

Special edition

powernews

Agritechnica 2017

Perkins' collaborative approach delivers increased value, performance and productivity – whatever your agricultural requirements



 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

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Growing

Collaborating with the agricultural sector for over 85 years

Perkins is no stranger to innovation – it's been a hallmark of the company since it was founded in 1932, and during its 85 years of existence its products have become a byword for dependability and consistency.

"We can still see strands of 'DNA' from those early engines in today's models," says Andy Curtis, global OEM sales director, "despite the leaps and bounds in engine and machine technology.

"The most obvious characteristics that remain today are the compact design and architecture of the engine platforms," he points out, "which have been evident throughout all engine platform developments.

"Those, and other solid ideas from previous generations of engineers, are inspiration for today's engineering teams as they look to develop more innovative solutions capable of meeting future customer requirements."

Andy recalls being told, on joining Perkins in 1989, that half the engines the company had ever made were still in service. "A lot of them were the famous cornerstone models from the 1960s – the 3.152, 4.236 and the 6.354 – which went out to all corners of the world to provide agricultural power."

That agricultural power, and long-term future in the agricultural industry, was cemented in 1958, with Massey Ferguson's acquisition of the company. The acquisition meant the Perkins

up together

name quickly became synonymous with on-farm diesel power. Another acquisition, this time by Caterpillar in 1998, would not only secure the long-term future of the Perkins brand itself, but also give access to the engineering and technical capabilities of the Caterpillar Enterprise.

“Those acquisitions helped to preserve and intensify the ‘true’ DNA of our engines, which has always been their productivity and long-term reliability, and their dependable power. Our engines develop power for machines that provide food, buildings, heat and light,” Andy says.

But OEMs today face many challenges, not least a fast-moving industry with rapidly developing markets and progressive legislation. Despite the challenge, Perkins has adapted and shifted to suit the needs of its customers. Machines are more varied than ever before, so Perkins provides a continuous range of variable speed industrial engines – from 6 to 600 kW, and 0.5 to 18 litres in capacity. Manufacturing facilities are spread throughout the world, so Perkins has engine manufacturing plants to match. Service support for machines remains as important as ever, so Perkins’ aftermarket strategy and distribution network continues to grow, adapt and evolve to suit those needs. Research and machine development is central to customers’ strategies, so Perkins ensures that its engines are properly validated in machine use.

“Above all, our customers want engines that are productive, easy to install, economical with fluids, low on preventative maintenance and, above all, display outstanding reliability and durability,” summarises Andy.

“The most efficient way to achieve all those requirements is through full collaboration with the customer, with the best team working with them.”

A prime example of that ease of installation, and reliability, is Perkins’ innovative aftertreatment mounting solutions. “Through understanding our customers’ key requirements, we have been able to develop these solutions on all of our highly regulated products,” points out Andy.

“Customers can order one part number and have it arrive as an assembled unit, reducing complexity in all areas of operations – machine validation, supply chain management, and assembly.

“By reducing the complexity, we reduce the overall operating costs of the OEM, thus lowering the total lifecycle cost of the machine.”

Lifecycle costs are not just relevant for new machines. Legacy engines still in operation are just as important to Perkins; they too can benefit from

new ideas and technology – for example, even becoming smartphone-compatible. Perkins® SmartCap is a simple, retrofit solution that replaces the standard oil filler cap on Perkins engines, irrespective of age. Tracking operating hours, service requirements and engine location, it connects to a smartphone running the Perkins® My Engine App.

The app provides additional information such as parts books, operation and maintenance manuals, and online service logs. It’s the only low-cost connectivity device on the market, and the only way to provide connectivity on older, mechanical machines.

“What we’re proud of, at Perkins, is being able to show that there’s a strong future both for our customers and for the machine owners. Today, 28 years after joining the company, it’s a very proud feeling for me to be the owner of the Agricultural Strategy for Perkins, and responsible for developing that strong future,” concludes Andy. 🔌



Jaz Gill

named as new

Perkins Vice President



Jaz Gill has been appointed Vice President of Global Sales, Marketing, Service and Aftermarket Parts at Perkins


Responsible for global engine sales, parts and customer relationships, Jaz will be based in Peterborough, UK and will have offices in San Antonio, Texas U.S. and Shanghai, China.

