

Mercedes-Benz



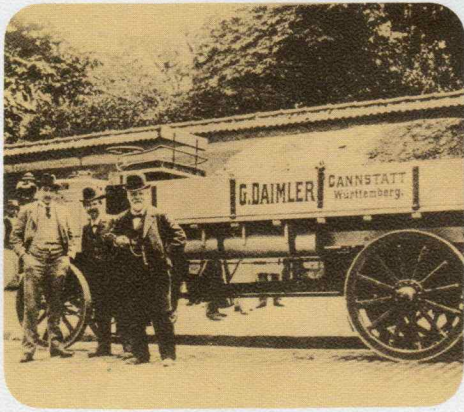
# Medium-duty dropsiders from Mercedes-Benz

10-16 tons, 96-177 kW (130-240 DIN/hp).





# The versatile vehicles from Mercedes-Benz.



**M**ercedes-Benz medium-duty dropsiders are extremely sturdy, very manoevrable and versatile in both solo operation or with a trailer.

- They are economical for both short and medium distance driving, in distribution service and other kinds of goods transport
- and are equally economical for transporting urgent goods.
- They also lend themselves to many kinds of special superstructures, e.g. box type bodies, insulated bodies, tanks of all kinds, bottle-floats and demountable bodies.

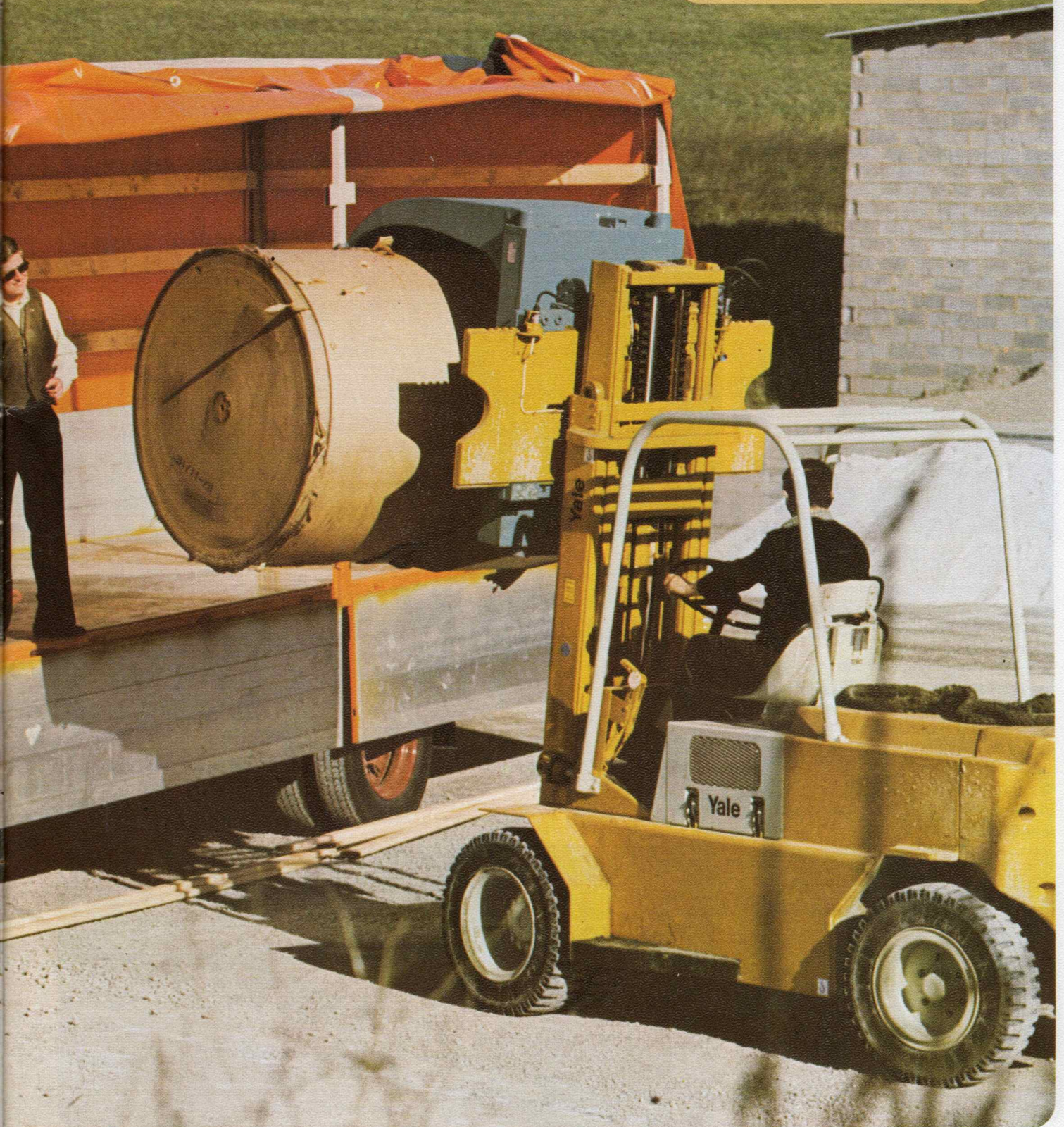
Special advantage: 4 types of engine are available for this range. Therefore the choice of vehicles in this class is now substantially wider. Mercedes-Benz offer the most suitable vehicle for any type of transport.

Modern Mercedes-Benz commercial vehicle engineering is based on long tradition. Daimler and Benz built the world's first motorized goods vehicles more than 75 years ago. With a modest 10 HP, 12 km. p. h., and a load capacity of only a few kilogrammes. This is now a thing of the past, a past of which we are quite proud.





**M**edium-duty Mercedes-Benz dropsideers are always economical. There is a choice of 4 engines: 130, 168, 192 and 240 DIN/hp. Available as 10, 12, 14 or 16 ton vehicles for solo or trailer operation over short or long distances.

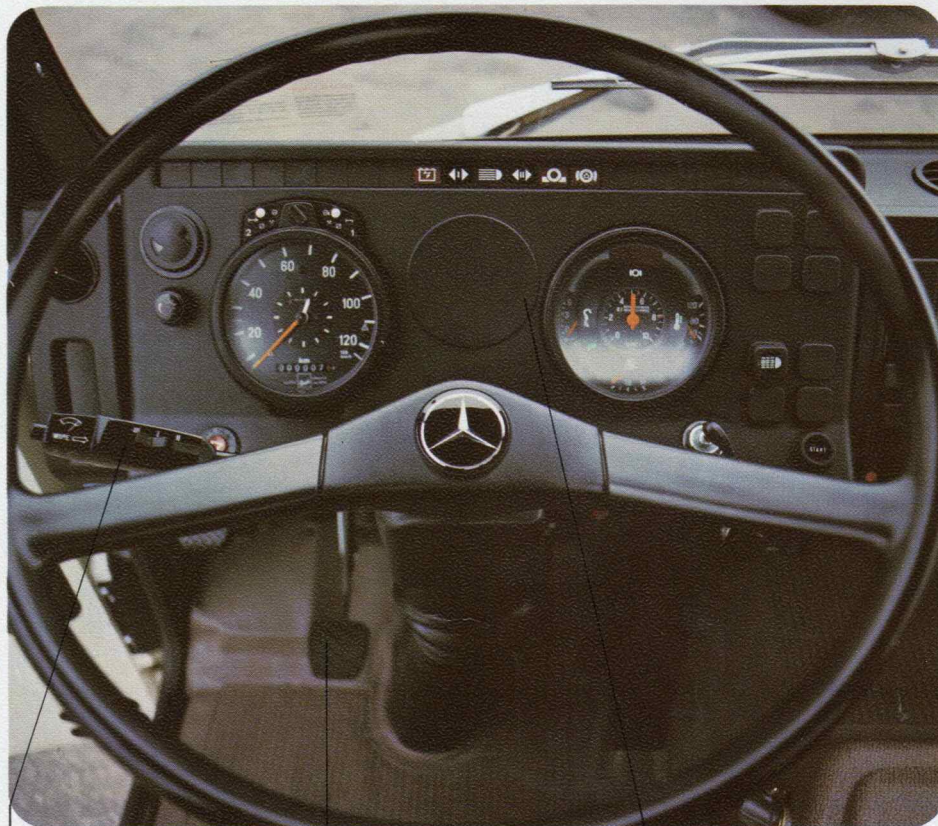


# The driver's cab: spacious and comfortable work-place.

**T**he modern Mercedes-Benz driver's cab makes the driver's and co-driver's work easier. Recent research into engineering-psychology has produced important practical results which remove some of the hard work:

- Getting in and out is effortless, with sensibly placed steps and handles.
- Driver's and co-driver's seats covered with attractive, "breathing" material, anatomically correct and robust, adjustable in many directions even while travelling. Anchorage points for three-point safety belts fitted as standard.
- Steering column bracket adjustable, standard item in the long cab.
- Low noise level, no trapped heat, effective cab suspension. Comfort means safety.
- All controls have been rounded or smoothed off, metal parts and large surfaces have been padded with soft, flexible material. Safety at every point.
- Heating and ventilation ensure a pleasant "atmosphere" in the cab, irrespective of the temperature outside.
- Excellent all-round view. Largest possible angle of vision through a deeper windscreen and quarterlights. Long windscreen wipers keep 70% of the windscreen area clean. Large, vibration-free rear-view mirrors.
- Two storage shelves with lids above the windscreen, oddments shelf below the instrument panel, oddments box between the seats in the long cab - all easily accessible for both driver and co-driver.
- Space has been left in the front part of the roof for fitting a radio and loud-speaker later on.

You can choose between two cabs, a short one and a long one. The long sleeper cab is fitted with two 600 mm-wide bunks.



