Mercedes-Benz Powertrain

Truck Classic: EURO III, EURO V, EEV.

Mercedes-Benz
Going the extra mile. Mercedes-Benz Powertrain.

Mercedes-Benz Powertrain offers outperforming and individual engineered aggregates: engine systems, transmissions and axles – each will provide our customers with the highest durability and quality at the same time.

Together, they compose an even more sophisticated, technologically advanced and with regards to fuel efficiency, unbeatable powertrain.

Let’s develop together the best individual solution for your success.

Benefits for you.

✓ Reduces integration efforts
✓ Leads to an optimized system setup due to common electric and electronic architecture (EE architecture) for efficient interaction of all aggregates
✓ One electronic tool for end of line commissioning and diagnosis requires less training for your engineering group
✓ Guarantees our premium Mercedes-Benz quality standards due to the production on our high-volume production lines
✓ High invest in Mercedes-Benz R&D assures state-of-the-art quality
✓ Overall robust and reliable powertrain solutions provide a long lifetime for your aggregates
✓ One Key Account Manager as main contact partner
✓ One system supplier for your individual powertrain solution
✓ One contractual partner

Benefits for your customers.

✓ Provides optimized fuel efficiency by perfectly matched powertrain solutions
✓ Ensures robust and reliable performance in every scenario of operation
✓ Increases the resale value of the vehicles due to the highest quality standards offered by Mercedes-Benz
✓ Minimizes downtimes as our worldwide after-sales network covers warranty and policy from one source
✓ Optimizes maintenance and repair worldwide via our one-stop shop logic for the complete powertrain
Mercedes-Benz engine systems.

92X and 457 model series.
Proven engines for a wide range of applications.
Our EURO III, V and EEV engines are synonymous for strength, economy and durability. Based on these characteristics, our engines are ideal for short radius distribution, construction site transport and long distance haulage. They can also be modified to create customer-specific variants for use in different truck applications. The 4/6 cylinder inline models with EURO III, V and EEV engines represent superior function and efficiency. The EURO V engines operate at the highest levels of efficiency and ensure superior power output.

Thanks to BlueTec®, Mercedes-Benz’s SCR diesel technology, they operate in a particularly eco-friendly way. BlueTec® ensures low CO₂! emissions and extremely low concentrations of nitrogen oxide (NOx) and particulates to meet emission standards at the tailpipe. Besides low consumption, the BlueTec® engines also have impressive maintenance intervals and a long engine life. At Mercedes-Benz, we have spent decades bringing our diesel engines to perfection. Our dedication to excellence has earned Mercedes-Benz loyal customers around the world, in the most demanding industries and applications.

Our engine systems product portfolio:
TCO reduction at its best.
Derivation "Nomenclature" – engines.

BR = Baureihe = model series

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Cylinder</th>
<th>Displ. [liters]</th>
<th>Power range [kW] EURO III</th>
<th>Power range [kW] EURO V/EEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>900 BR*</td>
<td>Medium-duty</td>
<td>In-line 4</td>
<td>4.8</td>
<td>95</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In-line 6</td>
<td>7.2</td>
<td>240**</td>
<td>295</td>
</tr>
<tr>
<td>OM 457 LA</td>
<td>Heavy-duty</td>
<td>In-line 6</td>
<td>12</td>
<td>125</td>
<td>175</td>
</tr>
<tr>
<td>OM 460</td>
<td>Heavy-duty</td>
<td>In-line 6</td>
<td>12.8</td>
<td>375</td>
<td>335</td>
</tr>
</tbody>
</table>

OM = Oil (diesel) engine
9 = 400 BR* (HD)
2 = Enhanced displacement
6 = 600 BR* (MD)
LA = Charged and charge air-cooled
4 = L4 cylinder engine (4.8 l)
6 = L6 cylinder engine (7.2 l)
7 = L6 cylinder engine (12 l)

Engine systems for EURO III, EURO V and EEV.

