

The Mercedes-Benz range of brochures on Unimogs consists of a number of different modules.

Should you need further information before making your decision, please consult your Unimog sales representative.

Concept brochures

Technical concept Light Unimog series
Technical concept Medium-duty Unimog series
Technical concept Heavy-duty Unimog series
Concept/application brochure, Unimog chassis
Concept/application brochure, Unimog traction heads

Application brochures

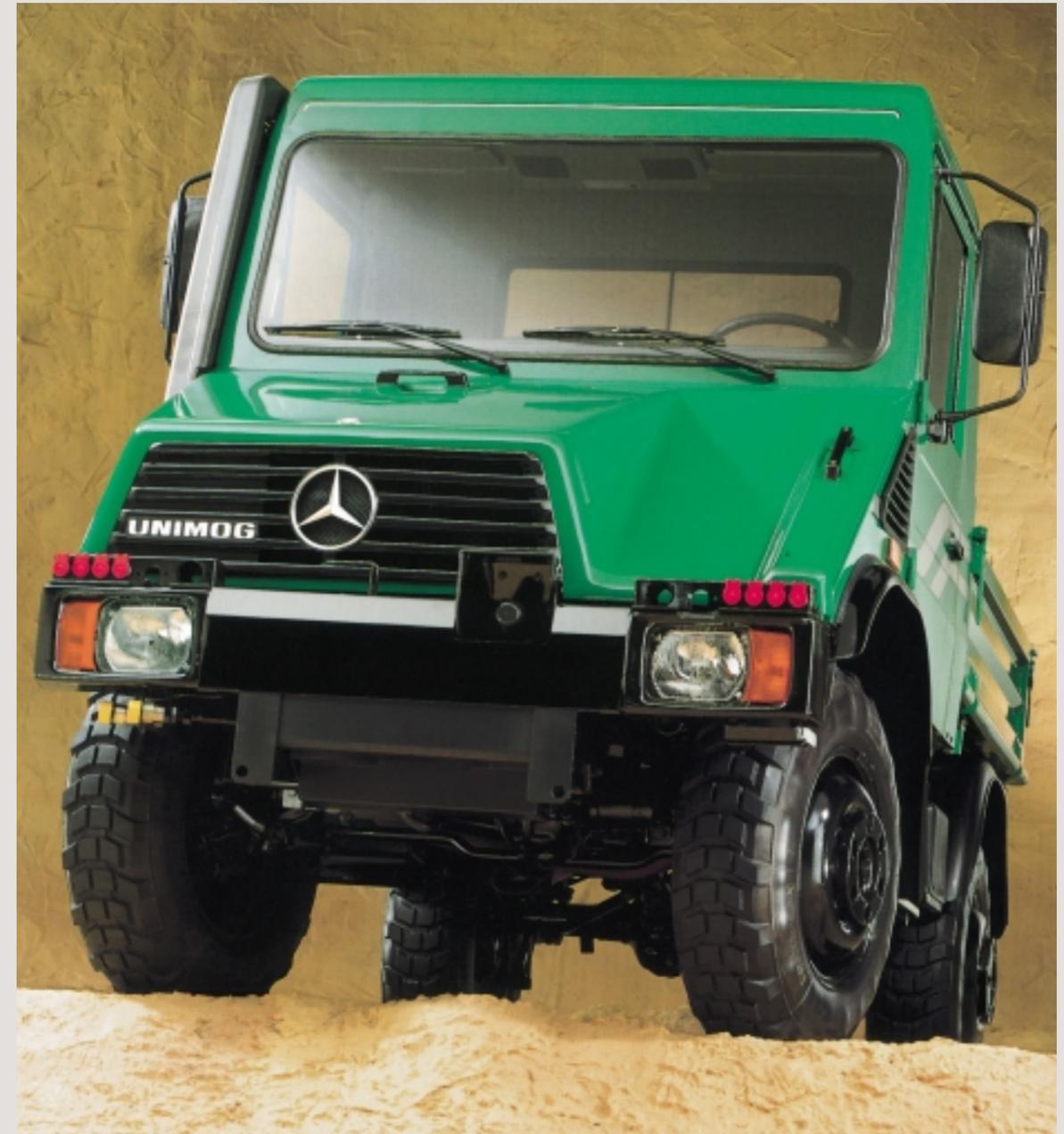
Municipal sector
Industrial use
Energy industry
Construction industry
Fire fighting