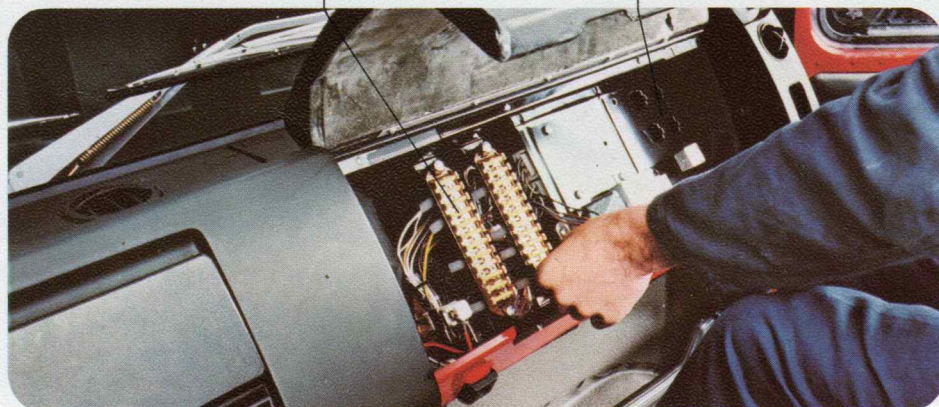
*Combination lever for two-speed windscreen wipers, headlights and dipswitch, headlight flasher, horn and indicators - can be operated easily. As comfortable as a car.*

*Conveniently positioned pendant pedals. Hydraulically operated clutch with booster spring - effortless operation.*

*Instrument panel with tachograph, and instrument cluster including gauges for air pressure, water temperature, oil pressure, fuel, and reservoir pressure, conveniently arranged and well within the driver's field of vision. They can be checked at a glance. Control lights for night driving.*

*Fuses and relays for all electrical units are easily accessible in a central compartment in front of the co-driver's seat.*

*Wiring for the subsequent installation of fog lamps and other equipment is already fitted.*





The two well-padded bunks in the long cab, each 60 cm wide, for rest and relaxation.

The bunks are fitted with safety nets and retaining belts.



The upper bunk is divided, and the part behind the co-driver's seat can be folded back so that this seat (with armrest and head restraint) can be tilted a long way back - for relaxation during the journey.



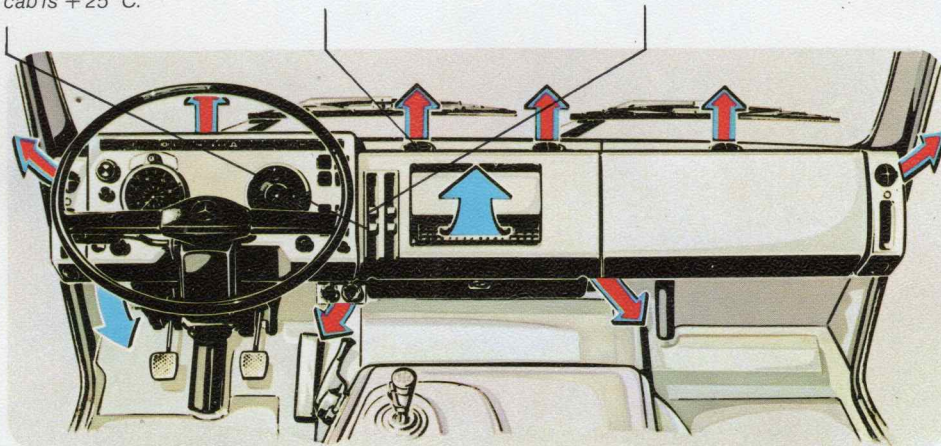
The modern short driver's cab for short and medium distance transport.

Powerful heater: even when the outside temperature is  $-20^{\circ}\text{C}$ , the temperature in the cab is  $+25^{\circ}\text{C}$ .


Effective ventilation: even distribution of air through adjustable air inlets.

An adjustable cold-air and warm-air blower as well.

Large, fully adjustable roof flap for additional ventilation and stale air extraction in the driver's cab.





A photograph showing the interior of a Mercedes-Benz truck cab. A driver's hand is visible on the steering wheel. The dashboard and control panel are in the foreground, and a cityscape with tall buildings is visible through the windshield. A yellow text box is overlaid on the upper right portion of the image.

**T**he Mercedes-Benz driver's cab is quiet and comfortable: more room to move, more leg-room, higher interior and easier through-cab access. All controls within easy reach. You can see that every wish has been considered - for the benefit of the driver.

# The driver's cab: comfortable and easy to maintain.

**T**he Mercedes-Benz driver's cab is designed for safety, comfort and a long service life.

- Safety and robust stability: strongly moulded large pressed parts without welding seams, double-skinned cowl.
- Riding comfort: The short cab is supported in front by two pivot bearings with flexible rubber bushings, and at the back by two vibration-damping spring-struts. The long cab is supported by two U-shaped springs and two shock absorbers in front, a special stabiliser prevents side tilt. Rear suspension consists of a leaf spring and two shock absorbers. Both cab versions offer unrivalled, comfortable suspension.
- Long service life: through electro-phoretic priming and a rust-inhibiting wax in the cavities underneath the cab and doors, and PVC cab underbody coating.

The Mercedes-Benz driver's cab design is based on the unit construction principle.

Two driver's cab versions: the short cab including all the features which make a hard day's work easier, and the long cab with sleeping bunks. Both versions are based on the same design principle. Features common to both cabs: closed all-steel cab, insulation against noise and heat, anti-corrosion protection, rust inhibition in cavities, cab tilting mechanism, hinged radiator grille serving as maintenance flap, clearly arranged instrument panel, electric compartment, large storage and oddments shelves, roof vent, large padded surfaces, sheet metal parts covered, rounded operating elements.

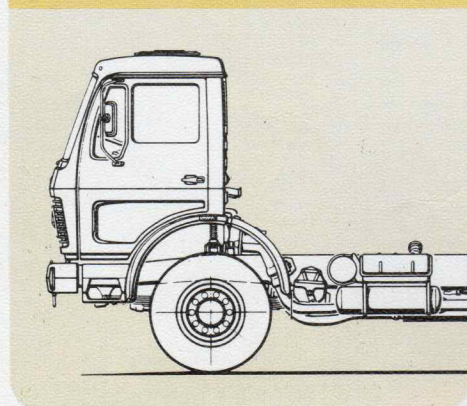


*Large steps and grab handles make it easy for the driver to clean the windscreen. The hinged radiator grille is easy to open.*

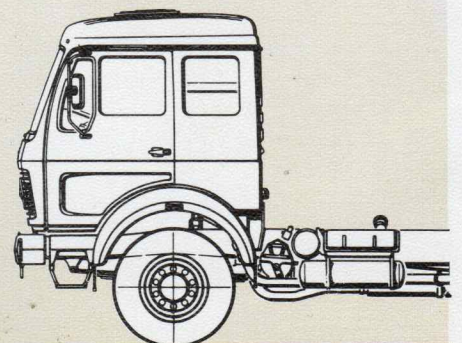
*Dipstick, oil filler neck, containers for windscreen washing liquid and hydraulic fluid for clutch, brake and power-assisted steering are easily accessible.*

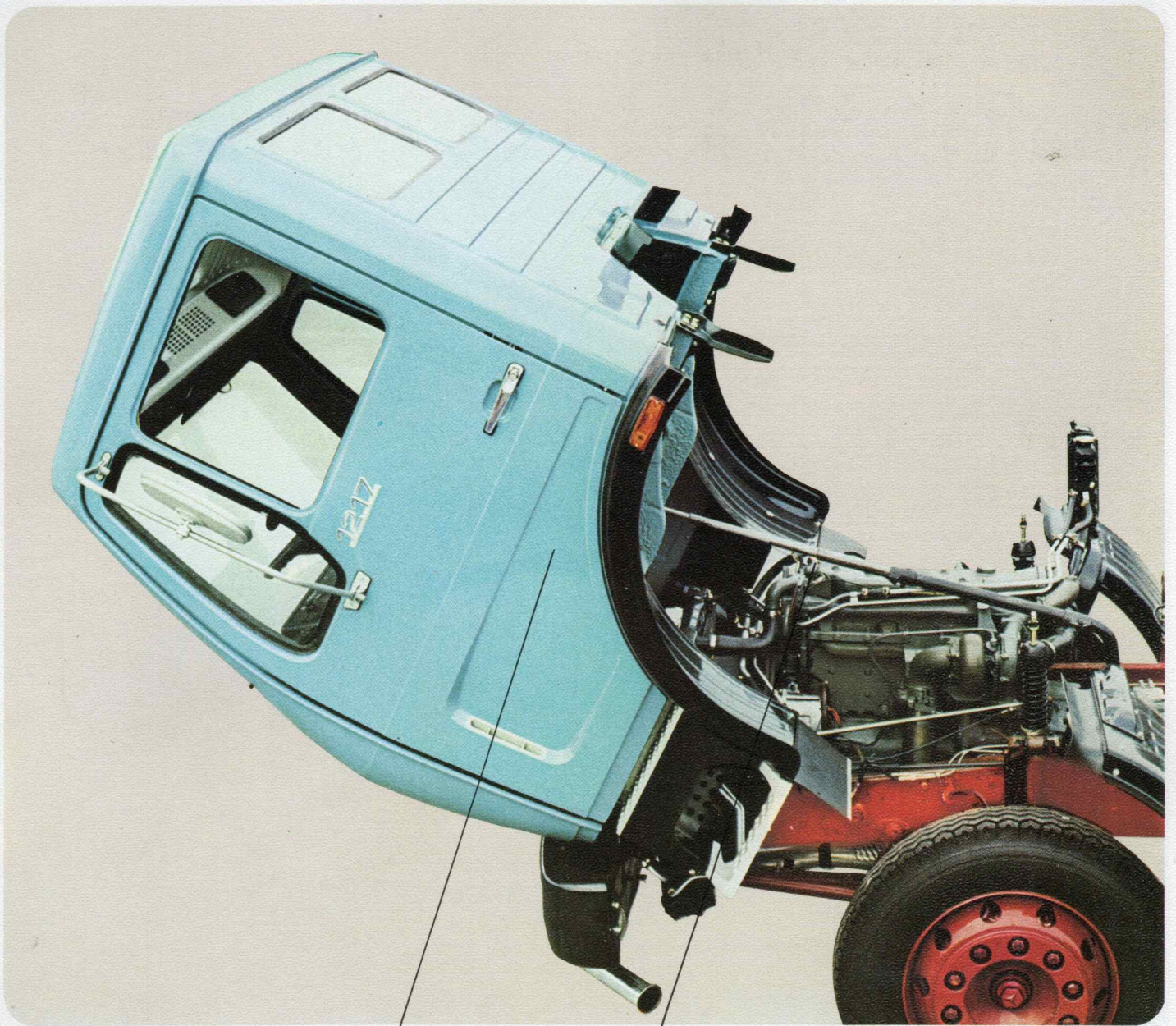
*For the driver this means simplified and effortless everyday service and maintenance.*