Jaz, who joined Perkins in 1988, will lead all commercial activities for Perkins engines, sold both direct to customers and through the global Perkins distribution network, and will own the service and parts group, where he will continue to ensure customers experience consistently exceptional levels of service and support.

“The Perkins team continue to focus on our valued customers and on building long-lasting business relationships, as well as serving them with engines sales, genuine parts and service support,” said Perkins President Ramin Younessi.

“Jaz is perfectly suited to this role having worked closely with our major

global accounts for many years, coupled with his deep expertise and previous leadership across our product support, marketing and distribution development teams.”

“This is a wonderful opportunity to lead a truly global customer focused team,” said Jaz. “Over the last few months we’ve released innovative new engine and aftermarket solutions to the market, which have been positively received by our customers and end users. As we celebrate our 85th anniversary we have also put in place a strong foundation for us to build upon. I’m confident these new initiatives will further position the Perkins brand for future success.” 

Get kitted out

Perkins adds to its range of kits with a 1100D top and bottom gasket and seal kit

Following the successful launch of our EP Service Kits, Perkins is continuing to expand its offering with the introduction of a comprehensive range of top and bottom gasket and seal kits for the 1104D and 1106D engine range.

The kits will enable our distribution network to quickly identify and supply a high value solution to the end customer.

Why gasket and seal kits?

Modern engines now have a limited number of soft gaskets, which have been replaced with metal gaskets, rubber seals and O rings. We have taken the opportunity to extend the content of our kits to include gaskets, seals, O rings, and required hardware such as clips and bolts, to ensure

you have all the parts needed to rebuild the engine.

Front and rear end oil seals (FEOS and REOS) have also been added to bottom gasket kits to ensure full coverage of customer needs.