<table>
<thead>
<tr>
<th>Model</th>
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<th>Power range [kW] EURO V/EEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM 924</td>
<td>Enhanced displacement LA</td>
<td>In-line 4</td>
<td>4.8</td>
<td>95</td>
<td>53</td>
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Portfolio of EURO III, EURO V and EEV engines for trucks

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<tr>
<td></td>
<td></td>
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<td>In-line 6</td>
<td>12.8</td>
<td>375</td>
<td>335</td>
</tr>
</tbody>
</table>
Always a good choice.

Your product benefits for medium-duty engine systems:

- 4- and 6-cylinder diesel engines in an in-line arrangement
- Displacement of 4.8 and 7.2 liters
- Output of 115 up to 240 kW
- Low fuel consumption due to proven SCR technology
- Compact installation space
- Cylinder head with 3-valve technology
- Powerful and dynamic engine brakes due to decompression technology
- Power take-off options
- "One box" SCR exhaust after-treatment
- Wide range of potential adaptations due to extensive modular system
**OM 924 LA**  
Arrangement: In-line 4  
Displacement: 4.8 l

**Rated power and maximal torque**

<table>
<thead>
<tr>
<th>Engine Type</th>
<th>Rated Power [kW/hp]</th>
<th>Maximal Torque [Nm]</th>
<th>Engine Speed [rpm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM 924 LA</td>
<td>240/326**</td>
<td>1300</td>
<td>2200</td>
</tr>
<tr>
<td></td>
<td>175/238</td>
<td>850</td>
<td>2200</td>
</tr>
<tr>
<td></td>
<td>188/255</td>
<td>970</td>
<td>1200–1600</td>
</tr>
<tr>
<td></td>
<td>210/286</td>
<td>1120</td>
<td>1200–1600</td>
</tr>
</tbody>
</table>

**Weight and dimensions**

<table>
<thead>
<tr>
<th></th>
<th>EUO III</th>
<th>EUO V/EEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry weight [kg]</td>
<td>530</td>
<td>540</td>
</tr>
<tr>
<td>Dimensions [mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A = length</td>
<td>1228</td>
<td>1400</td>
</tr>
<tr>
<td>B = width (excl. charge air pipe)</td>
<td>640</td>
<td>640</td>
</tr>
<tr>
<td>C = height</td>
<td>930</td>
<td>930</td>
</tr>
</tbody>
</table>

*depending on equipment installed

**OM 926 LA**  
Arrangement: In-line 6  
Displacement: 7.2 l

**Rated power and maximal torque**

<table>
<thead>
<tr>
<th>Engine Type</th>
<th>Rated Power [kW/hp]</th>
<th>Maximal Torque [Nm]</th>
<th>Engine Speed [rpm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM 926 LA</td>
<td>240/326</td>
<td>1300</td>
<td>2200</td>
</tr>
<tr>
<td></td>
<td>175/238</td>
<td>850</td>
<td>2200</td>
</tr>
<tr>
<td></td>
<td>188/255</td>
<td>970</td>
<td>1200–1600</td>
</tr>
<tr>
<td></td>
<td>210/286</td>
<td>1120</td>
<td>1200–1600</td>
</tr>
</tbody>
</table>

**Weight and dimensions**

<table>
<thead>
<tr>
<th></th>
<th>EUO III</th>
<th>EUO V/EEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry weight [kg]</td>
<td>395</td>
<td>405</td>
</tr>
<tr>
<td>Dimensions [mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A = length</td>
<td>944</td>
<td>1400</td>
</tr>
<tr>
<td>B = width (excl. charge air pipe)</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>C = height</td>
<td>930</td>
<td>930</td>
</tr>
</tbody>
</table>

*depending on equipment installed

**Mercedes-Benz engine systems**

- **Transmissions**
- **Axles**
Climb every mountain.

