

# You can reach the next milestone. Or set a new one. The outstandingly mobile off-road Unimog

Progress and safety, perfection and responsibility, performance and innovation – these are only a few of the values which Unimog customers quite rightly connect with Mercedes-Benz. We have reinterpreted these values. The result sets new standards for off-road mobility: extreme efficiency, state-of-the-art truck technology from large-scale production and outstanding advanced system solutions combine to provide a successful overall concept. The new Unimog U 4023 / U 5023 sets a milestone in the over 60 years of designing outstandingly mobile off-road trucks.



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Further information is available online: www.newunimog.com

# Perfect over rough terrain: the Unimog concept

Scree, snow, sand, soft roads: The Unimog U 4023 / U 5023 always gets through. The new outstandingly mobile off-road Unimog can cope with virtually any challenge thanks to its state-of-the-art technology. All-wheel drive and extreme torsional flexibility give this sturdy truck a head start when off the beaten track: The Unimog delivers crews, material and heavy equipment to any remote and out-of-the-way work location. And the new generation has even improved on its tried and tested advantages.

### Superior chassis design

The unique and outstanding off-road mobility of the Unimog has its origins in its innovative chassis design: The torsional flexibility of its frame with its three-point bearings for the cab, engine and transmission as well as the axle suspension with torque tube technology, transverse link and coil springs allow axle articulation of up to 30°. All-wheel drive, single tyres, the central tyre inflation system and positive differential locks provide maximum traction when driving off-road. And even in extremely steep situations, its low centre of gravity guarantees the vehicle's stability. When driving over rough terrain, the Unimog benefits from its high ground clearance of up to 50 cm. This is due to its portal axles and the fact that all the equipment is installed above the lower edge of the frame.



### A proper all-rounder

A genuine truck, able to operate reliably even in the most remote areas – that is what the outstandingly mobile off-road Unimog guarantees. Even in the toughest terrain, the hydraulic, mechanical and electric drives provide the right amount of power to run varying implements and mounted equipment. The well-thought out drive concept makes the vehicle predestined for a variety of jobs and operations. The various attachment and mounting areas with standardised connection points also make it easy to fit mounted bodies and exchange implements.

### System solutions

The Unimog is more than just a vehicle. Through its combination of firmly installed or changing work implements and mounted bodies, a system has been created which provides exceptional diversity, versatility and productivity. For decades, Mercedes-Benz has been working on the Unimog together with international implement and body manufacturers and is therefore able to combine specialist experience and know-how, as well as the experience of its Unimog partners. This means that you too will also be able to find precisely customised solutions for your unusual requirements.

# Off-road mobility, sturdy, efficient

The innovations and highlights of the Unimog U 4023 / U 5023 at a glance

### Economic

- + State-of-the art and efficient Mercedes-Benz drive technology, tried and tested in large-scale production
- + Low consumption of fuel, AdBlue and
- + Low maintenance costs due to longer intervals between inspections
- + Driving speeds up to 90 km/h
- + Powerful premium engine brake

### **Environmentally friendly**

- + New generation of engines with clean BlueEFFICIENCY Power
- + An investment for the future by complying with Euro VI emission standards
- Drastic reductions in emissions and particulate matter by up to 90% compared with the previous Euro V engines

### Strong and reliable

- + Long life span due to high quality of construction and workmanship
- + Large sized radiator in protected position above the bumper
- + Completely welded frame and enclosed drivetrain for a long life span
- + Extremely reliable due to large-scale production and testing

GER U 5023

### Easy to operate

- + Large ergonomic cab with modern interior
- + Easy handling with innovative and clear operating controls
- + New heating and air-conditioning system
- + Front camera to extend range of vision

### Made for the job

- + Extremely high standards for outstanding off-road mobility and safety
- + Transmission-run PTO can also be operated when floor assembly for special bodies
- New engine-run PTO as a mechanical interface for operating implements (650 Nm)
- Standardised attachment points
- + Uprated vehicle hydraulics

### Powerful

- + New uprated engine with 170 kW (231 hp)
- + New transmission with faster gear changes
- + Batteries with increased capacity
- + Higher standard load ratings

