



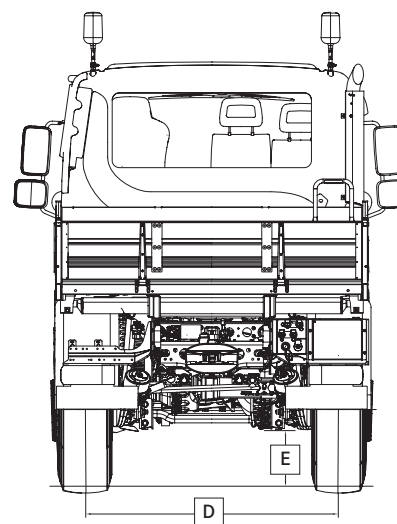
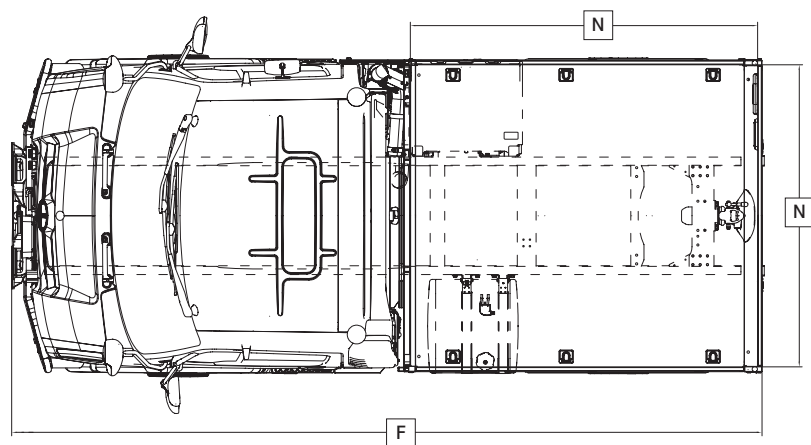
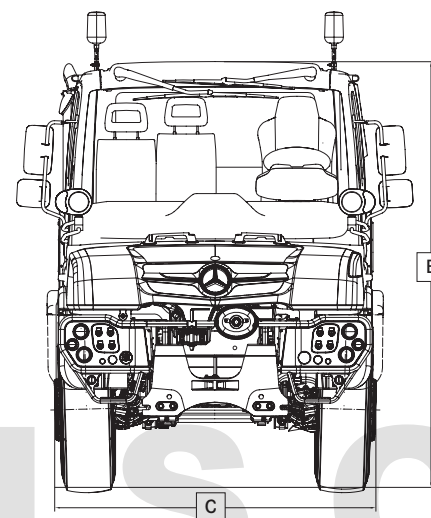
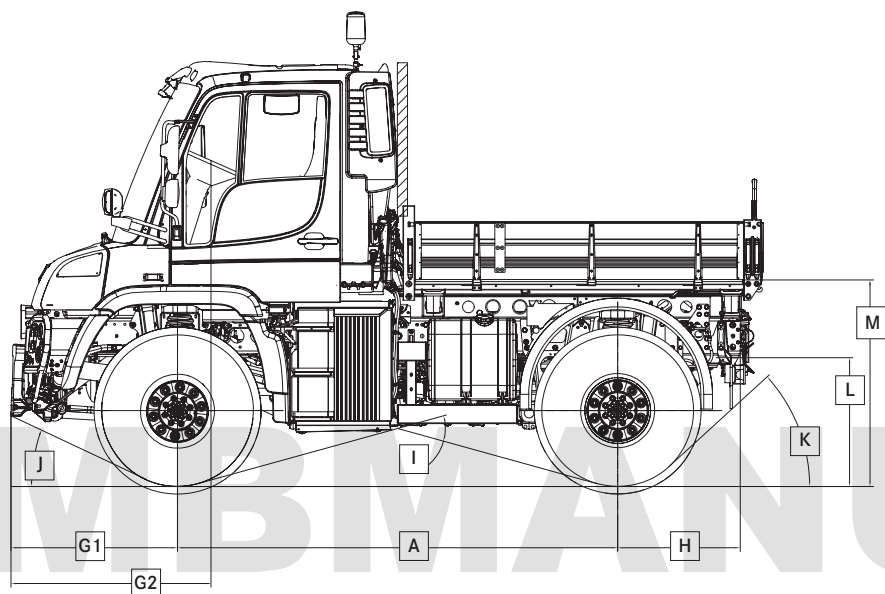
The Unimog.

