

Mercedes-Benz



OF chassis with front engine for omnibus bodies

OF 1113 1317
1313 1417
1413 1617



Mercedes-Benz - the confidence in a great make

Everywhere in the world passengers and tourists enjoy travelling in Mercedes-Benz omnibuses - in Germany, Austria, Switzerland just as in Madagaskar, Thailand or Singapore.

Mercedes-Benz bus bodies differ from country to country in order to meet operational, climatic and local conditions. The solidly built and robust foundation is common to all: an OF chassis with front engine made by Mercedes-Benz. Its mature design, together with the long service life of the assembly units and the infrequent need of repair are the reason for the confidence placed in these omnibuses worldwide, by the many buyers just as by the innumerable users.

Omnibus chassis with engines made by Mercedes-Benz provide maximum allowance for individual body versions, a prime reason for their success.

Our customer names a body maker in his own country to do the necessary designing and construction work - if desired, with our expert assistance.

Aside from simple or more elaborate body versions according to the customer's choice, adaptation to local conditions in every detail is, of course, also possible.

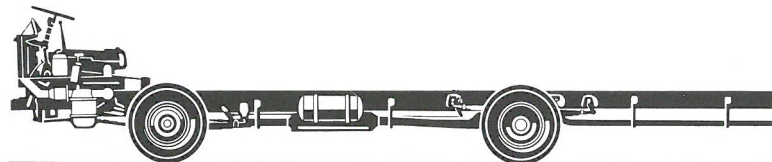
All OF chassis are available with right-hand and left-hand steering.



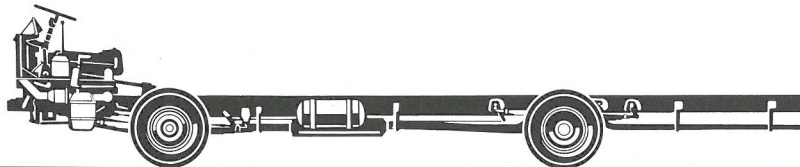
Choose the chassis best suited to y in engine output, wheelbase, overall

Our omnibus chassis range is graduated according to engine output, wheelbase, overall length and payload, thus enabling the customer to combine the desired body with the appropriate chassis. That means in practice maximum output and optimal economy and safety of operation. We help you to find the right chassis for your needs from our comprehensive offer.

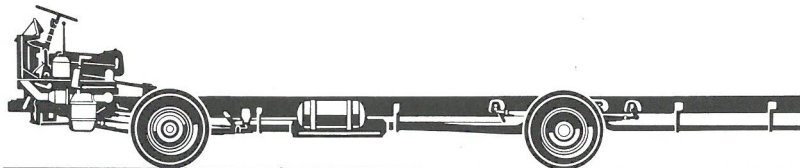
OF 1113



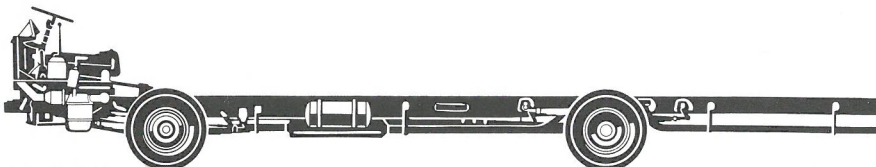
Output 96 kW (130 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbases 4,130 and 4,470 mm
permissible GVW 11,000 kg



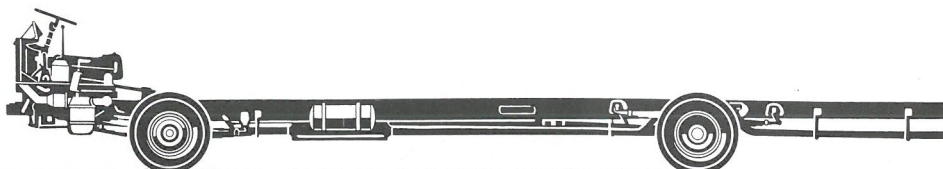
OF 1313



Output 96 kW (130 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbases 4,470 and 5,170 mm
permissible GVW 13,000 kg



OF 1413

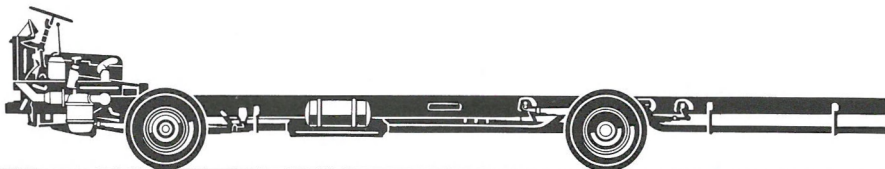
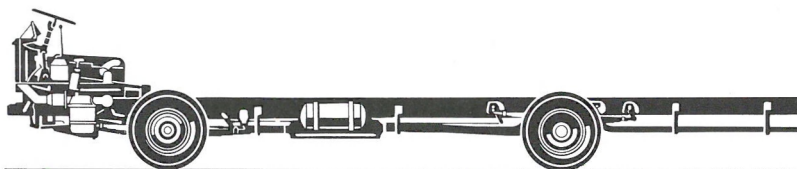


Output 96 kW (130 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbase 6,050 mm
permissible GVW 14,500 kg

our bus body length and payload

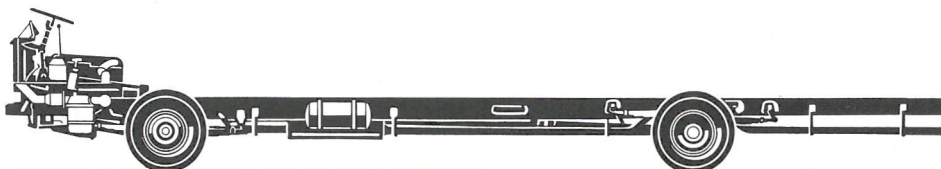
OF 1317

Output 125 kW (170 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbases 4,470 and 5,170 mm
permissible GVW 13,000 kg



