.8 1.8 1.5 5.4 -4.0 6.9 5.7 16.2\* 4.4 3.7 11.2\* 3.2 2.7 7.9\*

MX18	<b>G</b> : MAX	LIFTIN	G CAPAC	CITY IN "	TONNE	итн сн		2 X A1, C	DIPPER 2	2.5 M. W	EIGHT	QUICK H	IITCH 15	0 KG. IS	0 10567	7*		
								Re	ach in Me	ter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	6.7*	6.7*	6.7*	6.9*	5.6	6.9*	5.3	3.8	6.8*									
6.0	5.6*	5.6*	5.6*	6.5*	5.4	6.5*	5.3	3.8	6.8*	3.9	2.8	6.0*	3.0	2.1	5.5*			
4.0	10.3*	7.7	10.3*	6.9	4.8	9.6*	4.9	3.4	7.6*	3.7	2.6	6.4*	2.9	2.0	5.8*			
2.0	10.3	6.6	11.7*	6.1	4.0	11.3*	4.4	2.9	9.0*	3.4	2.3	7.2*	2.7	1.8	6.2*	1.9	1.2	3.9*
0.0	9.2	5.6	14.4*	5.6	3.6	11.7*	4.1	2.6	9.2*	3.2	2.1	7.5*	2.5	1.7	6.1			
-2.0	9.1	5.6	16.5*	5.6	3.6	11.9*	4.0	2.6	9.3*	3.1	2.0	7.7	2.5	1.6	6.0			
-4.0	9.7	6.1	16,2*	6.0	3.9	11.2*	4.3	2.8	7.9*									

MX18	G:MAX	LIFTIN	G CAPAC		TONNE	wітн сн	ASSIS	A3, DIPF	PER 2.5	M. WEIG	HT QUI	ск нітс	:H 150 K	G. ISO 1	0567*			
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	6.7*	6.7*	6.7*	6.9*	5.6	6.9*	6.8*	3.9	6.8*									
6.0	5.6*	5.6*	5.6*	6.5*	5.5	6.5*	6.8*	3.8	6.8*	5.1	2,8	6.0*	3.9	2.1	5.5*			
4.0	10.3*	7.8	10.3*	9.5	4.8	9.6*	6.5	3.4	7.6*	4.9	2.6	6.4*	3.8	12.0	5.8			
2.0	11.7*	6.7	11.7*	8.6	4.1	11.3*	6.0	3.0	9.0*	4.6	2.3	7.2*	3.6	1.8	5.7	2.6	1.3	3.9*
0.0	13.8	5.7	14.4*	8.0	3.6	11.7*	5.7	2.7	9.2*	4.3	2.1	7.0	3.5	1.7	5.5			
-2.0	13.8	5.7	16.5*	8.0	3.6	11.9*	5.6	2.6	9.3*	4.3	2.1	6.9	3.5	1.7	5.5			
-4.0	14.4	6.1	16.2*	8.4	4.0	11.2*	5.9	2.9	7.9*									

MX18	G:MAX	LIFTIN	G CAPAC	CITY IN "	TONNE	wiтн сн	ASSIS	4, DIPI	PER 2.5	M. WEIG	HT QUI	ск нітс	:H 150 K	G. ISO 1	0567*			
								Re	ach in Me	eter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	6.7*	6.7*	6.7*	6.9*	5.7	6.9*	6.8*	3.9	6.8*									
6.0	5.6*	5.6*	5.6*	6.5*	5.5	6.5*	6.8*	3.8	6.8*	6.0	2.8	6.0*	4.9	2.1	5.5*			
4.0	10.3*	7.9	10.3*	9.6*	4.9	9.6*	7.6*	3.5	7.6*	6.2	2.6	6.4*	4.8	2.0	5.8*			
2.0	11.7*	6.8	11.7*	11.3*	4.1	11.3*	7.7	3.0	9.0*	5.8	2.3	7.2*	4.6	1.9	5.8	3.3	1.3	3.9*
0.0	14.4*	5.8	14.4*	10.8	3.7	11.7*	7.4	2.7	9.2*	5.6	2.1	7.2	4.4	1.7	5.7			
-2.0	16.5*	5.8	16.5*	10.8	3.7	11.9*	7.3	2.7	9.3*	5.5	2.1	7.1	4.4	1.7	5.6			
-4.0	16.2*	6.2	16.2*	11.2*	4.0	11.2*	7.6	2.9	7.9*									

