



BU AFTERMARKET

Engine expertise. At any time.

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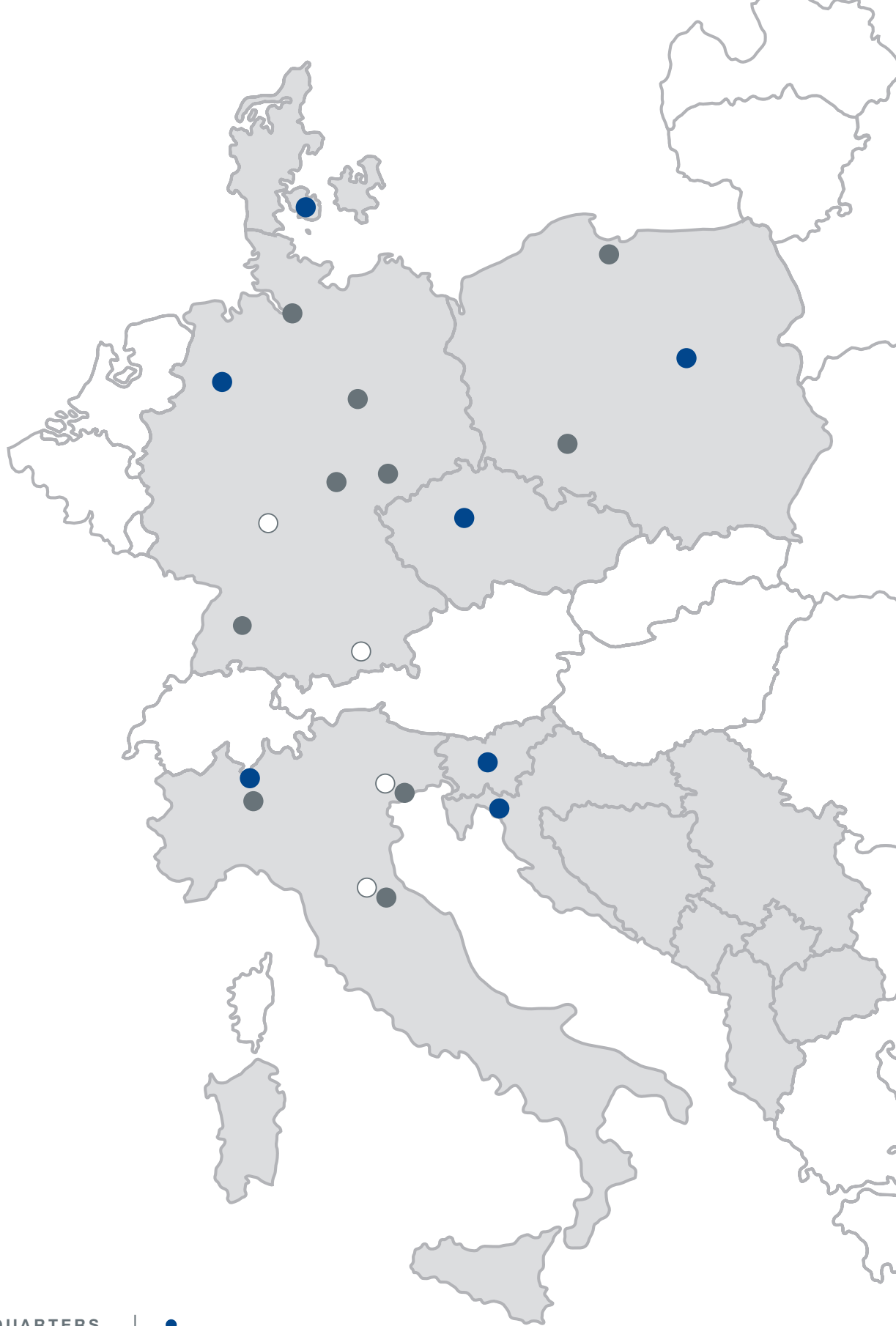
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You wish to make things change? So do we.

As Perkins distributor, BU Power Systems is responsible for the distribution and after-sales service of Perkins diesel and gas engines and FG Wilson power generators. BU Power Systems offers customized drive solutions for engines utilized in the fields of industry, construction, agriculture, power generation as well as the materials handling and shipping sector. In 16 countries throughout Europe, we guarantee professional product consultation and seamless service with regard to Perkins engines.

The service portfolio of BU Power Systems covers the sale of engines and spare parts and also includes individual services. The sale contains qualified product consultation with conceptual planning, prototype development, individual customization by means of our application management, sourcing and training. Engine support after the purchase is provided for by our comprehensive after-sales service.

BU Power Systems maintains service centres, workshops and warehouses in Germany, Italy, Poland, Denmark, Croatia, Slovenia and the Czech Republic. The warehouse space for the extensive range of engines, power generators and original parts from Perkins comprises more than 7,000 m² throughout Europe.

Tailor-made service. For your engines.

BU Power Systems offers tailor-made expert service for engines from the fields of industry, agriculture, forestry and construction machinery, emergency power and electric generators as well as for engines in cogeneration units. With short response times, professional coordination as well as maximum spare parts availability, the BU Service meets the highest Perkins service standard. As level-3-certified Perkins service partner, BU Power Systems ensures a consistently high service quality. Our fully equipped service vehicles ensure rapid on-site assistance. And if the damage turns out to be even more complex, we will gladly provide you with a replacement engine.