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Mercedes-Benz

Unimog — Light series



Technical concept Unimog U 90 turbo

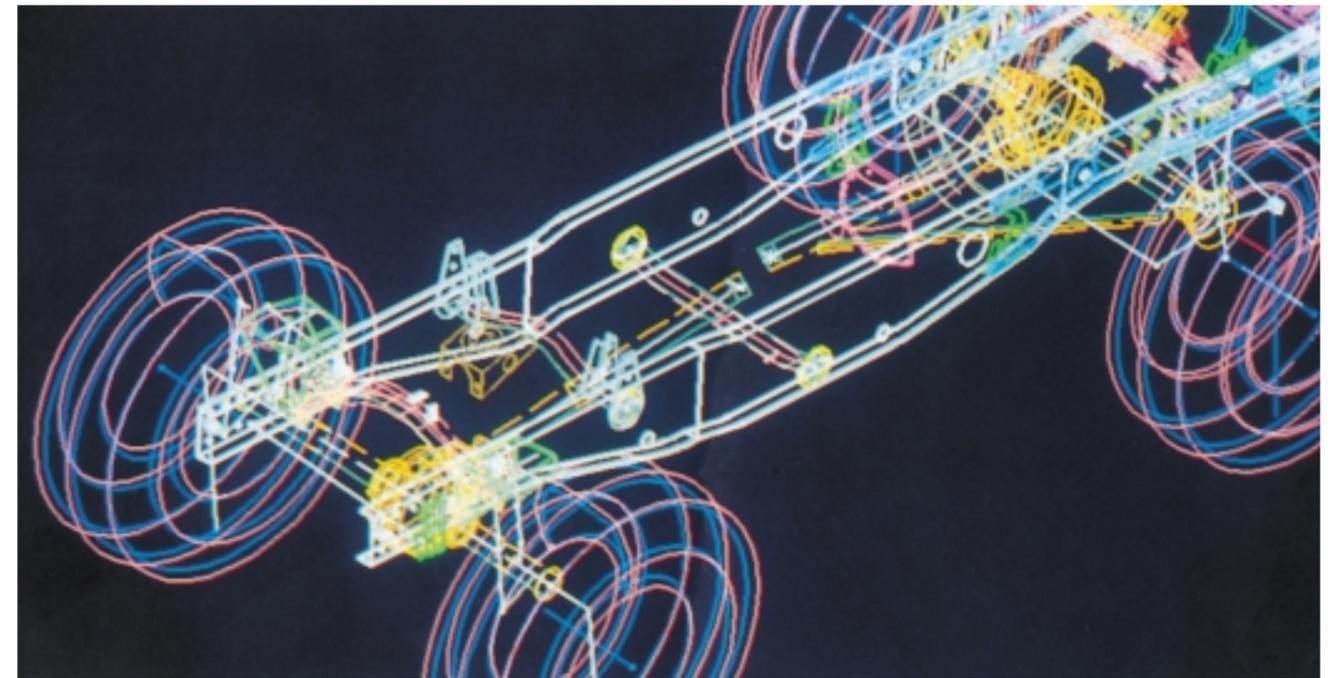
The new-generation Unimog for improved performance

Through intensive research and development, using environmentally compatible production methods, improvements in quality and constant dialogue with implement manufacturers, Mercedes-Benz has opened up new perspectives for its new light series featuring the compact Unimog U 90 turbo. The implement carrier and transport vehicle, capable of attaining motorway and highway speeds as well as featuring superior off-road mobility, has been thoroughly optimised. This is evident in the longer wheelbase, short overhangs

and a newly designed cab with a cut-away section in the bonnet. The powerful turbodiesel engine and an extended hydraulic system clearly improve performance in operation and offer greater active and passive safety. Due to clearly defined load ratings, the implement manufacturers cooperating with Mercedes-Benz are able to utilise fully the capacity and performance of attachment implements from category 1 and thus efficiently open up new fields of activity for the Unimog, especially in the area of the growing number of environmental protection tasks.



Improved look. Improved engineering. Improved ergonomic design - for greater operational comfort than ever before.



A successful design with new, optimised engineering.

The chassis.

The newly designed frame increases directional stability and road adhesion. The longer wheelbase improves ride comfort and handling when the Unimog is being used with implements and as a tractor. The short front-end dimensions and the tight turning circle allow the vehicle to be easily manoeuvred and to work in the most confined spaces.

The cab.

Larger, non-slip steps and wider doors allow the driver and co-driver to get in and out quickly and easily. The large safety cab with its level floor and ergonomically optimised controls increases active and passive safety. The high driving position in conjunction with the unique cut-away section in the bonnet, allowing an unobstructed view of the attachment points for the implements, contribute significantly towards

speeding up the exchange of implements.

