

Heavy Tactical Trucks (4x4) (6x6) (8x8)

Actros

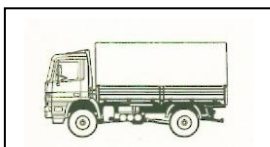
large fleets in commercial and military service



Mercedes-Benz Actros 1835 (4x4)



Mercedes-Benz



Heavy-duty Tactical Trucks Actros (4x4)

1996

Heavy-duty Tactical Trucks Model Actros (4x4)

Vehicle Type	Payload	Wheelbase (mm)	Type	Engine Output EURO IV	Mx. Torque
1831 A (4x4)	6 to	3,600	V6	230 kW / 313 hp	1,530 Nm
1832 A (4x4)	6 to	3,600 / 3,900	V6	235 kW / 320 hp	1,650 Nm
1835 A (4x4)	6 to	3,900 / 4,500	V6	260 kW / 354 hp	1,730 Nm
1836 A (4x4)	6 to	3,600 / 3,900	V6	265 kW / 360 hp	1,850 Nm
1840 A (4x4)	6 to	3,900	V6	290 kW / 394 hp	1,850 Nm
1841 A (4x4)	6 to	3,600 / 3,900	V6	300 kW / 408 hp	2,000 Nm
1843 A (4x4)	6 to	3,900	V6	315 kW / 428 hp	2,000 Nm
1844 A (4x4)	6 to	3,600 / 3,900	V6	320 kW / 435 hp	2,100 Nm
1846 A (4x4)	6 to	3,600 / 3,900	V6	335 kW / 456 hp	2,200 Nm
1848 A (4x4)	6 to	3,900	V8	350 kW / 476 hp	2,300 Nm
1850 A (4x4)	6 to	3,900	V8	370 kW / 503 hp	2,400 Nm
1851 A (4x4)	6 to	3,900	V8	375 kW / 510 hp	2,400 Nm
2031 A (4x4)	7 to	3,900 / 4,500	V6	230 kW / 313 hp	1,530 Nm
2032 A (4x4)	7 to	3,900 / 4,500	V6	235 kW / 320 hp	1,650 Nm
2035 A (4x4)	7 to	3,900 / 4,500	V6	260 kW / 354 hp	1,730 Nm
2036 A (4x4)	7 to	3,900 / 4,500	V6	265 kW / 360 hp	1,850 Nm
2040 A (4x4)	7 to	3,900	V6	290 kW / 394 hp	1,850 Nm
2041 A (4x4)	7 to	3,900	V6	300 kW / 408 hp	2,000 Nm
2044 A (4x4)	7 to	3,900	V6	320 kW / 435 hp	2,100 Nm
2048 A (4x4)	7 to	3,900	V6	350 kW / 476 hp	2,300 Nm

Background

The Actros-based range of militarised commercial trucks represents the higher end of the most-recent range of trucks having replaced all previous military models on the production line for heavy tactical vehicles. Actros trucks are made for heavy-duty and are already established in the commercial as well as the military markets. Mercedes-Benz Actros trucks offer GVW from 18 to 41 tonnes and are available as (4x4), (6x6), (8x8) truck models as well as (6x6) and (8x8) tractor trucks. The available power range is unique incorporating a total of nine levels from the V5 engine OM 501 LA with 12 litres displacement developing 230 kW (313 hp) and 1,530 Nm, up to the V8 engine OM 502 LA with 16 litres displacement developing 420 kW (571 hp) and 2,700 Nm. Only the most powerful engine of the series, the 443 kW (603 hp) variant has been especially developed for the heaviest part of the Actros range of trucks. All vehicles are likely to reflect the continuous minor design changes and specification upgrades of the commercial range as well. The new heavy-duty Actros range of trucks was shown for the first time at the International Commercial Vehicle Motor Show in Hanover between September 21 and 29 in 1996. On 2nd January 1997 the new Actros truck was named "Truck of the Year 1997".

Technical Description

The layout of the Mercedes-Benz Actros family of heavy tactical trucks is conventional with a spacious forward-control cab at the front and a platform either with tarpaulin for troop transport or shelters for special applications at the rear. Militarised to suit specific operational requirements the Mercedes-Benz Actros is based on the vast range of commercial trucks in production with Mercedes-Benz.

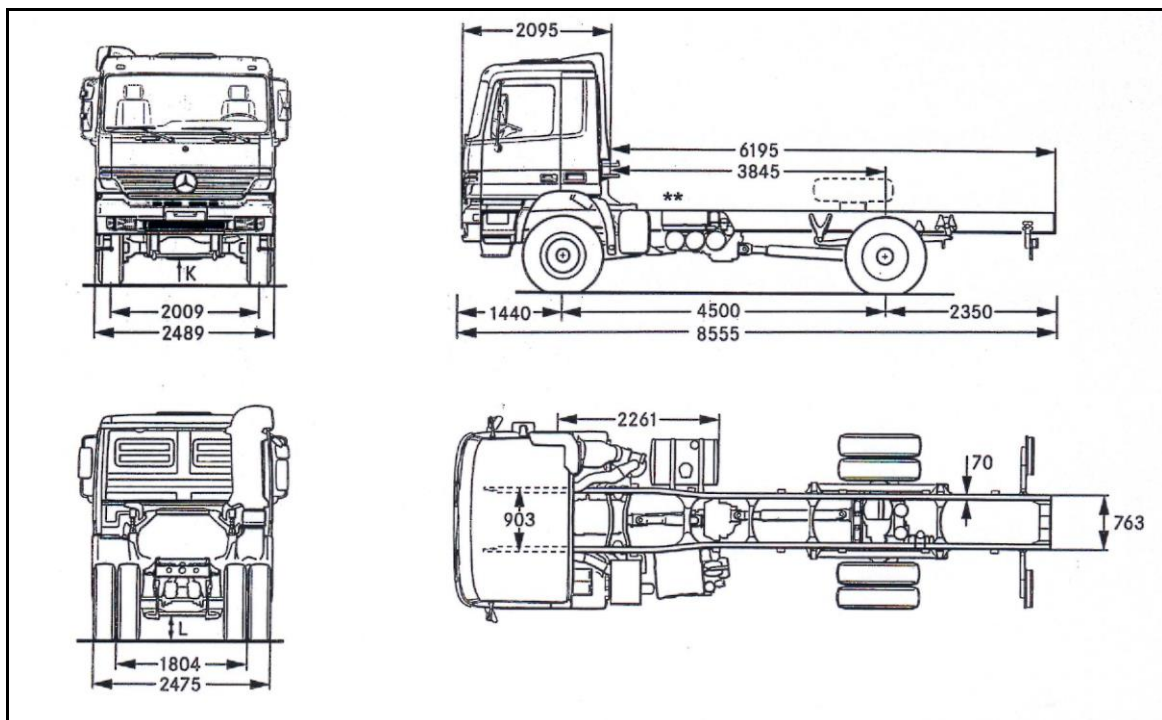
The cab is available in large, medium or small size and can be easily tilted forward for maintenance and repair by means of a hydraulic pump. Basically delivered with two doors, the larger sleeper-cabs can be supplied with or without bunks. A high-roof version is also available.