### Outstanding off-road mobility

- + Central tyre inflation system with practiceoriented pre-settings
- + All-wheel drive for high traction
- + High ground clearance with portal axles
- + Differential locks
- + Short frame overhang provides greater angles of approach and greater ramp angles
- + Off-road reduction gears for climbing ability up to 100%
- + Torsionally flexible vehicle frame
- + Fording ability up to 1200 mm

# Superior chassis design

Knows hardly any limits. Not even the tree line

The new outstandingly mobile off-road Unimog is the sum of over 60 years of design experience: portal axles, all-wheel drive, central tyre inflation system, differential locks in both axles and an extremely torsionally flexible vehicle frame allow the U 4023 and U 5023 to continue their journey even over difficult terrain. The design has proved its worth thousands of times and every new day brings it a new challenge: your next trip. Of course, no design is so perfect that it cannot be improved. The new Unimog has simplified the controls which contribute to a high standard of riding comfort, even over the most extreme terrain. One example of this is the central tyre inflation system. The pre-set modes 'road' 'sand' and 'bad surface' provide the correct tyre pressure just by pressing a button.

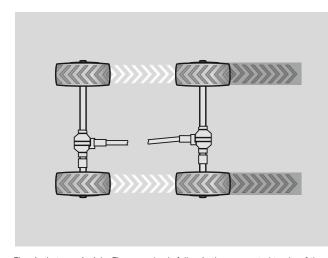


### Outstanding off-road mobility

Whatever is lying in your way – the Unimog is built to get over almost any obstacle. The engageable all-wheel drive ensures that the vehicle is able to make its way even across very difficult terrain. The Unimog has two ways of increasing traction: the differential locks can be engaged to prevent wheel spin; and the central tyre inflation system adjusts the surface contact of the tyres to the type of ground. The principle of single tyres has also been well thought out: the rear wheels follow in the tracks of the front wheels so that they can take advantage of the compacted driving surface.

### Safe travelling cross-country: the new U 4023 / U 5023.

The engine was given a central position under the cab in the new vehicle in order to be able to integrate the BlueEFFICIENCY technology while at the same time retaining the outstanding off-road handling of the Unimog. One of the advantages of this arrangement is the well-balanced axle-load distribution which has a positive effect on the handling of the vehicle. And, should the Unimog have to stop for any reason, then the new pneumatic braking system with off-road Anti-Lock Braking System (ABS), automatic load-dependent brake force control (ALB) and disc brakes on all four wheels comes into its own.



The single-tyre principle: The rear wheels follow in the compacted tracks of the front wheels. This increases traction and is better for the ground surface



New

Easy to operate: the central tyre inflation system with simplified controls

The new operating system makes it much simpler to set the required tyre pressure. The new switch system gives the user the choice between the pre-set modes 'road', 'sand' and 'bad surface' which means that the correct setting for each type of surface is selected intuitively and operating errors are practically impossible. The environment also profits from the central tyre inflation system: Driving cross-country with a reduced tyre pressure not only improves traction, it is also better for the ground surface.





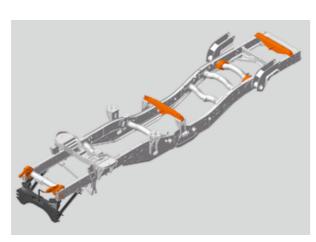
# Torsionally flexible and tough: the frame design

Flexible and stable on the job. The offset frame of the vehicle plays an essential role in the off-road ability of the Unimog U 4023 / U 5023. Together with its torque tube technology and 3-point bearings for engine, transmission and mounted bodies, the vehicle's torsional flexibility allows a diagonal twist of up to 600 mm. As the whole frame is welded, it is permanently able to stand up to the twisting strain. At the same time, the curved frame gives the vehicle a low centre of gravity and high ground clearance.

