Daimler Trucks Global Powertrain

Global Powertrain stands not only for integrated drivetrains, but also for the integration of all global locations and relevant functions along the value chain. The unit manufactures innovative and reliable drive system components according to globally uniform quality standards. The components are used by all of Daimler’s commercial vehicle divisions and brands as well as by external customers. At around 50 percent, drivetrains account for the lion’s share of a truck’s value added and thus make a major contribution to the growth and financial success of Daimler Trucks. Intelligent platforms and the close cooperation within a global network can generate synergy effects for the company and its customers.

Product highlights:

**Heavy-Duty Engine Platform (HDEP):**
The heavy-duty engine generation covers the heavy-duty segment from 10.7 to 15.6 l and from 240 to 460 kW. This generation of engines is used worldwide in heavy-duty trucks from Mercedes-Benz, Freightliner, Western Star, and FUSO, in touring coaches from Setra and Mercedes-Benz, and in off-highway products. The cleanest and most modern engine platform in its segment fulfills the tough emissions standards in force in Europe, North America, and Japan, and shows that it is possible to achieve Euro VI compliance and higher fuel efficiency at the same time. Current examples include the OM 471 and the latest generation of the OM 470, which consume up to three percent less fuel than their predecessors, despite having a higher torque and more dynamic handling. The latest generation of the HDEP family is available throughout the triad. Additional highlights include the OM 473, which, as the most powerful engine in its range (460 kW), can efficiently and reliably move heavy loads, and the OM 471 Biodiesel. The latter underscores Daimler Trucks’ expertise in alternative fuels. This 6-cylinder inline engine comes in the output ratings 310 kW and 330 kW and is approved for first-generation biodiesel (FAME). Moreover, the OM 470 and OM 471 can run on second-generation biogenic fuels (HVO, BTL, GTL, CTL).

**Medium-Duty Engine Generation (MDEG):**
Daimler offers the Medium-Duty Engine Generation – an all-new engine series that was developed from the ground up for light and medium-duty trucks, urban and inter-city buses, and off-highway applications. The engines of the OM 93x series (four or six cylinders and either 5.1 l or 7.7 l of displacement) cover the performance range from 115 to 260 kW and set benchmarks in their class, thanks to their good cost-effectiveness and state-of-the-art technology. As a result of its global rollout, the new DD5 medium-duty engine has also been available in the U.S. market since 2016. In 2018, the 6-cylinder variant DD8 followed. Both engines fulfill the NAFTA greenhouse gas emissions standard (GHG17) and are produced locally in Detroit. Additionally, with the M936 G natural gas engine, which features a new combustion and exhaust treatment strategy, an even more environmentally friendly and resource-conserving drive-system is offered in the medium-duty segment. With up to 20 percent less CO₂ than diesel engines, it sets new standards for exhaust gas emissions. Emissions of particulate matter are also reduced to a minimum. Moreover, the entire OM 93x engine range can run on second-generation biogenic fuels (HVO, BTL, GTL, CTL).

**Classic engine series:**
Global Powertrain also offers customers a range of high-quality medium-duty and heavy-duty engines outside the triad markets. Customers in countries such as Brazil, India, and Russia benefit from the outstanding combination of robustness, low procurement costs, and high fuel efficiency provided by the four and six-cylinder 900 series engines and the six-cylinder 457 series.
Integrated drivetrain:
For the medium-duty and heavy-duty segments in Europe, Mercedes-Benz Trucks offers an optimally coordinated drivetrain from a single source in order to ensure maximum fuel efficiency and minimum total cost of ownership (TCO). Together with the DD15 and DD13 heavy-duty engines, the DT12 transmission, and Detroit axles, Daimler Trucks North America (DTNA) also offers a fully integrated drivetrain on the U.S. market. While the new heavy-duty transmission has been gradually rolled out since 2016 and boasts an even better efficiency, the New Final Drive axle was launched in Europe and North America in 2017. The latter gives us an innovative edge in axle technology and its outstanding overall efficiency and reduced fuel consumption round out the second generation of our integrated drivetrain. In the Actros, adjustments to the OM 470 engine and drive line reduce fuel consumption by up to five percent. In Actros trucks equipped with the OM 471, modifications to the engine and optimized aerodynamics and drivetrains can reduce fuel consumption by up to six percent compared to the predecessor engine. The new NFD axle cuts the fuel consumption of the Actros by an additional 0.5 percent. In combination with an integrated drivetrain, the axle increases overall efficiency by up to 6.5 percent in comparison with its predecessor.

Third-party business:
Global Powertrain also offers engines, transmissions, and axles to external customers as either individual components or complete drivetrain solutions. In addition to products that are optimally adjusted to customer and market-specific requirements, customers from the on-highway and off-highway segments benefit from our global after-sales network. Since May 2018, transmissions of HDEP/MDEG platforms fulfill Stage V EU regulation.