LEVEL-3-CERTIFIED PERKINS SERVICE PARTNER. WHAT DOES THIS MEAN?

- Continuously trained service technicians, i.e. trained personally in our training centre certified by Perkins and by online training courses in the Perkins Learning Management System. This ensures that we're continuously up-to-date in terms of know-how, also with regard to the latest engine generations from Perkins.
- Both our workshops and our service technicians are provided with all necessary Perkins special tools.
- Our service technicians are equipped with special notebooks. This enables them, by use of the corresponding analysis tools, to read out all Perkins engine control devices of the large variety of different series and applications and carry out changes. It also gives them access to all Perkins service documents. The combination of equipment and training constitutes the basis for localizing and eliminating faults quickly and efficiently.
- This excellent basis makes us a strong partner for your Perkins engine, not only within the warranty period, but also afterwards.



Perkins®

Service

Perkins

BU PowerSystems

Perkins®

Service

Perkins





Expertise you can rely on.

Our service expert team will support you in all matters concerning your engine. Whether you need to make an order for spare parts or have a request for repair, a warranty claim or if you're in need of an inspection – our specially trained in-house advisory team will provide you with qualified and rapid support. Providing our service technicians with regular training courses and the latest know-how to ensure high customer satisfaction is another of our top priorities. We have conducted annual surveys on customer satisfaction for years. These surveys show that the general satisfaction with our aftermarket team in the past four years has been an average of 97%.

Competent fault analysis. To ensure that your machine is running.

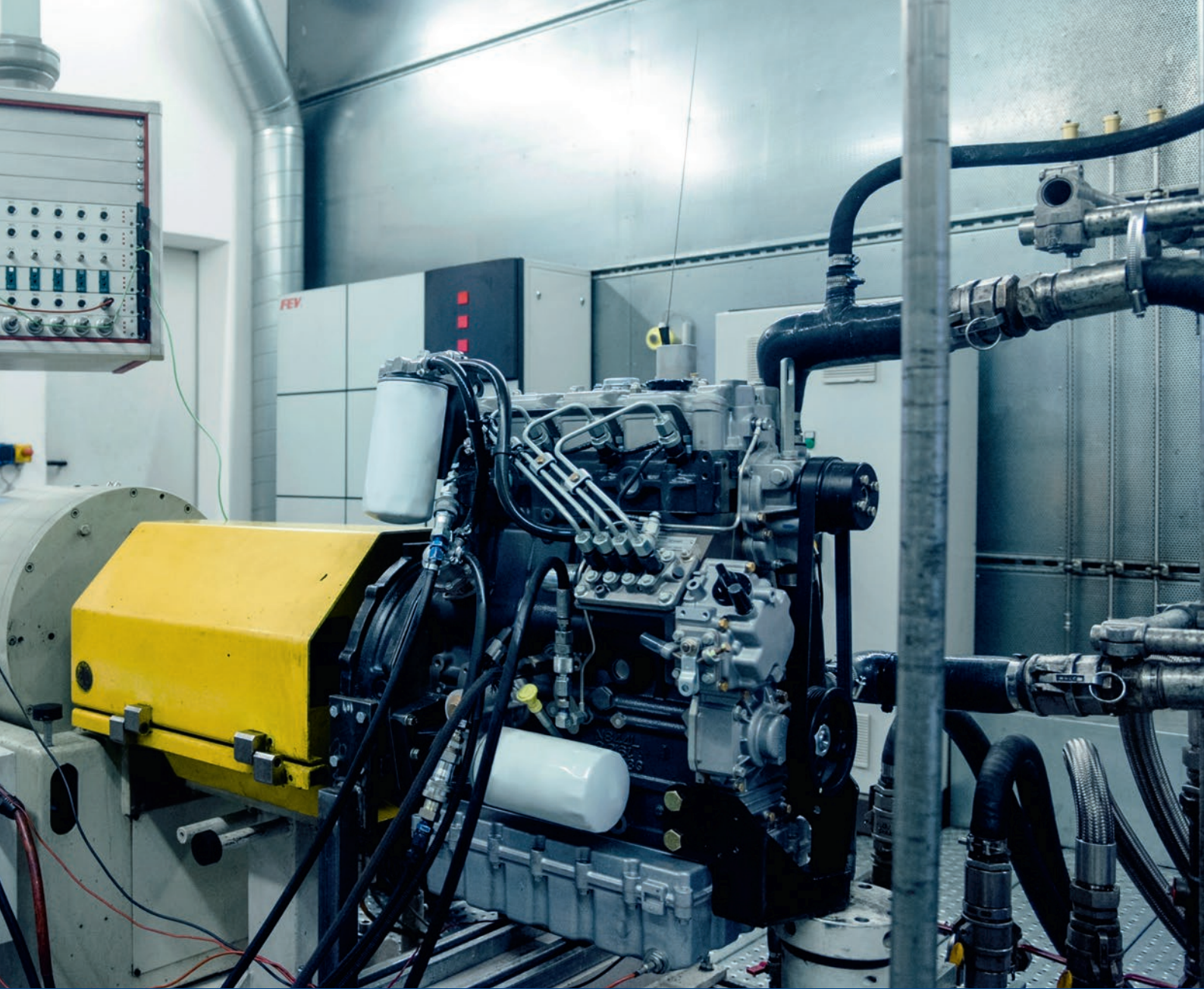
Our competent service consultants are trained to narrow down the fault characteristics as far as possible by asking specific questions. In this way, basic faults can be eliminated to some extent by the customer himself.