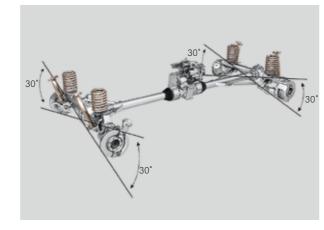
One further plus when travelling off-road: the axle suspension with torque tube and enclosed drivetrain. By connecting the axles with a torque tube and torque ball to the transmission, axle articulation of up to 30° is possible. And the completely enclosed drivetrain protects

the drive shaft from contamination through dust, water

and other off-road conditions.



The curved frame with welded tubular cross members plays an essential role in its torsional flexibility



Torque tube technology and coil springs provide extremely long shock courses and great axle articulation of up to 30°

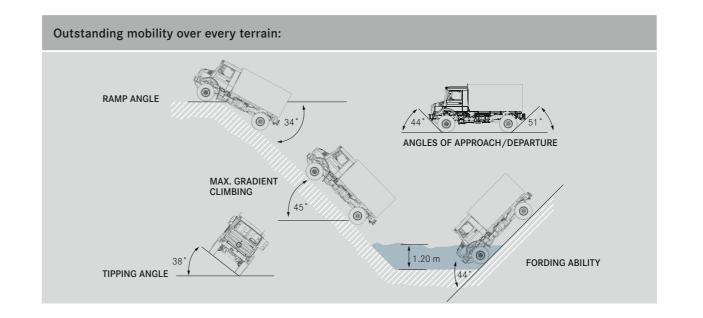
# High ground clearance: overcoming virtually every obstacle

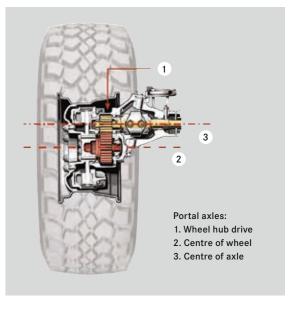
Coping with challenges intelligently. Typical Unimog portal axles provide high ground clearance and give the vehicle a low centre of gravity. And the asymmetrical arrangement of the axle differentials makes it easier to drive over obstacles. The axle suspension has been strengthened so that it can stand up to great loads and strains. The axle construction is designed to be just as tough and allows high series production load ratings.

Climbing steep gradients with the Unimog. The short frame overhang at front and rear provides wide angles for approach and departure and ramps. That means the Unimog hardly ever encounters a descent steep enough to get it into difficulties. And it also feels at home driving through flooded areas as its water-proofed equipment, vertical air-intake pipe and high vent pipes allow the Unimog to ford water depths of up to 800 mm (optional 1200 mm).



Watertight: High ground clearance, vertical air-intake pipe and protected equipment are suitable for fording depths of up to 800 mm (optional 1200 mm)





Superior chassis design

# A sought-after place to work

New interior with ergonomic design and very easy to operate

Get in, feel at home, start work: The experience and requests from many users have gone into the advanced design of the new cab. These include a comfortable sitting position and a fast overview of all the vehicle displays in the new instrument cluster. These improvements play an important role in improving safety and ease of operation and make sure that work and comfort go hand in hand in the new Unimog. The faster and more intuitively users learn to operate the various drive and work functions, the safer and more reliable the Unimog is when operating off-road.





# Provide the best working conditions: the new controls

Making ergonomic progress: The newly designed cab supports the driver especially when the job does not allow much time for making decisions. All the controls are arranged ergonomically and intuitively, making them easy to operate. The seat is positioned in the low-vibration area just behind the front axle, giving the driver a comfortable ride even when off-road as well as a very good view over the area being driven through – and here, the daytime running lights and the new headlights make sure everything can be seen clearly.

Feel at home. The cab has a high standard of comfort and makes working much easier. The new heating and air-conditioning unit provides comfortable working temperatures whatever the weather. The standard high roof and the redesigned engine tunnel provide enough space for two proper single seats with an optional centre seat. The optional extras also play an important role for a modern work place and include a CD radio with a Bluetooth hands-free system. The central console and the new, standard, glove compartment make it easy to keep things tidy.

