

Hako

Clean ahead



Three connection points for a wide range of different attachments

Superior hydraulic output

Also available with hydrostatic drive

Multicar M31 / M31 Hydrostat

Load and implement carrier in the 6-t class



As a versatile implement carrier and powerful transporter, the Multicar M31 combines multifunctionality, economic efficiency and manoeuvrability with a compact design. The vehicle also delivers a convincing performance in terms of safety and comfort. The ergonomically optimised space-frame cabin is equipped with unique and DEKRA-certified safety features, its extra-large windows allowing a perfect view onto the traffic on the road and the tools. As a genuine all-rounder designed according to Hako's "One for All" principle and equipped with three connection points, the Multicar M31 can be used for a wide range of applications with 300 different attachment combinations. This is what we call "quality made in Germany" – which has been our motto for over 50 years now.

- **High levels of driving comfort thanks to individually suspended wheels**
- **Modular vehicle concept with four basic models**
- **Extremely comfortable working for the driver**
- **Individual optional equipment for increased efficiency and comfort**
- **Euro VI: emissions are reduced by over 90 %**



Maximum multifunctionality

Equipped with three connection points for a wide range of different attachments, the Multicar M31 is a genuinely multifunctional vehicle. The front lift – equipped with an attachment mounting plate – is integrated in the chassis, allowing the use of highly efficient front attachments. Thanks to the quick-change system, the Multicar M31 can be re-tooled for every seasonal application.



Extremely efficient and economical

Thanks to its flexible, high-quality light-steel frame, the Multicar M31 is particularly durable – and allows continuous operation. A powerful yet low-consumption turbo diesel engine provides the optimum drive. The all-wheel-drive function can be switched off to ensure even more favourable consumption values, which in turn reduces your operating costs. The vehicle's high top speed ensures reduced travel times and optimised operating times.



This vehicle meets every demand

The Multicar M31 has been designed with much attention to detail in order to make your work routine easier, every single day. Its small width of only 163 cm, the small turning circle, as well as the power steering (standard) allow easy and safe manoeuvring of the vehicle even in confined areas. Both the all-wheel drive and crawler gear functions can be activated when needed, allowing the Multicar M31 to adapt to the conditions on hand and increase its efficiency.



Operation and safety

Perfectly adapted to the driver's individual needs



Plenty of room for all those little things: The glove box, different storage compartments and a bottle holder ensure a tidy interior. And there is also plenty of space for the driver – despite the vehicle's compact exterior dimensions.



Everything within easy reach: Both the operating elements and displays are centrally arranged. The LED switches provide an optimal overview. The operating element controlling the mobile hydraulics is integrated in the armrest (hydrostat model: into the control lever).



Everything at a glance: Just one glance at the intuitive, multifunctional display provides the driver with all important information regarding the current operating status of the Multicar M31.



Increased driving comfort: Power steering, cruise control, superior cross-country ability, and a comprehensive range of assistance systems make everyday work easier. Optional equipment: electric windows as well as electric and heated mirrors (left and right).

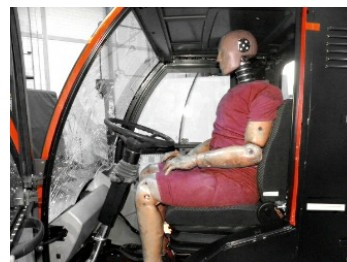


Perfect for frequently changing drivers

- Seats with several adjustment options
- Height-adjustable safety belt
- Steering column adjustable in height and angle



First-class view: The panoramic windscreen with an integrated sun glare filter provides a perfect all-round view as well as a very good view onto the front attachments. Thanks to the large wind-up windows, optimised wipers and additional windows in the lower door area, the driver can keep an eye on his surroundings at all times.



Highest levels of safety: To maximise the driver's safety, DEKRA carries out safety tests according to ECE-R 29 and ECE-R 13 on a regular basis.



Additional safety factors, as applied in lorry construction:

- Collision-tested space-frame cabin
- All-wheel drive
- Disc brakes
- Hydrostat ABS
- Daytime running light as a standard
- Large reflectors
- Double-shell doors made of stress-tested steel and plastic components

Sophisticated technology



Easy maintenance, fast servicing:

Thanks to the tiltable cabin and the three-way tipper, all components are easily accessible and maintenance work can be carried out quickly and reliably.



Variable hydraulics:

From simple tipper hydraulics to stationary hydraulics and LS mobile hydraulics – with comfort control and high-pressure switchover.