*Driver's cab design based on the unit construction principle. The design of both versions is identical. The short cab offers a comfortable ride for a long day's work.*



*Long cab with sleeping bunks for long journeys.*

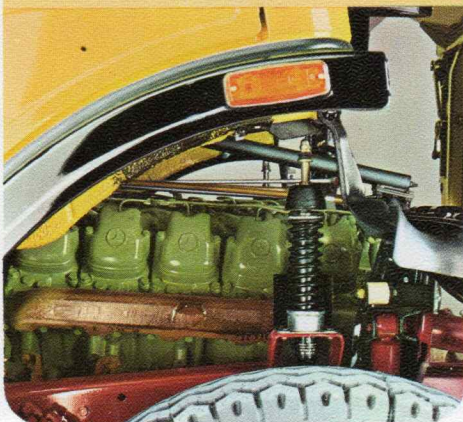




*The cab can be tilted forwards through 70° (short cab through 65°) by a hydraulic double-acting piston pump, even when the vehicle is parked on a slope.*

*The engine can be started by a separate starter button for visual inspection, even when the cab is tilted.*

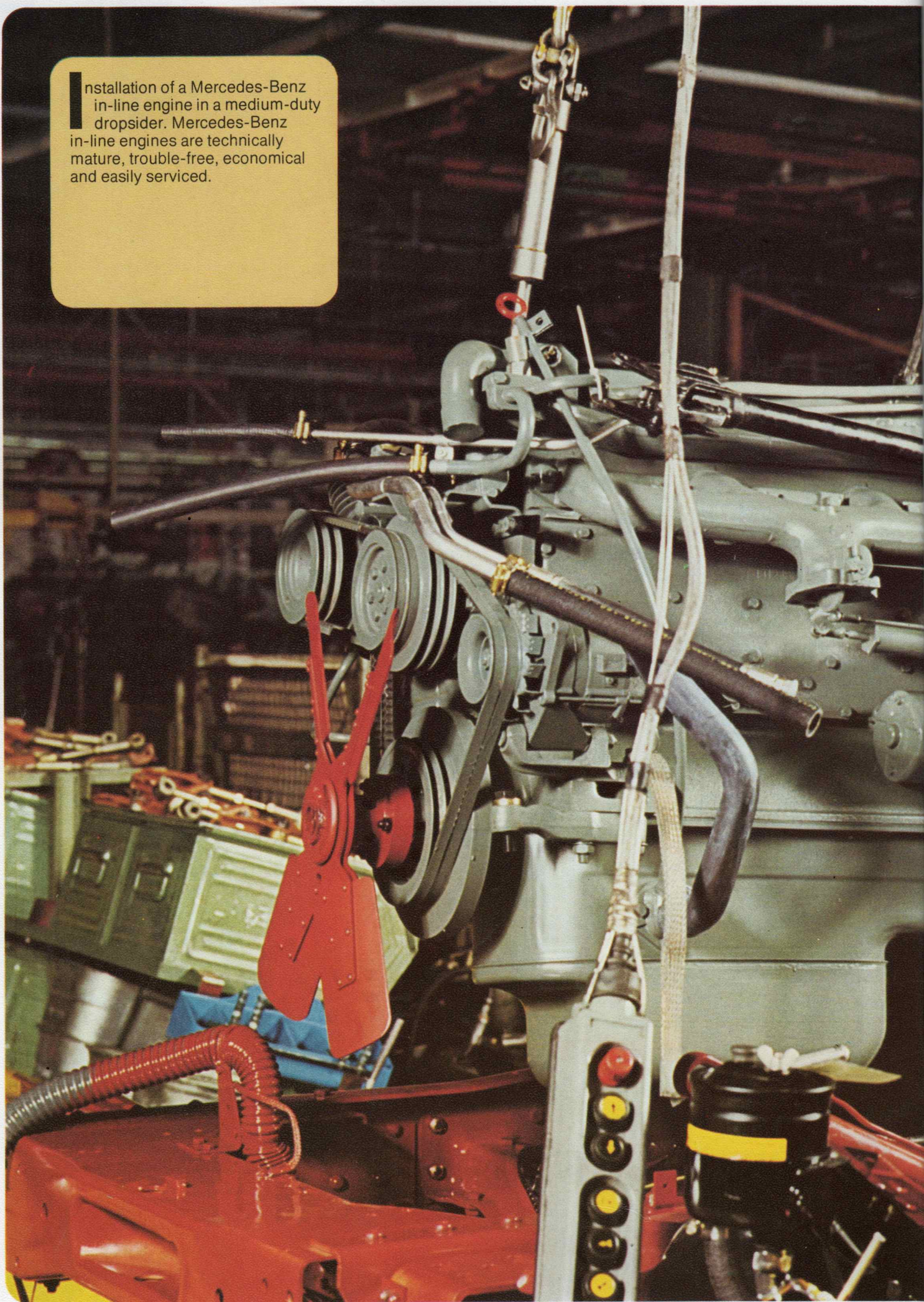
*Well-tuned suspension of the short driver's cab.*

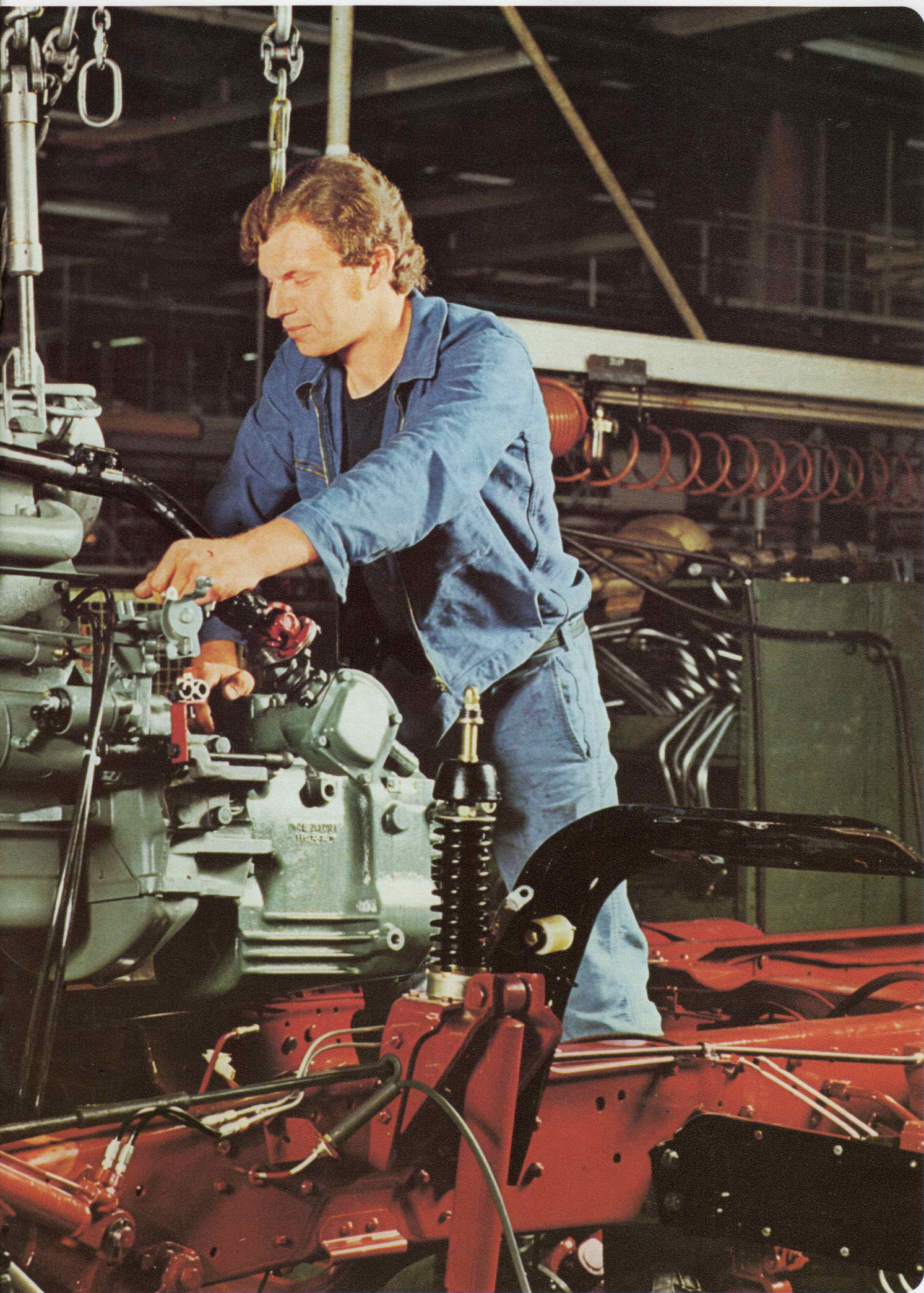


*The hinged headlight unit allows defective bulbs to be replaced easily within seconds.*



Installation of a Mercedes-Benz in-line engine in a medium-duty dropsider. Mercedes-Benz in-line engines are technically mature, trouble-free, economical and easily serviced.