Technical information – U 216 to U 530.

Mercedes-Benz
Trucks you can trust



Technical drawings of the Unimog implement carrier



Model variant 405.105, see table for dimensions

Dimensions and weights.

Models	U 216/U 218	U 318	U 323**/U 423*		U 427/U 429*/U 430		U 527/U 529*/U 530	
			short	long	short	long	short	long
Model variant	405.090	405.104	405.105	405.125	405.110	405.125	405.202	405.222
A Wheelbase	2800	3000	3000	3600	3150	3600	3350	3900
B Vehicle height	2855	2845	2900	2900	2900	2900	2900	2900
C Vehicle width	2200	2200	2200	2200	2200	2200	2300	2300
D Track width	1794	1794	1734	1734	1734	1734	1828	1828
E Ground clearance	335	325	383	383	383	383	379	379
F Vehicle length	4980	5155	5150	5755	5300	5755	5440	6215
G1 Front end dimension (centre of axle)	1145	1145	1142	1142	1142	1142	1142	1142
G2 Front end dimension (centre of steering wheel)	1363	1363	1363	1363	1363	1363	1363	1363
H Rear overhang	860	840	840	840	840	840	840	1000
I Ramp breakover angle	27°	26°	30°	26°	30°	26°	28°	24°
J Approach angle	25°	27°	33°	33°	33°	33°	35°	35°
K Departure angle	37°	37°	42°	42°	42°	42°	41°	35°
L Height at centre of TC	825	815	873	873	873	873	869	869
M Height at loading edge of platform	1357	1347	1407	1407	1407	1407	1435	1435
N Inner dimension, tipper flatbed (length × width × height)	2200 × 2075 × 400	2385 × 2075 × 400	2385 × 2075 × 400	2900 × 2075 × 400	2385 × 2075 × 400	2900 × 2075 × 400	2650 × 2200 × 400	3430 × 2200 × 400
Turning circle	12.6 m	13.7 m	13.7 m	16.5 m	14.3 m	16.5 m	15.1 m	16.9 m
Max. perm. gross weight (with relevant special equipment)	10.0 t	11.0 t	13.8 t	14.0 t	14.0 t	14.0 t	16.5 t	16.5 t
Max. weight on FA	5.2 t	5.5 t	6.9 t	7.0 t	7.0 t	7.0 t	7.5 t	7.5 t
Max. weight on RA	5.5 t	6.0 t	7.8 t	8.0 t	8.0 t	8.0 t	9.5 t	9.5 t

Vehicle dimensions in mm, with 365/80 R 20 (U 216 – U 318) or 365/85 R 20 (U 423 – U 530) tyres, partially laden; TC = trailer coupling, FA = front axle, RA = rear axle

*Available Unimog models with exhaust system compliant with Euro V, Euromot IV (Tier 4f)

**U 323 currently only available for D/CH/A

Engines

Standard:

- Mercedes-Benz engines with BlueTec diesel technology
- Diesel direct injection with turbocharger/intercooler
- Dual regulation (driving/implement operation modes)
- Electronic manual throttle control
- Hydrostatic fan drive
- Air compressor for 310 l/min
- Air dryer
- Air filter, prefilter
- Cold engine start down as low as -15 °C
- Long maintenance intervals (1400 operating hours)

Exhaust gas aftertreatment:

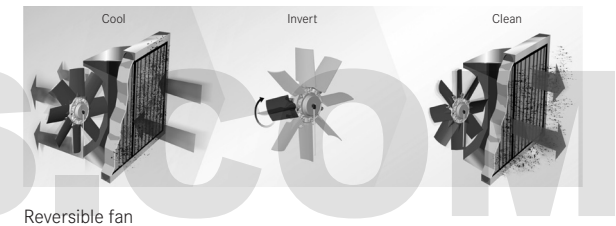
- Diesel particulate filter (Euro VI only)
- SCR catalytic converter

Powerful premium engine brake:

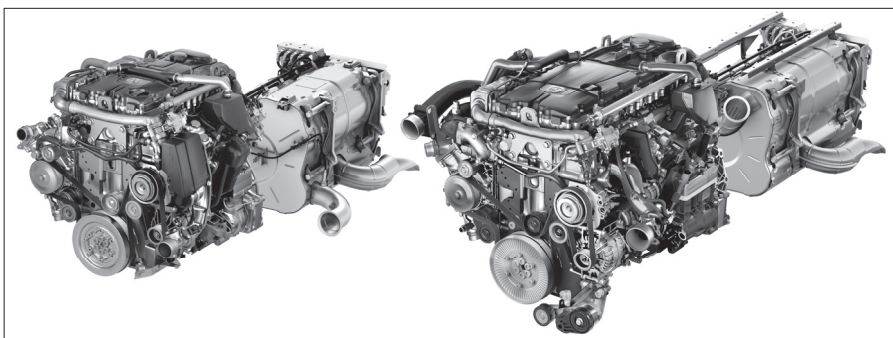
- 2-stage decompression brake
- Max. braking power:
178 kW with OM 934
302 kW with OM 936
- Operated with steering-column lever

Special equipment:

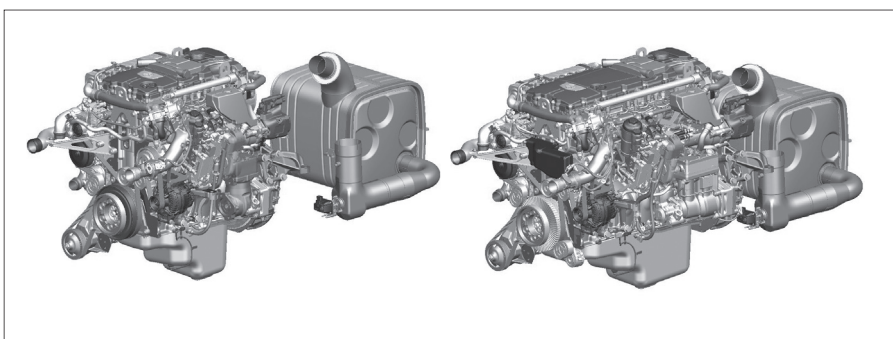
- Engine pre-heater
- Fuel preheating
- Reversible fan
- Cold climate package (down to -26 °C)



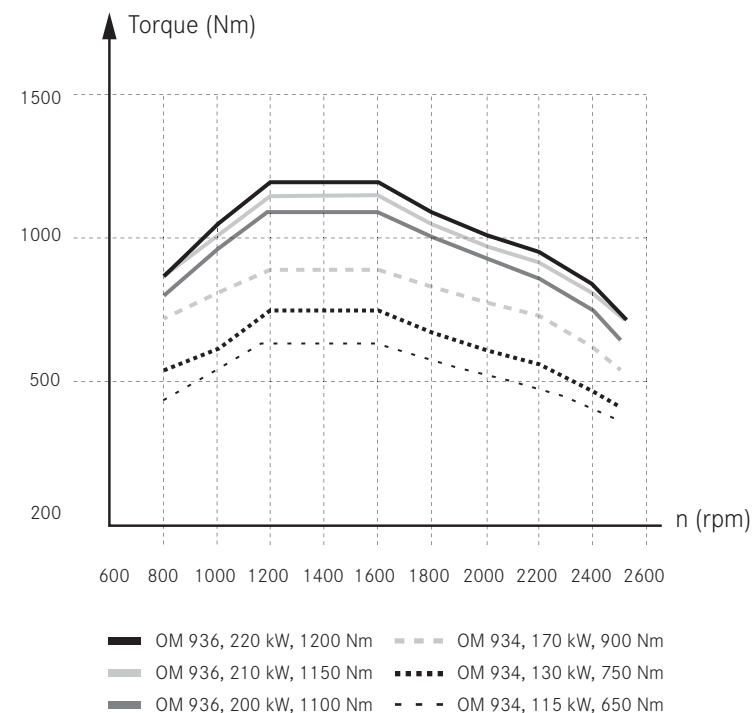
Model	U 216	U 218	U 318	U 323/U 423	U 427	U 429/U 430	U 527	U 529/U 530
Engine	OM 934	OM 934	OM 934	OM 934	OM 936	OM 936	OM 936	OM 936
Max. output acc. to DIN (kW)	115	130	130	170	200	210 / 220	200	210/220
Max. output (hp)	156	177	177	231	272	285 / 299	272	285/299
Cylinders	4	4	4	4	6	6	6	6
Max. torque (Nm)	650	750	750	900	1100	1150/1200	1100	1150/1200
Rated engine speed (rpm)	2200	2200	2200	2200	2200	2200	2200	2200
Displacement (cc)	5132	5132	5132	5132	7698	7698	7698	7698
Fuel tank/larger (l)	145	145	145/200	200	200/250	200/250	200/250	200/250
AdBlue tank (l)	18	18	25	25	25	25	25	25