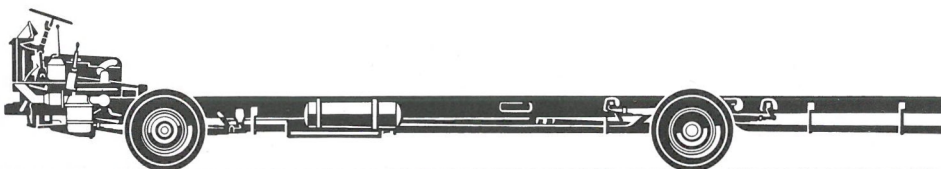
OF 1417

Output 125 kW (170 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbase 6,050 mm
permissible GVW 14,500 kg



OF 1617

Output 125 kW (170 HP/DIN)
economical Mercedes-Benz
direct injection engine
wheelbase 6,050 mm
permissible GVW 16,000 kg



Technical data

of standard version chassis

(Further data on request from Dept. EXTB/N.)

Type	OF 1113				OF 1313			
Wheelbase mm (in.)	4.130	(162.6")	4.470	(176")	4.470	(176")	5.170	(203.5")

Dimensions

Max. chassis length mm (in.)	8.755	(344.7")	9.095	(358")	9.095	(358")	10.065	(396")
Max. chassis width mm (in.)	2.247	(88.4")	2.249	(88.5")	2.334	(91.8")	2.334	(91.8")
Ground clearance at differential mm (in.)	254	(10")	254	(10")	267	(10.5")	267	(10.5")
Ground clearance at front axle mm (in.)	268	(10.6")	268	(10.5")	280	(11")	280	(11")
Overhang front mm (in.)	1.893	(74.5")	1.893	(74.5")	1.893	(74.5")	1.893	(74.5")
Overhang rear mm (in.)	2.730	(107.5")	2.730	(107.5")	2.730	(107.5")	3.000	(118")
Angle of approach	19°		19°		19°		19°	
Angle of departure	10°		9°		10°		8°	
Height of frame, unladen, at front axle mm (in.)	916	(36.0")	916	(36.0")	946	(37.2")	946	(37.2")
with fully laden front axle	840	(33.0")	840	(33.0")	865	(30")	865	(30")
Height of frame, unladen, at rear axle mm (in.)	985	(38.8")	985	(38.8")	1.041	(40.98")	1.041	(40.98")
with fully laden rear axle	820	(32.3")	820	(32.3")	843	(32.2")	843	(32.2")
Smallest turning circle diameter m (ft)	16,5	(54')	17,6	(57.7')	17,6	(57.7')	19.6	(64.3')

Weights

Chassis with tools and spare wheel kg (lbs)	3.770	(8,311)	3.830	(8,443)	3.940	(8,686)	4.010	(8,840)
Max. front axle load kg (lbs)	4.000	(8,818)	4.000	(8,818)	4.700	(10,362)	4.700	(10,362)
Max. rear axle load kg (lbs)	7.200	(15,873)	7.200	(15,873)	8.500	(18,739)	8.500	(18,739)
Perm. GVW kgs (lbs)	11.000	(24,251)	11.000	(24,251)	13.000	(28,660)	13.000	(28,660)

Engine

Type Mercedes-Benz	OM 352	OM 352
Engine output kW (HP/DIN)	96 (130) at 2,800 rpm	96 (130) at 2,800 rpm
Max. torque Nm	363 at 2,000 rpm	363 at 2,000 rpm
Starter motor	3 kW/12 V	3 kW/12 V
Generator	14 V/90 A	14 V/90 A

Chassis

Clutch	Single-plate dry	Single-plate dry
Gearbox	Mercedes-Benz 5-speed synchromesh G 3/40 - 5/7.5	Mercedes-Benz 5-speed synchromesh G 3/40 - 5/7.5
Steering	MB recirculating ball 3.5 K	MB power steering LS 5
Service brake	Dual-circuit hydraulic with single circuit compressed air boost	
Parking brake	Hand lever, spring-loaded	Hand lever, spring-loaded
Auxiliary brake	Exhaust brake mechan.	Exhaust brake mechan.
Wheels, disc wheels	6,5 - 20	7,0 - 20
Tyres	8,25 - 20/14 PR	9,00 R - 20/14 PR
Fuel tank capacity, litres	105	105
Battery	1x12 V/180 Ah	1x12 V/180 Ah
Voltage of consumers	12 V	12 V
Lubrication	Individual nipples	Individual nipples

*1 Measurement with standard set of tyres.

*2 The frame-height of the unladen vehicle refers to the chassis with a cab base according to DIN 70 020 including an allowance for tyre spring action of about 8 mm on the front axle and about 15 mm on the back axle.