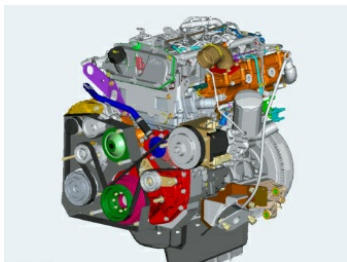
For different front attachments:

Front lift with an attachment mounting plate functioning as a front attachment quick-change system with lifting, lowering and swivel functions.



Increased comfort and safety

thanks to the vehicle's variable hydrostatic braking power (standard).



Powerful, low-emission

FPT turbo diesel engine:

Total towing weight up to 7.5 t, payload up to 3.1 t and a braked towing capacity of up to 3.5 t. Exhaust gas cleaning system: Selective Catalytic Reduction. The combination of particle filters and SCRT system reduces nitrogen oxides by over 90 % and particles by more than 95 %.



Balanced driving and safe

road-holding

characteristics both fully laden and unladen, thanks to independently suspended wheels with coil springs at the front and progressive leaf springs with telescopic shock absorbers at the rear.



Fast mounting of

superstructures onto the

loading bed, the tipper cross members or the ball system.



Basic models

Always the right model for every application

Four basic types of the Multicar M31 model are available. Depending on your individual requirements and the job on hand, you can select different features and equipment options. This is made possible by the consistently modular vehicle concept we apply when developing our Multicars. You can choose between a short and a long wheel base, 4x2 and 4x4 drives, 2- or 3-seater cabins and many more additional options increasing the vehicle's economic efficiency, working comfort and safety.



Multicar M31 B – Robust chassis

- Stationary 1-circuit hydraulics with a gear pump providing a nominal pressure of up to 250 bar
- Particularly suited for stationary operated superstructures, e.g.
 - skip loaders or roll-off tippers
 - loading cranes
 - lifting platforms
 - waste compressors
 - gully cleaners
- Optionally available with 4x2 or 4x4 drive and short (2,450 mm) or long 2,995 mm) wheelbase
- Optional ball system allowing easy changing of attachments



Multicar M31 T – The special transporter

- Equipped with budget-friendly tipper hydraulics for the three-way tipper
- Tipper superstructure with a 45° tipping angle in all three directions, shell plate walls with increased height (option)
- Frame equipped with 4 balls to provide easy mounting of the three-way tipper
- Optionally available with 4x2 or 4x4 drive and either a short (2,450 mm) or a long (2,995 mm) wheelbase
- Preparation for light-duty winter service tasks (option)
- Flexible and powerful with payloads of up to 2.9 t and a towing capacity of up to 3.5 t



Multicar M31 C – Professional implement carrier with powerful mobile hydraulics

- Three different mobile hydraulics versions are available:
 - 1 circuit with a gear pump
 - 2 circuits with a dual gear pump
 - 2 circuits with an axial piston pump (high pressure comfort hydraulics)
- For various demanding applications
- Infinitely adjustable volumetric flow rate, comfortable operation from the workplace inside the cabin
- LS hydraulics providing high drive power at low rpm's
- Equipped with 4x4 drive and available with either a short (2,450 mm) or a long (2,995 mm) wheelbase (option)
- Optional ball system providing easy changing of attachments



Multicar M31 Hydrostat – Professional implement carrier with hydrostatic drive

- Hydrostatic drive, three different options are available:
 - 1 circuit with a gear pump,
 - 2 circuits with a dual gear pump,
 - 2 circuits with an axial piston pump (high pressure comfort hydraulics)
- No clutch, no wear and tear
- Infinitely variable speed, adjustable via the accelerator pedal or a hand lever
- Always the perfect speed range for every application, thanks to two different drive modes and a crawler gear
- Perfectly suited for municipal tasks such as snow ploughing, sweeping, mowing and collecting leaves
- Particularly safe thanks to the unique Hydrostat ABS. Disc brakes at all four wheels ensure short braking distances. The 4-channel ABS actively intervenes whenever a wheel is about to spin.



Optional equipment

Adapt the Multicar M31 to meet your individual requirements

Every Multicar M31 is equipped with numerous superior features to begin with. However, a wide range of optional extras is available in order to adapt the vehicle to meet your individual requirements perfectly: for increased efficiency and comfort. All extras are tailor-made for the Multicar M31 to ensure compatibility and functionality.



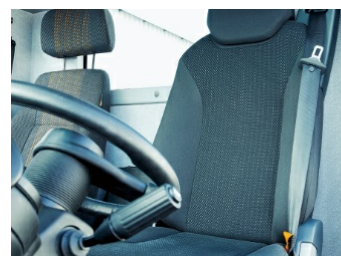
Right-hand drive optionally available for all vehicles.



