

Aftermarket of tomorrow—what will become of the “good old alternator”?

- DC voltage converters replace the classic alternator in electric vehicles
- MAHLE’s current original equipment components form the basis for tomorrow’s customized products and aftermarket solutions

Stuttgart/Germany, November 12, 2019 – Most functions in the vehicle require electrical power. In vehicles with a combustion engine, this is generated by the alternator. In contrast, the car battery serves as a power store and buffer. But what happens when the belt drive is no longer attached to the crankshaft, as in an electric vehicle? What components take the place of the alternator, and what does that mean for workshops?

With voltage levels of up to 800 volts, electric vehicles cannot simply draw the power needed to operate low-voltage components, such as headlights, fans, window lifts, or windshield washer pumps, from the battery. So a DC voltage converter takes the place of the alternator, bringing the power from the battery to the required voltage level. MAHLE already manufactures DC voltage converters for OE applications that provide safe and reliable separation of the high- and low-voltage electrical systems. They are flexible in terms of installation space and design, and are also protected against under- and overvoltage, overcurrent, and overheating.

“At MAHLE, original equipment products reach the aftermarket very quickly. We have the expertise and production capacities within the company. Together with MAHLE’s diagnostics and service solutions, training, and service and maintenance information, we can offer precisely the solutions that are needed in the workshop, both now and in the future,” says Olaf Henning,

Corporate Executive Vice President and General Manager MAHLE Aftermarket.

In the future, MAHLE will be unrivaled when it comes to components for power electronics in electric cars: during AC charging, the power flows through a MAHLE onboard charger toward the battery. A MAHLE DC voltage converter supplies the 12-/24-/48-volt unit with power, and a MAHLE inverter ensures precise control of the traction motor and processes the energy obtained during the recuperation process. By continuously expanding its activities in the area of power electronics and drives, MAHLE has been preparing for the mobility transformation for some time—and is paving the way for its aftermarket portfolio of tomorrow.

About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry as well as a pioneer for the mobility of the future. The group's product portfolio addresses all the crucial issues relating to the powertrain and air conditioning technology—both for drives with combustion engines and for e mobility. In 2018, the group generated sales of approximately EUR 12.6 billion with more than 79,000 employees and is represented in over 30 countries with 160 production locations.

About MAHLE Aftermarket

MAHLE Aftermarket, the business unit specializing in spare parts, uses the expertise from the series production of original equipment in its automotive aftermarket product range and supplies trade, workshop, and engine repair partners. The portfolio also includes products developed by MAHLE Service Solutions for workshop equipment as well as comprehensive services and customized training programs.

MAHLE Aftermarket is represented at 25 locations and other sales offices worldwide, with around 1,700 employees. In 2018, the business unit achieved a global sales volume of over EUR 928 million.

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