OF 1413**OF 1317****OF 1417****OF 1617**

6.050	(238.2")	4.470	(176")	5.170	(203.5")	6.050	(238.2")	6.050	(238.2")
-------	----------	-------	--------	-------	----------	-------	----------	-------	----------

10.740	(422.8")	9.095	(358")	10.065	(396")	10.740	(422.8")	10.740	(422.8")
2.408	(94.8")	2.334	(91.8")	2.334	(91.8")	2.408	(94.8")	2.426	(95.5")
292	(11.5")	267	(10.5")	267	(10.5")	292	(11.5")	292	(11.5")
302	(11.9")	280	(11")	280	(11")	302	(11.9")	288	(11.3")
1.893	(74.5")	1.893	(74.5")	1.893	(74.5")	1.893	(74.5")	1.893	(74.5")
2.795	(110")	2.730	(107.5")	3.000	(118")	2.795	(110")	2.795	(110")
19°		19°		19°		19°		20°	
10°		10°		9°		11°		10°	
976	(38.4")	939	(36.97")	939	(36.97")	967	(38")	974	(38.3")
873	(34.4")	865	(34.06")	865	(34.06")	873	(34.4")	878	(34.6")
1.051	(41.4")	1.039	(40.9")	1.039	(40.9")	1.054	(41.5")	1.066	(41.96")
849	(33.4")	843	(32.2")	843	(33.2")	849	(33.4")	865	(34.06")
22,7	(74.5')	17,6	(57.7')	19,6	(64.3')	22,4	(74.5')	22,4	(74.5')

4.180	(9,215)	4.180	(9,215)	4.250	(9,369)	4.400	(9,700)	4.560	(10,052)
5.800	(12,787)	4.700	(10,362)	4.700	(10,362)	5.800	(12,787)	6.000	(13,228)
9.200	(20,282)	8.500	(18,739)	8.500	(18,739)	9.200	(20,282)	10.000	(22,046)
14.500	(31,967)	13.000	(28,660)	13.000	(28,660)	14.500	(31,967)	16.000	(35,274)

OM 352	OM 360	OM 360	OM 360
96 (130) at 2,800 rpm	125 (170) at 2,500 rpm	125 (170) at 2,500 rpm	125 (170) at 2,500 rpm
363 at 2,000 rpm	588 at 1,500 rpm	588 at 1,500 rpm	588 at 1,500 rpm
3 kW/12 V	3 kW/24 V	3 kW/24 V	3 kW/24 V
14 V/90 A	14 V/90 A	14 V/90 A	14 V/90 A

Single-plate dry	Single-plate dry	Single-plate dry	Single-plate dry
MB 5-speed synchromesh G 3/40 - 5/7.5	Mercedes-Benz 5-speed synchromesh G 3/60 - 5/6.1	Mercedes-Benz 5-speed synchromesh G 3/60 - 5/6.1	
MB power steering LS 5	MB power steering LS 5	MB power steering LS 5	MB power steering LS 5
one circuit air over two circuit hydraulic			two-circuit air
Spring-loaded, hand-lever actuated			Spring-loaded, pneum. act.
Exhaust brake mechan. act.	Exhaust brake mechan. actuated	Exhaust brake actuated by compressed air	
7.5 - 20	7.0 - 20	7.5 - 20	7.5 - 20
10.00 R - 20/16 PR	9.00 R - 20/14 PR	10.00 R - 20/16 PR	10.00 R - 20/16 PR
105	135	135	135
1x12 V/180 Ah	2x12 V/110 Ah	2x12 V/110 Ah	2x12 V/110 Ah
12V	12V	12V	12V
Individual nipples	Individual nipples	Individual nipples	Individual nipples

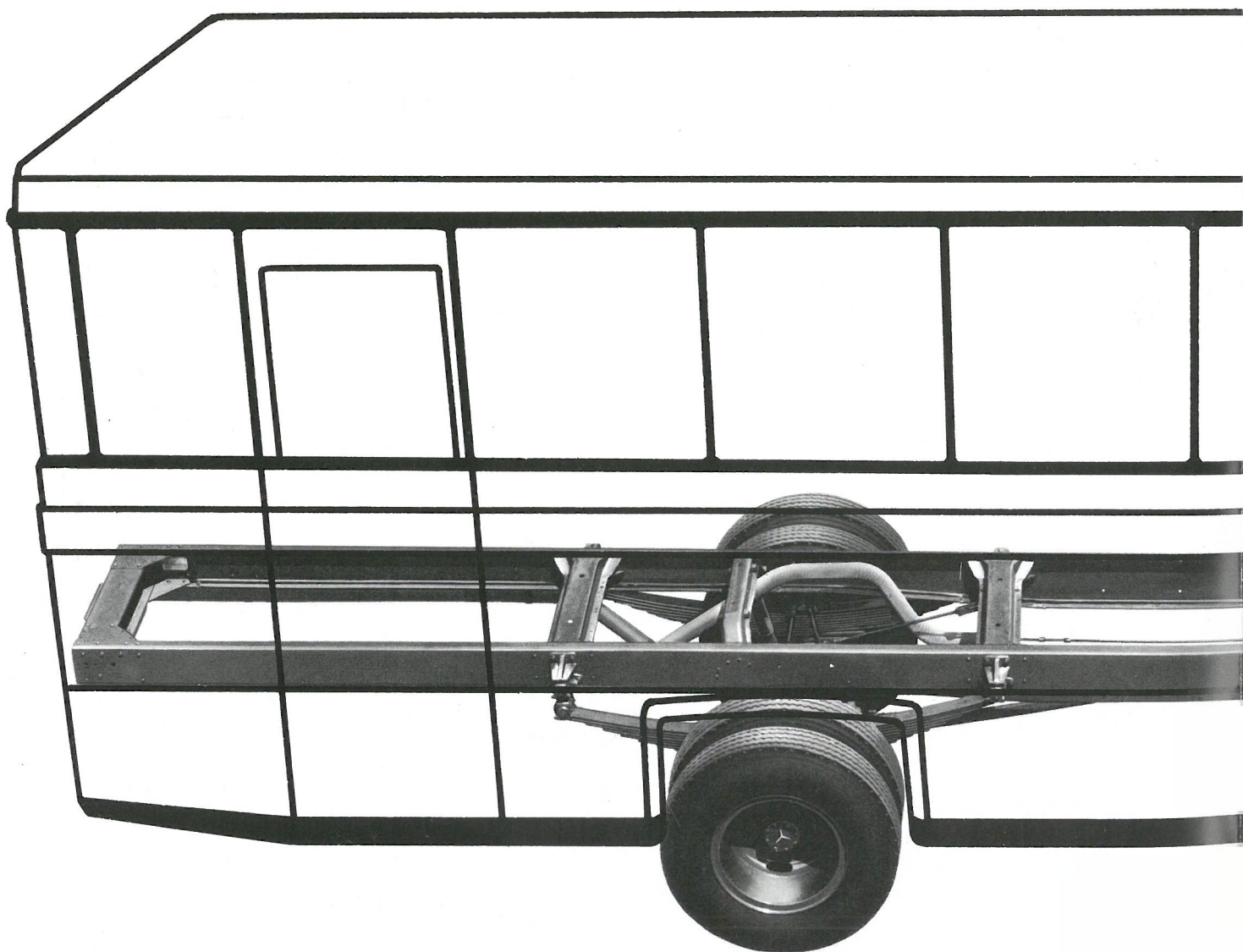
*3 The turning-circle depends on the front overhang. The details given here refer only to the furthest forward point of the chassis without superstructure.