**Your product benefits** for heavy-duty engine systems:

- 6-cylinder diesel engines in in-line arrangement
- **Displacement** of 12 and 12.8 liters
- **Output** of 260 up to 375 kW
- Low fuel consumption due to proven SCR technology
- Compact installation space
- Cylinder head with 4-valve technology
- Powerful and dynamic engine brakes due to decompression technology
- Additional power take-off options
- "One box" SCR exhaust after-treatment

Heavy-duty engine systems.
OM 457 LA

Arrangement: In-line 6
Displacement: 12 l

Weight and dimensions*:

- Dry weight:
  - EURO III: 1005 kg
  - EURO V/EEV: 1015 kg

Dimensions:
- A = length: 1478 mm
- B = width (excl. charge air pipe): 750 mm
- C = height: 1095 mm

* depending on equipment installed

OM 457 LA

Arrangement: In-line 6
Displacement: 12 l

Rated power and maximal torque:

<table>
<thead>
<tr>
<th></th>
<th>EURO III</th>
<th>EURO III</th>
<th>EURO V/EEV</th>
<th>EURO V/EEV</th>
<th>EURO V/EEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power</td>
<td>260/354</td>
<td>310/422</td>
<td>265/360</td>
<td>295/401</td>
<td>315/428</td>
</tr>
<tr>
<td>at engine speed</td>
<td>2000 rpm</td>
<td>2000 rpm</td>
<td>1900 rpm</td>
<td>1900 rpm</td>
<td>1900 rpm</td>
</tr>
<tr>
<td>Maximal torque</td>
<td>1600/1750</td>
<td>1900</td>
<td>1850</td>
<td>2000</td>
<td>2100</td>
</tr>
<tr>
<td>at engine speed</td>
<td>1100 rpm</td>
<td>1100 rpm</td>
<td>1100 rpm</td>
<td>1100 rpm</td>
<td>1100 rpm</td>
</tr>
</tbody>
</table>

Performance:

- Engine systems:
  - 320 kW
  - 280 kW
  - 240 kW
  - 200 kW
  - 160 kW
  - 120 kW
  - 80 kW

- Transmissions:
  - 800 - 1000 - 1200 - 1400 - 1600 - 1800 - 2000 - 2200

- Axles:
  - 295 kW
  - 310 kW
  - 315 kW
  - 260 kW
OM 460 LA

Arrangement: In-line 6
Displacement: 12.8 l

Performance

| Power [kW] | 335 | 375 |
| Torque [Nm] | 230 | 240 |

Rated power and maximal torque

<table>
<thead>
<tr>
<th>Rated power [kW/ hp]</th>
<th>EURO V</th>
<th>EURO V</th>
</tr>
</thead>
<tbody>
<tr>
<td>at engine speed [rpm]</td>
<td>1900</td>
<td>1800</td>
</tr>
<tr>
<td>Maximal torque [Nm]</td>
<td>230</td>
<td>240</td>
</tr>
<tr>
<td>at engine speed [rpm]</td>
<td>1100</td>
<td>1100</td>
</tr>
</tbody>
</table>

Weight and dimensions*

| Dry weight [EURO V] | 1015 kg |
| Dimensions          |         |
| A = length           | 1478 mm |
| B = width            | 750 mm  |
| C = height           | 1095 mm |

*depending on equipment installed

Engine systems

Transmissions

Axles
Clean from start to finish.

Your product benefits for the after-treatment system:

- Low impact on exhaust back pressure
- Significant NOx reduction at a broad range of exhaust gas volume flows and exhaust gas temperatures
- Small installation space and low weight
- Long lifetime, adapted to the engine’s lifetime
- Consistent common parts strategy
- Many different variants for exhaust gas inlet and outlet
- Different shapes: cubic or oval geometry
- Vertical and horizontal variants

With BlueTec®, Mercedes-Benz’s SCR diesel technology, the level of nitrogen oxide is reduced by a catalytic converter and AdBlue®/Diesel Exhaust Fluid (DEF). The main advantages of BlueTec® are cost-efficient compliance with EURO V and EEV, low fuel consumption, low particulate matter emissions and low CO2 emissions.
Reliable transmissions for a wide range of applications.