# Mercedes-Benz diesel engines are built on the unit construction principle.

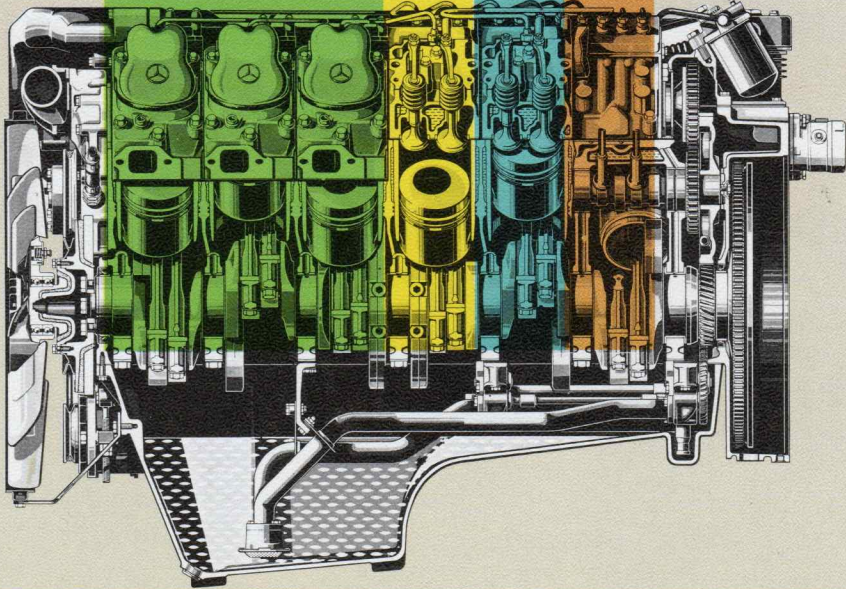
**W**ater-cooled Mercedes-Benz diesel-engines with direct injection in V and in-line versions. The 90° V-arrangement of the cylinders reduces the amount of space needed even for a high-performance engine. The interchangeability of the Mercedes-Benz in-line and V type engine components allows easier storage of spare parts and simplifies service and repair work. This saves costs.

**Mercedes-Benz direct injection system: higher mileage with less fuel.**

The Mercedes-Benz direct injection system ensures complete combustion and thus reduces fuel consumption so that operating costs remain at a low level. Additional advantages: a smooth-running engine, good cold starting properties without starting aid at temperatures down to -18°C. Mercedes-Benz diesel engines are low in pollutant emission.

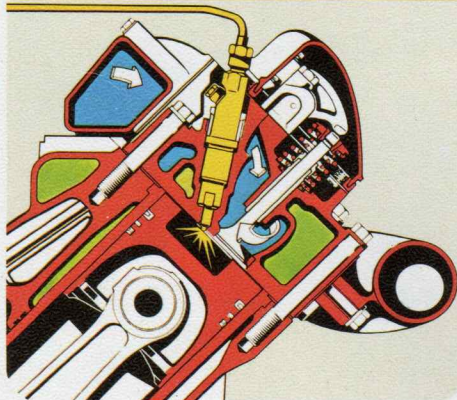
Industrial engine  
Vehicle engines

OM 404  
OM 403  
OM 402  
OM 401

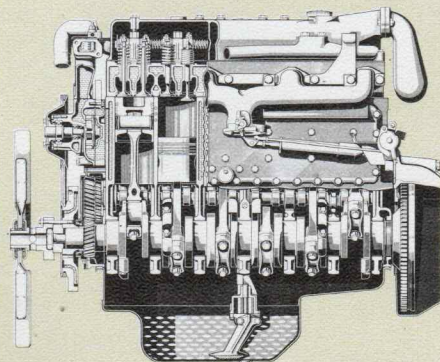


*Diesel engines of the Mercedes-Benz 400 range are built on the unit construction principle and thus have the advantages of component interchangeability.*

*Optimum swirl action because of the swirl downdraught port. This ensures formation of the best possible fuel/air mixture and therefore optimum use of the fuel.*



*The Mercedes-Benz in-line engine OM 352 below is also available as turbo-charged engine with 168 HP.*



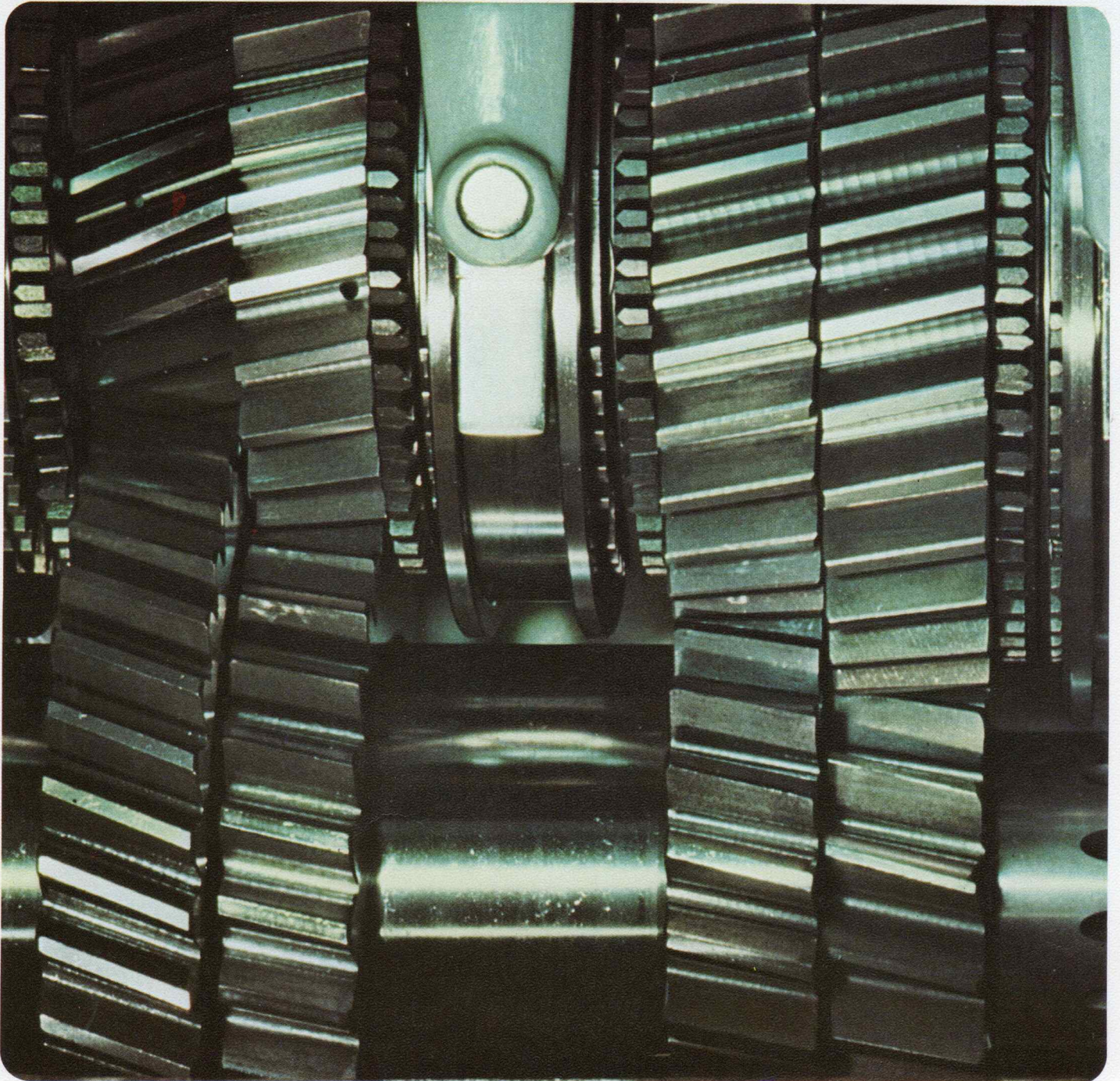
# Standard synchromesh gearbox: rapid gearshifting means easier work for the driver.

**G**earshifting without double-declutching. For the operator this means economy because of less wear and low fuel consumption. For the driver this means less effort and greater safety.


Fine gear gradations suited to engine speed and performance and the vehicle's weight.

● High tractive power, smooth acceleration and thus higher average speeds, greater safety in every possible situation on the road.

The clutch is hydraulically operated and assisted by a booster spring. Automatic readjustment which means that it is largely non-wearing. Advantage: the pressure which needs to be applied to the pedal is only about 20 kp, hardly more than in a car.





A photograph showing the rear chassis of a Mercedes-Benz commercial vehicle. The chassis is painted a bright orange color and features a prominent cross-member with a circular cutout. Two large, black, treaded tires are visible. A white rectangular plate with the text "MERCEDES-BENZ" is mounted on the right side of the chassis. Below the plate, a red vertical post supports a red circular reflector. The background consists of a grassy area, a concrete curb, and several bare trees under an overcast sky.

**M**ercedes-Benz commercial vehicles are renowned for their ability to carry high payloads at a low vehicle weight. For this reason, the proven "fish-belly" design of the frame has been retained.

Advantages: comparatively low dead weight combined with high load-bearing capacity and maximum sturdiness.

# For your benefit: strong frame for carrying high payloads. Sturdy axles.

**T**he well-tried Mercedes-Benz "fish-belly" design: ladder-type frame with the strongest points where maximum load-bearing capacity is needed. As a matter of course, only high-grade steels are used. Torsion-resistant frame and high-web profile of longitudinal frame members; cross members made of open sections with cold-riveted connections to ensure flexibility.

● Flexible adjustment to road conditions ensures less strain on the frame - therefore long service life. Coupling head in front cross member. A two stage leaf spring on the rear axle ensures optimum suspension.

All vehicles have shock absorbers and stabilisers on the front axle as standard.

**Always the correct rear axle.**

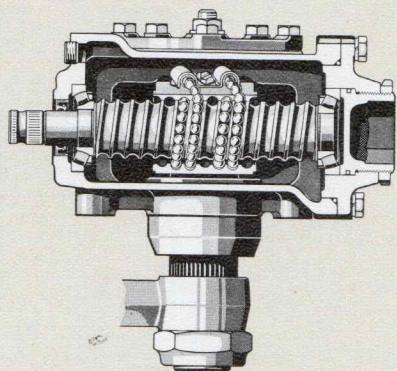
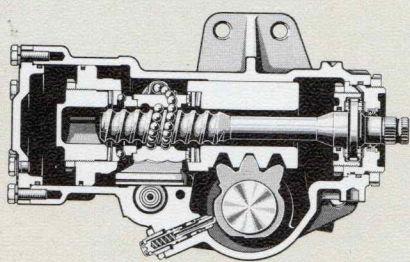
Depending on the model and type of use, Mercedes-Benz can supply two kinds of rear axle and three rear axle reductions.