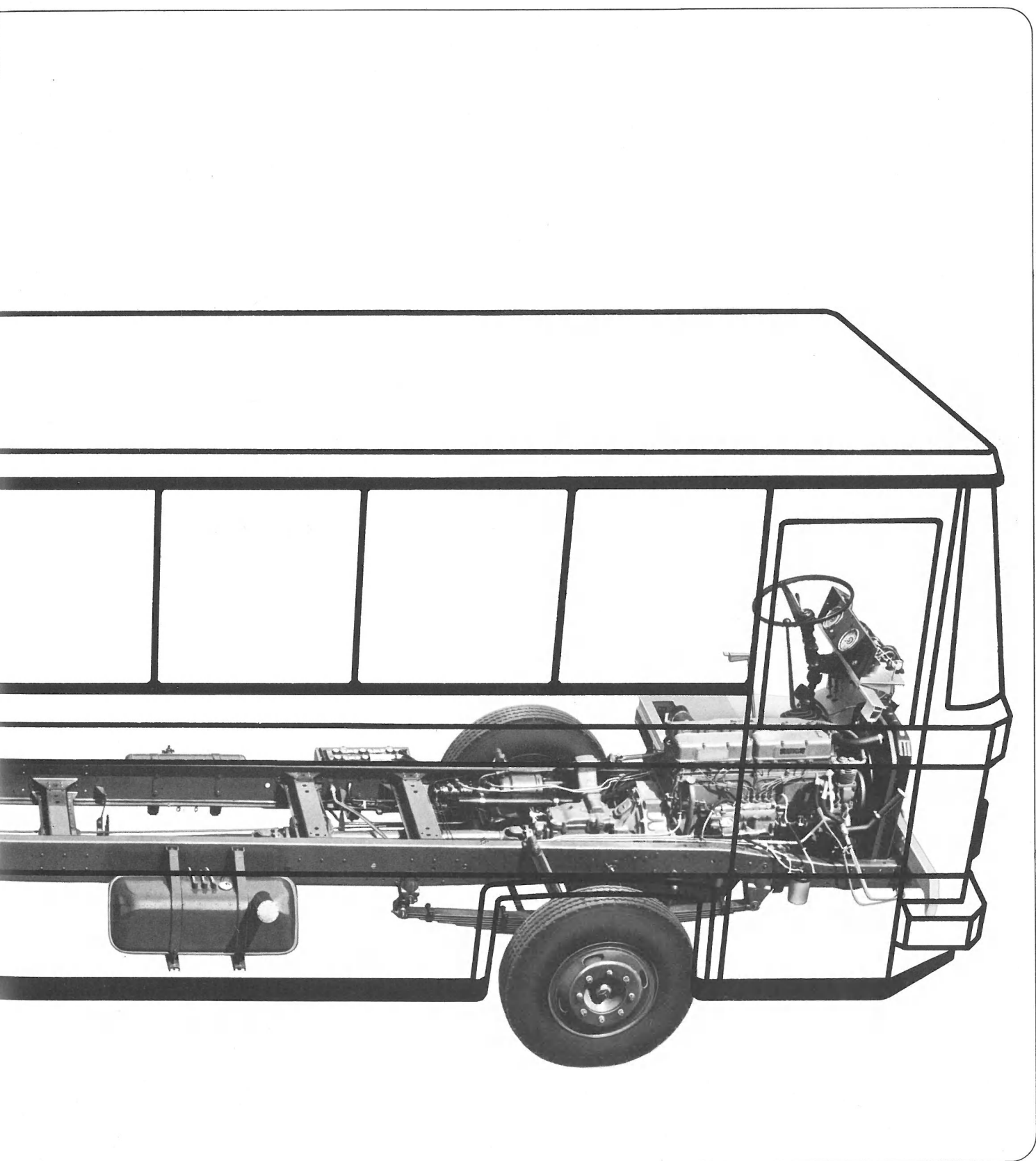
*4 At maximum axle load

Data given may vary within design and production tolerances.

Frame

The sturdy frame ensures the stability and long service life of our vehicles. Strong channel-section side members with riveted hat-section cross members make for an uncomplicated, easy-to-fit frame with low net weight that absorbs even the stress occurring on bad roads. Front cross member with towing jaw.





Axles, Suspension, Brakes, Steering, Instruments

Axles

Rigid knuckle-yoke front axle.
Rear axle carrier tube design. Hypoid spiral bevel crown wheel and pinion ensure smooth running.