Mercedes-Benz transmissions.
Derivation "Nomenclature" – transmissions.

<table>
<thead>
<tr>
<th>Model series</th>
<th>Type</th>
<th>Ratio</th>
<th>Max. input torque [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy-duty</td>
<td>G</td>
<td>14.57</td>
<td>1600/1800/1600</td>
</tr>
<tr>
<td>G 230-16S</td>
<td>14.20</td>
<td>1600/1800/1600</td>
<td></td>
</tr>
<tr>
<td>G 231-16S</td>
<td>17.00</td>
<td>1600/1800/1600</td>
<td></td>
</tr>
<tr>
<td>G 260-16S</td>
<td>11.72</td>
<td>1600/1800/1600</td>
<td></td>
</tr>
</tbody>
</table>

G = Mercedes-Benz transmission
-16 = 16 gears
S = Synchronized transmission
CPS = Cable Power Shift

G 260 -16 S CPS VR115HV

260 = Maximum torque / 10 (2,600 Nm)

S = Synchronized transmission

CPS = Cable Power Shift

VR115HV = Hydrodynamic oil retarder

Transmissions for EURO III, EURO V and EEV engines.
Our range of service extends from 9-speed to 16-speed transmissions for heavy-duty commercial vehicles and cranes as well as for special vehicles. An extensive selection of power take-off units, transfer cases and several circuit variants ensure that a custom-made transmission can be developed from standardized components. All transmissions are manufactured on a large scale by Mercedes-Benz Commercial Vehicles and are engineered to meet the highest standards of technology and quality.

Meeting the demands of our customers is the focus of our work. We feel committed to advancing the design of our systems in a consistent and innovative way in-line with market and customer requirements.

Our know-how is based on decades of experience in the manufacturing and development of commercial vehicle transmissions. This manufacturing expertise distinguishes our transmissions today particularly by three features:

- Very smooth running characteristics
- Low weight
- Extreme durability

In future, we will continue to stand for innovative products focused on customer-oriented applications.

Our transmission product portfolio:
Smooth operation in every situation.

Meaning of symbols:
- Manual shifted transmission
- Transmission for medium-duty trucks
- Transmission for heavy-duty trucks & special vehicles
- Transmission for cranes
Heavy-duty transmissions.

Performance driven to the extreme.

Your product benefits for heavy-duty transmissions:

- **9- to 16-speed transmissions**
- Max. input torque from 1400 Nm to 2450 Nm
- Wide gear ratio spreads from 14.57 to 17.11
- Max. permissible gross combination weight (GCW) from 40 t to 55 t
- Mechanical shifting systems enable very smooth gear changing and high driving comfort combined with maximum safety
- Integrated hydrodynamic retarder
- Highly variable modular systems for customer-specific system solutions
- Quiet running characteristics and long service life through optimized gear set geometry and high-precision processing technologies
- Compact design and weight-optimized light alloy housings for ideal mounting dimensions and an ideal power/weight ratio
- Long service intervals and low operating costs due to a fuel-efficient design optimized for customer-specific operating conditions
- More comfortable vibration characteristic

Engine systems

Axles

Transmission
G 141-9S

- Direct-drive synchronized transmission with 9 speeds and a wide gear ratio spread
- Economical gear ratio stepping (including small gear ratio step between 7th and 8th gear)

Specifications and dimensions

- Max. input torque: 1800 Nm
- Permissible gross combination weight (GCW): 44 t
- Transmission weight excl. oil: 210 kg
- Oil filling capacity: 11 l

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>R</th>
<th>Gear ratio spread</th>
</tr>
</thead>
</table>

G 230-16S

- 16-speed synchronized transmission with a wide gear ratio spread
- Overdrive versions
- Direct-drive version
- Hydrodynamic retarder can be adapted

Specifications and dimensions

- Max. input torque: 2300 Nm
- Permissible gross combination weight (GCW): 45 t
- Transmission weight excl. oil: 352 kg
- Oil filling capacity: 14 l