**Power steering.**

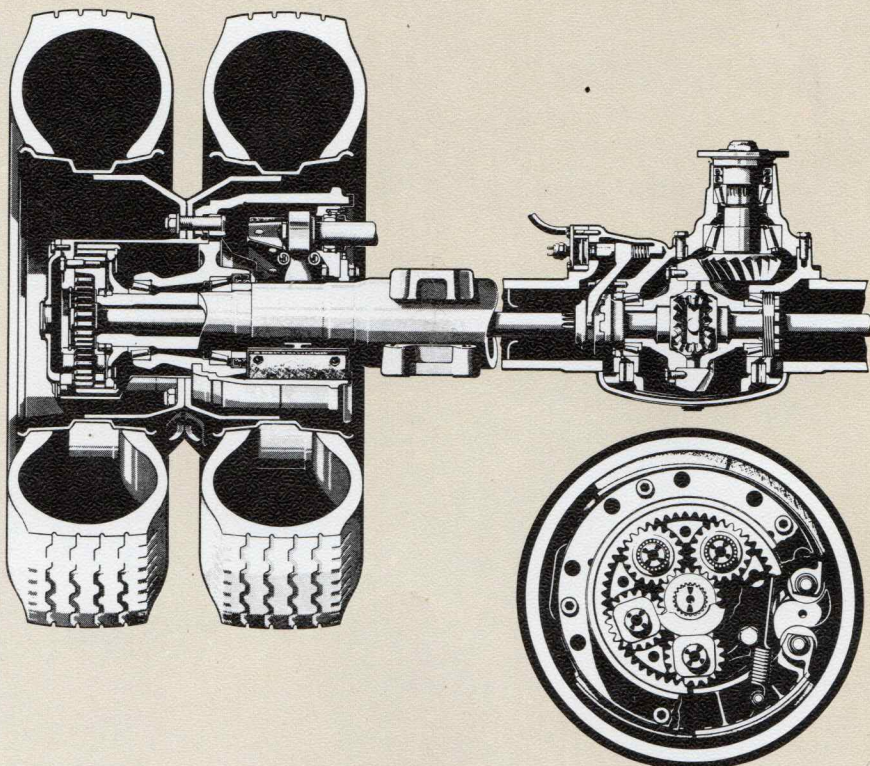
Standard Mercedes-Benz power steering for 14 and 16 ton vehicles. Safe track holding with less energy spent. Precise steering response.

**Toothed sector re-circulating ball-type steering.**

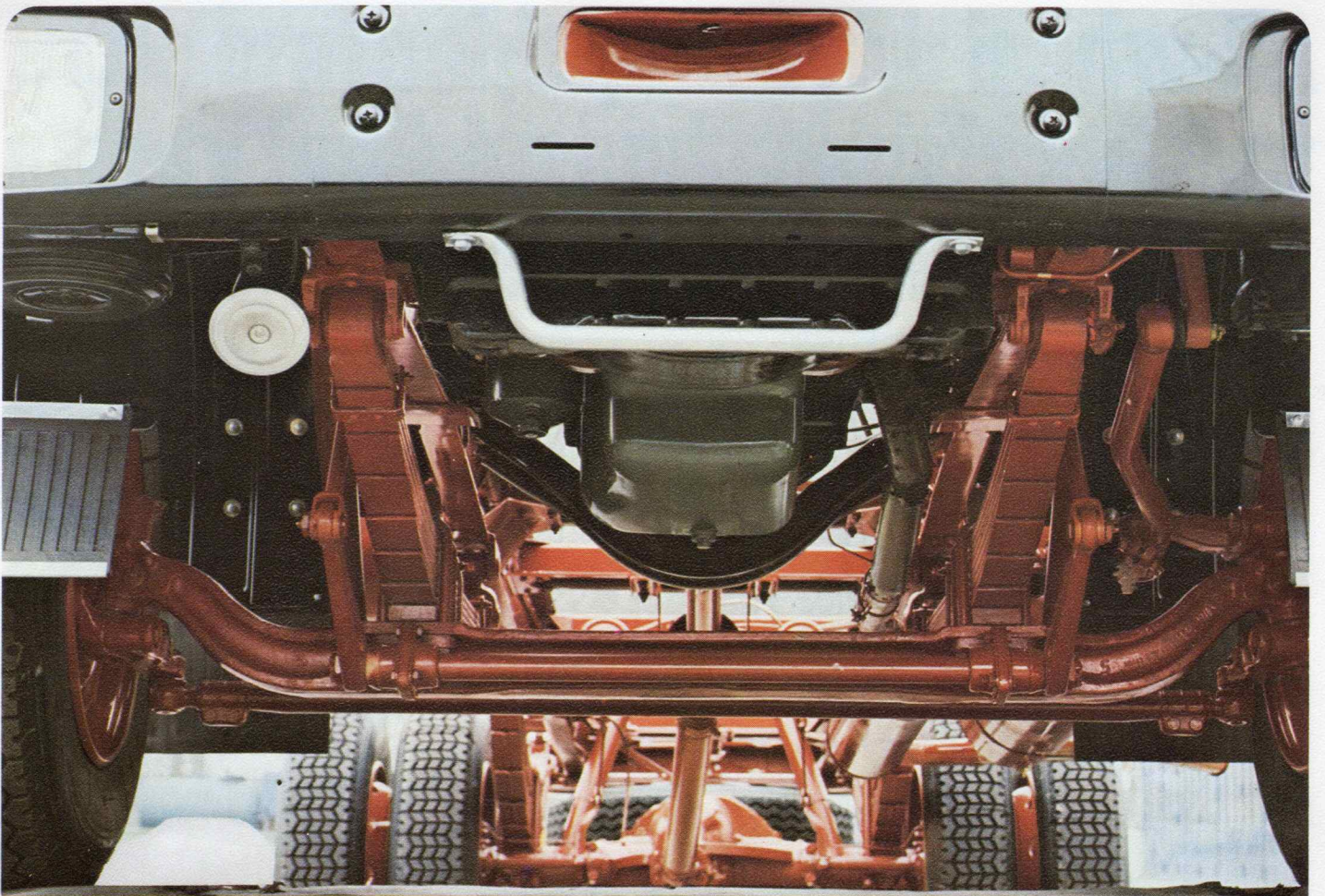
Standard Mercedes-Benz toothed sector re-circulating ball-type steering for 10 and 12 ton vehicles. Less effort required when manoeuvring, high steering precision.



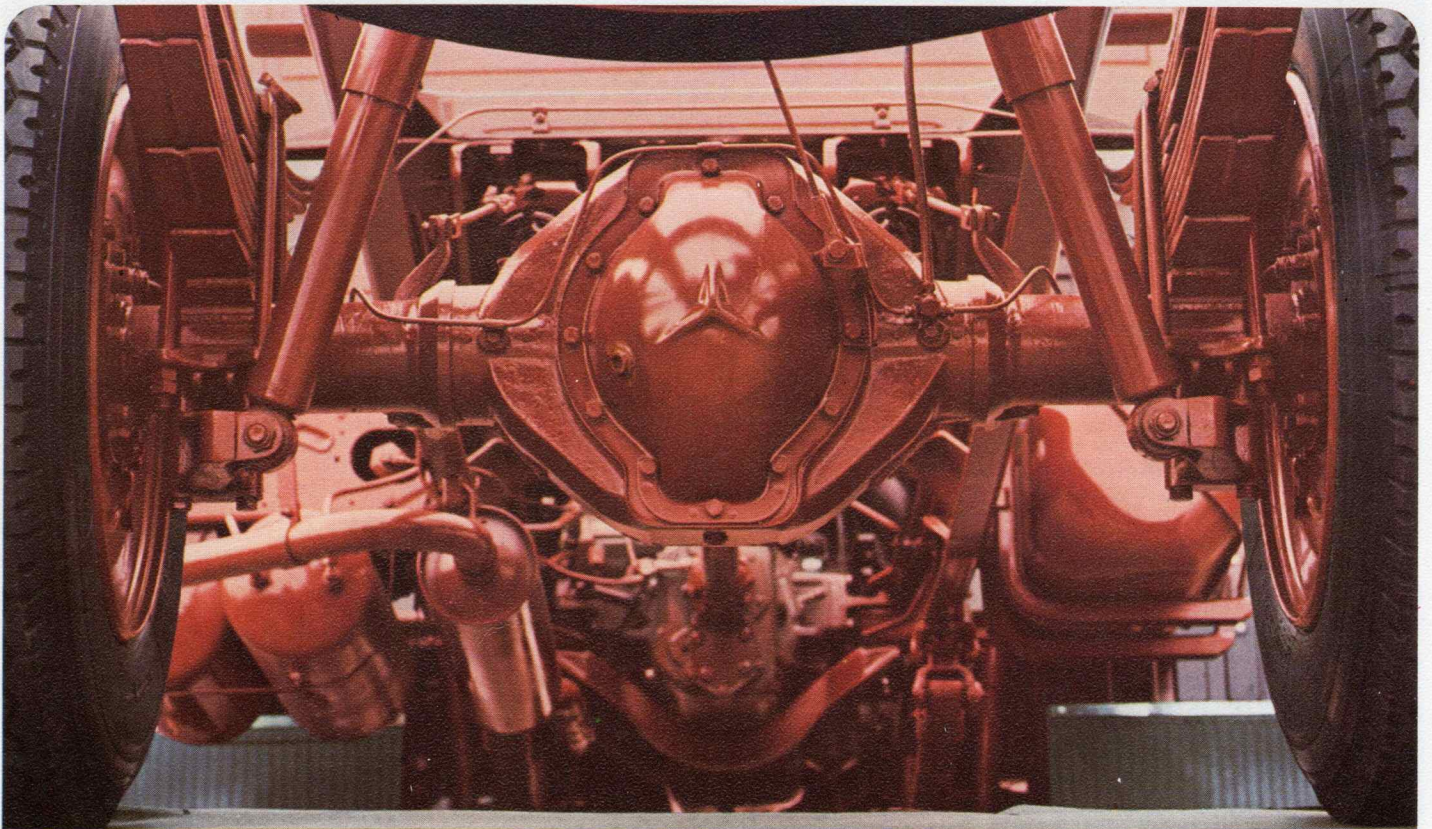
Depending on the tonnage of the vehicle, either Mercedes-Benz power steering or toothed sector re-circulating ball-type steering. Safe track holding is always assured.