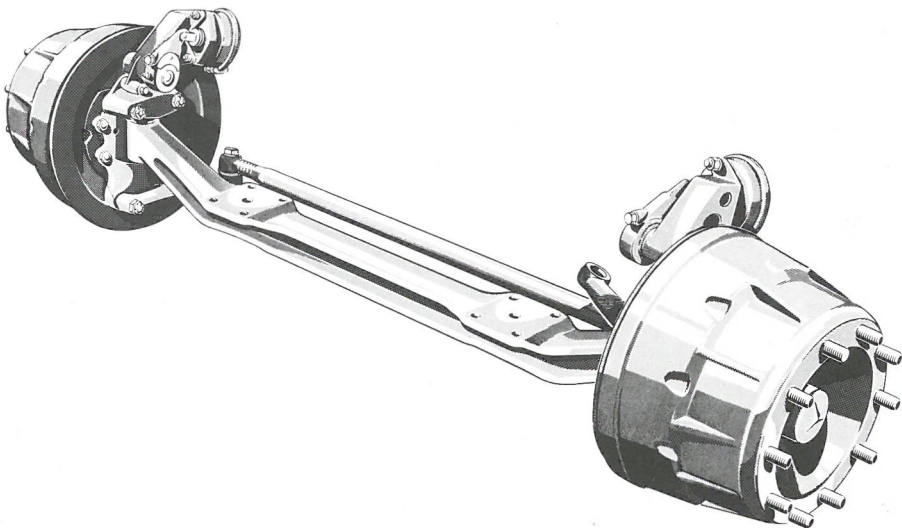
Suspension

The suspension elements of the chassis have been carefully balanced. Mercedes-Benz omnibus chassis are outstanding in driving comfort, handling and safety. Numerous details of design show how carefully our engineers have developed the new vehicles for still greater safety, simplified maintenance and extended service life. Long semi-elliptic expanding springs with rubber helper springs up front, assisted by two telescopic shock absorbers. Additional stabilizer on front and rear axles.

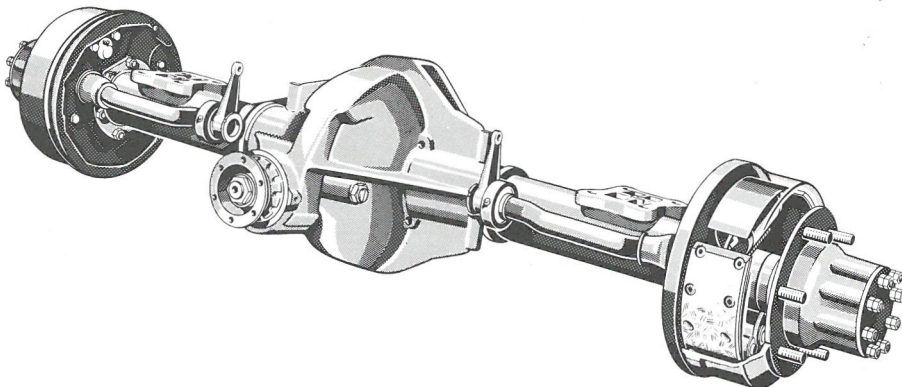
Very strong spring shackles, wear-resistant spring bolts. Replaceable shims. Seals to prevent fouling.

Length of spring		Front axle	Rear axle
OF 1113	mm	1,900	1,600
OF 1313 to 1617	mm	1,900	1,900

Front axle - knuckle - yoke type



Rear axle - hypoid - spiral bevel type



Brakes

Three independent brake systems provide maximum safety:

a) Service brake

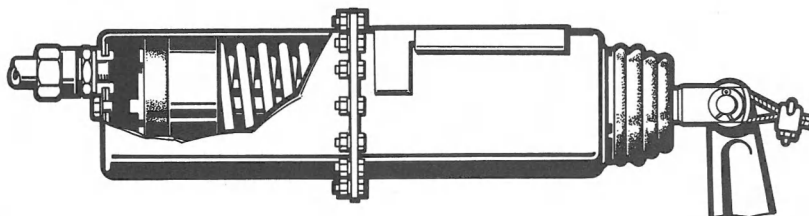
Chassis OF 1113 to OF 1417 have a dual-circuit hydraulic brake with compressed air boost. The OF 1617 chassis has a dual-circuit compressed air brake as standard equipment.

b) Models OF 1113-1417 are equipped with a lever-type handbrake with spring loaded booster. Model OF 1617 has a spring-loaded hand-brake so that the driver has only to operate a valve next to the seat that bleeds the spring-loaded brake cylinder on the rear axle, relaxing the springs that actuate the wheel brakes.

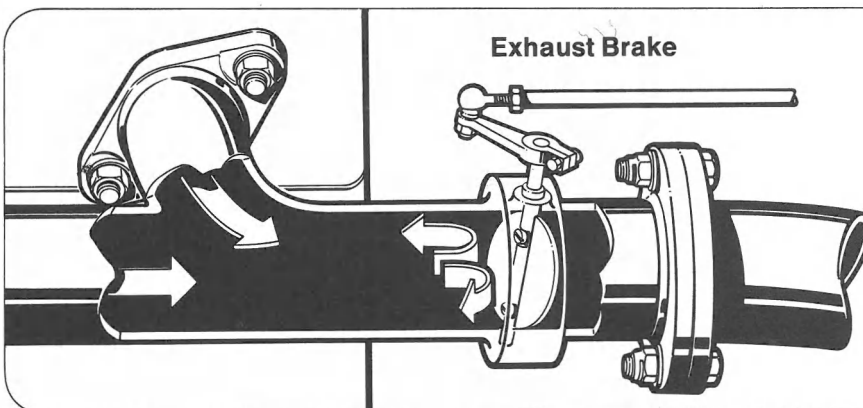
c) Exhaust brake

All OF models have as standard equipment a non-wearing exhaust brake which, when appropriately used by the driver, contributes appreciably to extending the life of the brake linings. Mechanical, foot-operated by means of a button.