								Rea	ach in Me	ter								
		3.0			4.0			5.0			6.0			7.0			Max.	
Н	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL	AQ	F	AL
8.0	6.7*	6.7*	6.7*	6.9*	5.6	6.9*	6.8*	3.9	6.8*									
6.0	5.6*	5.6*	5.6*	6.5*	5.5	6.5*	6.8*	3.8	6.8*	5.1	2,8	6.0*	3.9	2.1	5.5*			
4.0	10.3*	7.8	10.3*	9.5	4.8	9.6*	6.5	3.4	7.6*	4.9	2.6	6.4*	3.8	12.0	5.8			
2.0	11.7*	6.7	11.7*	8.6	4.1	11.3*	6.0	3.0	9.0*	4.6	2.3	7.2*	3.6	1.8	5.7	2.6	1.3	3.9*
0.0	13.8	5.7	14.4*	8.0	3.6	11.7*	5.7	2.7	9.2*	4.3	2.1	7.0	3.5	1.7	5.5			
-2.0	13.8	5.7	16.5*	8.0	3.6	11.9*	5.6	2.6	9.3*	4.3	2.1	6.9	3.5	1.7	5.5			
-4.0	14.4	6.1	16.2*	8.4	4.0	11.2*	5.9	2.9	7.9*									



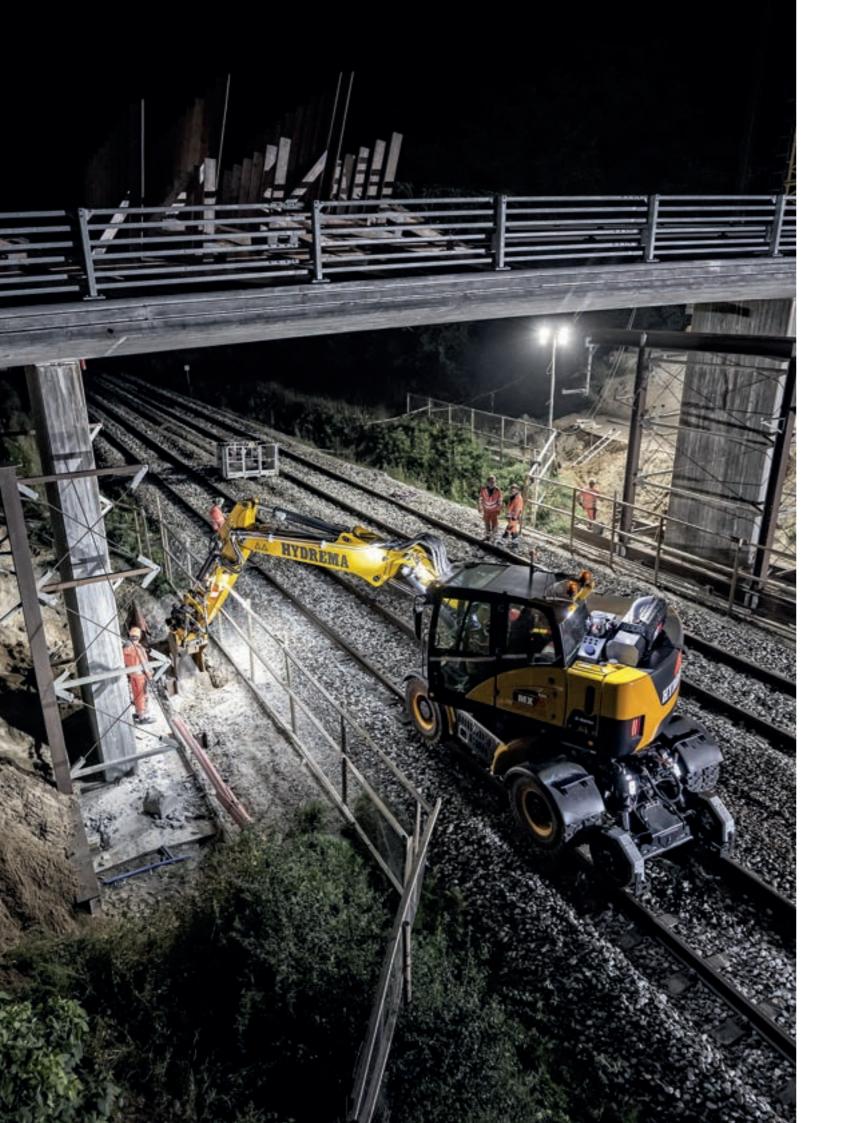
\* Table values are in accordance with ISO 10567 (75% of stability or 87% of hydraulic capacity). If lifting via the standard mounted lifting hook, allow for a maximum of 12 tons. If lifting without quick hitch and directly in the outer hole in the slewing arm, values can be used by adding approx. 150 kg.

