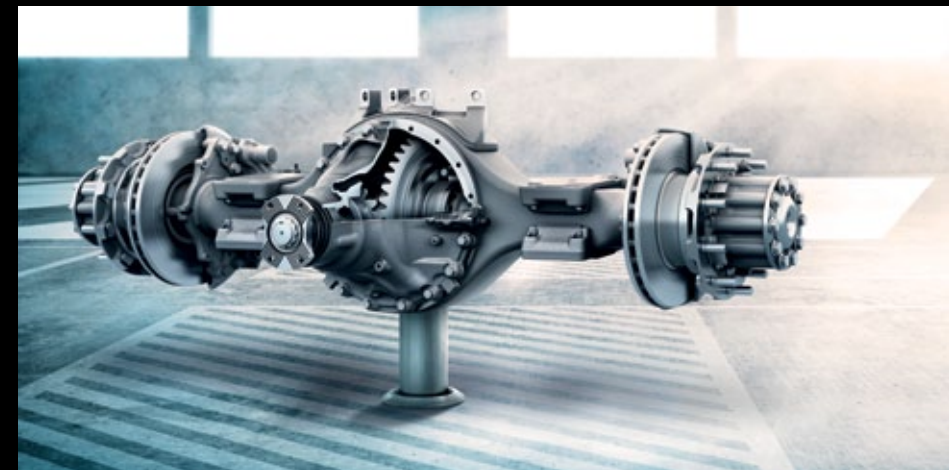
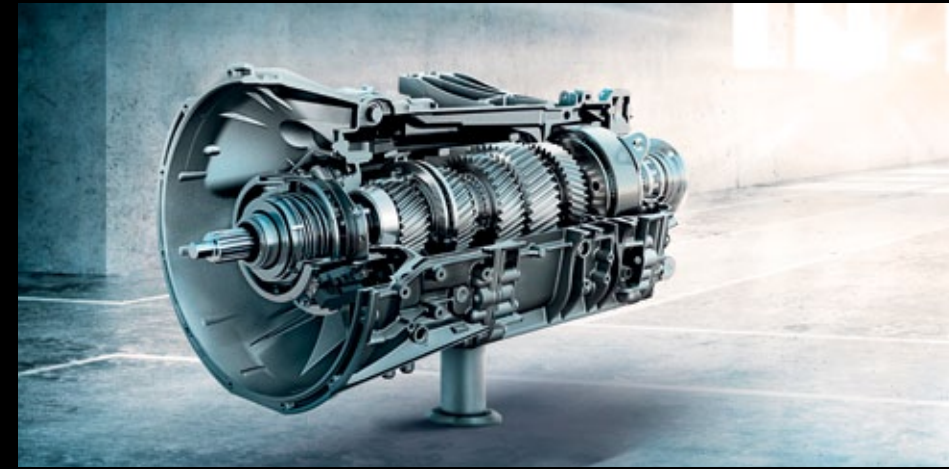


Mercedes-Benz Powertrain



Transmissions and axles for Off-Highway solutions.

Mercedes-Benz



Welcome to the **Global leader.** Mercedes-Benz Powertrain.

Mercedes-Benz Powertrain offers you outperforming transmissions and axles for your individual Off-Highway applications. We provide you with the highest durability and proven quality made by Mercedes-Benz. The advanced technology results in **very smooth running characteristics, low weight, superior fuel efficiency and durability.**

Benefits for you.

- ✓ Premium **Mercedes-Benz quality** standards from our high-volume product-lines.
- ✓ High investment in Mercedes-Benz R&D ensures **state-of-the-art product characteristics.**
- ✓ Overall **robust and reliable solutions** provide **a long lifetime.**
- ✓ **All in one: only one supplier** for your individual transmission and axle solution.
- ✓ Fixed contact person: **one Key Account Manager** as main contact partner and one contractual partner.

Benefits for your customers.

- ✓ **Robust and reliable performance** in every scenario of operation.
- ✓ **Increased resale value** of the vehicles due to the highest quality standards by Mercedes-Benz.
- ✓ Minimised downtime as our **worldwide aftersales network** covers warranty and policy.
- ✓ **Best spare parts supply** and technology by Mercedes-Benz.



Transmissions. Your product advantages.

Technical features

01

- **Wide range** of max. input torque (1.400 up to 3.300 Nm)
- **8-16 Speed AMT**
- Optimized gear set **geometry**
- Extensive range of power take-offs

Advantage OEM

02

- **All torque ratings** of Mercedes-Benz engines covered
- **Each payload class** can be covered
- **Reduced application efforts** needed
- **Less noise insulation** needed

Benefits end customer

03

- **Quite running charecteristics** and **fuel efficient design** optimized for specific operating conditions
- **Compact design and weight-optimized metal housing** for an ideal power/weight ratio
- **Long service intervals** and **low operating costs**

Nomenclature.