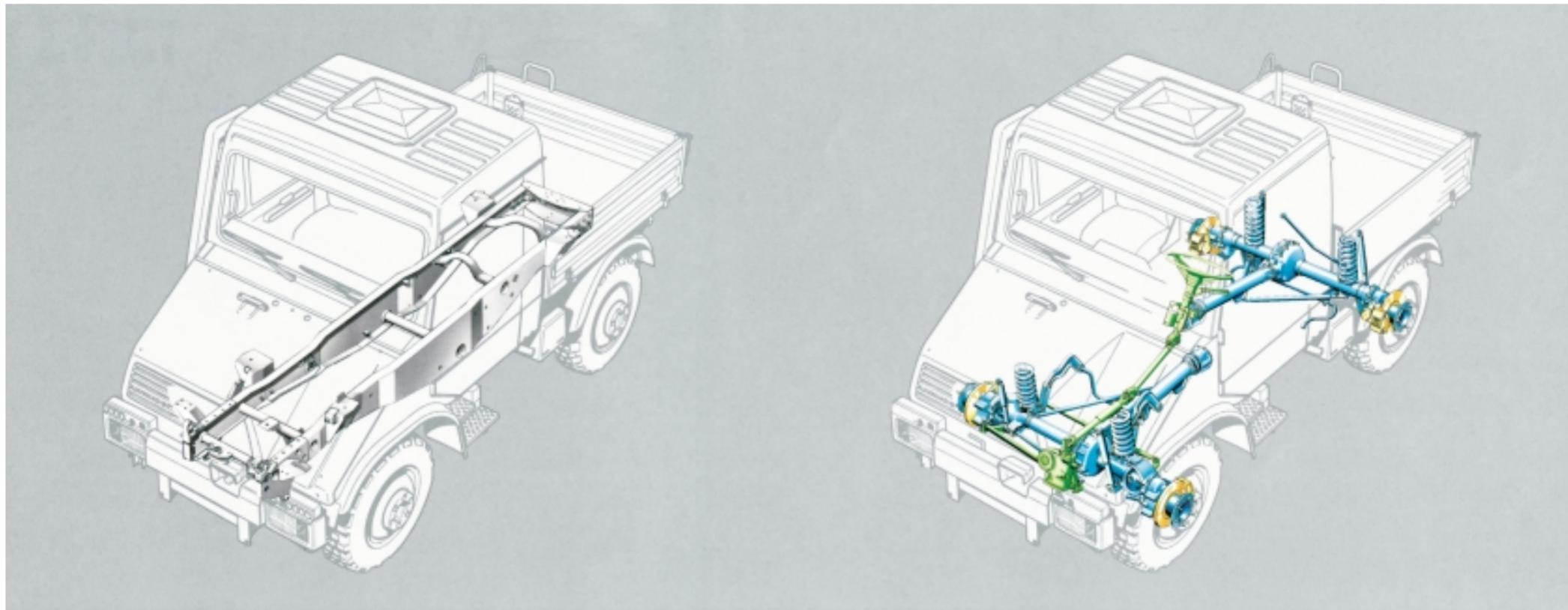
Engine with an economic output of 85 kW (115 hp).

The light Unimog series is fitted with the five-cylinder turbodiesel engine from the Mercedes-Benz industrial engine range. Like all other units from the Mercedes-Benz LEV series, this environmentally compatible power pack with drastically reduced emissions complies with the EURO 2 standards contained in EC directives, and with ECE regulations.

Extended hydraulic system for new, economically efficient assignments.

With four control valves (one more than in the past) and a capacity increased to 50 litres/min at 200 bar, this system allows more and heavier implements to be used. Single or dual-circuit systems are available. These are controlled by means of four-way levers.

The light Unimog model is available with permissible gross vehicle weight ratings of between 4.8 and 6.6 tonnes.



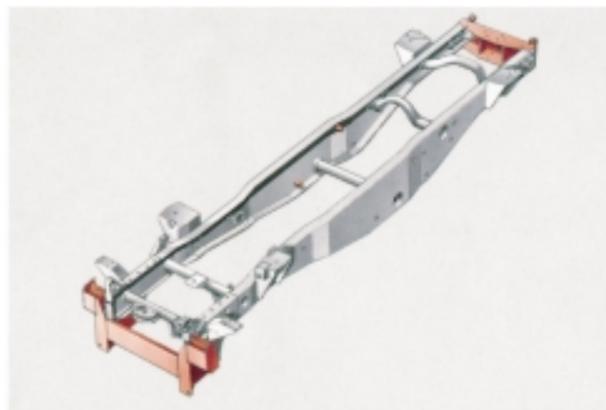
The chassis: two equally strong portal axles with high load-bearing capacity, protected against damage by torque tubes. The multi-section steering column reduces the risk of injury.

High road speeds and safe handling on rough ground thanks to coil springs and telescopic shock absorbers.

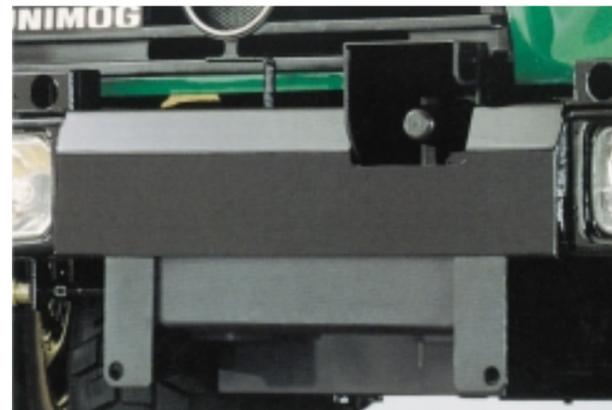
A new chassis taking a lot of punishment.

Heavy loads carried on light shoulders: The completely new ladder-type frame has been designed for maximum bending strength and a

turning circle. The short front-end dimensions ensure that forces are reliably transmitted into the vehicle. In operation, this translates into greater



Front attachment plate and reinforced cross member for category 1. implements.