The Mercedes-Benz Actros family of trucks is basically powered by the Mercedes-Benz 500 series of Euro II emissions compliant OM 501 LA V6 or OM 502 LA V8 engines. These powerful V6 and V8 engines offer different output versions from 235 kW (320 hp) to up to 375 kW (510 hp) with a maximum torque of 2,400 Nm. Engines with outputs from 320 hp to 476 hp are part of the two-axle range of the Actros series of trucks.

Additionally engines with a higher output of 603 hp can be delivered on request together with emission reduced variants of up to Euro V.

The Mercedes-Benz Actros family of trucks utilises only commercially available and proven driveline components with hydraulic gearshift for manual gear selection.

With the Telligent[®] gearshift system gears are selected electronically after operation of the clutch and the required gear is shifted pneumatically. The Telligent[®] automatic gearshift acts as an electronic system with automates and controls clutching and shifting operations. The driver has to engage only the selection switch and the hydraulically operated shift system selects the corresponding gear in relation to the actual speed. Optional is the Telligent[®] fully automatic gearshift system that has no clutch anymore.



Heavy-duty hub reduction axles provide high ground clearance and durability. All aggregates including the two-speed transfer box integrated with the gearbox are well protected against dust, mud and water. The drive shafts are fitted within sealed-off torque tubes. Thus, the fording capability has been increased to 120 cm, though it remains optional.

A Telligent[®] on-board-service-diagnostic system or Built-In Test Equipment (BITE) reduces day-to-day maintenance considerably. All maintenance checkpoints are easily accessible behind the front flap.

The Mercedes-Benz Actros family of trucks includes two-, three-, and four-axle configurations with single or dual wheels on rear axles and with payload ratings from 6,000 kg to 18,000 kg. All axles are equipped with leaf-springs while the driven axles feature planetary hub-reduction gearing and driver-controlled differential locks. For the negotiation of marginal terrain the all-wheel drive is permanent while differential locks and interaxle differential locks can be operated while on the move. Additionally an Anti-lock Braking System (ABS) as well as a Central Tyre Inflation System (CTIS) are offered as an option.

Wheelbases from 3,600 mm to up to 4,500 mm for two-axle trucks represent the standard series. Two-axle Actros trucks are also available in (4x2) configuration with either single or dual tyre rear axles. Given payloads may vary according to manufacturing procedures, realised options and body types.

All Mercedes-Benz Actros trucks can be fitted with 14.00 R 20 tyres in order to achieve optimal off-road performance.

Specific features for extreme climate conditions are available such as engine-air-intake preheater, high-performance radiator or an air-conditioning system.

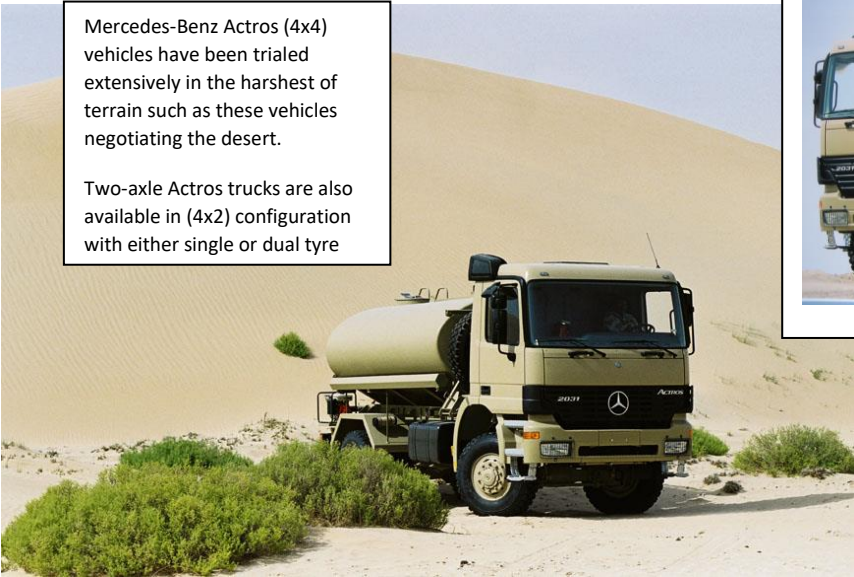
For military applications the Mercedes-Benz Actros family of vehicles can be fitted with black-out lighting circuit, roof hatch of swivel type, centre seat or standing plate, military-type coupling for towing trailers or artillery pieces, special battery main switch, rifle racks, Auxiliary Power Unit (APU) connections, as well as additional towing and recovery equipment.

The standard C-section chassis can be fitted with large array of bodies including drop-side bodies, shelters, tanker, dump, and recovery variants.



Mercedes-Benz Actros (4x4) vehicles have been trialed extensively in the harshest of terrain such as these vehicles negotiating the desert.