G = Mercedes-Benz transmission

-16 = 16 gears

"K" = Constant mesh transmission

VIAB = Hydraulic clutch

SWR = SecondaryWaterRetarder

"S" = Synchromesh transmission

NMV = Power take-off

R115HV = Hydro dynamic oil retarder

G

280

-16

K

NewAMT

VIAB

280 = Maximum torque / 10 (2.800 Nm)

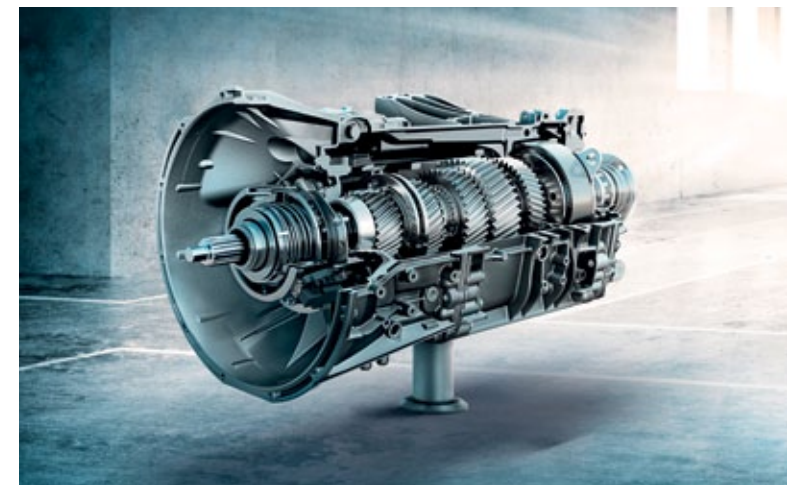
"O" = Overdrive transmission

"1" = Direct drive transmission

"NewAMT" = Automated gearshift (EURO VI)

"EPSIIIK" = Automated gearshift (EURO V)

"CPS" = Cable Power Shift

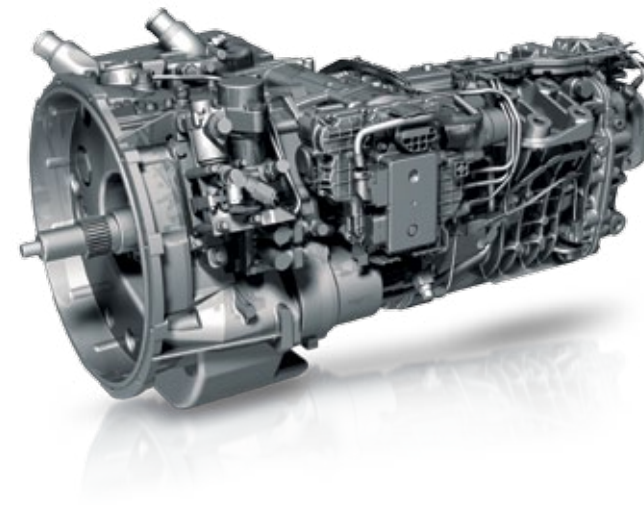


Transmission Portfolio.

	G 230-12	G 280-16	G 280-16 TCR	G 330-12 TCR
Number of Gears	12	16	16	12
Max Input Torque [Nm]	2300	2800	2800	3300
Weight [kg/lb]	235 / 517	294 / 647	455 / 1000	455 / 1000
GCW [t / t]	44 / 97	60 / 132	250 / 550	250 / 550
Transmission Ratio	11.67 – 0.78	11.72 – 0.69	11.72 – 0.69	11.67 – 0.78

Your main advantages:

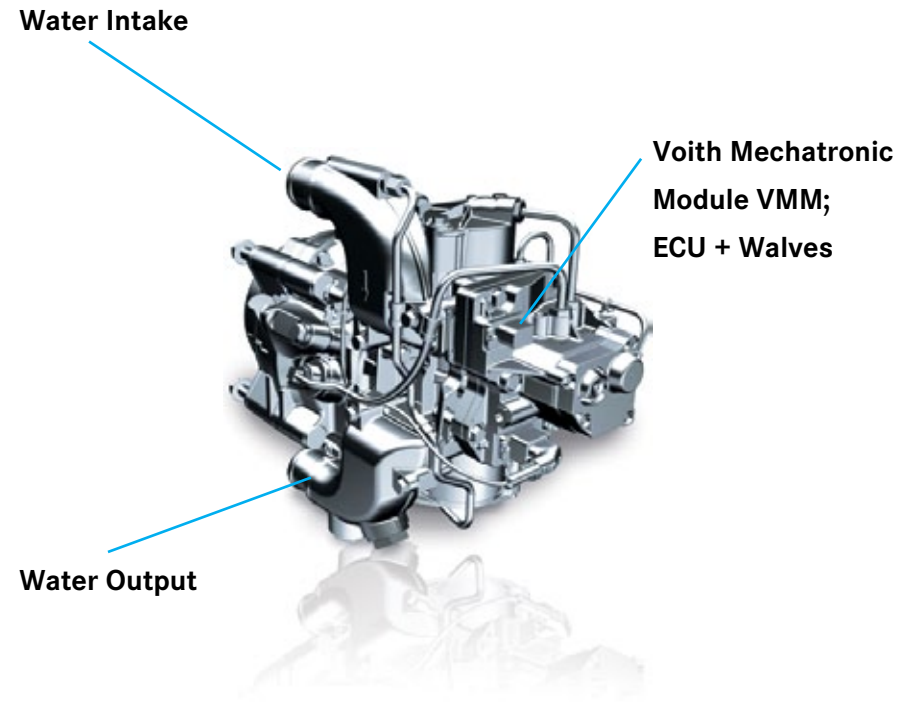
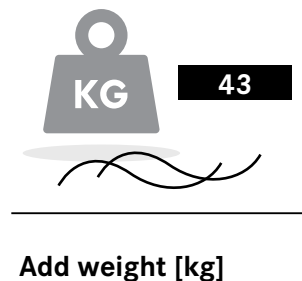
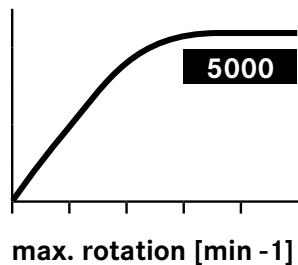
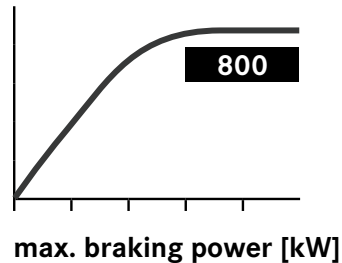
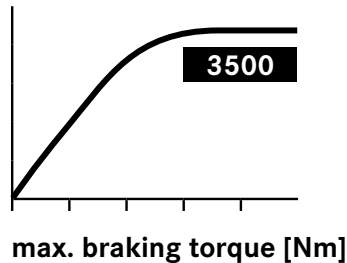
- ✓ Lower **weight**
- ✓ Additional vehicle **functions**
- ✓ Lower **TCO**
- ✓ **1 Stop Diagnostics** for full Powertrain
- ✓ **Peripheral** Parts and PTOs



Secondary Water Retarder.

Your product benefits:

- High braking torque up to **3500 Nm**
- **Power loss reduction** due to variable axial rotor displacement
- **No heat exchanger** necessary because of direct cooling water usage
- Compact unit for **small installation space**
- **Maintenance free unit for reduced service costs**
- **Significantly lighter** than comparable Hydrodynamic Retarders
- Comfortable adjustment **braking without downshifts** possible
- **Increased comfort** due to low noise operation



Product film:



Turbo Retarder Clutch **VIAB**. Wear-free Integrated Starting and Braking System.

VIAB is turbo coupling and retarder all-in-one.

VIAB combines:

- ✓ wear-free starting and maneuvering
- ✓ wear-free braking
- ✓ efficient driving with automated manual transmission



- high comfort
- high availability
- integrated high performance primary retarder
- maximum start-up tractive power at low speeds
- lower fuel consumption (vs. conventional converter solutions)
- thermal stability
- retarder function also in reverse gear
- low weight, low installation space requirements

Axles. Your product advantages.

Technical features

01

- Power range **up to 3000 Nm** engine input torque
- **Fuel efficiency** optimized due to hypoid offset of 20 mm
- **Optimized** gear-set design and ratio

Advantage OEM

02

- Wide range of axles from **one supplier** due to **modular design**
- **High efficient** axles
- **Easy integration** in modern powertrain configuration

Benefits end customer

03

- **Custom-fit** applications (the right axle for the right vehicle)
- **Reduced TCO**
- Silent, economic axles with **high resale value**

Nomenclature.