If faults turn out to be more complex, our personal dialogue with the customer makes it possible for us to assess the repair scope, make further workflow steps planable for our customer and prepare the assignment of our service technician. With state-of-the-art diagnosis and special tools, we achieve sustainable results. Service kits that are attuned to the individual Perkins engine series ensure the supply with engine-specific replacement parts to complete the repair work directly during the first assembly assignment.



ANALYSIS

Problem analysis directly at the customer's site or with an external diagnosis tool



or

or

or

EMERGENCY SERVICE

24/7 emergency service

REPAIRS

Repair, maintenance and spare parts service

OVERHAUL

Overhaul of individual components to the complete overhaul of the engine

REPLACEMENT

Prompt procurement of a suitable exchange engine or replacement part

Genuine quality. Quick and reliable.

Irrespective of whether you carry out repairs on your engine yourself or commission the BU team to do so, we offer you a comprehensive range of genuine Perkins spare parts. Sophisticated warehousing on the sites allows us to handle our customer requests within 24 hours – throughout Europe.

BU Power Systems offers you the original quality that you need to ensure that your engine has a long service life and that it runs perfectly. Continuous warehousing and ordering analyses ensure that common spare parts are available to the full extent at all times and at short notice.

The genuine Perkins spare parts can be shipped from both the Ibbenbüren warehouse and the Perkins central warehouse in Great Britain. In addition, BU Power Systems is equipped with regional warehouses, providing a constant availability of approx. 32,000 of original Perkins spare parts in total there. Customers can place their orders until 4.30 pm, delivery will then be on the following working day.

In addition to the individual Perkins original spare parts, we also offer you spare parts kits. These kits also exclusively include original Perkins spare parts. All relevant spare parts are therefore available in one delivery. Individual, customized spare parts kits can also be compiled and stored by BU Power Systems. This allows us to help you enhance your range of services and at the same time optimize your spare parts warehouse – as well as minimize your costs.

LOGISTICS COMPETENCE. IN 198 COUNTRIES WORLDWIDE.

With approx. 4,500 employees, production plants on 4 continents and 15 million spare parts shipped per year, Perkins is a global player and can easily ensure the availability of spare parts – wherever they are needed.



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Genuine Parts

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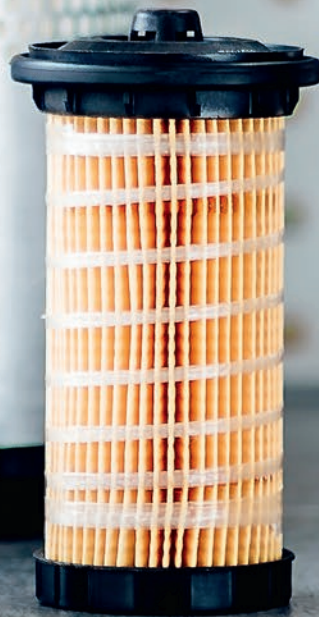
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Perkins genuine spare parts. For a long engine life.

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HERE ALL ADVANTAGES OF PERKINS ORIGINAL SPARE PARTS ARE SHOWN TO YOU AT A GLANCE:

- Original parts are produced and delivered by the same supplier and from the same manufacturing process as the parts integrated into the engine production line.
- All manufacturers of genuine parts are approved by the Perkins quality process. In the manufacturing process, special tools are often used, which have been developed exclusively for Perkins.
- In this way we ensure that every part is manufactured in the correct dimensions and material specifications.
- This allows your engine to benefit from long lifetimes and subsequent defects are prevented.
- You'll receive a manufacturer's warranty.

WHAT YOU RISK BY NOT USING PERKINS ORIGINAL SPARE PARTS:

- The greatest risk in using aftermarket parts is that these parts do not comply with the original parts 100%.
- There are specific design characteristics that are not taken into consideration by aftermarket parts – since they are based on the experience that is made over thousands of operating hours in prototype engines during the validation process.
- Dealers that sell non-original parts have no access to the original component data for your specific engine. Therefore there is a risk that they are not able to supply the correct parts which you require for completing the task.
- Moreover, aftermarket parts are manufactured in substantially lower quantity, which may have the effect that the manufacturing process is controlled in a less robust fashion, which, in turn, may affect the quality of the components.

- The assembly of non-original Perkins spare parts may affect the engine's correct functioning, which may cause downtimes and expensive repairs.

Whether you order new parts, replacement parts or spare parts kits – the BU spare parts service will always provide you with genuine Perkins spare parts including a manufacturer's warranty, which are exactly attuned to your engine and which are being refined continuously. All Perkins original spare parts are manufactured in line with the state of the art and just like all Perkins engines, are subject to a high quality standard.

SPARE PARTS WARRANTY

BU Power Systems provides a 12-month warranty for spare parts, including replacement service on the spot.

Is your fuel injection system defective?

When your fuel injection system is defective, there is always the question of whether it can be repaired.