Two-axle Actros trucks are also available in (4x2) configuration with either single or dual tyre



Mercedes-Benz Actros (4x4) demonstrator vehicles with a PTG CTIS during trials for the UAE Armed Forces (Photo: PTG)

Heavy Tactical Trucks Actros (4x4)

Model	Ausführung	Heavy Tactical Truck
Type	Typ	MB 1832 A (4x4) Actros
Manufacturer	Hersteller	Mercedes-Benz / DaimlerChrysler AG, Department VL/FR – HPC 161 D-76742 Woerth, Germany
Introduction into service	Einführung	1996
Cab seating	Sitzplätze Fahrerhaus	1 + 1 or 2
Seats (rear)	Sitzplätze (hinten)	n/a
Configuration	Antriebsformel	4 x 4
Weight	Gewicht	
Weight empty chassis	Militärisches Leergewicht	n/a
Weight loaded, road (GVW)	zulässiges Gesamtgewicht	n/a
Weight on front axle (loaded)		n/a
Weight on rear axle (loaded)		n/a
Payload	Nutzlast	6,000 kg
Max. load (road)	außergewöhnliche Belastung (Straße)	n/a
Max. load (cross-country)	außergewöhnliche Belastung (Gelände)	n/a
Towed load (road)	zulässige Anhängelast (Straße)	n/a
Towed load (cross-country)	zulässige Anhängelast (Gelände)	n/a
Load area	Ladefläche	n/a
Length (wheelbase 3,600 mm)	Länge (Radstand 3.600 mm)	n/a
Width	Breite	n/a
Height (cab)	Höhe Fahrerhaus	n/a
Height (chassis, front)	Höhe (Chassis vorne)	n/a
Height (chassis, rear)	Höhe (Chassis hinten)	n/a
Body (wheelbase 3.600 mm)	Koffer (Radstand 3.600 mm)	n/a
Height (load area)	Ladehöhe über Boden	n/a
Ground clearance	Bodenfreiheit	n/a
Track (front)	Spurweite (vorne)	n/a
Track (rear)	Spurweite (hinten)	n/a
Wheelbase	Radstand	n/a
Angle of approach	Böschungswinkel vorne	n/a
Angle of departure	Böschungswinkel hinten	n/a
Chassis frame	Rahmen	n/a
Max speed (road)	Höchstgeschwindigkeit	n/a
Min speed (road)	Mindestgeschwindigkeit	n/a
Range	Fahrbereich (Straße)	n/a
Fuel capacity	Kraftstoff-Vorrat	n/a
Fuel consumption	Kraftstoff-Verbrauch	n/a
Gradient	Steigfähigkeit	80 %
Side slope	Querneigung, Kippgrenze	n/a
Fording (standard)	Watfähigkeit (ohne Watsatz)	n/a
Fording (with kit)	Watfähigkeit (mit Watsatz)	120 cm
Engine	Motor	V6-cylinder in-line turbocharged and intercooled diesel engines
Designation	Bezeichnung	OM 501 LA
Bore x Stroke	Bohrung x Hub (mm)	n/a
Displacement	Hubraum (ccm)	n/a
Output	Leistung KW (PS)/min ⁻¹	235 (320) at 1,080 rpm
Torque, max.	Drehmoment (Nm / kpm)	1.650 Nm at 1,080 rpm
Cooling	Kühlung	water-cooled
Power transfer	Kraftübertragung	All-wheel drive
Transmission	Getriebe	n/a
Steering	Lenkung	n/a
Turning circle (short and long wheelbase)	Wendekreis	n/a
Axles	Achsen	n/a

Suspension (front)	Radaufhängung (vorne)	leaf-spring
Suspension (rear)	Radaufhängung (hinten)	leaf-spring
Tyres	Bereifung	14.00 R 20
Brake (main)	Betriebsbremse	Dual circuit
Brake (parking)	Feststellbremse / Handbremse	mechanical
Brake (engine)	Motorbremse	n/a
Electrical system	Fahrzeugelektrik	n/a
Alternator (reinforced)	Wandler	n/a
Starter motor	Starteinrichtung	n/a
Batteries	Batterien	n/a
Trailer socket type	Anhängeranschluß	n/a
Trailer couplings (optional)	Anhängerkupplung	n/a
Armour	Panzerung	optional

Sales and Service Entry

Mercedes-Benz Actros (4x4) trucks are in service with the armed forces of Denmark, Germany, NATO, Oman, and Switzerland. Actros vehicles are also manufactured in Marseille.



The German Air Force has procured 53 new runway sweepers type STKF 9500 with Bucher Schörling bodies based on the Mercedes-Benz Actros 2032 A (4x4). These bright-orange vehicles are leased through the BwFuhrpark-Service GmbH responsible for the vehicle management of the German Armed Forces in general.



Truck of the year 1997 – this Mercedes-Benz Actros 1835 will serve in the armed forces of Switzerland.

Note the today standard side protection devices fitted under the platform. A further one has to be mounted on the rear of the vehicle.

Heavy Tactical Trucks (6x6)

Actros

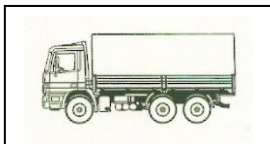
in military service



Mercedes-Benz Actros with elements of the Dornier Eurobridge.



Mercedes-Benz



Heavy-duty Tactical Trucks Model Actros (6x6)

1996

Heavy-duty Tactical Trucks Model Actros (6x6)

Vehicle Type	Payload	Wheelbase (mm)	Type	Engine Output EURO IV	Mx. Torque
2640 (6x4/6x6)	n/a	n/a	n/a	n/a	n/a
3331 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	230 kW / 313 hp	1,530 Nm
3332 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	235 kW / 320 hp	1,650 Nm
3336 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	265 kW / 360 hp	1,850 Nm
3340 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	290 kW / 394 hp	1,850 Nm
3341 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	300 kW / 408 hp	2,000 Nm
3343 A (6x6)	up to 12 to	3,600 / 3,900	V6	315 kW / 428 hp	2,000 Nm
3344 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	320 kW / 435 hp	2,100 Nm
3346 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V6	335 kW / 456 hp	2,200 Nm
3348 A (6x6)	up to 12 to	3,600 / 3,900 4,200 / 4,500	V8	350 kW / 476 hp	2,300 Nm
3350 A (6x6)	up to 12 to	3,600	V8	370 kW / 503 hp	2,400 Nm
3351 A (6x6)	up to 12 to	3,600 / 3,900	V6	375 kW / 510 hp	2,400 Nm

Technical Description

With one exception all Mercedes-Benz Actros (6x6) trucks are powered by the OM 501 LA V6 diesel engine developing outputs from 320 hp and 1,650 Nm torque, 408 hp and 2,000 Nm torque, to 435 hp and 2,100 Nm torque. Only the Model 3350 A (6x6) with a wheelbase of 3,600 mm is powered by the OM 502 LA V8 diesel engine developing 503 hp and 2,400 Nm torque. Though, other combinations may be possible.