Three-seater cabin, with a bench seat for two passengers instead of a single seat for only one passenger (left-hand drive).



Air-sprung seat with seat heating and lumbar support.



Driver's seat with integrated seat belt.



Work light integrated in the new height-adjustable light carrier.



Flashing beacon (LED) and a work light at the rear (LED).



Fog light at the front (LED).



4-pin socket e.g. for the position lamps of front-mounted attachments.



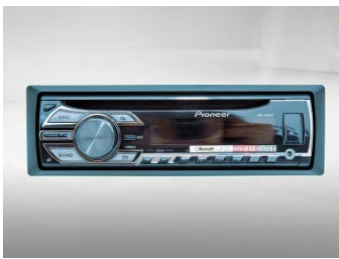
Heated windshield for a perfect view in the cold season.



Air conditioning control switch integrated in the operating panel.



Electric windows and mirrors left and right.



Bluetooth radio can be installed in the overhead console.



Ball/ bolt coupling vertical load on the coupling joint: 150 or 250 kg.



Ball system provides easy mounting and demounting of superstructure components.



Differential lock, all-wheel drive, and a crawler gear can be activated at the push of a button.



Trailer tipper hydraulics the operating switch is within easy reach.

Multifunctionality

Versatility only a Multicar can offer

The Multicar M31 offers a wide range of application options. This implement carrier is always extremely reliable – whether used in the city, in gardening & landscaping, in the construction sector, or in waste management.



One machine, a whole host of possibilities

The Multicar M31 is extremely adaptable. Providing maximum flexibility, this implement carrier can be used in the city, in gardening & landscaping, in the construction sector, or in waste management.

The high additional front axle load of up to 2.7 t ensures sufficient reserves when operating front attachments. In addition, the vehicle is particularly well protected against hydraulic pressure peaks and external loads.

Additional swivel functions both at the front and rear provide increased functionality when working with attachment devices; the oil volume can be adjusted to ensure optimal adaption to additional devices. The swivel functions can also be used as permanent consumers to increase the machine's range of applications even further.



Green area maintenance



Sweeping



Winter service



Wet cleaning



Waste management



Transport



Road maintenance



Special applications



Fruit and wine growing



Allows flexible use

- Transport tasks with a three-way tipper or a skip loader
- Can also be used in combination with a loading crane or a gripper
- Waste management tasks in pedestrian zones, parks, and areas with narrow access roads
- Repair and maintenance work with lifting platforms
- Gully cleaning with a special superstructure
- Sewer cleaning with special suction devices



Your perfect solution – 365 days a year

- Winter service tasks with snow ploughs or snow sweepers
- Extended hydraulics versions for new vehicle configurations, e.g. the transporter model of the Multicar M31 can be equipped to provide light-duty winter service (LWS)
- Sweeping with front sweepers and vacuum sweepers
- High-pressure cleaning, or using hand-held cleaning and watering devices
- Mowing with cutter bars, rotary mowers, flail mowers, boom mowers and mowing-suction combi devices
- Maintaining trees and shrubs, cutting trees from a lifting platform, chaffing, and transportation of the cuttings



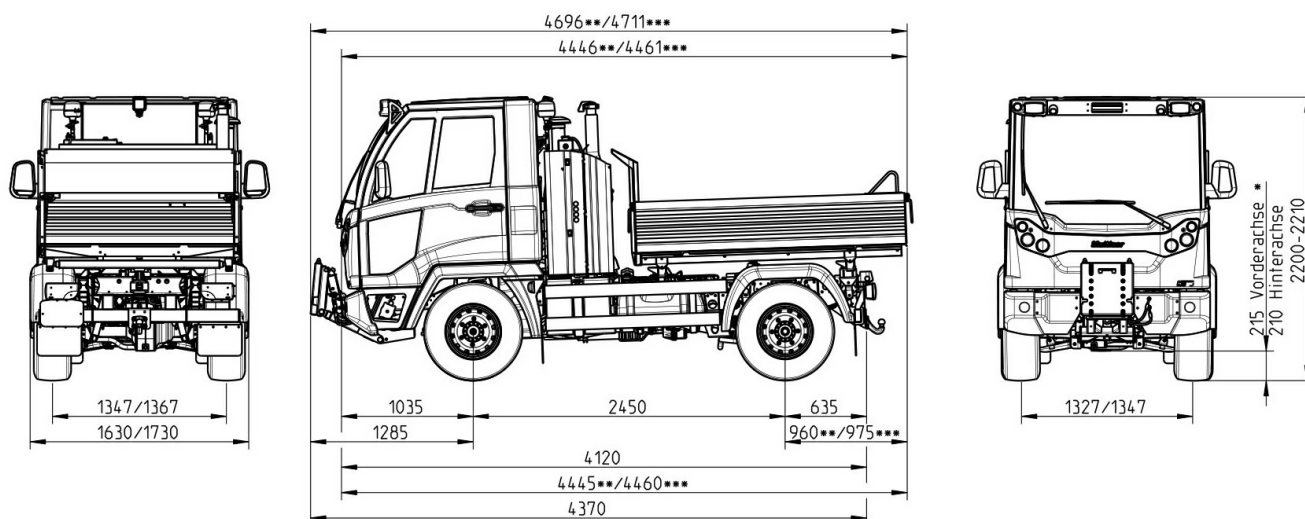
The Multicar M31 / M31 Hydrostat at a glance