When your fuel injection pump is defective, BU Power Systems offers you a comprehensive service portfolio:

- Supply of the original Perkins new part
- Supply of the original Perkins exchange part
- Supply of a BU replacement part (if original Perkins exchange parts are not available)
- Repair of the defective fuel injection pump

The repair of your fuel injection pump can also be a reasonable and cost-effective alternative to a new part. Just send us your defective old part and we'll prepare a cost estimate for you. On this basis, we'll then coordinate the repair of your fuel injection pump with you. After the diagnosis, you decide on how to proceed further.

Depending on the technical necessity and profitability, we also recommend the use of Perkins replacement parts. Perkins replacement parts are completely overhauled Perkins products that are passing a standardized re-manufacturing process. The result is a top-quality product that is equal to any other Perkins original spare part. The warranty period is 12 months. You can order the replacement products in OEM quality and with short delivery times (often from stock).

We also offer this replacement service for cylinder heads. You'll benefit from the high availability of the BU Power Systems cylinder head replacement scheme. The opportunity of delivery on the very next day minimizes cost-intensive machine downtimes.





Repair

As a specialist for Perkins engines we are equipped with all necessary spare parts, documentation, tools and test benches.

Both our service technicians and our workshop personnel are trained on an ongoing basis in our international training centre that is certified by Perkins. In this way we ensure that fault analysis and the subsequent repair of your engine can be carried out quickly and professionally.

Short response times, mobile service throughout Germany and a 24/7 emergency service characterize the service range of BU Power Systems. Professional advice as well as tips and assistance are also part and parcel of the scope of services.

Our service centres and service vehicles are spread throughout Germany and in this way provide for a perfect supply structure. Travelling of the BU service technicians will be charged from the nearest BU sites to the corresponding installation site. BU sites are located in: Ibbenbüren, Magdeburg, Kleinostheim, Mössingen and Peissenberg.



SERVICE PORTFOLIO

Maintenance

To ensure that your engine runs perfectly and your business processes run smoothly, BU Service offers you professional maintenance solutions. Use the BU maintenance service to keep your costs as low as possible in the long term and prevent machine downtimes and larger repairs.

BU Power Systems specializes in the maintenance and repair of engines for gen-sets, both for emergency operation and continuous power generation. We are working on top brand engines which are installed in generators in the industrial sectors, hospitals, road infrastructure, supermarkets, schools, banks, buildings and on construction sites.

Maintenance carried out by our service technicians on a regular basis and in compliance with manufacturer specifications creates added value and is of utmost importance for the safety of all activities in connection with power generation. We offer weekly, monthly, quarterly, semi-annual and annual maintenance contracts, but tailored to your needs and using original spare parts in any case.

In addition to standard maintenance, we are specialists for extraordinary maintenance, engine repairs and partial or complete overhaul of engines.

A frequently underestimated issue of emergency generators for example is the so-called light load operation. This means that the test runs to be performed on a monthly basis are often carried out using a load that is too light or even without any engine load at all. The effect of this is that cylinder surfaces “glaze”, causing oil carbon to settle on the piston rings, piston ring lands, the valves and in the combustion chamber. More and more engine oil enters the combustion chamber. The results are increased exhaust emissions and a reduced efficiency of the engine. In emergency operation, this may produce an insufficient oil level in the oil sump, causing severe engine damage. Moreover, there is the consequential damage that should actually be prevented by means of the emergency power generator.

In order to prevent this damage, we offer load runs in connection with maintenance to our customers. In this process, a load resistor that can be adjusted in a finely graduated fashion can be connected to the generator, allowing the load on the engine to be slowly increased, if required to 100%. This is how we ensure operability of the emergency power generators.

Any service is agreed in advance, planned in detail, carried out on site or in our workshops and using all repair and diagnosis devices, to keep downtimes as low as possible.

Correct maintenance of your engines guarantees perfect functioning of the generator without interruption and at reduced cost or risks of extraordinary repairs.

Moreover, we offer special products to provide you with solutions that extend the lifetime of your engine:

- Maintenance packages for diesel particulate filters
- Perkins Extended Life Coolant
- Perkins Diesel engine oil
- Maintenance contracts with different contractual terms and maintenance intervals
- Load runs for emergency power systems or generators for continuous power generation
- Maintenance kits for your engine (also assorted on an individually customized basis)
- Extended warranty

Overhaul

Profitability is our top priority. For older machines in your machine park, reasonable repair can therefore be a solid alternative to a replacement engine. Our service portfolio covers all maintenance stages from the repair of individual components to the complete overhaul of your engine. Of course, we assure you the full BU service quality. We are happy to provide you with an individual offer after an engine diagnosis.

The overhaul of your engine is carried out in the BU service workshop and, upon consultation with you, also includes comprehensive diagnosis of the engine, a fair-value-based repair after customer feedback has been provided as well as a subsequent quality inspection with a test bench run. Upon completion of the overhaul process, of course a test report is generated so that all parameters are documented. As a matter of course, the exclusive use of Perkins original parts will be guaranteed for any repair or overhaul work.

BU Power Systems can even support you with engines that are no longer produced. We offer established practices to ensure that every replacement engine – new or overhauled – meets the emission standards required in each case. Quality is always our utmost priority, which is why we utilize cutting-edge technologies for overhauling the engines. In this way we can ensure that the overhauled engine complies with its original OEM specification and that its quality standard is that of a new product. This not only guarantees you the engine power and reliability that you require, but it also saves energy and resources and makes operation environmentally friendlier.

For many years, BU Power Systems has offered bespoke engine overhaul to extend the lifetime of your engine and to optimize the profitability of your investment. By continuously reviewing and enhancing our range of services we therefore ensure that we always meet all current requirements.