Wheelbases from 3,600 mm to up to 4,500 mm for three-axle trucks represent the standard series. Three-axle Actros trucks are also available in (6x4) and (6x2) configurations either with single or dual tyre rear axles. Given payloads may vary according to manufacturing procedures, realised options and body types.

Technical characteristics and general design are identical with the smaller (4x4) and larger (8x8) cousins of the Mercedes-Benz Actros range of heavy-duty trucks.

Technical Specifications

n/a

Sales and Service Entry

The Mercedes-Benz Actros (6x6) trucks are in service with the armed forces of Germany, Ireland, Nigeria, Poland, Qatar, Switzerland, Taiwan, Turkey, and the UAE. The German Army is leasing Mercedes-Benz Actros 3341 AL2 tipper trucks through its fleet management organisation. Turkey has procured 104 Mercedes-Benz Actros trucks 3331A with Marrel Ampliroll container handling units between 2001 and 2002.

Mercedes-Benz Actros trucks (6x6) showing their versatility in hot climate or desert environment.

Shown here are truck variants with load handling systems. Note the large footprint of the container carrier. The capability for tyre pressure adjustment is essential while driving through heavy sand and especially dunes. The vehicle in the mid at the right side is fitted with a



Mercedes-Benz 3340 Actros (6x6) fitted with an empty load handling system. Note the exit box for the rope of the recovery winch at the front.



Mercedes-Benz Actros (6x6) trucks fitted with different recovery equipment. While the vehicle above represents a military wrecker with high cross-country performance to be noticed by the high ground clearance and crane, the vehicle below is designed for heavy recovery operations mostly on roads. The latter vehicle is equipped with a towing device at the rear and lacks the heavy crane.



Heavy Tactical Trucks (8x8)

Actros

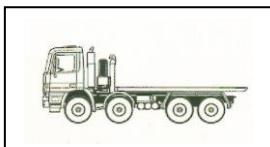
in military service



Mercedes-Benz Actros (8x8) with crane hoisting device for the Dornier Eurobridge.



Mercedes-Benz



Heavy-duty Tactical Trucks Model Actros (8x8)

1996

Heavy-duty Tactical Trucks Model Actros (8x8)

Vehicle Type	Payload	Wheelbase (mm)	Type	Engine Output EURO IV	Mx. Torque
3240 A (8x8)	n/a	n/a	n/a	n/a	n/a
3648 A (8x8)	n/a	n/a	n/a	n/a	n/a
4140 A (8x8)	up to 18 to	4,800	V6	290 kW / 394 hp	1,850 Nm
4141 A (8x8)	up to 18 to	4,800	V6	300 kW / 408 hp	2,000 Nm
4143 A (8x8)	up to 18 to	4,800	V6	315 kW / 428 hp	2,000 Nm
4144 A (8x8)	up to 18 to	4,800	V6	320 kW / 435 hp	2,100 Nm
4146 A (8x8)	up to 18 to	4,800	V6	335 kW / 456 hp	2,200 Nm
4148 A (8x8)	up to 18 to	4,800	V8	350 kW / 476 hp	2,300 Nm
4150 A (8x8)	up to 18 to	4,800	V8	370 kW / 503 hp	2,400 Nm
4151 A (8x8)	up to 18 to	4,800	V8	375 kW / 510 hp	2,400 Nm

Background and Technical Description

With few exceptions all Mercedes-Benz Actros (8x8) trucks are powered by the OM 501 A V6 diesel engine developing outputs from 394 hp and 1,850 Nm torque, 435 hp and 2,100 Nm torque, to 456 hp and 2,200 Nm torque. Only Models like the Mercedes-Benz Actros 4150 A (8x8) are powered by the OM 502 LA V8 diesel engine developing 503 hp and 2,400 Nm torque.

A wheelbase of 4,800 mm for four-axle trucks represents the standard series. Four-axle Actros trucks are also available in (8x4) configuration either with single or dual tyred rear axles. Given payloads may vary according to manufacturing procedures, realised options and body types.



Fitted with an optional hydro-pneumatic suspension the Mercedes-Benz Actros truck receives the capability for the transport of goods or containers (8.5 ft) by a Load-Handling Systems (LHS) without exceeding 400 cm overall height. This vehicle represents the base for a new logistic concept and is unique on the market for such systems. A levelling mechanism regulates the suspension of the load, thus guaranteeing the utmost driving comfort and spring adjustment independent from the type of terrain being negotiated.



Actros 3240 with load handling system



The hydro-pneumatic levelling mechanism keeps the vehicle in an optimal position during loading and unloading operations. Various LHS like DROPS, PLS or Multilift systems may be fitted as well. Technical characteristics and general design are identical with the smaller (4x4) and (6x6) cousins of the Mercedes-Benz Actros range of heavy-duty trucks.



Well drilling machine of the German Army's Engineer Service.



Technical Specifications

n/a

Sales and Service Entry

The Mercedes-Benz Actros (8x8) trucks are in service with the armed forces of Germany, Singapore and Slovenia and Sweden. Part of the inventory of the German Armed Forces is the Mercedes-Benz Actros 4144 AK (8x8) which is fitted with a well drilling machine Type U 3 V of company E+M. Slovenia has procured the Eurobridge (Faltfestbrücke) from Dornier on Mercedes-Benz (8x8) Actros trucks.

Left: A heavy wrecker based on a Mercedes-Benz Actros (8x8) chassis.



This Mercedes-Benz truck 3243A (8x8) MULTI is equipped with a modern load-handling system and an auxiliary crane.



Mercedes-Benz Actros (8x8) with Mobile Command Post first offered in 1998 under the brand Daimler-Benz Aerospace Dornier Mobile Systems.

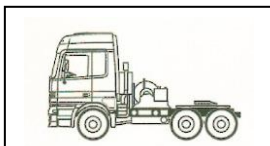
The Mercedes-Benz Actros series of trucks (4x4, 6x6, 8x8) have entered service with the armed forces of Australia (Air Force), Botswana, Germany, Poland, Qatar, Singapore, Slovenia, Sweden, Taiwan, Turkey, UAE, the UK, and Venezuela.

All Mercedes-Benz Actros vehicles are also available with Euro II, III and Euro V engines.