Mercedes-Benz hub-reduction rear axle with 5 planetary gears. Differential lock from model 1219 K onwards, optional.



*Robust knuckle yoke axle with stabiliser and shock absorbers.*



*Mercedes-Benz hypoid rear axle.  
Differential lock from model 1013 onwards,  
optional.*

# All-wheel drive dropsiders for operation on bad roads and over difficult terrain.

**M**ercedes-Benz all-wheel drive vehicles are specialists on every kind of terrain and road surface. There is practically no getting bogged down on snowed-over motorway gradients or on difficult trackless ground. This applies to all-wheel drive dropsiders as well as all-wheel drive chassis with various bodies. The front axle, which can be engaged and disengaged at will, ensures good track-holding stability.

Vehicles with all-wheel drive are equipped with a transfer case which distributes the power output to the front and rear axle.

Vehicles with 130 and 168 HP engines: in difficult terrain the front axle drive is engaged via the transfer case together with off-the-road gear.

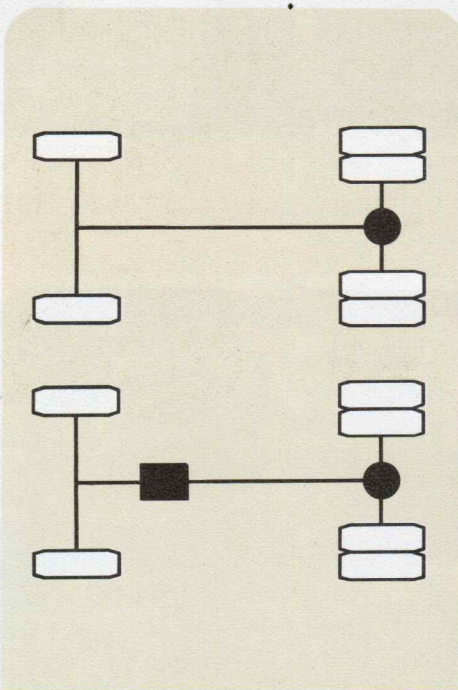
Vehicles with 192 HP engine: gearbox with crawler gear. The front axle is engaged via the transfer case with a ratio of 1:1.

## Front axle:

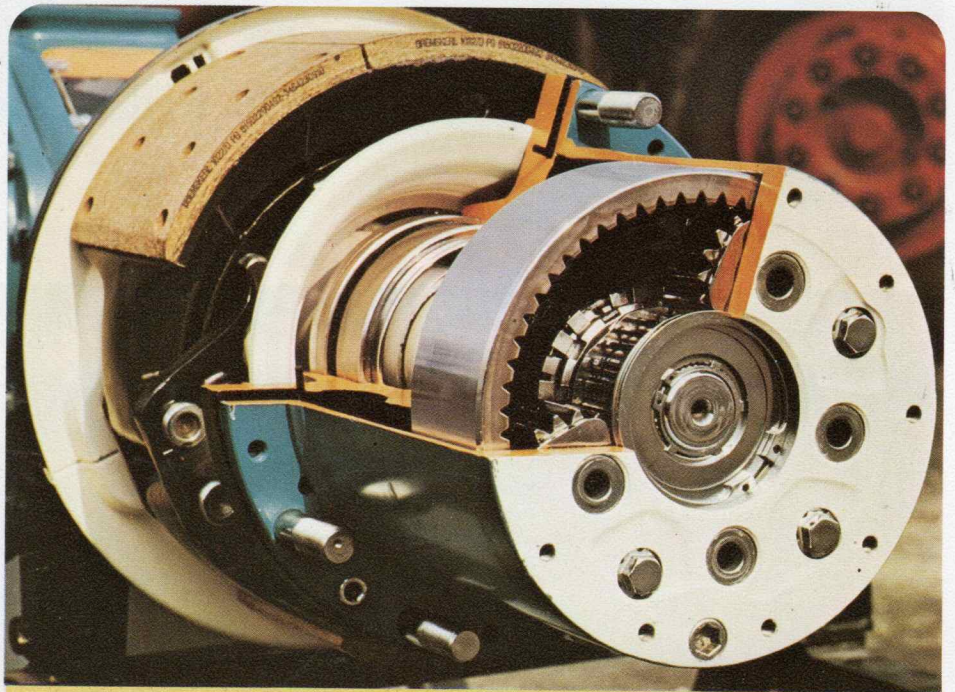
tube axle with palloid gearing. Power transfer from transfer case via drive shaft, crown wheel and pinion to the drive wheels.

## Rear axle:

either hypoid axle or planetary-gear hub-reduction axle.



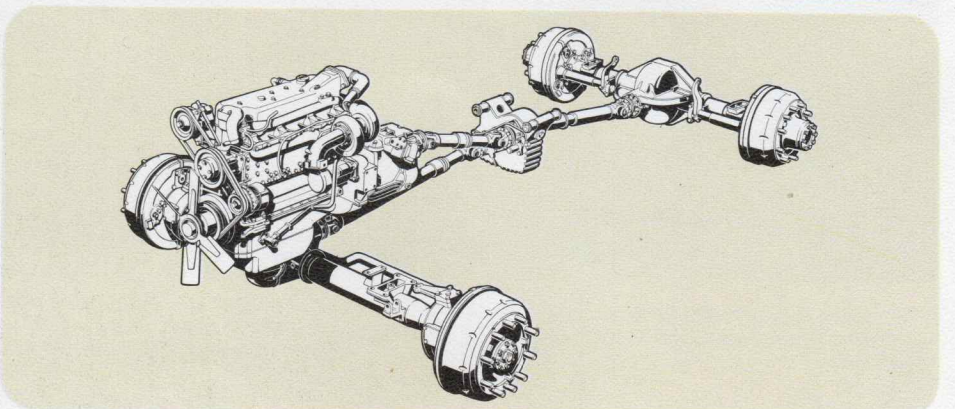
Inter-axle lock not available.  
Inter-wheel lock in the differential available as optional extra.



The sun gear at the centre drives the five planetary gear wheels, which revolve within the ring-gear which in turn is rigidly

connected to the carrying tube. This is where the main reduction takes place and where the highest torque is built up.

Diagram of power distribution to front and rear axle for vehicles with all-wheel drive.



# Triple brake system - safety for driver and vehicle.

**S**tandard: automatic load-sensitive brake power control:

- Brake pressure and control are always determined by the load carried.
- Highest braking effect for the loaded as well as for the unladen vehicle.
- Less wear on brake linings and tyres.

## Service Brake.

Dual-circuit hydraulic brake system with air-pressure booster, very safe in operation.

## Exhaust brake.

Compressed-air controlled exhaust brake with foot-operated button.

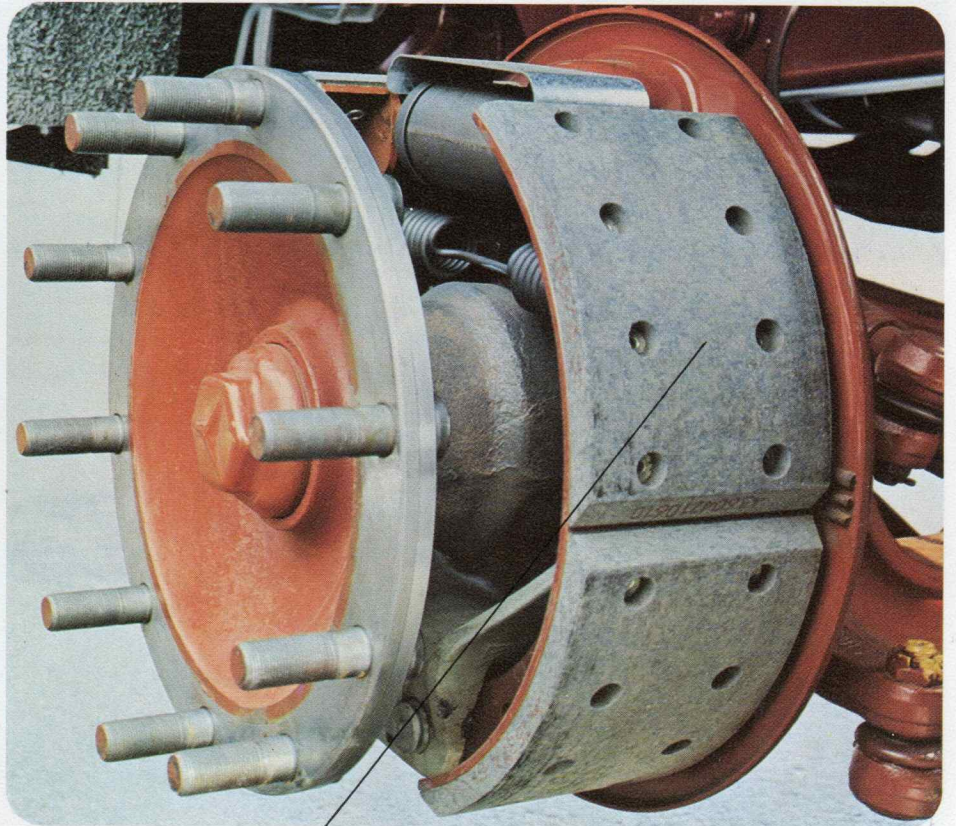
## Parking brake.

Compressed-air controlled spring-loaded brake - effortless operation.

The advantages:

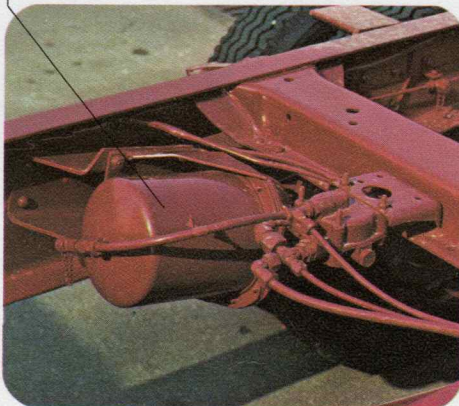
- Even without compressed-air supply, the vehicle is always braked.
- Spring-loaded brake cannot be released accidentally if the foot brake is not ready for operation.