### Innovative details in the new cab

- 01 The new cab is very well-arranged and creates a pleasant atmosphere to work in. The new multifunction steering wheel fits your grip perfectly and allows fast access to the handsfree system and the display of the instrument cluster
- **02** The standard height and tilt-adjustable steering column provides the correct seating position for the driver
- **03** On its large and light display, the new instrument cluster gives all the important information such as oil level, air pressure or hydraulic system settings
- O4 Driving functions such as gear changing, premium engine brake and the Electronic Quick Reverse are integrated in the new steering column control arms
- 05 Easy to reach and clearly structured controls. A genuine innovation for easy operation: the central tyre inflation system is now supplied with practical pre-settings

# A wide variety of bodies for extreme operations

Working where others don't even arrive

The Unimog is a vehicle and tool in one. Because of its uncompromising off-road mobility, it is able to transport equipment, materials and crews way off the beaten track to very remote work locations. Once it has arrived, it can set to as a reliable, first class work machine. What it needs for this has already been laid down in the plant at Wörth with its attachment and mounting areas as well as interfaces and PTOs for permanently installed or changing implements. The outstandingly mobile off-road Unimog has two different transmission-driven PTOs as well as – for the first time – an engine-driven PTO. A vehicle hydraulics system is also available as an optional extra for use with equipment and permanent consumers. Standardised sockets supply electric power. And the body-mounting area is especially versatile: its possibilities range from platform or box bodies to special solutions for unusual requirements. All in all, the Unimog is a strong and exceedingly mobile workshop which makes sure every job is done safely and reliably.



### Powerful transmission and engine-driven PTOs.

The new engine-driven PTO opens up a whole new range of possibilities, for instance for operating water and hydraulic pumps. As an optional extra, the Unimog for extreme off-road conditions can also integrate the timetried transmission-run PTOs, for example a fast one for hydraulic pumps or a very fast one for firefighting pumps. The transmission-run PTOs are now easier to access due to the optimised floor assembly and can therefore be used for a great many more purposes.

Vehicle hydraulics and electric interfaces. Implements such as self-rescue winches, snowploughs, front loaders or hydraulic tools can be run off the vehicle hydraulics. The single-circuit hydraulic system supplies 240 bar working pressure, a flow volume of 60 I/min and 24 kW pump output. Standardised plug-pin connections are provided at front and rear, and for the electric power supply for the implements there are four standardised sockets available.



Confident during disaster prevention: the all-terrain Unimog

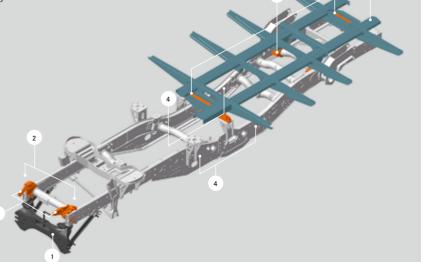


Engine-driven and transmission-driven PTOs put up a good performance way off beaten tracks in remote areas

### Attachment and mounting possibilities

Defined attachment points make changing implements simple and fast, just like the stable and secure mounting fixtures for a wide variety of bodies

- 1 Standardised front mounting plate for attached implements weighing up to 1.5 t, e.g. snowplough
- 2 Attachment brackets at the front for e.g. compressors or emergency power generators
- 3 Cable winch bracket
- 4 Attachment brackets on the frame
- 5 Mounting fixtures for platform or box bodies
- 6 Floor assembly for special bodies