Newly developed front attachment plate, available ex factory.

New lightweight frame design with higher bending resistance, for greater ride comfort and excellent off-road mobility.

high moment of resistance. It combines minimised weight with maximum stability and a consistently high level of off-road mobility under all conditions. Typical features are the flat upper edge of the frame, the fish-belly-type centre section and the tapered web height. The tapered section of the frame in the area of the wheels ensures a tight

stability under heavy loads. **Attachment points integrated in the frame as standard.** The standard specifications comprise attachment points at the front, in the centre and at the rear of the frame. This allows a wide range of implements to be connected quickly and easily, without the need for additional attachment parts.

New implement attachment plate. The Unimog is now optionally available with an attachment plate which has been completely newly designed by Mercedes-Benz. It has been designed so as to allow the trouble-free connection of all existing and new implements of category 1.

Improved hydraulic steering. Maximum steering precision and low susceptibility to jolts transmitted to the steering wheel ensure excellent handling and a good "feel" of the road. The safety steering wheel and the multi-section steering column go a long way towards reducing the risk of injury.

Two equally strong portal axles with high ground clearance and low centre of gravity.

This design allows the Unimog to pass easily over obstacles up to 400 mm. Because of the high load-bearing capacities of the axles, heavy implements can be operated at the front and rear without any adverse effects on directional stability and road adhesion. Forces are transmitted via the axle beams and torque tubes straight into the frame.

The progressive suspension, which becomes tauter as the load increases, ensures improved handling, greater directional stability



and road adhesion as well as increased safety whether with or without implements or loads, on or off the road.

Superior road performance and off-road mobility. Optimum suspension tuning, differential locks in both axles and the torsionally flexible frame ensure maximum safety not only off the road but also at high speeds on the road. Anti-roll bars, which improve cornering stability in the case of platform-mounted implements with a high centre of gravity, are

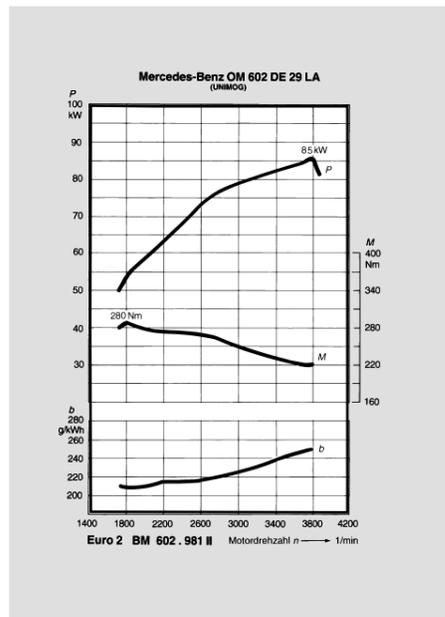
available as optional extras. **The right tyres for every application.** A wide range of tyres is available for effectively transmitting tractive power onto the road or rough ground, from high-pressure to low-pressure tyres, from road treads to all-purpose treads and off-road tyres.

Like all the engines from the Mercedes-Benz LEV range, the economical OM 602 DE 29 LA sets new standards with its reduced noise and pollutant emissions; it already complies with the compulsory EURO 2 limits and the statutory regulations regarding external noise reduction (78 + 1 dB (A)).



Light and compact five-cylinder engine, proven and flexible transmission.

Optimum performance characteristics in the category of up to three litres displacement. In this performance category, the Mercedes-Benz OM 602 DE 29 LA diesel engine with intercooler and exhaust turbocharger, 85 kW (115 hp), is the lightest and most compact commercial vehicle variant in the Mercedes-Benz



industrial engine range. It runs more smoothly, has a longer service life and is more economical. Specific fuel consumption was lowered and engine servicing intervals were reduced to a mere one inspection per year. A fuel tank capacity of 110 litres gives the Unimog a remarkable radius of action. The engine is now conveniently switched on and off by means of the ignition key, without long pre-heating times. All the components of the power train, from the engine and transmission to the axles, are designed and produced by Mercedes-Benz, and are thus optimally matched to one another.