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<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>Ratio</td>
<td>17.030</td>
<td>11.500</td>
<td>7.790</td>
<td>5.280</td>
<td>3.870</td>
<td>2.610</td>
<td>1.770</td>
<td>1.200</td>
<td>15.480</td>
<td>17.000</td>
</tr>
</tbody>
</table>

G 231-16S

- 16-speed synchronized transmission with a wide gear ratio spread
- Overdrive versions
- Hydrodynamic retarder can be adapted

Specifications and dimensions

- Max. input torque: 2300 Nm
- Permissible gross combination weight (GCW): 40 t
- Transmission weight excl. oil: 352 kg
- Oil filling capacity: 14 l

<table>
<thead>
<tr>
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<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>R</th>
<th>Gear ratio spread</th>
</tr>
</thead>
</table>

G 260-16S

- 16-speed synchronized transmission with a wide gear ratio spread
- Overdrive versions
- Hydrodynamic retarder can be adapted

Specifications and dimensions

- Max. input torque: 2600 Nm
- Permissible gross combination weight (GCW): 55 t
- Transmission weight excl. oil: 352 kg
- Oil filling capacity: 14 l

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>R</th>
<th>Gear ratio spread</th>
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<tr>
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<td>17.000</td>
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</table>
Integrated hydrodynamic oil retarder

The integrated hydrodynamic oil retarder offers a high braking torque in combination with a compact, weight-saving design. The braking power of the retarder is also independent of selected gear or current engine speed.

A gear change does not result in any interruption in the retarder braking action and the retarder braking power depends only on the current driving speed. The braking power can be controlled precisely in five stages using the right-hand control stalk on the steering column. In addition to the engine brake, the retarder provides a maximum braking torque up to 3500 Nm (VR 115 HV).

Your product benefits:

- Stainless steel heat exchanger
- Reduction of friction by axial rotor displacement
- Optimized hydrodynamics
- Integration into the vehicle management
- Standard prop shaft length is determined by the retarder unaffected
Mercedes-Benz axles.

Reliable axles for every application.
The right axle for every application.

### Axle portfolio: front axles* and rear axles.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Light duty</td>
<td>F 4 x 2</td>
<td>F 3.5–4.4</td>
<td>17.5</td>
<td>3.5</td>
<td>R 390</td>
<td>22.5</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>F 6 x 2</td>
<td>F 5.3–6.1</td>
<td>19.5/20/22.5</td>
<td>5.3</td>
<td>R 440</td>
<td>22.5</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>F 8 x 4</td>
<td>F 4.7–6</td>
<td>20/22.5/24</td>
<td>4.7</td>
<td>R 485</td>
<td>22.5</td>
<td>4.7</td>
</tr>
<tr>
<td>Medium duty</td>
<td>F 4 x 2</td>
<td>F 5.3–6.1</td>
<td>19.5/20/22.5</td>
<td>5.3</td>
<td>R 440</td>
<td>22.5</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>F 6 x 4</td>
<td>F 6.4–6.8</td>
<td>20/22.5/24</td>
<td>6.4</td>
<td>R 440</td>
<td>22.5</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>F 8 x 4</td>
<td>F 7.5–8</td>
<td>22.5</td>
<td>7.5</td>
<td>R 485</td>
<td>22.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>F 10 x 4</td>
<td>F 7.5–9</td>
<td>22.5</td>
<td>7.5</td>
<td>R 485</td>
<td>22.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>F 8 x 6</td>
<td>20/22.5/24</td>
<td>22.5</td>
<td>8.3</td>
<td>R 485</td>
<td>22.5</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>F 10 x 6</td>
<td>20/22.5/24</td>
<td>22.5</td>
<td>10</td>
<td>R 485</td>
<td>22.5</td>
<td>10</td>
</tr>
</tbody>
</table>

---

* Front axles are applicable as steered tag and pusher axles.
** Tandem
Our product range consists of axles for a broad range of commercial vehicles. This portfolio is highly suitable for nearly all commercial categories, in urban areas or overland, from delivery to heavy trucks.