Non-driven axles

F = Front axle

F

9

Number = Axle load [t]

Driven axles

R = Rear axle

RT = Rear axle tandem

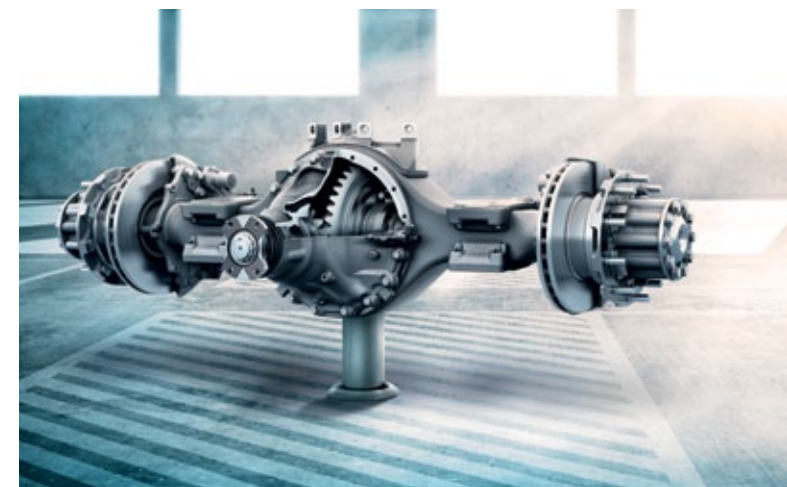
FD = Front axle driven

FT = Front axle tandem driven

R




390

Number = Ring gear diameter [mm]



The right axle for every application.

Axle portfolio: front axles* and rear axles.

	Vehicle category	Wheel formula	Front axles*	Tire size [inches]	Axle load [t]			Rear axles	Tire size [inches]	Axle load [t]							
	Light-duty	4 x 2	F 3.5 - F 4.4	17.5	3.5 - 4.4			R 325	17.5	6 - 8.3							
	Medium-duty	4 x 2	F 5.3 - F 6.1	19.5/20/22.5	5.3 - 6.1			R 390	19.5/20/22.5	9.2 - 11							
		4 x 4	FD 346 - FD 360	20/22.5	4.7 - 6												
	Heavy-duty	4 x 2	F 7.5 - F 8	20/22.5	7.5 - 8			R 440	22.5	13							
								R 485	22.5	13							
					R 233 P - R 300 P	20/22.5/24	13.4 - 16										
					RT 390 + RT 390 T **	22.5	20										
			RT 440 + R 440 **	22.5	26												
			RT 300 P + R 300 P **	20/22.5/24	26 - 32												
					4	6	8						10	15	20	25	30

* front axles are applicable as steered tag and pusher axles;

** tandem

Service benefits at a glance.



Application engineering consultancy service

Our experts will help you to select the right powertrain components and additional equipment to create an engineered solution that suits your application-specific requirements, no matter how tough the conditions are.

Customer training

Uniquely tailored training courses can be held in Germany and other countries around the world to ensure that you receive the necessary expert knowledge in regards to installing, operating and maintaining your powertrain in accordance with our high standards.

Spare parts supply

We will ensure spare parts remain available for many years after your initial investment. The quality level and reliability of our spare parts meet the same high standards that are set with our aggregate systems. This promise means lasting protection of your capital investment in our powertrain solutions.

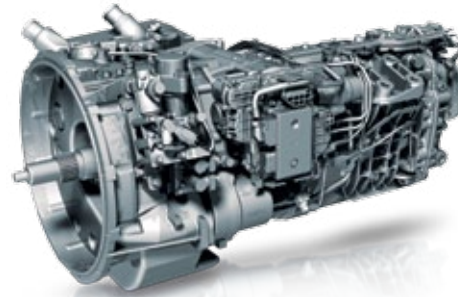
Service network

Our global network of highly qualified service centers can assist in the maintenance of our most advanced systems.

Going the extramile: for high quality transmissions and axles.

Mercedes-Benz transmissions.

Our product range extends from 8- to 16-speed automated shifted transmissions for Off-Highway applications. The compact design and weight-optimised metal housing are the preconditions for ideal installation dimensions and a perfect power and weight ratio. Mercedes-Benz transmissions are characterised by precise gear selection, short shift times, high ride comfort, long operating life and optimal efficiency.



Mercedes-Benz axles.

Our innovative state-of-the-art engineering and our quality-driven plants in Germany design and manufacture axles with outstanding durable performance in Off-Highway applications. Besides easy maintenance and long oil change intervals, the weight-optimised technical design leads to an ideal power/weight ratio and superior fuel efficiency. Mercedes-Benz axle systems ensure a long lifetime and quiet operation due to the optimised gear set design. The modular concept provides maximum flexibility for nearly every customer request.



Retarder.

The integrated secondary water retarder and hydro-dynamic oil retarder from Voith offer a high braking torque in combination with a compact, weight-saving design. The weight advantage of the new retarders is up to 43 kg compared to previous oil retarders. In addition to the engine brake, the retarder provides a maximum braking torque up to 3.500 Nm.



Power take-off.

All Mercedes-Benz transmissions with power take-off offer an extensive selection of PTO for various off-highway applications.



If you have technical questions, would like additional information or wish to request installation drawings, please do not hesitate to contact our sales team. Your responsible Key Account Manager will answer your question.

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