\* Table values are in accordance with ISO 10567 (75% of stability or 87% of hydraulic capacity). If lifting via the standard mounted lifting hook, allow for a maximum of 12 tons. If lifting without quick hitch and directly in the outer hole in the slewing arm, values can be used by adding approx. 150 kg.

AL: Lift along the length of the machine with the support lowered



AQ: Lift across the machine with the support lowered



# **Rail Excavators** - built for the tracks.

## The MX Rail excavator range is based on Hydrema's standard machines and factory build for work on railways.

Equipped with Hydrema's flexible rail system, the MX RAIL excavators can work in both high and low rail mode.

#### **High rail mode**

The tires are fully pressed against the rail wheels and lifted 100 mm above the tracks. Hereby, damage to track sensors and track shifters are avoided, as the tires are lifted entirely off the railway tracks. Operating in high rail mode provides max. stability.

#### Low rail mode

The tires run directly upon the railway tracks. The rail wheels run with constant pressure control and suspension to achieve high safety and avoid derailing. This provides comfortable driving and maximizes traction. Especially handy in wet conditions.

#### Safety

For maximum safety, the rail machines are fitted with the electronic Prolec height and slew limiting system with RCI (Rated Capacity Indicator). The system has fail-safe functionality with automatic checks and

double sensors.

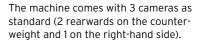
The system functions as a safeguard from hitting overhanging railway cables and make a virtual wall to prevent movement into the neighbouring track. Meanwhile the RCI constantly monitors the stability of the machine.



Specifications		MX16G RAIL	MX20G RAIL
Machine weight*	Т	19,4	20,5
Width over standard tires	mm	2570	2570
Clearance height, cab, on rails (high rail)	mm	3220	3220
Ground clearance (rail work; high rail mode)	mm	100	100
Rear distance, pivot center to counter weight	mm	1640	1700
Slew radius, rear	mm	1792	1839
Reach, with 2.0 m dipper	mm	8820	8820
Breakout force, bucket**	kN	126	126

\*) weight stated with 150 kg quick hitch. No bucket. Transp. pos. \*\*) stated with 150 kg quick hitch and 400 kg direct-mounted bucket





#### **Hydrema MX Rail models**

The compact uppercarriage on MX16G RAIL enables work on double-track railways without disturbing the traffic on the other track.

The MX20G Rail is designed for heavy lifting and is the most compact rail excavator in the +20 tons segment.

#### **Rail Specific Equipment**

Undercarriage with a rail system, for standardgauge railway (track width: 1435 mm) capable of working in both high and low rail mode.

The machine's driveline is used for propulsion, also in rail mode. Visual control of pressure in cylinders for the rail modules. Electronic monitoring of high & low rail mode with alarm.

