Piston liners

suitable for: DAF, Ford, Isuzu, Iveco, MAN, Mercedes-Benz, Renault, Scania, Volvo, VW etc.



Precision for the engine

Piston liners are a key component in the engine construction. Unlike in passenger cars, where the cylinder bores are made directly in the engine block, piston liners are used almost exclusively in heavy vehicles. The reason: they allow significantly easier repair and are designed for high kilometres and loads.

The new PS Tips video with Parts Specialist Niklas provides an overview of the structure, variants and special features of piston liners. In addition, the Diesel Technic Partner Portal offers a large selection of piston liners and matching components such as piston rings, retaining rings, sealing rings and complete sets of piston liners with matching pistons, including piston rings and piston pins. This covers the following brands, including: DAF, Ford, Isuzu, Iveco, MAN, Mercedes-Benz, Renault, Scania, Volvo and VW.

Over 300 piston liners & co. available

DT Spare Parts offers various types of piston liners. Dry piston liners have a flat external wall and are inserted directly into the engine block; they are not in direct contact with the coolant. In contrast, "wet" piston liners have cooling ribs on the external wall, allowing the coolant to circulate between the engine block and the piston liner, ensuring improved heat dissipation. Furthermore, certain liners have an integrated fire ring with a slightly smaller diameter than the running surface. This serves to scrap combustion residues such as carbon particles from the piston and remove them via the exhaust valve – a practical solution for vehicles that are subject to high thermal and mechanical loads.

Cross-grinding and exact measuring

A key feature of all piston liners is the cross-grind. "This special surface structure ensures an even, smooth running surface on which the piston rings can work optimally", explains Niklas. At the same time, the cross-grind ensures that a fine lubricating film remains, which ensures smooth movement of the piston. The angle of the cross-grind is specified by the manufacturer and must be carefully checked during repairs around the combustion and compression chamber. Insufficient compression and increased oil consumption are among the signs of wear on the grind. If regrinding is necessary, special tools are used, followed by precise measurement of the cylinder running surface. "First, the target measurement is set using a micrometer, then the internal dial gauge is calibrated", Niklas explains in PS Tip. If the measuring pointer moves above 0 (the 0 on the measuring pointer describes the previously set target measurement), the cylinder running surface is undersized; if the pointer remains below 0, there is oversize. This can indicate thermal overload or wear. In this case, a decision must be made as to whether reworking or replacement of the liner is necessary.

Safe packaging and storage

To ensure that the products arrive undamaged and free of corrosion, the piston liners are packaged in several stages: basic oiling of the item, corrosion protection paper, waterproof plastic bag and a sturdy cardboard layer ensure that the product is protected. The box also contains a note that the pistion liners must always be stored vertically to prevent deformation.

If you have any technical questions about Diesel Technic products and services, the Parts Specialists can be contacted via their own HelpDesk and offer the right support: helpdesk.parts-specialists.com.

Request article or order in Partner Portal

DT Spare Parts

The brand DT Spare Parts from Germany provides a complete range of vehicle parts and accessories with a 24 month guarantee – no matter whether for trucks, trailers, buses, transporters or further applications, e.g. cars, agricultural vehicles, construction vehicles, marine or industrial applications. The guaranteed brand quality is achieved through the consistent product optimisation and relentless quality assurance within the framework of the Diesel Technic

Quality System (DTQS).

More info: www.dtqs.de