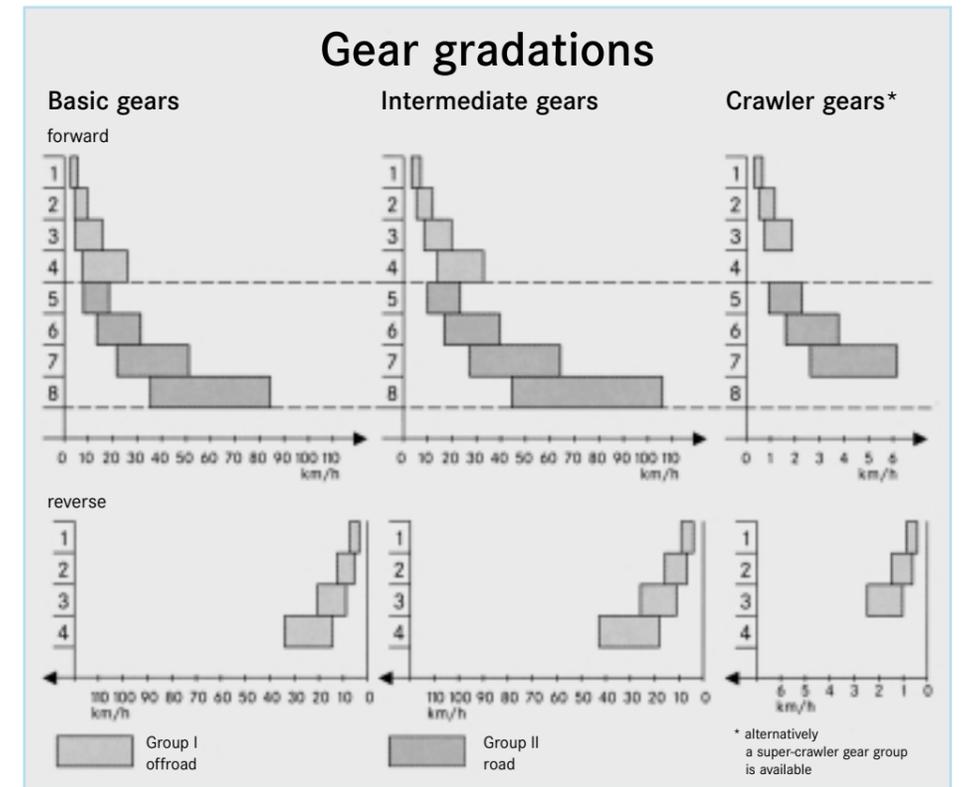
The right speed for every job.

The fully-synchronised eight-speed gearbox with practical gear gradations, range change and pneumatic intermediate gear shift covers the entire range, from 150 metres per hour to 93 km/h. The intermediate gear group allows the 8 main gears to be extended to 16, while the optionally available crawler or super-crawler gear groups raise the number of available gears to 22. All gears of the first group are reversible. Outer synchronisers and helical gearing combined with automatic gear change (after preselection and clutch actuation) give you a modern, easy-to-shift transmission with 22 possible gears. Full engine power can be utilised even at very low speeds, for instance in conjunction with a snow blower.

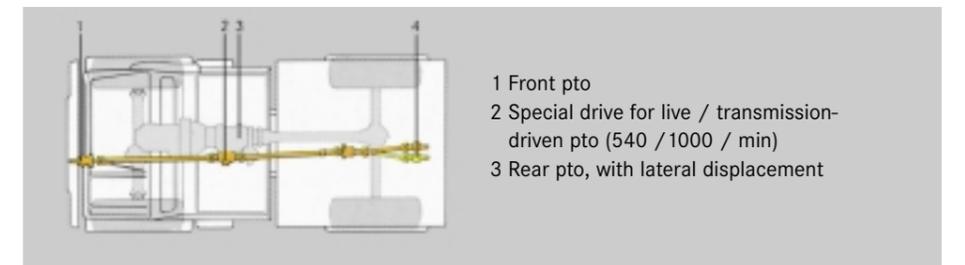
The drive and power take-off clutches have a central, automatically readjusting release unit. This reduces the amount of service work required, extends the service life of the assembly and cuts costs. For very heavy towed loads, a wear-resistant converter and clutch unit is available to save wear and tear on the gearbox and clutch.

Mechanical power take-offs capable of transmitting full engine power.

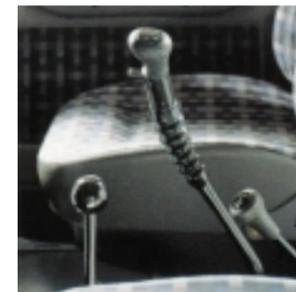
Mechanical power take-offs with maintenance-free joints at the front and rear are available as live and transmission-driven versions. Improved power take-off protection is now



Finely graduated transmission with 22 forward gears and 11 reverse gears.



combined with sufficient clearance to allow convenient handling even with working gloves. Thanks to the power take-offs, two separate implements can be operated simultaneously. Implements can be operated independent of drive mode by means of a double-clutch with pneumatic engagement of the power take-off. The drive clutch does not interrupt the power flow between the engine and the implement. The rear power take-off connection can easily be offset to the side.



Pneumatic shifting of intermediate gears for effortless control.

Powerful high-torque engine, allowing higher transport speeds with greater fuel economy and longer servicing intervals.