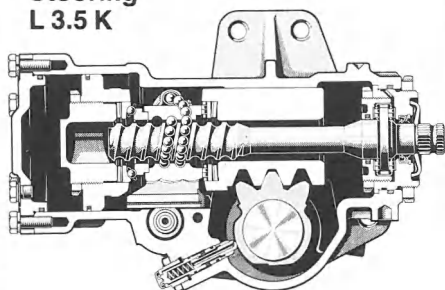
Braking cylinder of spring loaded system



Exhaust Brake



Steering L 3.5 K



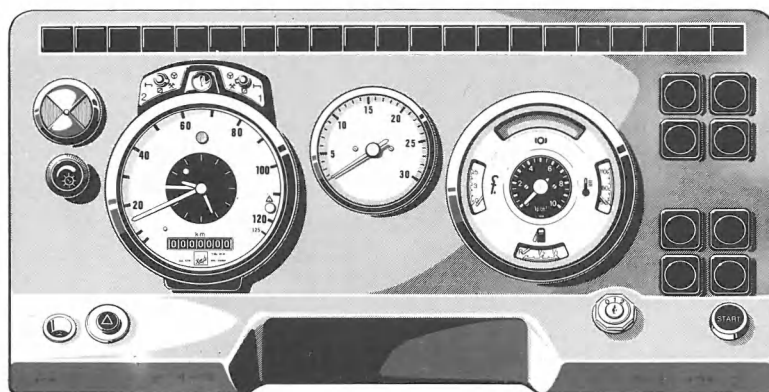
Steering

OF 1113: Mercedes-Benz recirculating ball type L 3.5 K

OF 1313
to

1617: Mercedes-Benz power steering LS 5

Instrument cluster

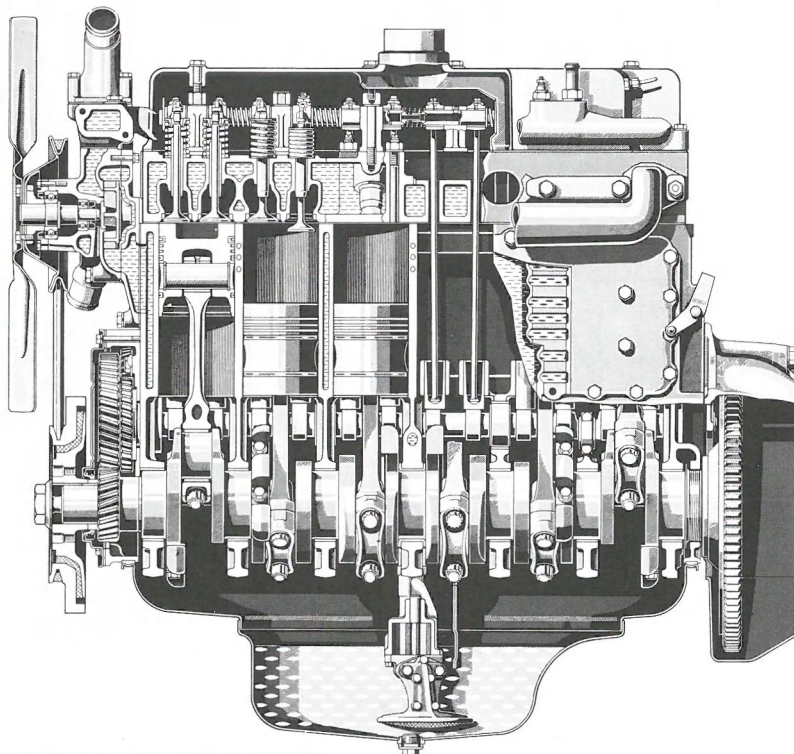
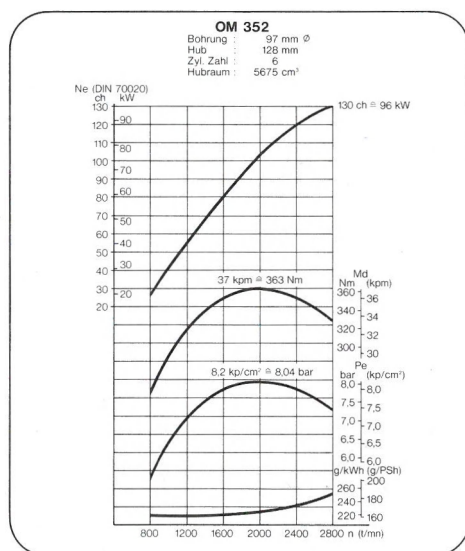


Speedometer/Tachograph

In addition to speedometers with both metric and English scales, there are 8 different tachograph versions available to suit different requirements.