We use our customers’ experiences, their requirements and demands as an essential precondition in the development and technology of new axle concepts.

Our innovative state-of-the-art engineering and our quality-driven plants in Germany give our axles outstanding performance in:

- Durability
- Fuel efficiency
- Quiet operation

Top vehicle manufacturers around the world trust on the outstanding quality and performance of our axles and the reliability of our services. We are one of the world’s biggest producers of commercial axles and we want to share our experience and technology with you.

Convince yourself and discover the advantages of Mercedes-Benz axles.

Our axle product portfolio: Efficiency on demand.

Meaning of symbols:

- Front axles
- Rear axles
- Axles for light-duty trucks
- Axles for medium-duty trucks
- Axles for heavy-duty trucks
Flexibility at high level.

Your product benefits for front axles:

- Tire sizes from 17.5 to 24 inches
- Driven front axles for light, medium- and heavy-duty applications
- Axle loads from 3.5 to 9 tons (per axle)
- Gross vehicle weight rating (GVWR) from 6.5 to 120 tons
- High fuel efficiency design to suit the operating conditions
- Easy maintenance and long oil change intervals
- Longer lifetime and quieter operation due to our optimized gear set design
- Optimum power/weight ratio due to weight-optimized technical design
- Modular concept provides maximum flexibility to customer request

Front axles.
**F 3.5–F 4.4**

- Steered rigid axle with forged front axle beam
- Recommended for light-duty application

**Data and dimensions**

<table>
<thead>
<tr>
<th>Axle load</th>
<th>3.5–4.4 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire size</td>
<td>17.5 inches</td>
</tr>
<tr>
<td>Brake</td>
<td>disk brake</td>
</tr>
<tr>
<td>Axle weight</td>
<td>269 kg</td>
</tr>
<tr>
<td>A = overall width</td>
<td>2293–2303 mm</td>
</tr>
<tr>
<td>B = track width</td>
<td>1949–1975 mm</td>
</tr>
<tr>
<td>C = spring track</td>
<td>830 mm</td>
</tr>
<tr>
<td>D = max. turning angle</td>
<td>52°</td>
</tr>
</tbody>
</table>

* varies depending on configuration

**F 5.3–F 6.1**

- Steered rigid axle with forged front axle beam
- Recommended for medium-duty application

**Data and dimensions**

<table>
<thead>
<tr>
<th>Axle load</th>
<th>5.3–6.1 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire size</td>
<td>19.5/20/22.5 inches</td>
</tr>
<tr>
<td>Brake</td>
<td>disk brake</td>
</tr>
<tr>
<td>Axle weight</td>
<td>357 kg</td>
</tr>
<tr>
<td>A = overall width</td>
<td>2346–2389 mm</td>
</tr>
<tr>
<td>B = track width</td>
<td>1955–1991 mm</td>
</tr>
<tr>
<td>C = spring track</td>
<td>830 mm</td>
</tr>
<tr>
<td>D = max. turning angle</td>
<td>52°</td>
</tr>
</tbody>
</table>

* varies depending on configuration

**FD 346–FD 360**

- Steered, driven salisbury-design axle
- Recommended for medium-duty application

**Data and dimensions**

<table>
<thead>
<tr>
<th>Axle load</th>
<th>7.5–8 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire size</td>
<td>20/22.5 inches</td>
</tr>
<tr>
<td>Brake</td>
<td>disk brake/drum brake</td>
</tr>
<tr>
<td>Drive type</td>
<td>single-stage</td>
</tr>
<tr>
<td>Axle weight</td>
<td>461 kg</td>
</tr>
<tr>
<td>A = overall width</td>
<td>2486–2583 mm</td>
</tr>
<tr>
<td>B = track width</td>
<td>2046–2140 mm</td>
</tr>
<tr>
<td>C = spring track</td>
<td>840 mm</td>
</tr>
<tr>
<td>D = max. turning angle</td>
<td>48°</td>
</tr>
</tbody>
</table>