	Multicar M31 T	Multicar M31 B	Multicar M31 C	Multicar M31 Hydrostat
Engine and gearbox				
Engine	Volume-produced engine, FPT turbo diesel, displacement 2,998 cm³			
Output	110 kW (150 PS) @ 3,500 U/min			108 kW (147 PS) @ 3,000 U/min
Max. torque	320 Nm @ 1,200 U/min			370 Nm @ 1,320 U/min
Exhaust emissions	Exhaust emissions according to EURO VI Standard EC 595/2009/EC			
Gear box	5 forward gears and 1 reverse gear; with all-wheel drive incl. crawler gear: 10 forward- and 2 reverse gears			continuously variable hydrostatic drive with two drive modes: transport and working, can be combined with the crawler gear
Driving characteristics				
Speed range class N2	0 - 90 km/h			0 - 70 km/h
Chassis	flexible steel frame in a modular design			
Wheelbase	2,450 mm (short), alternatively 2,995 mm (long)			
Axles/front suspension	independent suspension with telescopic shock absorbers and additional coil springs			
Axles/rear suspension	with telescopic shock absorbers and additional progressive leaf springs			
Tyres	225/75 R 16 C (standard), other tyres are optionally available			
Cabin	tiltable space-frame cabin, safety cabin compliant with ECE-R 29			
Drive and steering				
Drive	4 x 2-, driver-engaged 4 x 4 all-wheel drive (option)		driver-engaged 4 x 4 all-wheel drive (standard)	
Clutch	hydraulically actuated, asbestos-free			
Steering	Power steering (hydraulic steering), height and tilt adjustable			
Tank capacity	90 litres, Ad Blue 25 litres			
Breaking system	4-wheel disc brakes (ventilated) with 4-channel ABS, compliant with ECE-R-13			additional hydraulic brake slip regulation, compliant with ECE-R 13
Load values				
Permissible gross vehicle weight	up to 5.6 t			up to 5.7 t

Weight				
Permissible axle load, front	2.4 t/2.7 t		2.7 t	
Permissible axle load, rear	up to 3.67 t			up to 3.8 t
Payload with 4x2 drive*	up to 2.9 t		up to 3.1 t	
Payload with 4x4 drive*	up to 2.8 t	up to 3 t	up to 2.9 t	up to 2.9 t
Permissible trailer load	3.5 t (braked) / 0.75 t (non-braked)			
Total towing weight	7.5 t			

Hydraulics

Characteristics	<p>Tipper hydraulics: max. 10 l/min max. working pressure 180 bar, optional: preparation light-duty winter service (swivelling/lifting/lowering front attachment – max. 5 l/min)</p>	<p>Stationary hydraulics single-circuit hydraulics up to 55 l/min @ 200 bar up to 40 l/min @ 250 bar (depending on the version)</p>	<p>Mobile hydraulics 3 versions available 1. 1 circuit, gear pump, 1 x 55 l, max. working pressure 200 bar 2. 2 circuits, dual gear pump, 2 x 55 l, max. working pressure 200/250 bar 3. 2 circuits, high-pressure comfort hydraulics, axial piston pump and gear pump, 110 l + 34 l, max. working pressure 200/300 bar, switchable</p>	<p>Mobile hydraulics 3 versions available 1. 1 circuit, gear pump, 1 x 55 l, max. working pressure 200 bar 2. 2 circuits, dual gear pump, 2 x 55 l, max. working pressure 200/250 bar 3. 2 circuits, high-pressure comfort hydraulics, axial piston pump and gear pump, 110 l + 34 l, max. working pressure 200/300 bar, switchable</p>
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- * bei Standardbereifung
- ** bei Aufbau MA10.2
- *** bei Aufbau MA10.3