Mercedes-Benz engines: 4-cylinder OM 934 (left) and 6-cylinder OM 936 (right) with Euro VI-compliant exhaust system



Mercedes-Benz engines: 4-cylinder OM 934 (left) and OM 936 (right) with Euro V/Euromot IV-compliant exhaust system



Engine data	OM 934 (4-cylinder engine)				OM 936 (6-cylinder engine)		
Model variant	934.971	934.971	934.972	934.976/934.978	936.971	936.972	936.975/936.977
Output acc. to DIN (kW/hp)	115/156	130/177	170/231	170/231	200/272	220/299	210/285
No. of cylinders/arrangement	4, vertical, in-line	4, vertical, in-line	4, vertical, in-line	4, vertical, in-line	6, vertical, in-line	6, vertical, in-line	6, vertical, in-line
Operating principle	4-stroke diesel direct injection	4-stroke diesel direct injection	4-stroke diesel direct injection	4-stroke diesel direct injection	4-stroke diesel direct injection	4-stroke diesel direct injection	4-stroke diesel direct injection
Total displacement (cc)	5132	5132	5132	5132	7698	7698	7698
Injection pressure (bar)	up to 2400	up to 2400	up to 2400	up to 2400	up to 2400	up to 2400	up to 2400
Compression ratio	17.6 : 1	17.6 : 1	17.6 : 1	17.6 : 1	17.6 : 1	17.6 : 1	17.6 : 1
Max. torque (Nm)	650	750	900	900	1100	1200	1150
Torque curve (%)	30	33	22	22	27	26	26
Fan drive	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
Emissions standard	Euro VI	Euro VI	Euro VI	Euro V/Euromot IV	Euro VI	Euro VI	Euro V/Euromot IV

Transmission/brakes/steering.

Standard equipment:

Transmission:

- Fully synchronised Mercedes-Benz reversing transmission with 8 forward and 6 reverse gears
- Single-plate dry clutch, self-adjusting
- Permanent all-wheel drive with lockable longitudinal differential
- Cruise control/limiter
- Top speed – limiter set to 90 km/h
- Electropneumatic power shift (EPS)
- EQR (Electronic Quick Reverse)

Steering:

- Hydraulic power steering

Brakes:

- Pneumatic high-pressure brake system (18 bar)
- Pneumatic disc brakes on all four wheels
- 4-channel off-road ABS, selectable for off-road operations
- Automatic load-dependent brake pressure control (ALB)
- Compressed air connection for auxiliary consumers
- Spring-loaded parking brake
- Brake pad wear indicator

Special equipment:

- Hydrostatic traction drive 0–50 km/h
- Automated transmission (EAS)¹
- Torque converter clutch²
- All-wheel steering³
- Right-hand drive
- Working and crawler gear range
- All-wheel parking brake

¹ Available for U 318 to U 530

² Available for U 318 and U 423

³ Available for U 423 to U 530

Driving speeds		The working gears are calculated with basic gears/5.76																The crawler gears are calculated with basic gears/55.87							
Model	Direction	Basic range								Working gears (special equipment)								Crawler gears (special equipment)							
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
U 216	Forward	5.9	8.6	13	17.7	26	37.5	56.8	77.3	1.03	1.49	2.26	3.07	4.51	6.51	9.87	13.4	0.11	0.15	0.23	0.32	0.47	0.67	1.02	1.38
U 218	Reverse	3.9	5.6	8.5	11.6	17.1	24.6			0.68	0.98	1.48	2.02	2.69	4.28	6.49	8.82	0.07	0.1	0.15	0.21	0.31	0.44	0.67	0.91
U 318	Forward	7.1	10.2	15.5	21.1	31.0	44.7	67.8	92.1*	1.23	1.77	2.69	3.66	5.38	7.76	11.7	16.0	0.13	0.18	0.28	0.38	0.55	0.8	1.21	1.65
	Reverse	4.7	6.7	10.2	13.8	20.4	29.4			0.81	1.17	1.77	2.4	3.54	5.1	7.73	10.5	0.08	0.12	0.18	0.25	0.36	0.53	0.80	1.08
U 323/U 423 U 427 U 429/U 430	Forward	7.2	10.5	15.9	21.6	31.7	45.7	69.4	94.3*	1.26	1.82	2.75	3.74	5.51	7.95	12.0	16.3	0.13	0.19	0.28	0.39	0.57	0.82	1.24	1.69
	Reverse	4.8	6.9	10.4	14.2	20.8	30.0	45.6**	61.9**	0.83	1.19	1.81	2.46	3.62	5.22	7.92	10.7	0.09	0.12	0.19	0.25	0.37	0.54	0.82	1.11
U 527 U 529/U 530	Forward	7.1	10.2	15.4	21.0	30.9	44.6	67.6	91.9*	1.23	1.77	2.68	3.65	5.37	7.74	11.7	15.9	0.13	0.18	0.28	0.38	0.55	0.8	1.21	1.64
	Reverse	4.6	6.7	10.1	13.8	20.3	29.3			0.81	1.16	1.76	2.4	3.53	5.09	7.71	10.4	0.08	0.12	0.18	0.25	0.36	0.52	0.79	1.08