Another Mercedes-Benz contribution to increased safety: centrally located steep shoulder rims for tubeless tyres. For truck and trailer operation, dual circuit brake connection or combined single and dual line brake connections are available as optional extras.

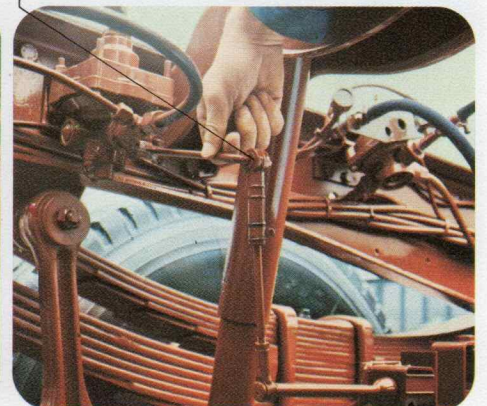


Great safety due to large - surface brake linings.

*Compressed-air operated spring-loaded brake, acting on the rear wheels, holds the stationary vehicle securely and acts as an auxiliary brake in the event of service brake failure.*



*Automatic load-dependent brake power control acts on the rear wheels: the brake pressure is always determined by the load carried by the vehicle.*



# No risk for you - we carry out tests for your benefit.

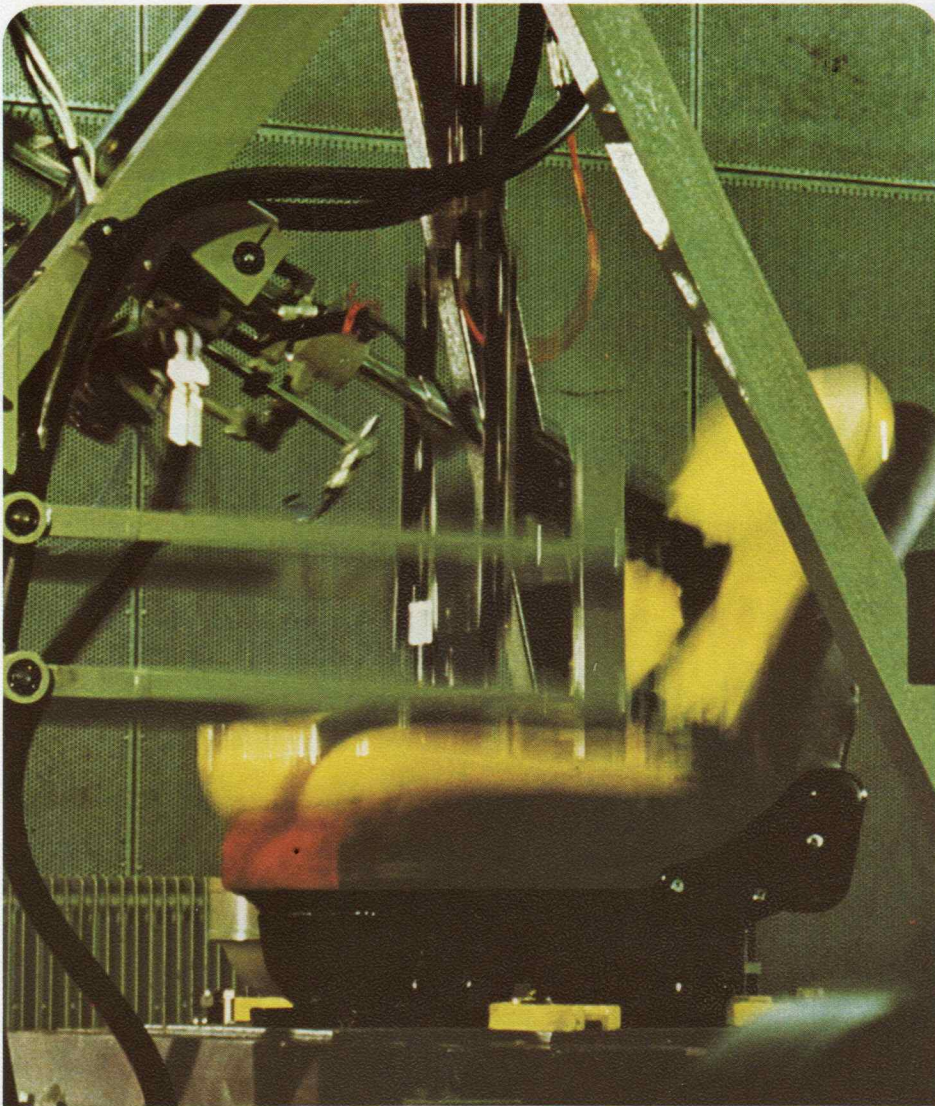
**N**o other manufacturer submits his commercial vehicles to such hard tests as we do. They are, in fact, more stringent than the most exacting conditions found in practice: vibration tests, cold-start tests, hot and cold chambers, simulators, fording tests. Every test stage is electronically controlled, supervised and evaluated.

This is followed by tests on extremely rough terrain, very steep slopes and distortion tracks. The drivers take one-hour turns - which speaks for itself. However, the vehicles keep on running. Round the clock, for days and months on end. Then they go back to the test

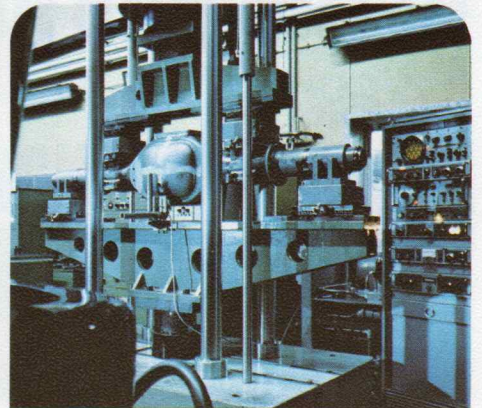
bench, where we examine everything down to the last screw, until we are certain that this vehicle is reliable and safe enough for strenuous everyday use and can go into standard production. We do not want either you or ourselves to run any risk. And quality always pays.



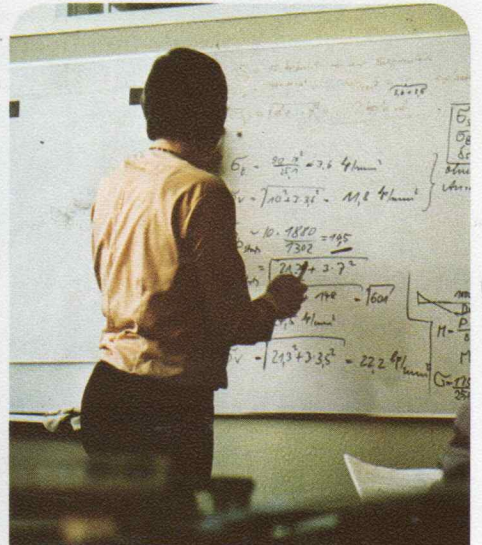
*Artificial monsoon rain: about 70 litres of water per second pour down onto the track in this test carried out to detect whether the flaps, air inlets, doors or windows are leaking.*



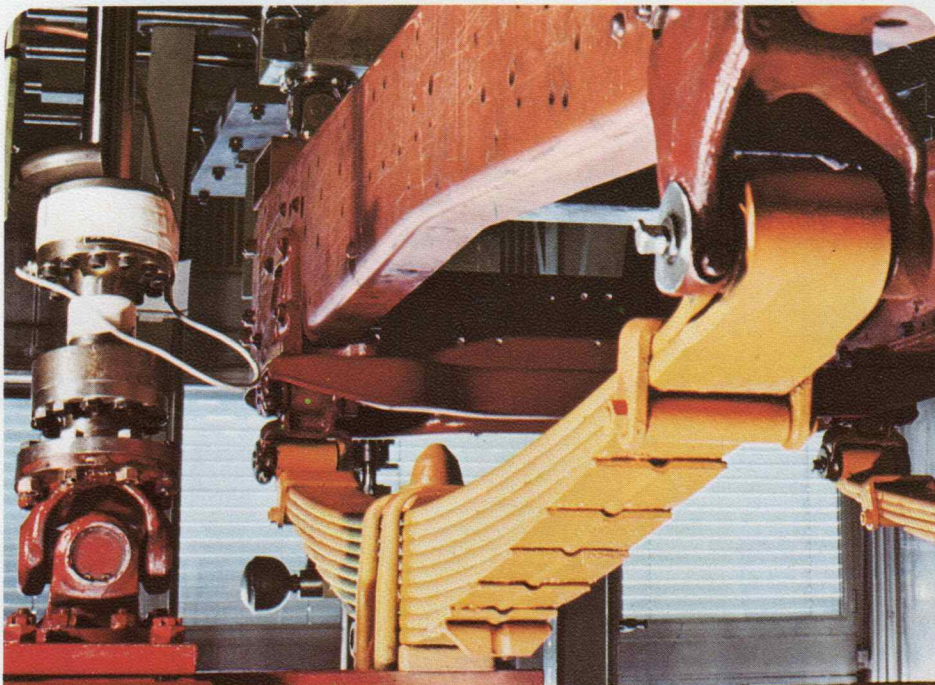
A driver's seat on the "torture test stand". In a few hours it ages a couple of months. A load of 250 kg is applied and removed five times per second.



Each chassis component is tested under extreme conditions. Here a load of 20 tons is applied on the axle.



Exact calculations are the basis of the test programmes.



Front axle spring of a truck. It is loaded to its permissible limit and released again 500,000 times a day. The aim of this test

is a satisfactory life span for each vehicle in its special kind of operation.



Magnetic tapes with load data from very bad surfaces and country roads control hydraulically driven simulators.

# Mercedes-Benz: the safe investment anywhere in the world.

**M**ore than two million trucks have left our works during the past thirty years. They operate in practically every country of the world. The experience of our customers from all five continents is reflected in every new truck which leaves our assembly lines.