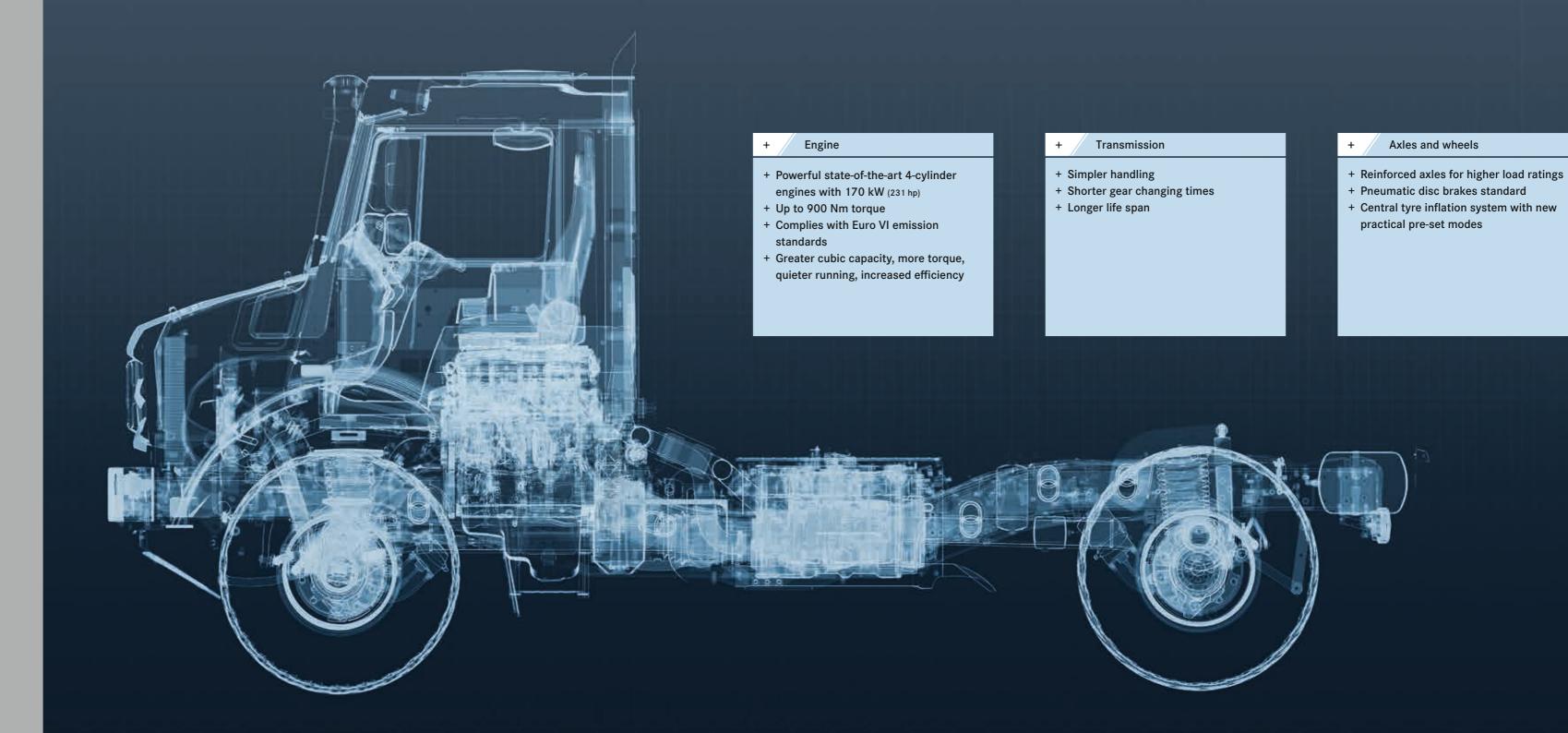
## BlueEFFICIENCY Power

### Facing the future efficiently

Whether driving at 90 km/h (56 mp/h) on motorways or working at walking pace: The new Unimog with BlueEFFICIENCY Power gives a very efficient performance at every speed – and also complies with the new Euro VI emission standards. In order to achieve these ambitious aims, it was necessary to make extensive alterations to the technology in the vehicle. The result is a completely new drivetrain with new and very efficient engines, uprated transmission and reinforced axles which allow the load ratings to be increased. The integration of these high-tech components also make the Unimog even more economically efficient as they mean longer intervals between inspections and shorter periods out of use.

Further information about BlueEFFICIENCY Power technology is available online: www.newunimog.com





# The driving force behind economic efficiency. Perfectly coordinated drive technology with Euro VI

Mercedes-Benz BlueEFFICIENCY Power technology does more than just comply with the standards required by Euro VI. It combines the greatest efficiency with environmental conservation. The new Mercedes-Benz engine generation, tried and tested in large-scale production, the extremely effective new cooling system and exhaust gas aftertreatment unit are responsible for these outstanding values.