* Vmax = 90 km/h

** Only in road-rail mode

Driving speeds may vary with different tyres

Frame/axles/wheels.

Standard equipment:

- Continuous ladder frame, dimensionally stable
- Front-mounted towing jaw with locking pin
- Integral carrier for front mounting plate
- Implement and body-mounting points integrated in the frame
- Coil springs with progressive characteristics
- Stabilisers at front and rear
- Telescopic shock absorbers
- Portal axles
- 3-point link-located axles
- Differential lock on the rear axle
- Underbody corrosion protection
- All locks engageable and disengageable electropneumatically via dog clutch while driving (100% locking effect)

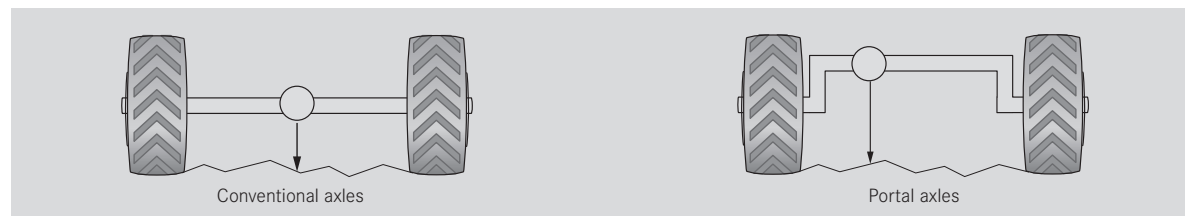
Special equipment:

- Differential lock on front axle
- Front mounting plate
- Three-sided tipper flatbed
- Central tire inflating system tirecontrol plus¹
- Central, rear and inter-axle frame attachment brackets

¹ Available for U 318 to U 530

Model	U 216	U 218	U 318	U 423	U 427	U 430	U 527	U 530
Final drive ratio	6.53	6.53	6.53	6.38	6.38	6.38	6.38	6.38
Standard tyres								
Smallest tyre size (tyres/rims)	295/60 R 22.5	295/60 R 22.5	295/60 R 22.5	315/80 R 22.5	315/80 R 22.5	315/80 R 22.5	365/85 R 20	365/85 R 20
Largest tyre size (tyres/rims)	425/75 R 20	425/75 R 20	425/75 R 20	445/70 R 24	445/70 R 24	445/70 R 24	495/70 R 24	495/70 R 24

Further tyres available (on request)



Portal axle with hub reduction gear: high ground clearance despite a low vehicle centre of gravity as axle tube and differential are situated above the centre of the wheel and the differential is not in the centre of the axle.

Cab, exterior.

Standard equipment:

- Panoramic cab, seat position behind front axle
- Short distance between implement and centre of axle
- Cab made of fibre composite, corrosion-free
- Cab strength in accordance with ECE-R-29/2
- Comfort mounting with vibration damping
- Tilting cab
- Low laminated glass windscreen
- Low-view windows in the doors
- Large rear wall window
- Exhaust system: tailpipe directed upwards
- Heated, electrically adjustable mirrors on both sides
- Heat insulating glass all round
- Power windows
- Raised air intake pipe
- Non-slip steps with handle
- Roof-mounted windscreen wiper system, 3 levels with intermittent wiping and two stopping positions