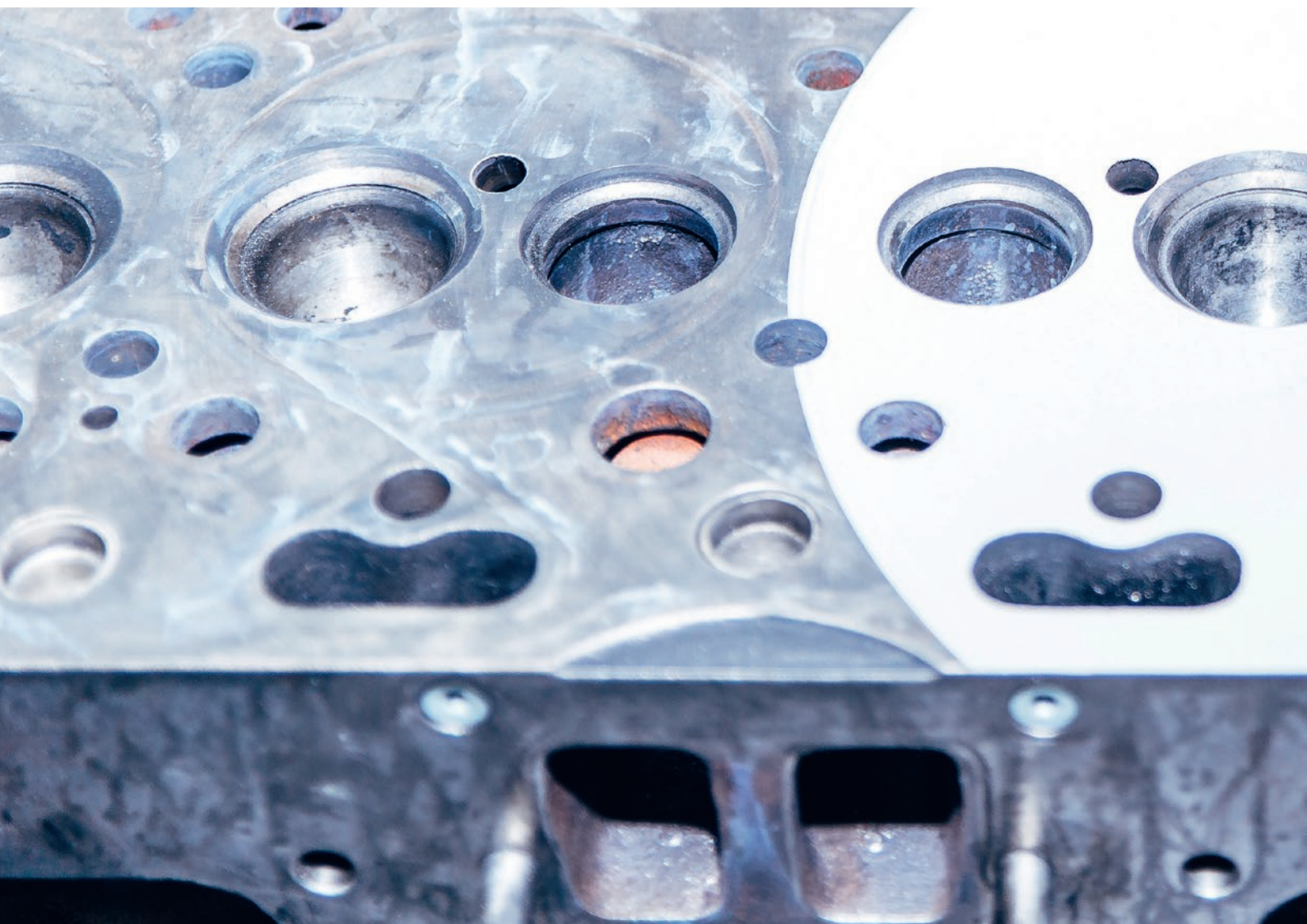
Exchange engines

Sometimes engines are not economically repairable or the factor time that is of increasing importance today does not allow an overhaul. In order to provide our customers with a fast solution in such cases, we guarantee constant availability of more than 200 Perkins replacement engines.

Therefore BU Power Systems offers the broadest range of overhauled replacement engines in the industry trade. As of now they'll be available even more quickly. All complete replacement engines and Long engines have been tested thoroughly on the engine test bench prior to delivery. This ensures our high standard of

quality. Afterwards, the engines overhauled are coated and equipped with the BU Power Systems Engine Service Pass (service book).