* varies depending on configuration

**F 7.5–F 8**

- Steered rigid axle with forged front axle beam
- Recommended for heavy-duty application

**Data and dimensions**

<table>
<thead>
<tr>
<th>Axle load</th>
<th>7.5–8 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire size</td>
<td>20/22.5 inches</td>
</tr>
<tr>
<td>Brake</td>
<td>disk brake</td>
</tr>
<tr>
<td>Axle weight</td>
<td>492 kg</td>
</tr>
<tr>
<td>A = overall width</td>
<td>2190–2496 mm</td>
</tr>
<tr>
<td>B = track width</td>
<td>1886–2098 mm</td>
</tr>
<tr>
<td>C = spring track</td>
<td>830/1000 mm</td>
</tr>
<tr>
<td>D = max. turning angle</td>
<td>39°</td>
</tr>
</tbody>
</table>

* varies depending on configuration
**Data and dimensions**

**Axle load** 4.5–9 t

**Tire size** 9.00R20, 10.00R20

**Drive** drive brake

**Brake** brake

**Axle weight** 463 kg

\[ A = \text{overall width} \quad 2486–2583 \text{ mm} \]

\[ B = \text{track width} \quad 2046–2153 \text{ mm} \]

\[ C = \text{spring track} \quad 840 \text{ mm} \]

\[ D = \text{max. turning angle} \quad 48° \]

* varies depending on configuration

• Steered rigid axle with forged front axle beam
• Recommended for heavy-duty application

---

**FD 233 P**

**Data and dimensions**

**Axle load** 7.5–9 t

**Tire size** 20/22.5/24 inches

**Brake** drum brake

**Drive type** two-stage/planetary

**Axle weight** 738 kg

\[ A = \text{overall width} \quad 2480–2506 \text{ mm} \]

\[ B = \text{track width} \quad 1997–2092 \text{ mm} \]

\[ C = \text{spring track} \quad 840/875 \text{ mm} \]

\[ D = \text{max. turning angle} \quad 42° \]

* varies depending on configuration

• Steered, driven planetary axle with cast axle housing
• Recommended for heavy-duty application

---

**FT 233 P + FD 233 P**

**Data and dimensions**

**Axle load** 18 t (tandem)

**Tire size** 20/22.5/24 inches

**Brake** drum brake

**Drive type** two-stage/planetary

**Axle weight** 1621 kg

\[ A = \text{overall width} \quad 2480–2506 \text{ mm} \]

\[ B = \text{track width} \quad 1997–2092 \text{ mm} \]

\[ C = \text{spring track} \quad 840 \text{ mm} \]

\[ D = \text{max. turning angle} \quad 38° \]

* varies depending on configuration

• Steered, driven planetary axle with cast axle housing, tandem
• Recommended for heavy-duty application
Your product benefits for rear axles:

- Tire sizes from 17.5 to 24 inches
- Hypoid and planetary driven
- Ring gear diameter from 233 to 485 mm
- Gross vehicle weight rating (GVWR) from 6.5 to 120 tons
- High fuel efficiency
- Easy maintenance and long oil change intervals
- Longer lifetime and quieter operation due to our optimized gear set design
- Optimum power/weight ratio due to weight-optimized technical design
- Modular concept provides maximum flexibility to customer request

Master every challenge.
### Data and dimensions

**R 325**
- Axle load: 6–8.3 t
- Tire size: 17.5 inches
- Brake: disk brake
- Suspension: air springs/steel springs
- Drive type: single-stage/hypoid
- Axle weight*: 350 kg
- Ring Gear Diameter: 325 mm

* varies depending on configuration

**Fabricated axle housing**
- Recommended for light-duty application

**R 390**
- Axle load: 9.2–11 t
- Tire size: 19.5/20/22.5 inches
- Brake: disk brake/drum brake
- Suspension: air springs/steel springs
- Drive type: single-stage/hypoid
- Axle weight*: 541 kg
- Ring Gear Diameter: 390 mm