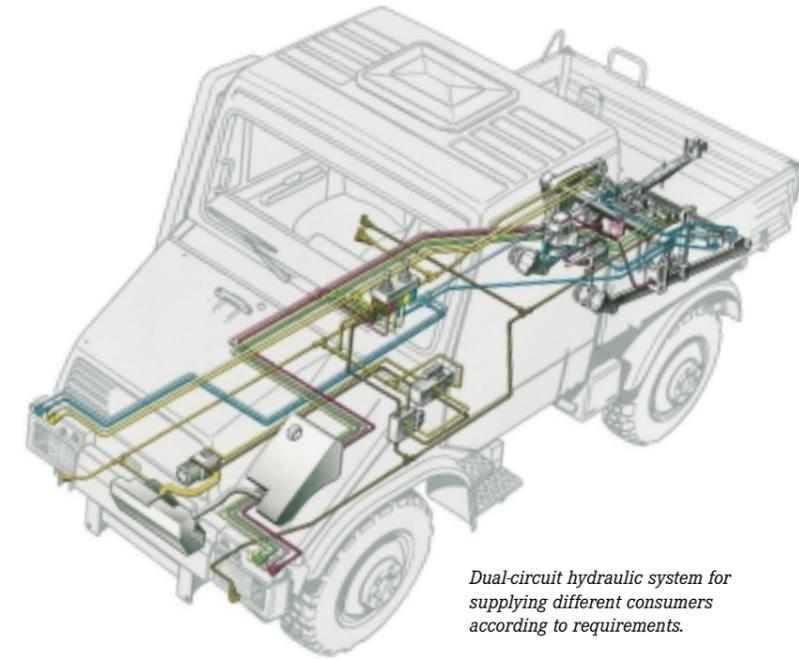
Improved hydraulic system for a larger variety of implement combinations.

Newly designed single and dual-circuit hydraulic systems are available for various applications in municipal work, industry,

modular in design. At the front and rear, up to eight plug-in connections are now possible, each with a separate return line, as well as a connection for a second circuit. This allows even the most unusual customer wishes to be fulfilled. For the first time, the hydraulic system is controlled by four-way levers.

The dual-circuit hydraulic system facilitates independent operation of two implements, for instance a snow plough connected to the first circuit and the drive units of the screw-type conveyor

and the disc of a platform-mounted spreader unit connected to the second circuit. The two systems can be exchanged by means of the flow control system, so that greater power can be made instantly available wherever it is needed.



Dual-circuit hydraulic system for supplying different consumers according to requirements.

Powerful hydraulic system for increased working speeds.

construction and agriculture - with improved performance characteristics and simplified operation. The entire system is

Four double-acting control valves as standard.

A fixed displacement pump ensures instant availability of full hydraulic output. The single-circuit system operates at 50 litres/min, the dual-circuit system at 20 litres/min in the first



Four-way levers for fast, safe and effortless control.

High operational comfort, greater flexibility.

circuit and 50 litres/min in the second circuit. The valves are mechanically actuated, by one four-way lever per two valves. This convenient feature prevents the wrong lever from being used by mistake, since the operator no longer has to change from one lever to another. The implements are set to float and lock positions by means of pull knobs and locking levers. With the dual-circuit hydraulic system, work cycles can be optimised by means of the transmission of different, independently controlled output ratings via the flow control system.

Dual-circuit hydraulic system for increased performance.

The two separate hydraulic circuits can be used individually or together. This is made possible by the three-way flow control system: neutral oil circuit - oil flow 1 - oil flow 2 - combined oil flows 1 and 2.

The possibility of switching over the flow control system from the first to the second hydraulic system and vice versa allows power output to be accurately matched to requirements.

Connections for the simultaneous use of diverse implement combinations.

Depending on requirements, the following hydraulic connections can be used for the four implement attachment points on the Unimog:

Front:

4 x 2 double-acting connections, separate return flow line and dual-circuit connection.

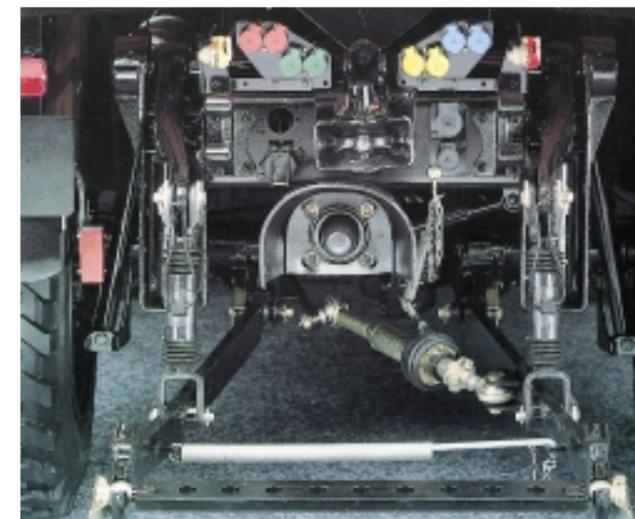
Centre:

Dual-circuit connection and separate return flow line.

Rear:

4 x 2 double-acting connections, separate return flow line and dual-circuit connection.