Mercedes-Benz direct injection diesel engine

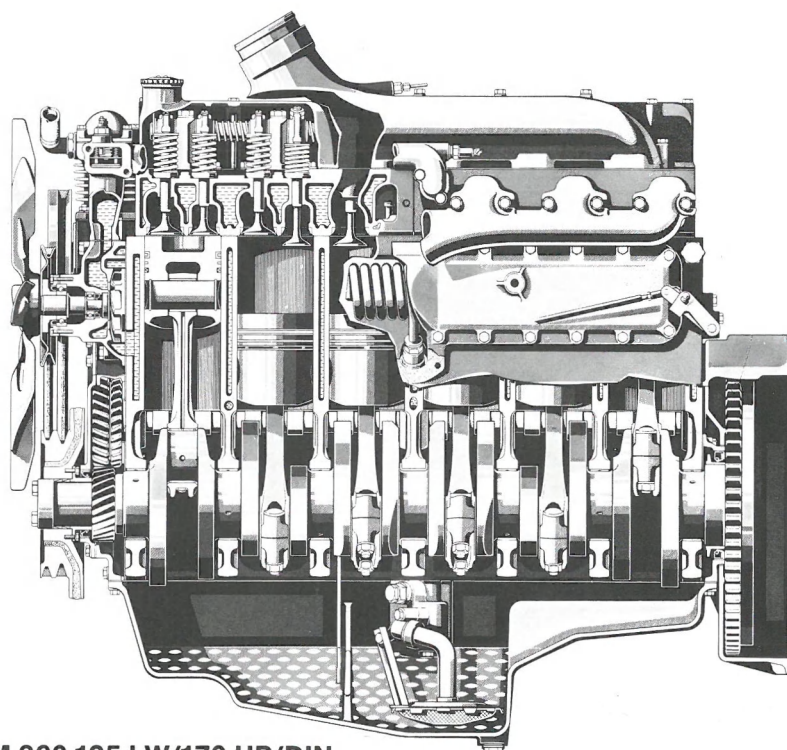
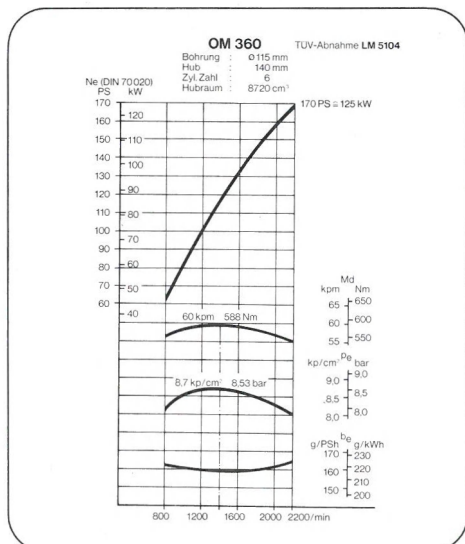
The 6-cylinder diesel engine works on the Mercedes-Benz Direct Injection System. This method results in low fuel consumption, an essential factor for economical operation. Other advantages of the Mercedes-Benz Direct Injection System: Optimum fuel utilization. Good starting properties. Always ready for operation. Optimal thermal conditions. Long service life.



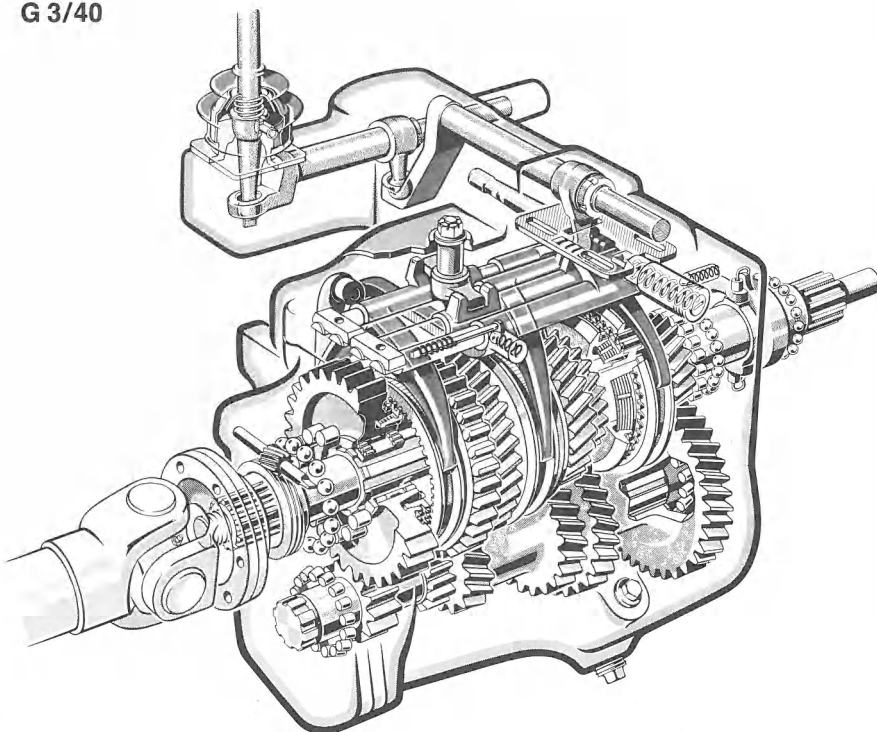
OM 352 96 kW/130 HP/DIN

Economical and powerful

High performance and economical consumption are shown by the graphs. Maximum torque is reached at a relatively low engine speed. That means good tractive power for driving off and on gradients.