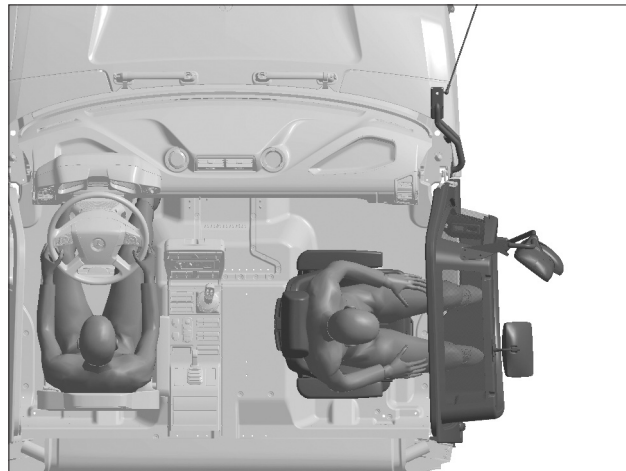
Special equipment:

- Cab with hydraulic tilting
- Heated windscreen
- Mowing door instead of right-hand door
- Front camera system
- Exterior sun visor

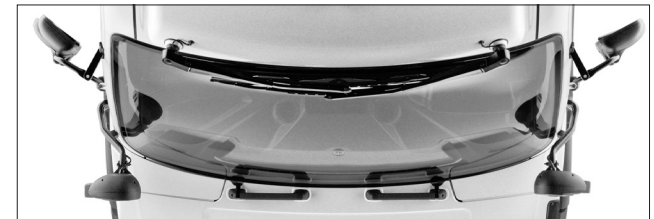
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Panoramic cab



Mowing door



Roof-mounted windscreen wiper system and front camera

Cab, interior.

Standard equipment:

- Multifunction steering wheel
- Steering column adjustable in height and tilt
- Seats with tapered backrests and integrated head restraints
- Powerful heating and ventilation system with pollen filter and residual heat utilisation
- Cab floor with through-cab access
- Stowage compartments and trays
- Roof console with 2 DIN slots for radio and tachograph
- 3 individual sun visors
- Centre console with central controls and 2 installation slots
- Instrument cluster with 10.4 cm screen diagonal
- On-board diagnosis for vehicle status
- Steering-column lever on right for driving mode
- Seat height, longitudinal position and angle adjustable, adjustable backrest with integrated 3-point seat belt
- Door trim with armrest and bottle holder
- Interior lights with reading lamps for both driver and co-driver
- 3 coat hooks
- Vehicle tool kit
- Cable ducts, sealed (front and rear)
- Steering-column switch on left for main-beam headlamps and windscreen wipers
- Air-conditioning system¹

Special equipment:

- Air-sprung seats for driver and co-driver
- Heated seats
- Instrument cluster featuring colour display with 12.4 cm screen diagonal
- VarioPilot® transferable steering
- Swivelling mowing seat
- Twin bench seat
- Auxiliary heater
- CD radio with Bluetooth®
- Additional steering-column switch on left for operation of transmission

¹ Special equipment for U 216/U 218



Interior view with VarioPilot® transferable steering



Steering column adjustable in height and tilt



Additional steering-column switch, left

Electrics/lighting.

Standard equipment:

- 24 V on-board electrical system
- Electronics compartment protected in cab, with socket for diagnostics
- 24 V/15 A permanent current supply socket
- CAN bus network
- Trailer socket, rear, 15-pin /24 V
- 140 Ah battery
- Electronic vehicle management system
- EMC-tested
- 28 V/100 A alternator
- Daylight headlamps protected in bumper
- Headlamp range control
- Rear fog lamp
- Reversing lamps
- Clearance lamps

Special equipment:

- 12 V/15 A permanent current supply socket with C3 signal
- 24 V/25 A vehicle socket with C3 signal
- 24 V/40 A equipment socket, 32-pin, C3/C4
- Stronger alternator with 28 V/150 A
- Work lamp directed to the rear
- Additional headlamps, mounted higher, for front attachments
- Rotating beacons
- Xenon headlamps, LED daytime running lamps
- Headlamp cleaning system
- Roof-mounted bar with LED main-beam headlamps