* varies depending on configuration

**Fabricated axle housing**
- Recommended for medium-duty application

**R 440 NFD**
- Axle load: 13 t
- Tire size: 22.5 inches
- Brake: disk brake
- Suspension: air springs/steel springs
- Drive type: single-stage/hypoid
- Axle weight*: 680 kg
- Ring Gear Diameter: 440 mm

* varies depending on configuration

**Fabricated axle housing**
- Recommended for heavy-duty application

**R 485**
- Axle load: 13 t
- Tire size: 22.5 inches
- Brake: disk brake
- Suspension: air springs/steel springs
- Drive type: single-stage/hypoid
- Axle weight*: 765 kg
- Ring Gear Diameter: 485 mm

* varies depending on configuration

**Cast axle housing for high engine torque**
- Recommended for heavy-duty application
**Mercedes-Benz axles**

- **R 233 P-R 300 P**
  - Planetary axle with cast axle housing
  - Recommended for heavy-duty application

  **Data and dimensions**
  - Axle load: 13.4–16 t
  - Tire size: 20/22.5/24 inches
  - Brake: disk brake/drum brake
  - Suspension: air springs/steel springs
  - Drive type: two-stage/planetary
  - Axle weight*: 792 kg
  - Overall width: 2407–2775 mm
  - Track width: 1800–2039 mm
  - Spring track: 930 mm
  - Ring Gear Diameter: 233/300 mm

* varies depending on configuration

- **RT 233 P + R 233 P - RT 300 P + R 300 P**
  - Planetary axle with cast axle housing
  - Recommended for heavy-duty application

  **Data and dimensions**
  - Axle load: 26.8–32 t (tandem)
  - Tire size: 20/22.5/24 inches
  - Brake: disk brake/drum brake
  - Through-drive axle: yes
  - Suspension: air springs/steel springs
  - Drive type: single-stage/hypoid
  - Axle weight*: 1643 kg (tandem)
  - Overall width: 2407–2775 mm
  - Track width: 1800–2039 mm
  - Spring track: 930 mm
  - Ring Gear Diameter: 233/300 mm

* varies depending on configuration

- **RT 390 + RT 390 T**
  - Fabricated axle housing, tandem
  - Recommended for heavy-duty application

  **Data and dimensions**
  - Axle load: 20 t (tandem)
  - Tire size: 22.5 inches
  - Brake: disk brake
  - Through-drive axle: yes
  - Suspension: air springs/steel springs
  - Drive type: single-stage/hypoid
  - Axle weight*: 1255 kg (tandem)
  - Overall width: 2441–2501 mm
  - Track width: 1821–1823 mm
  - Spring track: 990 mm
  - Ring Gear Diameter: 390 mm

* varies depending on configuration

- **RT 440 + R 440 NFD**
  - Fabricated axle housing, tandem
  - Recommended for heavy-duty application

  **Data and dimensions**
  - Axle load: 26 t (tandem)
  - Tire size: 22.5 inches
  - Brake: disk brake
  - Through-drive axle: yes
  - Suspension: air springs/steel springs
  - Drive type: single-stage/hypoid
  - Axle weight*: 1482 kg (tandem)
  - Overall width: 2410–2482 mm
  - Track width: 1802–1910 mm
  - Spring track: 930 mm
  - Ring Gear Diameter: 440 mm

* varies depending on configuration

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**Engine Systems**

**Axles**

**Transmissions**

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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 truck 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.

One-stop shop.

Our perfectly matched powertrain delivers you the best possible performance and fuel savings, while maintaining low overall operating costs. The perfect combination of engine systems, transmissions and axles yields in the greatest possible efficiency and the best quality made by Mercedes-Benz Powertrain. We tailor Mercedes-Benz Powertrain component configurations to the needs of our customers for sales in the on-highway segment.

If you have technical questions, would like additional information or wish to request installation drawings, please do not hesitate to contact our sales team:

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