The modern 4-cylinder engines with 170 kW are especially easy to maintain, economical, run smoothly and have powerful acceleration. They also have more torque as well as good results for exhaust gas, fuel consumption and power/weight ratio. Because of this, the performance level of the powerful 4-cylinder engine corresponds to that of one of the 6-cylinder engines in use up to now. Four-valve technology and Common Rail high-pressure injection with 2400 bar make them even more effective. The engines are not only used for driving, but also for braking: the double-speed decompression engine brake makes a great contribution to economic efficiency.

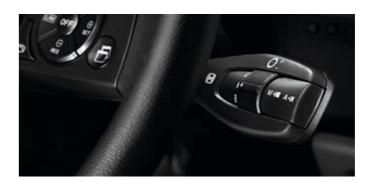
### Lower emissions are a sign of being more responsible.

The new generation of engines relies on BlueEFFICIENCY Power technology for its exhaust gas aftertreatment. This has already proved its worth by being tried and tested in heavy-duty large-scale production engines. In the exhaust gas aftertreatment unit, the well-tested Selective Catalytic Reduction (SCR) catalytic converter reduces the nitrogen oxides to a minimum. The amount of the additive AdBlue required for this sinks significantly. And the diesel particulate filter prevents almost any soot particles from escaping.



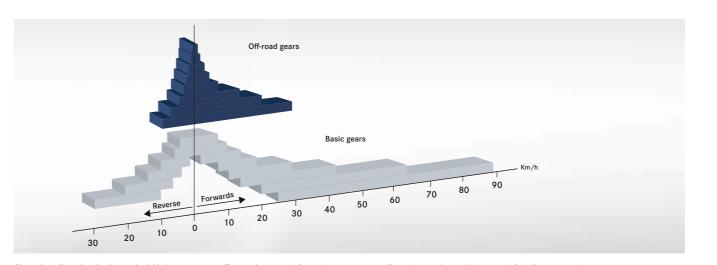
Better performance, lower emissions: For the outstandingly mobile off-road Unimog, the new BlueEFFICIENCY Power engine is a 4-cylinder 170 kW version. Together with the cooling system and the exhaust gas aftertreatment unit, this modern engine complies with the strict new standards laid down for the emission standards for Euro VI. These require diesel particulate and nitrogen oxides to be reduced by 90 per cent compared with Euro V

Transmission with very effective advanced design and shorter gear-changing times. The fully synchronised electro-pneumatic transmission with its eight forward and six reverse gears translates the engine performance into tractive power. A special off-road gear group with an additional eight forward and eight reverse gears is available for slow driving speeds. The transmission is characterised by its very smooth and effective running and long life span. And the synchronised reversing group Electronic Quick Reverse makes it much easier and quicker to change direction while driving.



The right reduction gear by pressing a button:

Easy gear changing with the new steering column control arm



Changing direction in the typical Unimog manner: The perfect speed for both on-road and off-road operations with its total of 16 forwards and 14 reverse gears

# Quality from Mercedes-Benz

The new Unimog integrates leading commercial vehicle technology tried and tested in large-scale production

Built in Wörth, the largest truck assembly plant in the world: The new Unimog comes up to the high quality standards of the commercial vehicle branch. As a global targets: Standards define quality and reliability. And the workforce of over 11,000 located at the modern and environmentally-friendly Wörth plant come up to these expectations. Since 1963, over three million commercial vehicles have been manufactured here. In the same way as the so-called A-series Actros, Arocs, Antos and Atego, Mercedes-Benz Special Trucks also designs and manufactures all its vehicles with many identical components.

Its fleet comprises the new outstandingly mobile off-road Unimog, the Unimog implement carrier, the Econic and the Zetros. The model series are all given the same extremely leader of heavy trucks, Mercedes-Benz sets itself ambitious strict testing and trial cycles as the large-scale production series. The passion for commercial vehicles is expressed best by the motto of the workforce at Wörth, "We aspire to get somewhat better every single day to keep our brand promise to our customers: Trucks you can trust."



