Electronic accelerator pedal

suitable for: DAF, Fiat, Iveco, Mercedes-Benz, Renault, Scania, MAN and Volvo etc.



Get off to a flying start with DT Spare Parts

Everyone has probably heard the expression "Step on the gas!" from one of their passengers. Nowadays, an electronic accelerator pedal is installed in vehicles so that the request can be obeyed. In the latest PS Tips video, Parts Specialist Niklas from Diesel Technic explains exactly how it works and what items the DT Spare Parts brand has to offer.

The term accelerator pedal dates back to the days of the carburettor in the 19th century. This was controlled by a cable or linkage. It was used to process the petrol into a fuel-air mixture. The function of the accelerator pedal, the acceleration of the vehicle, is still the same today. However, the processes in the background have changed fundamentally.

The PS Tips video from the Parts Specialists once again provides practical hints and tips that make the day-to-day work of other workshop professionals easier. In the latest clip, Parts Specialist Niklas explains what has changed since the early days of the accelerator pedal and the advantages of the electronic device.

The electronic accelerator pedal is the modern alternative to the conventional mechanical accelerator pedal in vehicles. Instead of an accelerator pedal, which is connected to the injection pump by a cable or linkage, the electronic accelerator pedal sends electrical signals to the engine control unit. This control unit then regulates the engine output according to the pedal position.

Troubleshooting starts with checking the power supply. Ideally, it should be 24 volts. To do this, first switch on the ignition and then connect the multimeter to check the supply voltage. If there are any problems with the power supply, the Parts Specialist recommends checking the earth connection. One pin of the multimeter is connected to the plug and the other is held against the body. The multimeter then provides information about the resistance value. The pin assignment on the pedal can be found in the workshop literature.

In the next step, the Parts Specialist uses a simulation on his tool trolley to demonstrate the operating principle of the electronic accelerator pedal, including the power supply, removed pedal and an oscilloscope. The latter is used to read out the signals coming from the accelerator pedal. If the engine control unit registers an error in the accelerator pedal signal, the vehicle goes into emergency mode.

The advantages of the electronic accelerator pedal are manifold. For example, it can enable more finely dosed acceleration and shorten the reaction time between pedal actuation and engine response. The electronic accelerator pedal is also compatible with other vehicle systems such as cruise control or other driver assistance systems.

In addition, electronic control allows better adaptation to different driving modes and conditions, as well as the implementation of functions such as automatic transmission control or emergency brake assist in modern vehicles. An electronic accelerator pedal is also essential for compliance with increasingly stringent emission classes.

The entire range of DT Spare Parts for electronic accelerator pedals can be found in the Diesel Technic Partner Portal. This include sensors and accelerator pedals, some of which are equipped with an additional sensor. Practical repair kits are also available, including for the connector plugs. The spare parts are suitable for brands including DAF, Fiat, Iveco, Mercedes-Benz, Renault, Scania, MAN and Volvo.

As part of the Diesel Technic Quality System (DTQS), the spare parts are put through their paces. This takes place on a specially developed test bench on which all accelerator pedals are tested. This procedure guarantees the consistently high quality of DT Spare Parts brand products.

If you have any technical questions, the Parts Specialists provide support with their HelpDesk: helpdesk.dieseltechnic.com.

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More info: www.dtqs.de