We offer a comprehensive range of different solution variants to our customers – from full replacement to the replacement of individual components:



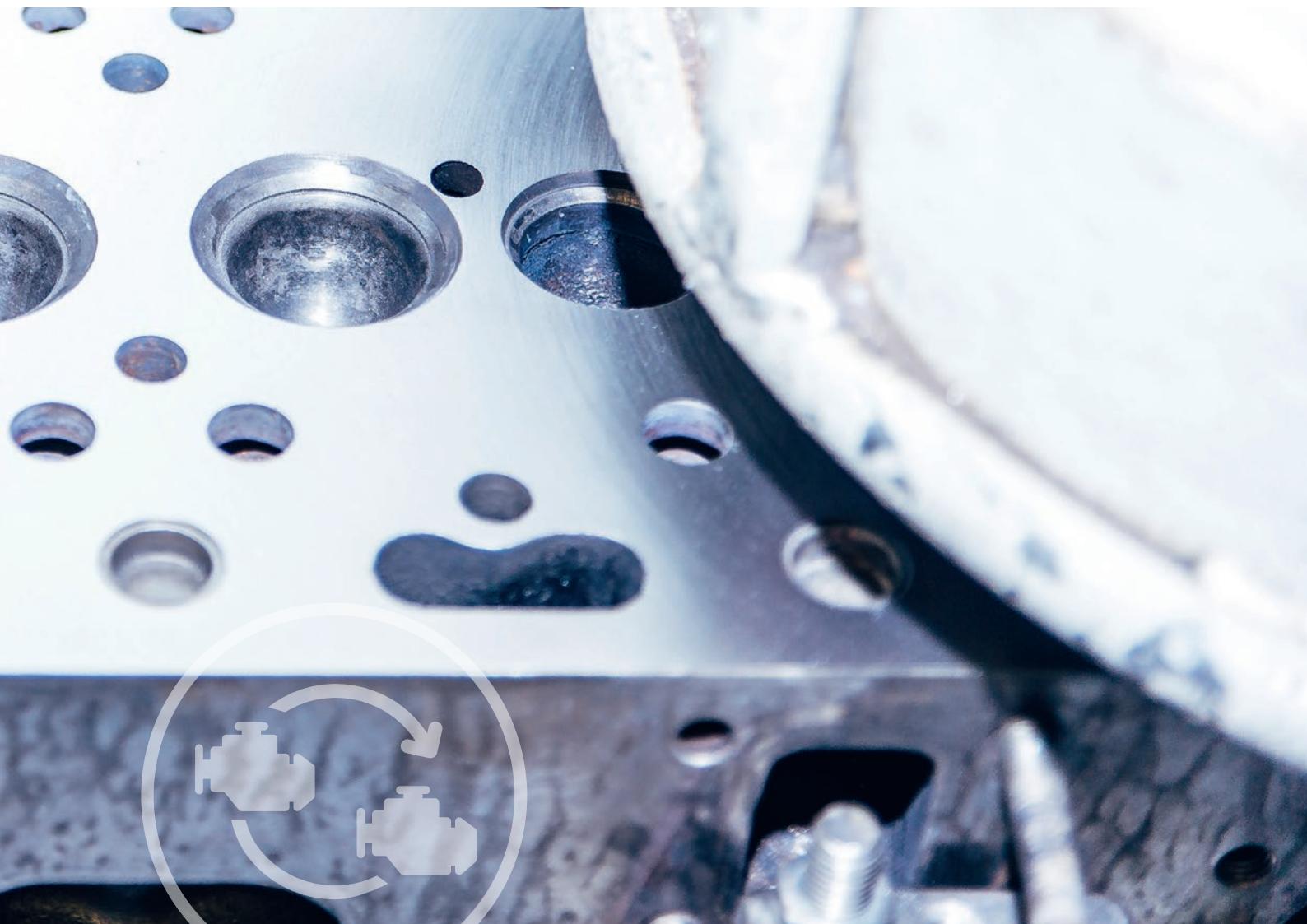
**NEW FULL REPLACEMENT
(COMPLETE ENGINE)**

BU Power Systems offers new replacement engines (with a warranty of at least 12 months), also as complete solution for selected models. These complete solutions help you to maintain emission standards, minimize downtimes and reduce labour costs.

**LONG ENGINES OF THE 100 /
400 SERIES**

As a cost-effective alternative to a complete replacement engine, our Long engines are designed to offer flexibility and added value to our customers. The Long engines are equipped with a new fuel injection system (injection pump and injection nozzles) as

well as exhaust gas turbochargers, if required. You just mount your dismantled attachment parts to the Long engine to restore the factory engine performance again. Additionally benefit from comprehensive warranties and the compliance with emission standards.



SHORT / LONG BLOCKS AND OVERHAULED SHORT / LONG BLOCKS

Our Short / Long blocks are a cost-effective repair option with minimum downtimes and they offer a rapid, reliable solution in the event of more extensive damage on the Perkins engines. Our overhauled Short / Long blocks are manufactured in compliance with the same specification as the new products and meet the same quality and warranty standard – yet only at a fraction of the cost.

By replacing the existing engine core piece our (overhauled) Short / Long blocks are able to offer an even higher value.

COMPLETE ENGINE

- Complete, installable engine
 - Incl. fuel injection system, sensors, possibly turbocharger and possibly intercooler
 - Possibly exhaust after-treatment system
- Warranty: 1 year without hour limitation

LONG ENGINES OF THE 100 / 400 SERIES

- Completely assembled engine, incl. fuel injection system and, possibly, turbocharger
- Accessories kit: flywheel screws, valve-cover gasket and possibly exhaust manifold gasket (for naturally aspirated engines)

Not included:

- Starter & dynamo
- Flywheel & flywheel housing
- Fan & belt drive
- Fuel feed pump

Warranty: 1 year without hour limitation

SHORT BLOCK

Consisting of:

- Engine block
- Crankshaft with bearing
- Connecting rods
- Pistons with piston rings
- Shaft sealing rings (rear)
- Possibly cooling injectors

Warranty: 1 year without hour limitation

LONG BLOCK

Consisting of:

- Short block
- Cylinder head
- Camshaft
- Rocker arm shaft
- Push rods
- Valve clearance is adjusted
- Oil sump / valve cover pre-assembled as means of protection

Not included:

- Fuel system
- Gears / gear case
- Oil pump, turbocharger
- Oil cooler, seal kit

Warranty: 1 year without hour limitation

Why select an exchange engine?