Mercedes-Benz plant at Wörth: The Mercedes-Benz Unimog is designed and manufactured at the world's largest truck plant. The engines come from the Mercedes-Benz Engine Plant in Mannheim



High quality standards: Mercedes-Benz sets itself very strict quality standards for every Unimog produced – from its development, through its testing and in production



## Financial Services

Flexibility which gives plenty of elbow-room

## Our customised financial services make your accounting more flexible

Together with Mercedes-Benz Finance and our Unimog Dealers, we are able to make customised service offers such as leasing and financing products, along with full repair and maintenance. Further information is available from your Authorised Mercedes-Benz Dealer.

### Creating better value. Mercedes-Benz Financial Services

- + Other finance and leasing products we offer are: Mercedes-Benz Agility, Mercedes-Benz Contract Hire and Hire Purchase, Hire Purchase with Balloon, Operating Lease, Finance Lease
- + The company with its headquarters in Stuttgart is active in almost 40 countries and of all the automotive financial service providers it has the most international experience
- + Daimler Financial Services employs about 7000 staff worldwide

### Financial Services

We provide finance you can trust for trucks you can trust.

Mercedes-Benz Finance was established in the UK more than 21 years ago and has over 131,000 finance contracts.

We offer the only finance designed specifically for Mercedes-Benz vehicles and tailored to all fleet sizes and business sectors in the UK.

Our experienced Business Managers will work with you to understand your business needs and will provide you with a business solution when funding your vehicles.

### Mercedes-Benz Hire Purchase

One of most popular finance products on the Unimog is Hire Purchase. Hire Purchase is an ideal choice for anyone looking at finance options that involve vehicle ownership. Put simply, Hire Purchase allows you to spread the payments for a vehicle over an agreed period of time. Once all of the payments have been made the vehicle is yours.

### The Benefits of Hire Purchase

- + Interest is allowable against taxable profits
- + Writing down allowances are claimable
- + It provides an additional line of credit
- + Vehicle is shown as an asset on the balance sheet
- + Regular payments are kept low if an end of contract balloon payment is selected
- + Repayments are not subject to VAT



## Mercedes-Benz Service

We are committed to keeping you mobile

Wherever you use your Unimog – Mercedes-Benz is already on the spot. We are available at over 650 Unimog service stations in over 130 countries to take care of your Unimog – and also immediately if need be. And with the same care, the same experience and the same technical capabilities we used to build it. That is ensured by our areawide service with competent Unimog Dealers.

We respect experience. Also that of others. Active care is the most important thing in service. And this includes exchanging experiences. With our customers – but also with our colleagues. And this is how questions can be solved efficiently and economically. In this way our service partners are able to provide the highest standards day in and day out as far as quality, costs and ecological awareness are concerned. And by making clear statements, thorough failure analysis and cost-oriented solutions. Should parts need to be exchanged, then of course only Mercedes-Benz GenuineParts are used which come up to our strict standards of quality and availability.



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### What you may expect from Mercedes-Benz

- + First class quality service at over 650 locations in over 130 countries worldwide
- + Maintenance, diagnosis and repairs
- + Technical advice and customer care
- + Advice and instruction on usage
- + Driving, safety and technical instruction
- + Acting fairly

### Efficient high-performance service offers from Mercedes-Benz Special Trucks

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+ Service Contracts: Service including any wear and tear items (excluding attachments and mounted bodies)

Your Unimog Dealer will be happy to give you more information about our attractive service offers.



Do you have any questions, remarks or

suggestions to make about the Unimog?