***Heavy-Duty Tractor Trucks
(6x6) and (8x8)
Actros
up to GCW 250 to
the specialists***



Mercedes-Benz



Actros Heavy-Duty Tractor Trucks (6x6) and (8x8)

1996

Heavy-Duty Tractor Trucks

Model Actros (6x6)

Vehicle Type	Payload	Wheelbase (mm)	Type	Engine Output EURO IV	Mx. Torque
1843 (4x2)	n/a	n/a	n/a	n/a	n/a
2640 LS (6x4)	n/a	n/a	n/a	n/a	n/a
3331 AS (6x6)	up to 22 to*	3,600 / 3,900	V6	230 kW / 313 hp	1,530 Nm
3340 AS (6x6)	up to 22 to*	3,600 / 3,900	V6	290 kW / 394 hp	1,850 Nm
3348 AS (6x6)	up to 22 to*	3,600	V8	350 kW / 476 hp	2,300 Nm
3350 AS (6x6)	up to 22 to*	3,600	V8	370 kW / 503 hp	2,400 Nm
3351 AS (6x6)	up to 22 to*	3,600 / 4,200	V8	375 kW / 510 hp	2,400 Nm
3353 AS (6x6)	up to 22 to*	3,600 / 3,900	V8	390 kW / 530 hp	2,400 Nm
3354 AS (6x6)	up to 22 to*	3,600	V8	396 kW / 540 hp	2,700 Nm
3357 AS (6x6)	up to 22 to*	3,600	V8	420 kW / 571 hp	2,700 Nm
3358 AS (6x6)	up to 22 to*	3,600	V8	396 kW / 540 hp	2,700 Nm
3360 AS (6x6)	up to 22 to *	3,900	V8	448 kW / 603 hp	2,400 Nm
3361 AS (6x6)	up to 22 to*	3,600 / 4,200	V8	442 kW / 609 hp	2,400 Nm

* fifth wheel load

Background

Heavy-duty tractor trucks are most often used as tank transporters or for heavy haul duties over vast distances, where other means of transport are wholesale inferior or simply non-existent. During military operations of the recent past such duties had to be conducted over marginal terrain and under extreme climatic conditions. Thus, Mercedes-Benz developed and designed the heavy-duty tractor truck series in correspondence with the Actros family of heavy-duty tactical trucks ensuring commonality, reducing maintenance and logistic service support as well as training and in the end: costs.

With a maximum Gross Combination Weight (GCW) of up to 250.000 kilograms there will be few tasks which can not be covered by this combination. On special request it may even be possible to surpass given GCW limits.



A Mercedes-Benz Actros 2840 tractor truck demonstrating the transport of a German tank destroyer, missile vehicle.



A Mercedes-Benz Actros 2547 tractor truck. Note the exceptional width warning panels in front of the tracked vehicle.

Technical Description

The Mercedes-Benz Actros tractor trucks are conventional in design with a large comfortable forward-control cab in front and a fifth-wheel arrangement replacing the rear platform of a truck derived from the heavy-duty Actros range of truck chassis'. Cabs and driveline components are directly taken from the standard Actros range of trucks and all vehicles have been militarised as necessary.

The all-steel welded cab with shock absorbers for high driving comfort is tiltable and available in large, medium and small size for one driver and up to five crew members with two optional bunks to provide sleeping facilities in the rear. The tilt mechanism is controlled by the means of a hydraulic pump. Powerful heating and ventilation systems with additional heating are standard while an air-conditioning system is offered as an option. A high roof variant is also available.

The **Mercedes-Benz Actros (6x6) tractor trucks** are powered by the Mercedes-Benz 500 series of diesel engines represented either by the

- OM 501 LA V6 developing 320 hp to up to 408 hp or
- OM 502 LA V8 developing 503 hp to up to 609 hp.

The Mercedes-Benz OM 502 LA Euro III compliant V8 15.928 litre turbocharged and intercooled, 4-stroke direct injection diesel engine was especially developed for the heavy variant of the Mercedes-Benz Actros series of trucks. This engine develops 530 hp at 1,800 rpm and 2,400 Nm torque at 1,080 rpm. A torque converter to give excellent low-speed manoeuvrability and, in combination with an integrated retarder, additional safety, is optional. The cooling system is thermostatically-controlled and to suite mission and climate conditions an additional radiator may be fitted as well.

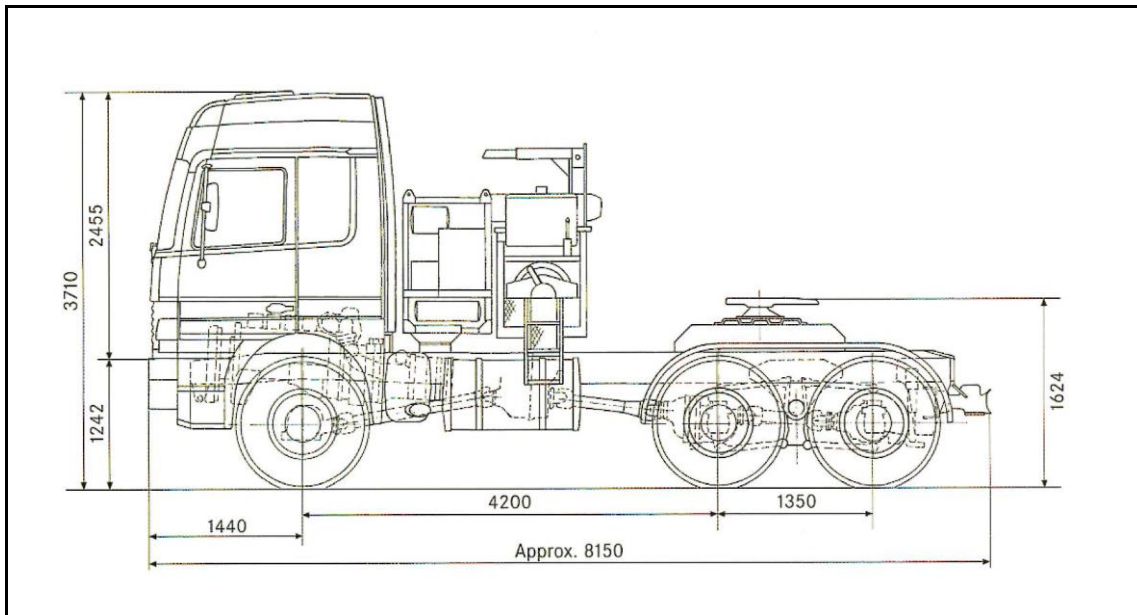
The engine is coupled to an all-synchromesh hydraulically operated gearbox Mercedes-Benz G240-16/11,7 with 16m speeds. Though in addition the Telligent® gearshift system with clutch incorporating electronic gearshift and pneumatic shifting or the Telligent® fully automatic gearshift system without clutch are available as an option.