Our experience is vast and you as an operator can make use of it.

Mercedes-Benz not only have the right, strong vehicle for you - as the biggest truck producer in Europe, they are also the right partner for you.

Mercedes-Benz vehicles operate in nearly every country in the world - on good roads, bad roads, on the flat as well as in the mountains, in sweltering heat as well as in freezing cold. They have been reliably prepared by our design engineers, technicians and workers for any of these extreme conditions. Mercedes-Benz are proud of the stamp "Made in Germany".





# Mercedes-Benz Service - always there to help you.

**M**ercedes-Benz vehicles are used the world over. The world-wide Mercedes-Benz service network is part of this world-wide use so that every vehicle can be regularly serviced or get help quickly in an emergency.

Today there are more than 5,000 Mercedes-Benz service stations all over the world, of which 3,000 are in Europe alone. Here Mercedes-Benz specialists see to it that your truck is always ready for use or quickly put back on the road

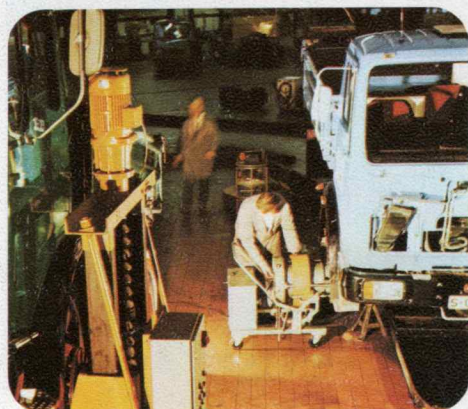
again. A team of highly qualified technicians train our workshop staff around the world - to keep them up-to-date. As a matter of course, every service station is equipped according to the most modern technical know-how. For you, this means a complete store of approved original Mercedes-Benz spare parts, and well-organised work. All in all, this saves your money and maintains the value of your vehicle.

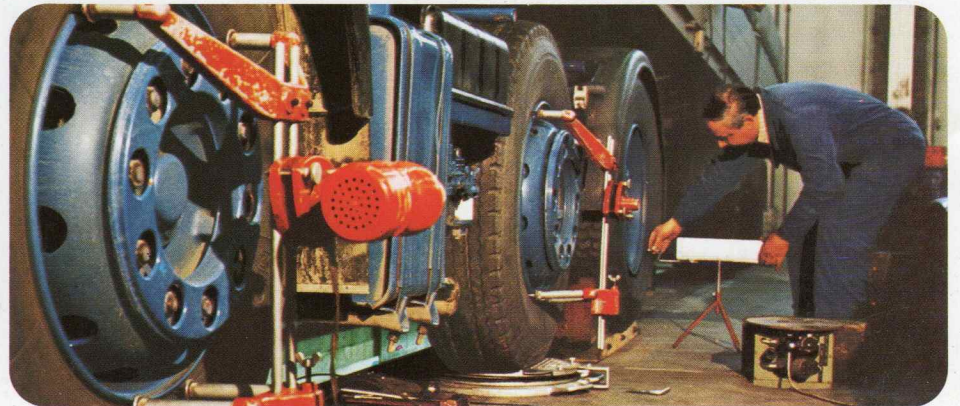
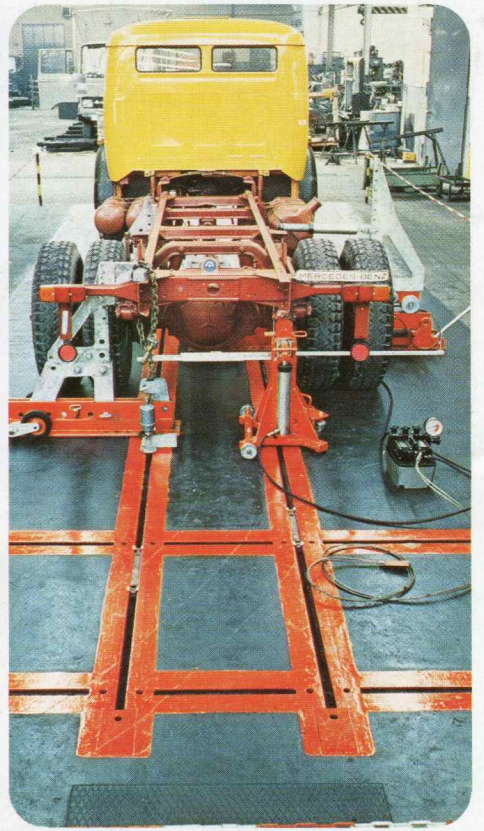
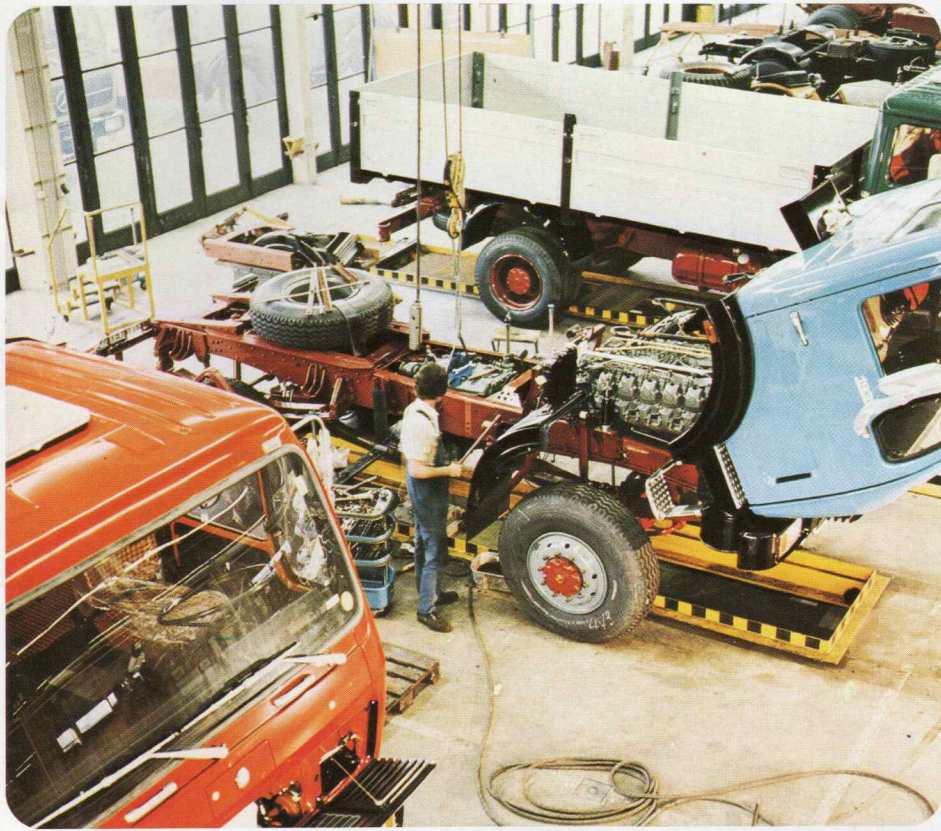
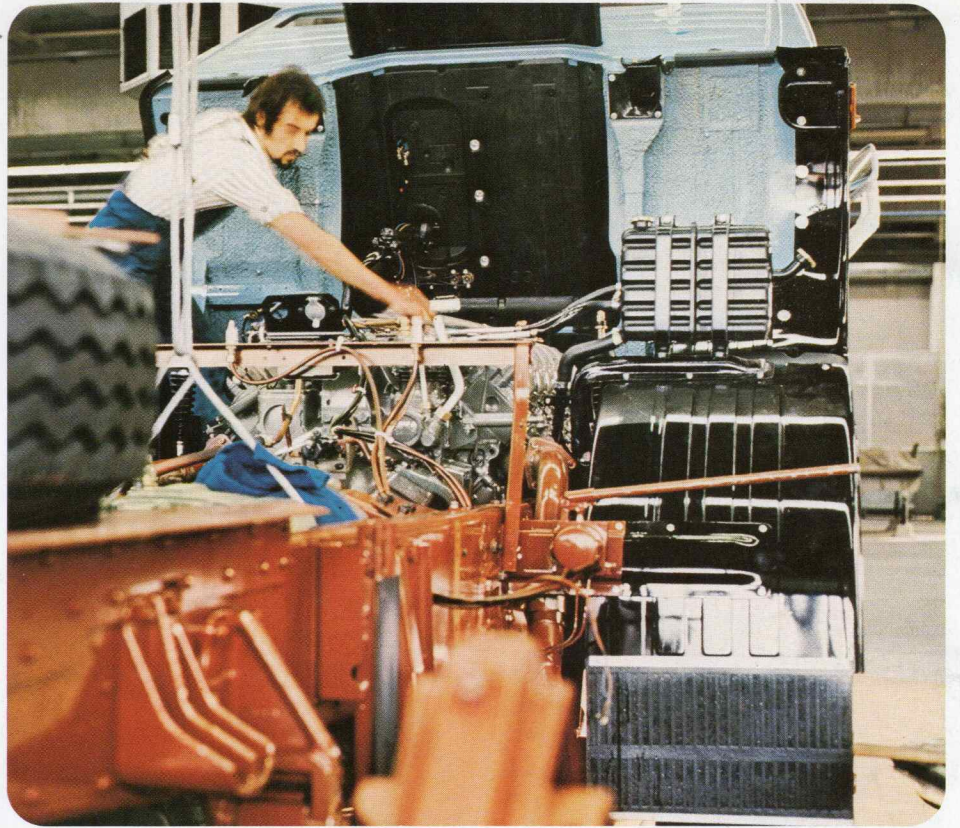
In the West European countries, we have set up an emergency call system.

Control centres provide information over the telephone as to which service stations can help in cases of real emergency, even out of office hours. In this brochure, we also show customer's vehicles. May we point out that these vehicles do not always correspond to the standard delivery range in equipment and colour.

New Mercedes-Benz guarantee:

- One year or 50,000 km
- Engine, gearbox, drive axles: one year or 100,000 km.





Mercedes-Benz