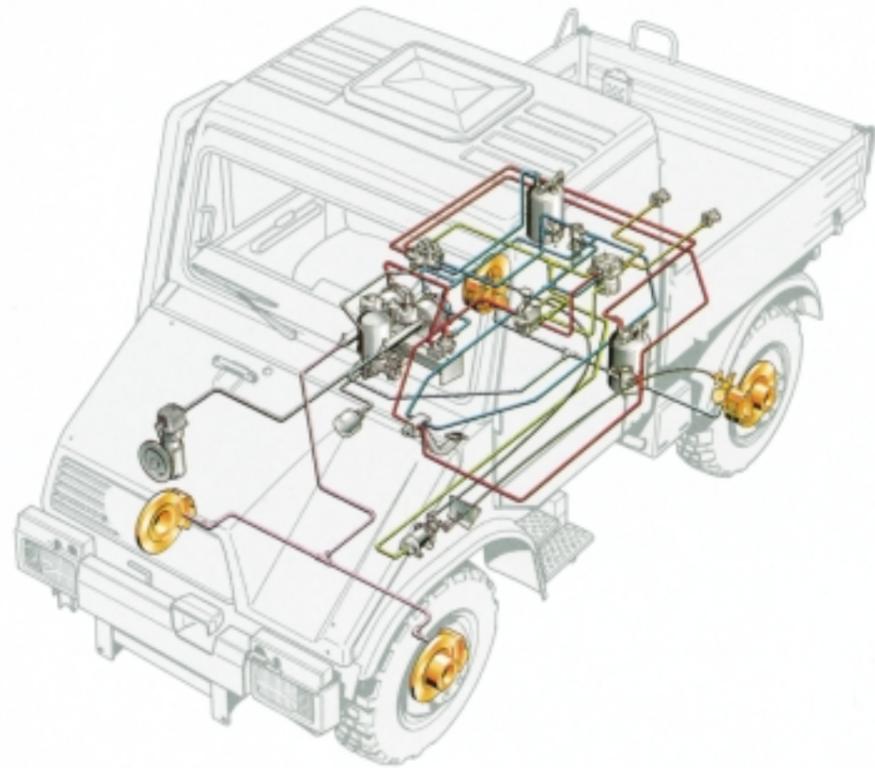
The rear power lift now features a direct-action working cylinder with improved kinematics. The three-point linkage for implements such as dozer blades or mulching units has an improved lateral locking facility.



At the rear, everything is provided for connecting and operating the most diverse implements.

The extended single or dual-circuit hydraulic systems can be conveniently operated by means of four-way levers. This allows the work cycles to be speeded up, resulting in greater economic efficiency.

Unsurpassed - the new cab design.



Standard dual-circuit brake system for maximum safety even in extremely critical situations.

Disc brakes on all four wheels as standard. The air-assisted dual-circuit servo brake with hydraulic transmission allows brake power to be applied

facilitate daily inspection by the driver. For flexible and efficient Unimog-plus-trailer use, the standard two-line trailer brake system is available with

Brakes - part of the safety system.

accurately, whatever the load, with little pedal force required. The large self-adjusting fixed-caliper disc brakes provide generous safety reserves. They are externally ventilated and thus remain fully operational even when braking heavy loads on long descents. A wear indicator in the cab shows when the asbestos-free brake pads have to be replaced.

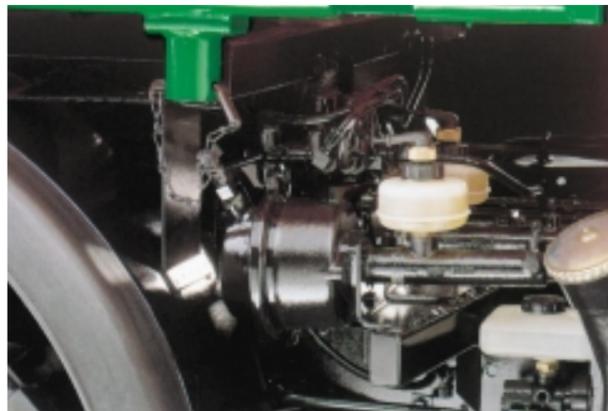
Centrally located brake module for simplified visual inspection.

All brake elements, i.e. valves, air drier, air reservoir and brake fluid reservoir are clustered on a carrier panel so as to

ABS control for the trailer. This system can be used even if the tractor is not fitted with ABS.



Large disc brakes on all four wheels for maximum braking efficiency.



Central brake module for easy inspection.

Greater active safety through disc brakes on all four wheels, brake pad wear indicator in the cab, and centrally located brake module.

Driving and working in all safety and comfort. The new generation of Unimog models is instantly recognisable by its completely newly

developed, standard all-steel short-nose cab, with an ergonomically designed cut-away section in the bonnet on the driver's side. This improves the driver's



The Unimog has been designed with the operator's requirements to the fore, with the result that the cab is highly comfortable. The practical, ergonomically designed controls are logically grouped so that operator error can be virtually ruled out.

angle of vision beyond the lower windscreen edge by approx. 20°, giving a good view of the attachment points and the implement. The more generously dimensioned three-point mounting of the cab, which is matched to the new chassis, accounts for considerably improved vibration absorption characteristics. The large doors, the level cab floor on both the driver's and the co-driver's side and an improved driving position offer a high standard of comfort. The optimised ergonomic design successfully reconciles the requirements to be met by a combined working machine and transport

Longer, higher, more comfortable - the Unimog cab with its characteristic cut-away section sets new standards.