Heavy-duty hub reduction axles provide high ground clearance and durability. 16-ton rear axles are optional. For best tractive efficiency the all-wheel drive is permanent. Differential locks and interaxle differential locks can be operated while on the move. A Telligent® on-board-service-diagnostic system or Built-In Test Equipment (BITE) reduces day-to-day maintenance considerably. All maintenance checkpoints are easily accessible behind the front flap.

Heavy-duty axles give an increased ground clearance. Rear axles can be fitted with single or dual wheels and a Central Tyre Inflation System (CTIS) is optional for the single wheel configuration. All Mercedes-Benz Actros tractor trucks are offered with a standard wheelbase of 3,600 mm, with the Models 3331 AS and 3340 AS are also available with a wheelbase of 3,900 mm. Only the Model 3351 AS and 3361 AS are offered with 4,200 wheelbase as alternative.

The electrical system is of 24 V type with three-phase alternator 28 Volt 80 A. A NATO compatible electrical 24 V system is optional.

The fifth wheel permits a maximum load of 22,000 kg. An especially sturdy frame design enables the adoption of special superstructures for military applications such as semi-mobile radar or communication system or Transporter-Erector-Launcher (TEL) for coastal defence or air defence missile systems and even ballistic missiles.



For military applications an observation hatch, a hydraulic winch, and rifle racks are offered while black-out lights and external starter socket (slave) are optional as well.



Mercedes-Benz Actros 2640 tractor truck. Such vehicles do not have any cross-country capabilities per se. However for the reason of reducing procurement costs abuses can not be avoided in praxi and the vehicles can show surprinsing performance characteristics in the field.

Heavy-Duty Tractor Trucks Actros (6x6)

Model	Ausführung	Heavy –Duty TractorTruck
Type	Typ	MB 3353 AS (6x6) Actros
Manufacturer	Hersteller	Mercedes-Benz / DaimlerChrysler AG, Department VL/FR – HPC 161 D-76742 Woerth, Germany
Introduction into service	Einführung	n/a
Cab seating	Sitzplätze Fahrerhaus	1 + 1 (2 or 4 bunks optional)
Seats (rear)	Sitzplätze (hinten)	n/a
Configuration	Antriebsformel	6 x 6
Weight	Gewicht	
Weight empty, tractor	Militärisches Leergewicht	14,500 kg
Weight (fifth wheel load)	Anhängelast	18,500 kg
Weight loaded, road train (GCW)	zulässiges Gesamtgewicht einschließlich max. Anhängelast	110,000 kg (optional 220,000 kg)
Weight on front axle (loaded)		9,000 kg
Weight on rear axle (loaded)		2 x 13,000 kg
Length (wheelbase 3,600 mm)	Länge (Radstand 3.600 mm)	785 cm
Width	Breite	250 cm
Height (cab)	Höhe Fahrerhaus	371 cm
Height (chassis, front)	Höhe (Chassis vorne)	n/a
Height (chassis, rear)	Höhe (Chassis hinten)	n/a
Height (fifth wheel)	Höhe der über Boden	n/a
Ground clearance	Bodenfreiheit	39 cm
Track (front)	Spurweite (vorne)	cm
Track (rear)	Spurweite (hinten)	cm
Wheelbase	Radstand	3,600 mm + 1,350 mm
Angle of approach	Böschungswinkel vorne	n/a
Angle of departure	Böschungswinkel hinten	n/a
Chassis frame	Rahmen	n/a
Max speed (road)	Höchstgeschwindigkeit	85 km/h
Min speed (road)	Mindestgeschwindigkeit	n/a
Range	Fahrbereich (Straße)	n/a
Fuel capacity	Kraftstoff-Vorrat	900 ltr.
Fuel consumption	Kraftstoff-Verbrauch	n/a
Gradient	Steigfähigkeit	22 % (at 110,000 kg GCW)
Side slope	Querneigung, Kippgrenze	n/a
Fording (standard)	Watfähigkeit (ohne Watsatz)	n/a
Fording (with kit)	Watfähigkeit (mit Watsatz)	n/a
Engine	Motor	V8 15.928 litre turbocharged and intercooled, 5-stroke direct injection diesel engine developing 530 hp at 1,800 rpm and 2,400 Nm torque at 1,080 rpm
Designation	Bezeichnung	OM 502 LA
Bore x Stroke	Bohrung x Hub (mm)	130 x 150
Displacement	Hubraum (ccm)	15,928 ccm
Output	Leistung kW (PS)/min ⁻¹	448 (609) at 1,800 rpm
Torque, max.	Drehmoment (Nm / kpm)	2.400 Nm at 1,080 rpm
Cooling	Kühlung	water-cooled
Power transfer	Kraftübertragung	All-wheel drive
Transmission	Getriebe	Mercedes-Benz G240-16/11,7 16-speed gearbox
Clutch	Kupplung	ZF WSK 400 torque converter with integral retarder (?)
Transfer box	Antriebsübersetzung	Mercedes-Benz VG 2400-3W single-speed
Steering	Lenkung	Mercedes-Benz hydraulic power-assisted LS8 with emergency power supply
Turning circle	Wendekreis	18,3 m (tractor)
Axles (front)	Vorderachsen	planetary gear hub reduction with differential locks, AL7
Axles (rear)	Hintererachsen	planetary gear hub reduction with differential locks, HD7/HL7
Suspension (front)	Radaufhängung (vorne)	leaf-spring
Suspension (rear)	Radaufhängung (hinten)	leaf-spring
Tyres	Bereifung	RA 315 / 80R 22.5 or 13 R 22.5 (options available)

Brake (main)	Betriebsbremse	Dual circuit, air, drums, all around, automatic load sensing on rear axles; ABS optional
Brake (parking)	Feststellbremse / Handbremse	mechanical; spring-loaded rear axle, trailer brake optional
Brake (engine)	Motorbremse	n/a
Electrical system	Fahrzeugelektrik	24 V
Alternator (reinforced)	Wandler	28 V 80 A
Starter motor	Starteinrichtung	n/a
Batteries	Batterien	2 x 12 V 165 Ah
Towing eye	Anhängerkupplung	optional
Armour	Panzerung	optional



Mercedes-Benz Actros 3353 tractor truck hauling a trailer with a Leopard 2 MBT.