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Equipment socket, 32-pin

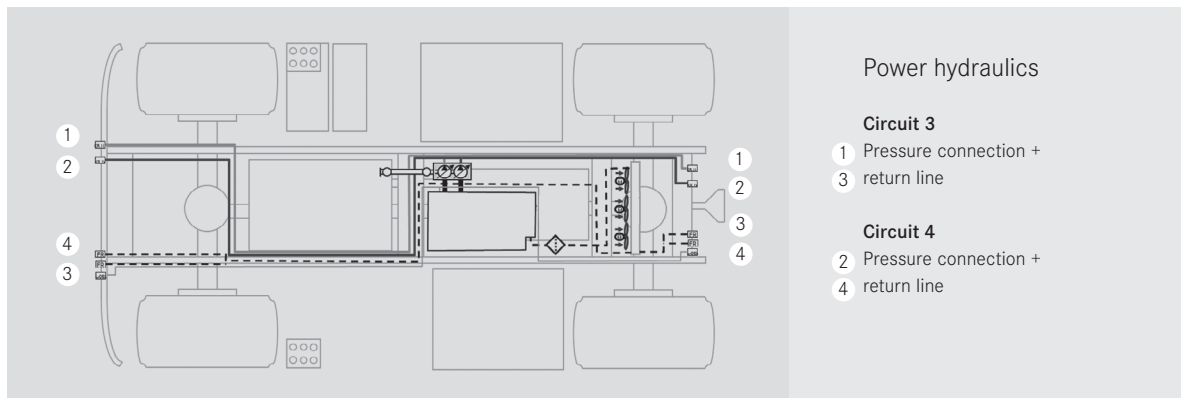
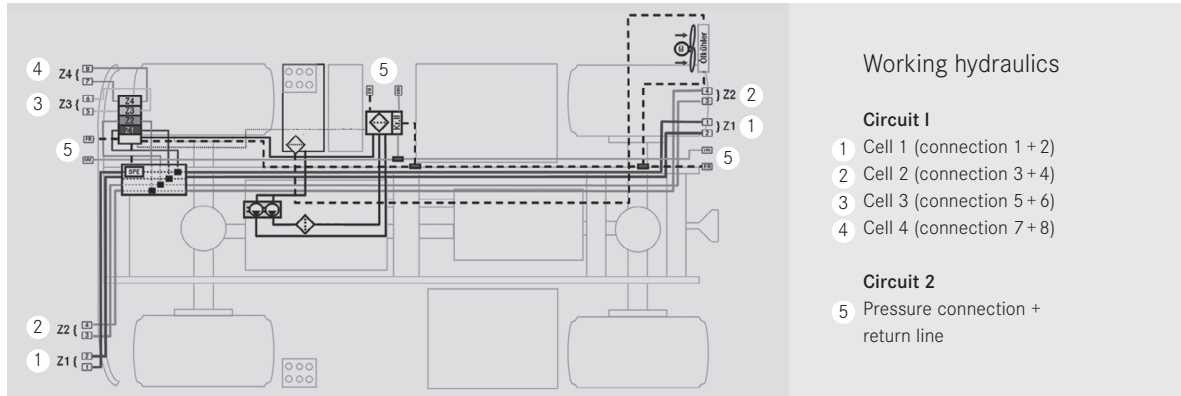


Daylight headlamps



Rotating beacons and additional headlamps

Hydraulics and power take-offs as special equipment.



- Working/municipal hydraulics in accordance with EN 15431 for adjustment movements and permanent consumers (delivery in hydraulic packages)
- Control of circuit I via 2 to 4 dual-action valves with float position
- Snowplough relief
- Oil reservoir: 45 l
- Draw-off quantity: 30 l

Hydraulic packages

Hydraulics for tipper mechanism or additional consumers	20 l/min, 185 bar
Single-circuit hydraulic system	With 55 l/min flow rate and 200 bar working pressure
Dual-circuit hydraulic system with proportional actuation	Circuit I/II with 32/55 l/min flow rate and 200/240 bar working pressure
Load sensing hydraulics	110 l/min, 240 bar
Power hydraulics, circuit III/IV ¹	125 l/min, 280 bar each

Auxiliary drives

Front power take-off	160 kW
Engine power take-off	i=0.933
Transmission power take-off (PTO)	Fast, with 4-hole connection: i=1.0 Very fast, with flange: i=0.61

¹ Available for U 318 to U 530

In addition to this wide selection of standard and optional equipment, we can provide you with a comprehensive range of further equipment and fittings as well as accessories suited to the individual operational scope of your Unimog. Your competent Unimog partner will be happy to advise you.

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