The angle of vision towards the attachment points and front implement has been enlarged by approx. 20°, allowing easy attachment of implements.

vehicle - a unique achievement in this category of vehicles for commercial, industrial and municipal use.

Large, non-slip steps and wide-opening doors.

Compared with previous series, we have significantly improved the practicality of the cab. The windows and the windscreen, with its large swept area, provide an improved all-round field of vision both on the road and when working with implements attached. The higher cab roof gives more generous headroom. The Unimog cab is also available with right-hand drive.



The lower step is conveniently located about 55 cm above the ground.

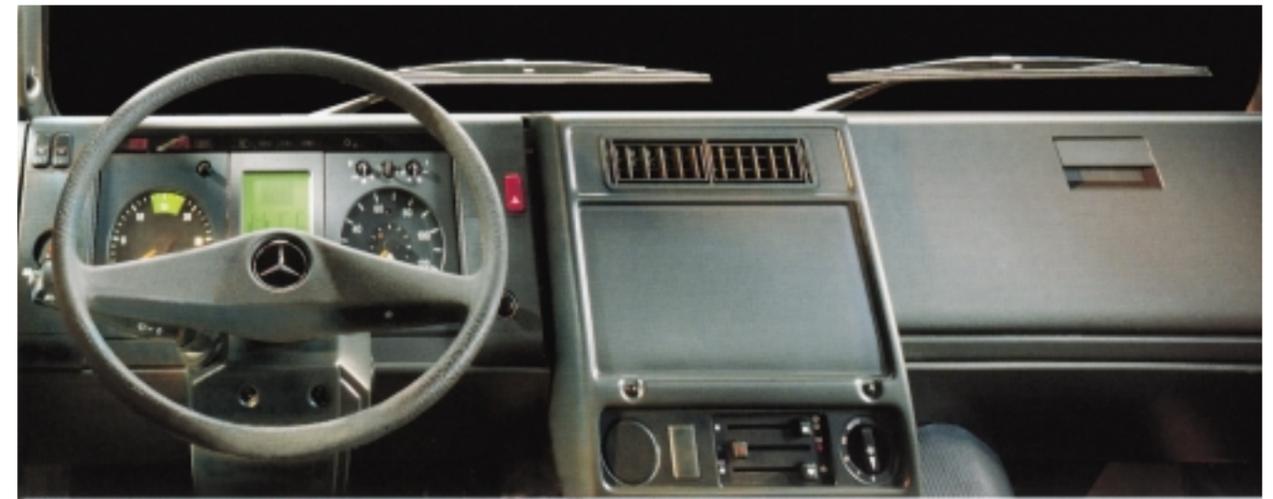


Comfort that pays - when working with implements and on long journeys.

In the cockpit the driver is in full control of the Unimog at all times. Important detail features such as the level floor with plenty of legroom for the driver and co-driver, the use of new, environmentally compatible materials, comfortable suspension seats,

optionally available with head restraints, and three-point seat belts for the driver and co-driver all go a long way towards keeping the crew fit and alert. The low interior noise level (below 80 dB (A)) and efficient heat insulation are also exemplary. Pleasant temperatures inside the cab are ensured by the roof hatch as well as the draught-free, high-capacity heating and ventilation system, which guarantees low air flows at floor level as well.

The full-width panel above the windscreen accommodates stowage compartments on the left and right, as well as a recess in the centre for the installation of a car radio or a two-way radio unit. The instrument panel has been completely redesigned from an ergonomic point of view. It features easy-to-read, non-reflecting round gauges with back-lighting, a central multi-function display unit for monitoring operating pressure levels, temperatures, fluid levels and the relevant sensors.



Large, non-reflecting round gauges with back-lighting and clearly marked symbols.



Generously dimensioned stowage compartments.

A liquid-crystal display informs the driver about road speeds up to 40 km/h, the time of day, operating hours and the four-wheel differential lock. A priority-controlled visual and acoustic warning system indicates defects in the operating system or operating errors on the part of the driver.

Comfortable safety cab with ergonomics to the fore. The logical grouping of control elements into clusters increases driving and operating safety in the Unimog. Switches and levers are located within easy reach. This virtually eliminates the risk of driver error.



The multi-function display gives the driver relevant information at a glance.



Optional extra: head restraints and three-point belts for driver and co-driver.



A tractor and working machine with a future.

Thanks to the remarkably diverse range of quickly attached or mounted implements, the capacity of the compact, high-speed working machine and tractor

from the light Unimog series can be utilised fully and cost-effectively all year round. Above and beyond that, the vehicle's new concept and innovative features have paved the way for additional combinations of implements to extend the attractive range of possible applications. A good enough reason to place your trust in the Unimog in the future, too.



There is no genuine alternative to the new Unimog generation. With its variety of possible implement combinations, it opens up a wide range of additional attractive applications in municipal work, construction, industry and agriculture.