Heavy-Duty Tractor Trucks Actros (6x6)		
Model	Ausführung	Heavy –Duty TractorTruck
Type	Typ	MB 3361 AS (6x6) Actros
Manufacturer	Hersteller	Mercedes-Benz / DaimlerChrysler AG, Department VL/FR – HPC 161 D-76742 Woerth, Germany
Introduction into service	Einführung	n/a
Cab seating	Sitzplätze Fahrerhaus	1 + 1 (2 or 4 bunks optional)
Seats (rear)	Sitzplätze (hinten)	n/a
Configuration	Antriebsformel	6 x 6
Weight	Gewicht	
Weight combat, tractor (GVW)	Gefechtsgewicht SZgM	33,000 kg
Weight empty chassis	Militärisches Leergewicht	14,500 kg
Weight (fifth wheel load)	Gewicht SZgM mit Abhängelast	18,500 kg
Weight loaded, road train (GCW)	zulässiges Gesamtgewicht einschließlich max. Anhängelast	110,000 kg (optional 250,000 kg)
Weight on front axle (loaded)		n/a
Weight on rear axle (loaded)		n/a
Length (wheelbase 3,600 mm)	Länge (Radstand 3.600 mm)	815 cm
Width	Breite	250 cm

Height (cab)	Höhe Fahrerhaus	371 cm
Height (chassis, front)	Höhe (Chassis vorne)	n/a
Height (chassis, rear)	Höhe (Chassis hinten)	124.2 cm
Height (fifth wheel)	Höhe der über Boden	162.4 cm
Ground clearance	Bodenfreiheit	39 cm
Track (front)	Spurweite (vorne)	n/a
Track (rear)	Spurweite (hinten)	n/a
Wheelbase	Radstand	4,200 + 1.350 mm
Angle of approach	Böschungswinkel vorne	n/a
Angle of departure	Böschungswinkel hinten	n/a
Chassis frame	Rahmen	n/a
Max speed (road)	Höchstgeschwindigkeit	85 km/h
Min speed (road)	Mindestgeschwindigkeit	n/a
Range	Fahrbereich (Straße)	n/a
Fuel capacity	Kraftstoff-Vorrat	1,000 ltr.
Fuel consumption	Kraftstoff-Verbrauch	n/a
Gradient	Steigfähigkeit	22 % (at 110,000 kg GCW)
Side slope	Querneigung, Kippgrenze	n/a
Fording (standard)	Watfähigkeit (ohne Watsatz)	n/a
Fording (with kit)	Watfähigkeit (mit Watsatz)	n/a
Engine	Motor	V8 15.928 litre turbocharged and intercooled, 4-stroke direct injection diesel engine developing 530 hp at 1,800 rpm and 2,400 Nm torque at 1,080 rpm
Designation	Bezeichnung	OM 502 LA
Bore x Stroke	Bohrung x Hub (mm)	130 x 150
Displacement	Hubraum (ccm)	15,928 ccm
Output	Leistung KW (PS)/min ⁻¹	448 (609) at 1,800 rpm
Torque, max.	Drehmoment (Nm / kpm)	2.400 Nm at 1,080 rpm
Cooling	Kühlung	water-cooled
Power transfer	Kraftübertragung	All-wheel drive
Transmission	Getriebe	Mercedes-Benz G240-16/11,7 16-speed gearbox
Clutch	Kupplung	ZF WSK 400 torque converter with integral retarder
Transfer box	Antriebsübersetzung	Mercedes-Benz VG 2400-3W single-speed
Steering	Lenkung	Mercedes-Benz hydraulic power-assisted LS8 with emergency power supply
Turning circle	Wendekreis	19,3 m (tractor)
Axles (front)	Vorderachsen	planetary gear hub reduction with differential locks, AL7
Axles (rear)	Hintererachsen	planetary gear hub reduction with differential locks, HD7/HL7
Suspension (front)	Radaufhängung (vorne)	leaf-spring
Suspension (rear)	Radaufhängung (hinten)	leaf-spring
Tyres	Bereifung	FA 385 / 65 R 22.5 or RA 315 / 80 R 22.5 or other sizes (optional)
Brake (main)	Betriebsbremse	Dual circuit, air, drums, all around, automatic load sensing on rear axles; ABS optional
Brake (parking)	Feststellbremse / Handbremse	mechanical; spring-loaded rear axle, independant trailer brake
Brake (engine)	Motorbremse	n/a
Electrical system	Fahrzeugelektrik	24 V
Alternator (reinforced)	Wandler	28 V 80 A
Starter motor	Starteinrichtung	n/a
Batteries	Batterien	2 x 12 V 165 Ah
Towing eye	Anhängerkupplung	optional
Armour	Panzerung	optional

Sales and Service Entry

The German Armed Forces (Bundeswehr) operates tractor trucks of the types Mercedes-Benz Actros 1843 and Mercedes-Benz Actros 2640. Approximately ten Mercedes-Benz Actros 3353 AS (6x6) tractor trucks in combination with a Goldhofer STZ-H6-60/80 F2M trailer are in service with the armed forces of Poland (*below*).



The Mercedes-Benz tractor trucks Model Actros have replaced all previously manufactured tractor trucks in production and are in service with the armed forces of: Botswana (Model 3348), Poland (Model 3353 AS) and Venezuela (HET 6x6).



Mercedes-Benz Actros 3353 tractor truck hauling a Leopard 2 MBT on a wet tarmac surface. Modern trailers are in general too small because of compliance requirements set by recent traffic regulations.



German Air Force mobile recruiting office based on a Mercedes-Benz Actros 1843 tractor truck combination. The promised service condition are at least as coloured as the trailer.