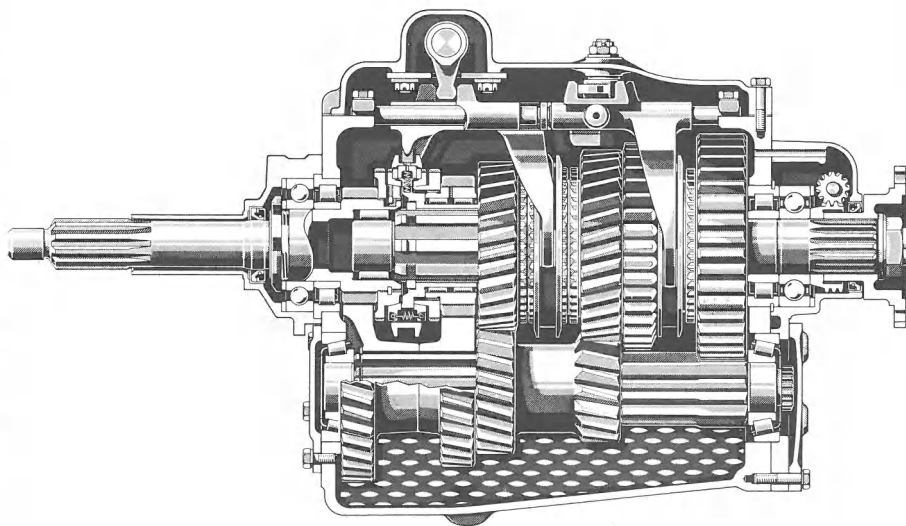


OM 360 125 kW/170 HP/DIN

G 3/40**OM 352**

Output	96 kW (130 HP/DIN) 2,800 rpm
Max. Torque	363 Nm (37 mkp) 2,000 rpm
No. of cylinders	6
Bore/Stroke	97/128 mm (3.81/5.03 in.)
Displacement	5,675 ccm (346 cu. in.)
Compression	17 : 1
Oil filter	Full-flow and by-pass
Cooling system	Water-cooled with thermostat
Air filter	Oil bath air filter

The combination OM 352 - G 3/40-5/7,5 (standard gearbox) is installed in the models OF 1113, OF 1313 and OF 1413. Different rear axle ratios ensure in addition to the well selected gear ratios always optimum drive train adaption to the individual operating requirements.

G 3/60**OM 360**

Output	125 kW (170 HP/DIN) 2,500 rpm
Max. Torque	588 Nm (60 mkp) 1,500 rpm
No. of cylinders	6
Bore/Stroke	115/140 mm (4.52/5.51 in.)
Displacement	8,720 ccm (532 cu. in.)
Compression	16.8 : 1
Oil filter	Full-flow and by-pass
Cooling system	Water-cooled with thermostat
Air filter	Oil bath air filter

OM 360 of OF-Chassis 1317, 1417 and 1617 comes with Gearbox G 3/60 - 5/6.1. Here, too, it is possible to optimize the drive train by means of various rear axle ratios to individual operating conditions.

Special equipment

The following is a survey of some commonly requested special equipment available at extra charge. The list is however by no means complete.

Further details on request from:
DEPT. EXTB/N

Engine	OF	1113	1313	1413	1317	1417	1617
Alternator 660 W/55 A/12 V	(023)	x	x	x	—	—	—
Alternator 1,440 W, 60 A, 24 V	(028)	x	x	x	—	—	—
Exhaust brake coupled with service brake, disconnectable	(041)	x	x	—	x	x	x
Ditto, not disconnectable	(042)	x	x	x	x	s	x
Dual fuel filter	(070)	x	x	x	x	x	x
Cold starting aid	(085)	x	x	x	x	x	x
Radiator enlarged (f. Tropics)	(050)	x	x	x	x	—	—
Thermostat for tropics	(053)	x	x	x	x	x	x

Frame

Reinforced front springs	(231/238)	x	x	x	x	x	x
Power steering	(250)	x	s	s	s	s	s
Fuel tank 135 litres	(261)	x	x	x	s	s	s
Fuel tank 200 litres	(262)	x	x	x	x	x	x
Axles	different ratios and axle loads available for varying operating conditions.						

Driver's position

Self-cancelling direction indicators	(467)	x	x	x	x	x	x
--------------------------------------	-------	---	---	---	---	---	---

Wheels

Rims 7.0 - 20 for tyres 9.00 R - 20	(616)	x	s	—	s	—	—
Rims 7.5 - 20 for tyres 10.00 R - 20	(617/618)	—	x	s	x	s	s
Rims 8.0 - 20 for tyres 11.00 R - 20	(620)	—	—	x	—	x	x
Rims 7.5 x 22.5 for tyres 10.00 R - 22.5	(660)	—	x	—	—	—	—
Trilex 7.0 - 20 for tyres 9.00 - 20	(634)	—	—	—	x	—	—
Trilex 8.0 - 20 for tyres 11.00 - 20	(640)	—	—	—	—	—	x

Brakes

Two-circuit air over, two-circuit hydraulic	(710)	x		x	x	x	—
Load-dependent braking system	(722)	—	x	x	x	x	—
Frost protection	(781)	x	x	x	x	x	—
Air reservoir 40 + 60 lit.	(760)	x	x	x	x	x	—

Electrical system

El. system 24 V/starter motor 24 V	(804)	x	x	x	x	x	x
Tachograph 1 day	(812/813/817)	x	x	x	x	x	x
Tachograph 7 days	(814/815)	x	x	x	x	x	x
Tropical battery with acid	(830)	x	x	x	x	x	x
Battery main switch	(845)	x	x	x	x	x	x
Warning buzzer for low oil pressure	(848)	x	x	x	x	x	x
Headlamp flasher	(861)	x	x	x	x	x	x
Super-tone horn	(863)	x	x	x	x	x	x
Speedometer metric/English calibration	(810/811)	x	x	x	x	x	x

x = available on request at extra charge

s = standard

— = not available

OF-Chassis are in use in many countries

No matter how far away from us our customer is located, he will always find Daimler-Benz maintenance and service facilities in his area.

5000 service outlets effectively situated over all continents always ensure:

- close by local servicesupport
- well stocked spare parts depots
- qualified and up-to-date trained service personnel

For the purpose of most economical operation of Mercedes-Benz vehicles.



Mercedes-Benz