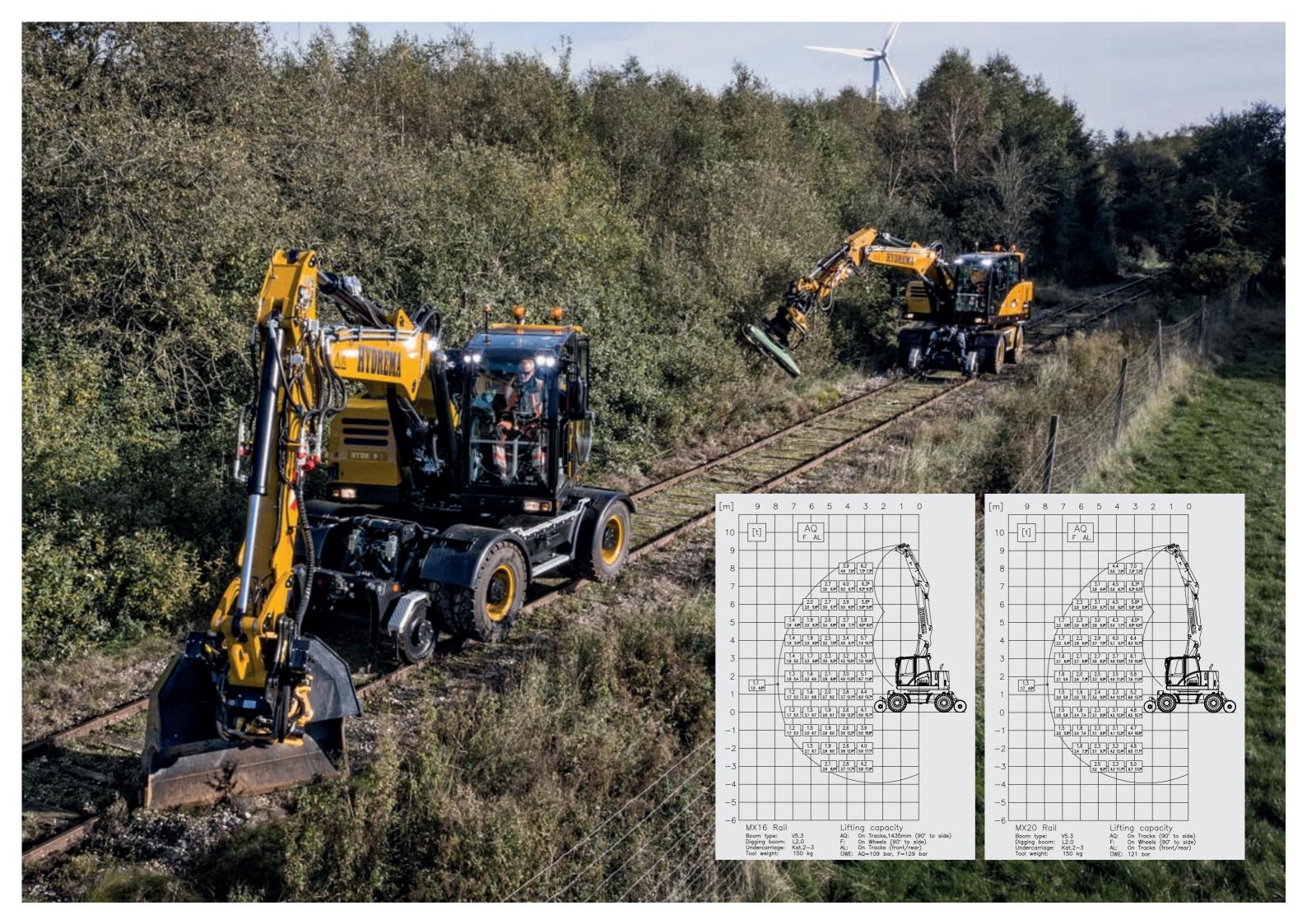
Rail wheels diameter: 650 mm. Lockable oscillation (+/- 3°) of the rail wheel axle on the front rail module. Individual disc brakes on rail wheels, operated both by the service and parking brake. Hydraulic lock of steering wheels when operating in rail mode.

Fixed BM-hitch on the rear rail module, for mounting of tools.

An extra hydraulic circuit (50 l/min) for external tools, mounted on the rear of the undercarriage.

Coupling for a trailer, front/rear. 7-pole socket for trailer, rear. An Airbrake system for trailers is available as an option.

Hydraulic emergency operation. Stop buttons are placed both outside and inside the cab.





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