Heavy-Duty Tractor Trucks

Model Actros (8x8)

Vehicle Type	Payload	Wheelbase (mm)	Type	Engine Output EURO IV	Mx. Torque
(8x8)	up to 25 to*	n/a	V8	390 kW / 530 hp	2,400 Nm
(8x8)	up to 25 to*	n/a	V8	441 kW / 603 hp	2,400 Nm

* fifth wheel load

The **Mercedes-Benz Actros (8x8) tractor trucks** are conventional in design with a large comfortable forward-control cab in front and a fifth-wheel arrangement replacing the rear platform of the truck derived from the heavy-duty Actros range of truck chassis'. All driveline components are directly taken from the standard Actros range of trucks and all vehicles have been militarised as necessary by following customer requirements.

The Mercedes-Benz Actros (8x8) tractor trucks are powered by a Mercedes-Benz OM 502 LA Euro III compliant V8 15.928 litre turbocharged and intercooled, 4-stroke direct injection diesel engine developing 603 hp and under special conditions up to 800 hp.

Technical characteristics, components and options are basically identical to the (6x6) variant of the Mercedes-Benz Actros (6x6) tractor truck.



Desert camouflage scheme, sand tyres and dust combined in a scen'ery showing the most common scenario in a desert environment for which such trucks are made. The semi-trailer is of Schmitz five-axle type.

Heavy- Tractor Trucks Actros (8x8)		
Model	Ausführung	Heavy –Duty TractorTruck
Type	Typ	MB xxxx AS (8x8) Actros
Manufacturer	Hersteller	Mercedes-Benz / DaimlerChrysler AG, Department VL/FR – HPC 161 D-76742 Woerth, Germany
Introduction into service	Einführung	n/a

Cab seating	Sitzplätze Fahrerhaus	1 + 1 (2 or 4 bunks optional)
Seats (rear)	Sitzplätze (hinten)	n/a
Configuration	Antriebsformel	8 x 8
Weight	Gewicht	
Weight combat, tractor (GVW)	Gefechtsgewicht SZgM	n/a
Weight empty chassis	Militärisches Leergewicht	n/a
Weight (fifth wheel load)	Gewicht SZgM mit Abhängelast	n/a
Weight loaded, road train (GCW)	zulässiges Gesamtgewicht einschließlich max. Anhängelast	110,000 kg (optional 250,000 kg)
Weight on front axle (loaded)	Belastung der Vorderachsen	n/a
Weight on rear axle (loaded)	Belastung der Hinterachsen	n/a
Length (wheelbase n/a mm)	Länge (Radstand n/a mm)	n/a
Width	Breite	n/a
Height (cab)	Höhe Fahrerhaus	n/a
Height (chassis, front)	Höhe (Chassis vorne)	n/a
Height (chassis, rear)	Höhe (Chassis hinten)	n/a
Height (fifth wheel)	Höhe der über Boden	n/a
Ground clearance	Bodenfreiheit	n/a
Track (front)	Spurweite (vorne)	n/a
Track (rear)	Spurweite (hinten)	n/a
Wheelbase	Radstand	n/a
Angle of approach	Böschungswinkel vorne	n/a
Angle of departure	Böschungswinkel hinten	n/a
Chassis frame	Rahmen	n/a
Max speed (road)	Höchstgeschwindigkeit	n/a
Range	Fahrbereich (Straße)	n/a
Fuel capacity	Kraftstoff-Vorrat	n/a
Fuel consumption	Kraftstoff-Verbrauch	n/a
Gradient	Steigfähigkeit	n/a
Side slope	Querneigung, Kippgrenze	n/a
Fording (standard)	Watfähigkeit (ohne Watsatz)	n/a
Fording (with kit)	Watfähigkeit (mit Watsatz)	n/a
Engine	Motor	V8 15.928 litre turbocharged and intercooled, 4-stroke direct injection diesel engine developing 530 hp at 1,800 rpm and 2,400 Nm torque at 1,080 rpm
Designation	Bezeichnung	OM 502 LA
Bore x Stroke	Bohrung x Hub (mm)	130 x 150
Displacement	Hubraum (ccm)	15,928 ccm
Output	Leistung KW (PS)/min ⁻¹	448 (609) at 1,800 rpm
Torque, max.	Drehmoment (Nm / kpm)	2.400 Nm at 1,080 rpm
Cooling	Kühlung	water-cooled
Power transfer	Kraftübertragung	All-wheel drive
Transmission	Getriebe	Mercedes-Benz G240-16/11,7 16-speed gearbox
Clutch	Kupplung	ZF WSK 400 torque converter with integral retarder
Transfer box	Antriebsübersetzung	Mercedes-Benz VG 2400-3W single-speed
Steering	Lenkung	Mercedes-Benz hydraulic power-assisted LS8 with emergency power supply
Turning circle	Wendekreis	(tractor)
Axles (front)	Vorderachsen	planetary gear hub reduction with differential locks, AL7
Axles (rear)	Hintererachsen	planetary gear hub reduction with differential locks, HD7/HL7
Suspension (front)	Radaufhängung (vorne)	leaf-spring
Suspension (rear)	Radaufhängung (hinten)	leaf-spring
Tyres	Bereifung	FA 385 / 65 R 22.5 or RA 315 / 80 R 22.5 or other sizes (optional)
Brake (main)	Betriebsbremse	Dual circuit, air, drums, all around, automatic load sensing on rear axles; ABS optional
Brake (parking)	Feststellbremse / Handbremse	mechanical; spring-loaded rear axle, independant trailer brake
Electrical system	Fahrzeugelektrik	24 V
Alternator (reinforced)	Wandler	28 V 80 A
Starter motor	Starteinrichtung	kW
Batteries	Batterien	2 x 12 V 165 Ah
Towing eye	Anhängerkupplung	optional
Armour	Panzerung	optional

Sales and Service Entry

The Mercedes-Benz heavy tractor truck (8x8) of the Actros range of vehicles has been trialed under hot-and-dry climate conditions with a Schmitz five-axle semi-trailer.

All Mercedes-Benz Actros vehicles are also available with Euro II, III and Euro V standard emissions compliant engines.



A modern tractor truck is a mountain of steel, oil, and rubber. In the desert such vehicles have to be modern chariots for the soldiers with loaded tanks often not secured to ensure rapid unloading under fire.

Modern law compliant trailer combinations simply do not fulfil such military necessities and are accident-prone because of the heavy load – CofG combination.

Details of a giant: Mercedes-Benz Actros tractor truck (8x8)