- Exchange engines and overhauled engines for all needs
- Comparable engine performance at a fraction of the cost of a new engine
- Optimum service and high availability
- High quality (test bench run and BU Power Systems engine service certificate)
- Overhaul exclusively using genuine Perkins spare parts
- Easy installation
- Optimized management of the machine life cycle
- Reduction of downtimes
- An environmentally friendly solution
- 12 months warranty

BU POWER SYSTEMS – EXPERTS FOR OVERHAUL AND EXCHANGE ENGINES

BU Power Systems can even provide you with support for engines that are no longer produced. We use proven procedures to ensure that every exchange engine – whether new or overhauled – meets the emission standards required in each case. Quality is always our utmost priority, which is why we utilize cutting-edge technologies for the overhaul. In this way we can ensure that the exchange engine complies with its genuine OEM specification and meets the quality standard of a new product. This not only guarantees you the engine power and reliability that you require, but it also saves energy and resources and allows for a more environmentally friendly operation that is also and more cost-effective.

Warranty

If, contrary to expectations, your engine shows a defect whilst the product is under warranty, we'll provide you with competent and rapid support in your warranty handling process. BU Power Systems is responsible for the warranty management including the operative and administrative handling for Perkins and FG Wilson products. Customers can utilize our BU TechShare system to report complaints online – without a loss of time and without filling in extra forms – and track progress.



Extended warranty

The Perkins Platinum Protection (extended service contract additionally covering your engine) is the most effective protection for Perkins engines. Available in flexible terms, Perkins Platinum Protection saves you from unexpected repair bills at low costs. With the comprehensive extended service contract, you can insure up to 100% of your Perkins engine components against all circumstances, except for the costs for maintenance and damage incurred by misuse. Highly qualified BU service technicians guarantee reliable service.

YOUR BENEFITS:

- Unbeatable price-performance ratio – without a deductible
- Flexible terms between two and five years or based on a defined number of operating hours
- All repairs are carried out by highly qualified technicians
- Total cost management
- Exclusive use of original Perkins spare parts for a continuously reliable motor performance
- All-round protection against unexpected repair costs

We'll be glad to prepare an extended service contract for your Perkins engine within your warranty period.

Engine expertise at the highest level.

In our international training centre, we impart unique engine know-how. We are convinced that the combination of qualified employees and technically high-grade products provide the basis for a high level of customer satisfaction. We offer training courses on a regular basis for both the employees of the OEM service organizations and for our own employees. This has allowed us to train the BU employees for 4,030 hours in the past five years.

To also provide your service personnel with a higher level of safety and know-how where service and maintenance tasks on Perkins engines are concerned, we offer special training courses on these subjects. This not only refers to the sharing of knowledge regarding engine design and technology, but also with regard to the question of when it is reasonable to contact the BU Service. This will spare you intensive fault tracing that in many cases is not successful.







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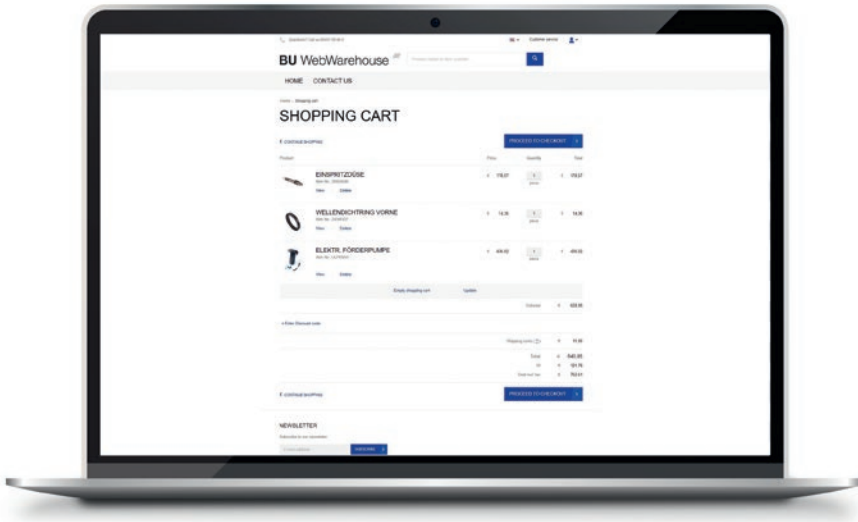
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BU WebWarehouse. Easy online ordering of spare parts.



The given prices are fictitious example prices.

Order your spare parts easily and conveniently via the BU WebWarehouse. Once you have entered your data, you can log in and place your order at any time. For this process, the BU WebWarehouse offers you all features that you already know from conventional online shops. This is what makes the application especially easy.



PRODUCT AVAILABILITY

The prompt indication of product availability makes your purchase plannable.



INDIVIDUAL SERVICE

If circumstances require specific measures, we'll also be glad to prepare an individually customized offer on the basis of your online order.



DATA HANDLING

Enter your data into our system once and place your order quickly online any time.



ORDER HISTORY

Your order history will show you your last orders.