Further information and the registration form for the Unimog eNewsletter is available online:

www.unimog-e-news.com www.mercedes-benz.co.uk

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# Technical data

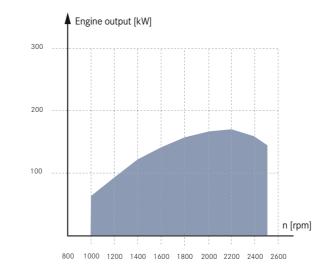
A strong team. The new outstandingly mobile off-road Unimog

Model	U 4023	U 5023
Engine (Euro VI)	OM 934 LA	OM 934 LA
Output	170 kW/231 hp	170 kW/231 hp
Torque	900 Nm/1400 rpm	900 Nm/1400 rpm
Clutch	SAE-2 Ø 395 mm Single-plate dry clutch (organic)	
Transmission	UG 100/8	UG 100/8
Axles	Torque tube linked portal axles with coil springs	
Front axle (model type)	737.367	737.223
Rear axle (model type)	737.367	737.223
Electrical system	24 V	24 V
Battery capacity (Series/SA)	100/170 Ah	100/170 Ah
Tank capacity	Rated volume 160/235 I	Rated volume 160/235 I
Steering with max. steering pressure	ZF 8095 / 170 bar	ZF 8095 / 170 bar
Brakes	Pneumatic disc brakes	
Smallest tyres (tyres/rim)	335/80 R20	365/80 R20
Largest tyres (tyres/rim)	425/75 R20	455/70 R24
Type of drive	Engageable all-wheel drive	
Wheelbase (mm)	3850 mm	3850 mm
Max. weight (with corresponding optional extras)	10.3 t	14.5 t
Max. weight on front axle	4.6 t	6.4 t
Max. weight on rear axle	6.0 t	8.8 t
Angle of approach/departure	44°/51°	44°/51°
Turning circle	16.2 m	16.6 m
Body mounting area (max. length × width × height)	4100 × 2280 × 1400 mm	4100 × 2280 × 1400 mm
Fording depth (Series/SA)	0.8 m/1.2 m	0.8 m/1.2 m
Speed	89 km/h*	89 km/h*

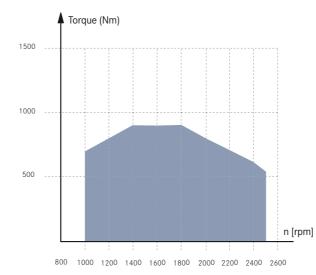
<sup>\*</sup> Limited, legal speed limit

### OM 934

### 4-cylinder in-line engine with 5.1 I cc

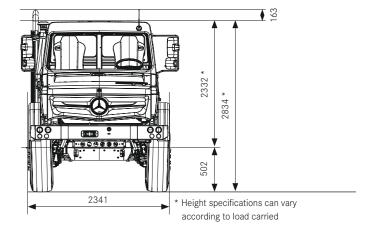


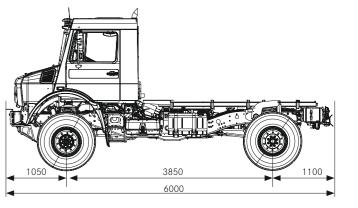
170 kW (231 hp) at 2200 rpm

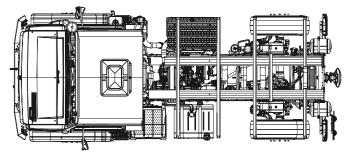


900 Nm at 1200 to 1600 rpm

## Unimog U 4023







Technical Data

Please note: Changes may have been made to the product since this brochure went to press (22.03.2013). The manufacturer reserves the right to make changes to the design, form, colour and specification during the delivery period, provided these changes, while taking into account the interests of the vendor, can be deemed reasonable with respect to the purchaser. Where the vendor or the manufacturer uses symbols or numbers to describe an order or the subject of an order, no rights may be derived solely from these. The illustrations may show accessories and items of special equipment which are not part of standard specification. Colours may differ slightly from those shown in the brochure, owing to the limitations of the printing process. This brochure may also contain models and services which are not available in certain countries. This brochure is distributed internationally. It provides a general indication of the range of models, features, special equipment and/or colours may not be available in your country, or may only be available in a different specification. Additionally some models, features, special equipment and/or colours may only be available in combination with others. For current and more specific information relating to the range of models, features, special equipment and/or colours available in your country, and their pricing, you should contact your nearest Mercedes-Benz Dealer. www.mercedes-benz.co.uk

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