COSTS

Utilization of the BU WebWarehouse is free of charge. The usual delivery costs will be charged.



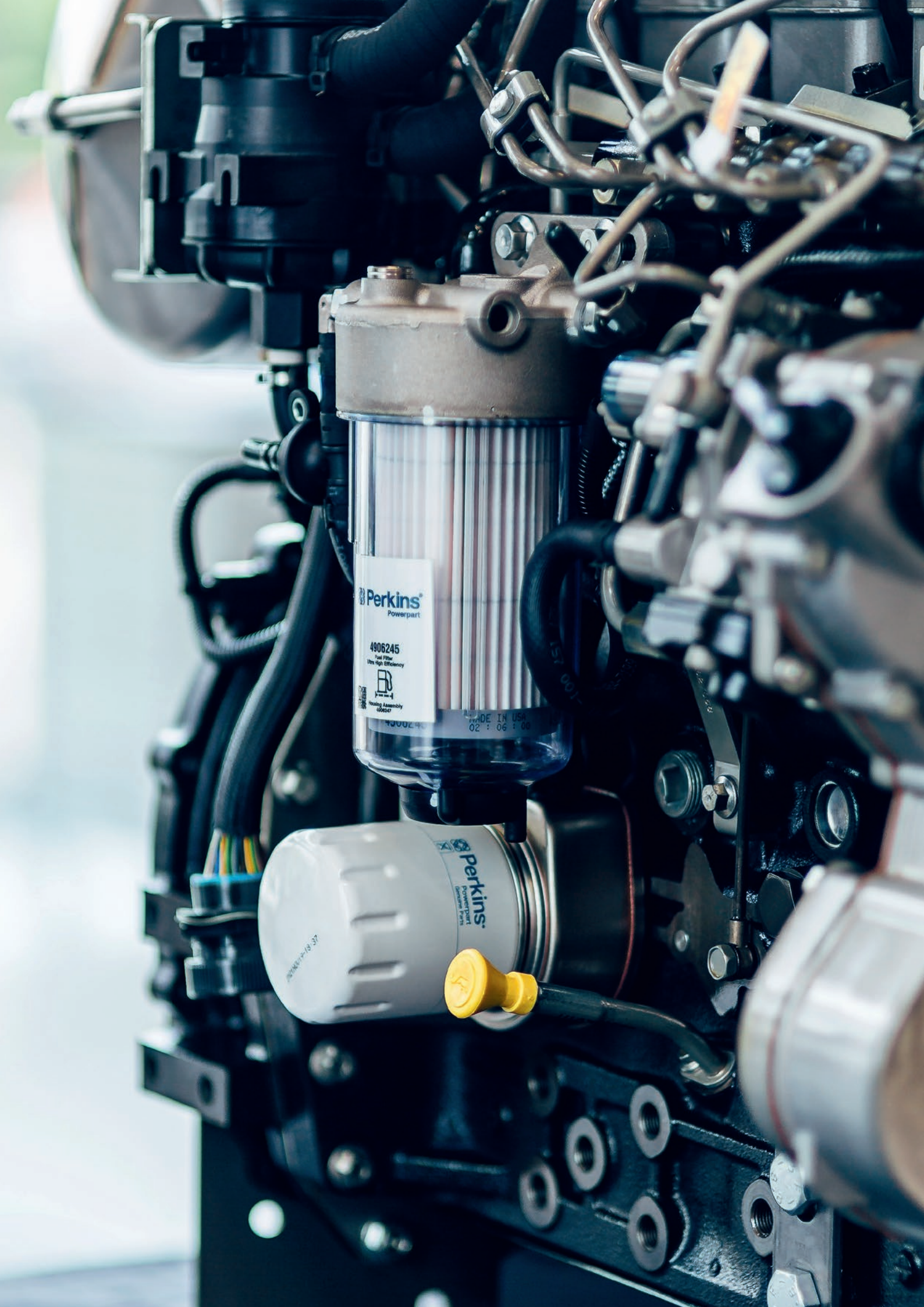
ORDER TEMPLATES

You require the same components on a regular basis? Then just prepare an order template. It will help you speed up your order.



ORDER CONFIRMATION

After you've completed your order, you'll receive an e-mail notification right away.



Perkins
Powerpart

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Fuel Filter
Ultra-High Efficiency

Perkins
Powerpart

Young Assembly
400647

MADE IN USA
02 : 06 : 00

Perkins
Powerpart

Perkins
Powerpart

2004-19-37

BU Power Systems GmbH & Co. KG

Perkinsstraße 1
49479 Ibbenbüren
Germany

T +49 (0) 5451 50400

BU Power Systems Italia S.r.l.

Via Leonardo da Vinci, 1
località Gironico
22041 Colverde (CO)
Italy

T +39 031 463 3411

BU Power Sistemi d.o.o.

Šuceva ulica 25
4000 Kranj
Slovenia

T +386 (0) 590 7650 0

BU Power Systems Polska Sp. z o.o.

ul. Puławska 506/508, building "D"
02-844 Warsaw
Poland

T +48 (22) 57704-30

BU Power Systems Denmark ApS

Bygmestervej 7 B
5750 Ringe
Denmark

T +45 65 560 560

BU Power Sistemi d.o.o.

Viškovo 138
51216 Viškovo
Croatia

T +385 (0) 51 545701

www.bu-power.com