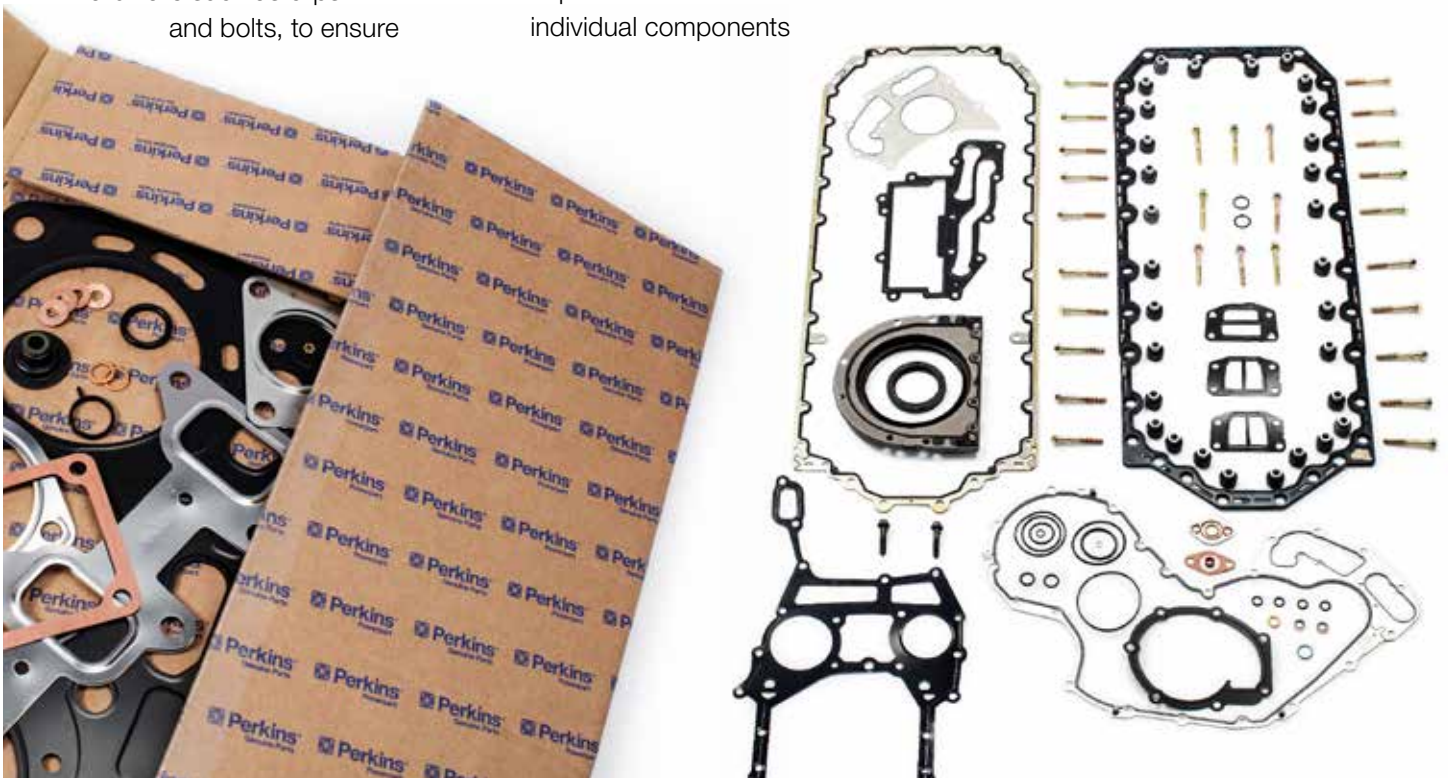
Benefits

- Kit contents cover all your gasket and seal needs
- Includes all required gaskets seals and hardware, ensuring rebuild can be completed with no delay
- Comprehensive range covering > 98 percent of all engines
- Full visibility within SPI2, saving you time
- All parts are to the latest OE specification
- Improved value over cost of individual components

The 1104D top gasket and seal kit includes - cylinder head gasket, rocker cover gasket, exhaust manifold gasket, valve stem seals, injector O rings and washers, induction gaskets, plus various O rings.

While the 1106D bottom gasket and seal kit includes - sump gasket, sump adapter gasket, sump fixing kit, timing case gasket, front cover gasket, rear end oil seal, front end oil seal, water pump gasket, oil cooler gaskets, plus various additional gaskets and O rings. [🔗](#)

For more information please contact your local Perkins distributor at www.perkins.com/distributor



The power

behind your Stage V machine

From 2019, EU Stage V will be phased in for off-highway diesel and mobile electric power engines across the full power range

With Perkins you can meet all Stage V emissions standards while producing a new generation of machines that match your customer demands for value, innovation and performance.

We offer a complete range of Stage V engines from 0.5 to 18.1 litres, delivering powers from 8.8 to 470 kW. This means we have the flexibility to meet individual requirements and ensure you get the value and performance you, as original equipment manufacturers, require from your engine choice.

“From initial concept through to tailored aftermarket solutions, you can be sure of industry-leading technology and services designed for your business and applications,” said Matt Nurse, product manager at Perkins.

Proven Stage V capability

Perkins’ Stage V technologies include common rail fuel systems, selective catalytic reduction (SCR), diesel oxidation catalysts (DOC) and diesel particulate filters (DPF).

Since Stage IIIB, machine developers and end users worldwide have taken

advantage of our transparent DPF regeneration capabilities, proven across our 1200 Series platform.


Now in its second generation, we make DPF integration easier and our Stage V engines continue to use a regeneration process that runs automatically without machine or operator interruption. This means duty cycles and workload are never affected and user productivity is always maintained.

With you at every stage

Through our Technical Integration Workshops we can work with you on a one-to-one basis to explore your business strategies and align engine specifications to your requirements.

Our modular engine concept also gives you a broad variety of options with a high degree of customisation, while driving down costs.

Remember - watch our new Stage V videos

Perkins’ team of engine experts have also produced a new suite of videos, in which they share their insight on Stage V, DPFs, engine validation and aftertreatment, among many other topics. 

For more information and to watch the videos visit www.perkins.com/stagev or why not subscribe to our YouTube channel at www.youtube.com/user/PerkinsEngines



Perkins® Syncro

3.6 litre agricultural tractor engine

Perkins has designed a new 4 cylinder 3.6 litre engine, specifically to support the compact agricultural tractor market.

The Perkins® Syncro 3.6 litre, common rail engine, meets global emissions standards including Stage V and U.S. EPA Tier 4 Final.

The engine offers powers up to 100 kW (134 hp) with up to 500 Nm of torque, and is compatible with most modern off-highway transmissions. It also includes a number of special features to meet the needs of agricultural tractors, where the engine forms part of the structure of the machine.

“Over the years Perkins has installed thousands of engines into different tractors around the world, so we know what makes a good tractor engine,” said Alex Eden, product marketing manager for Perkins Syncro.

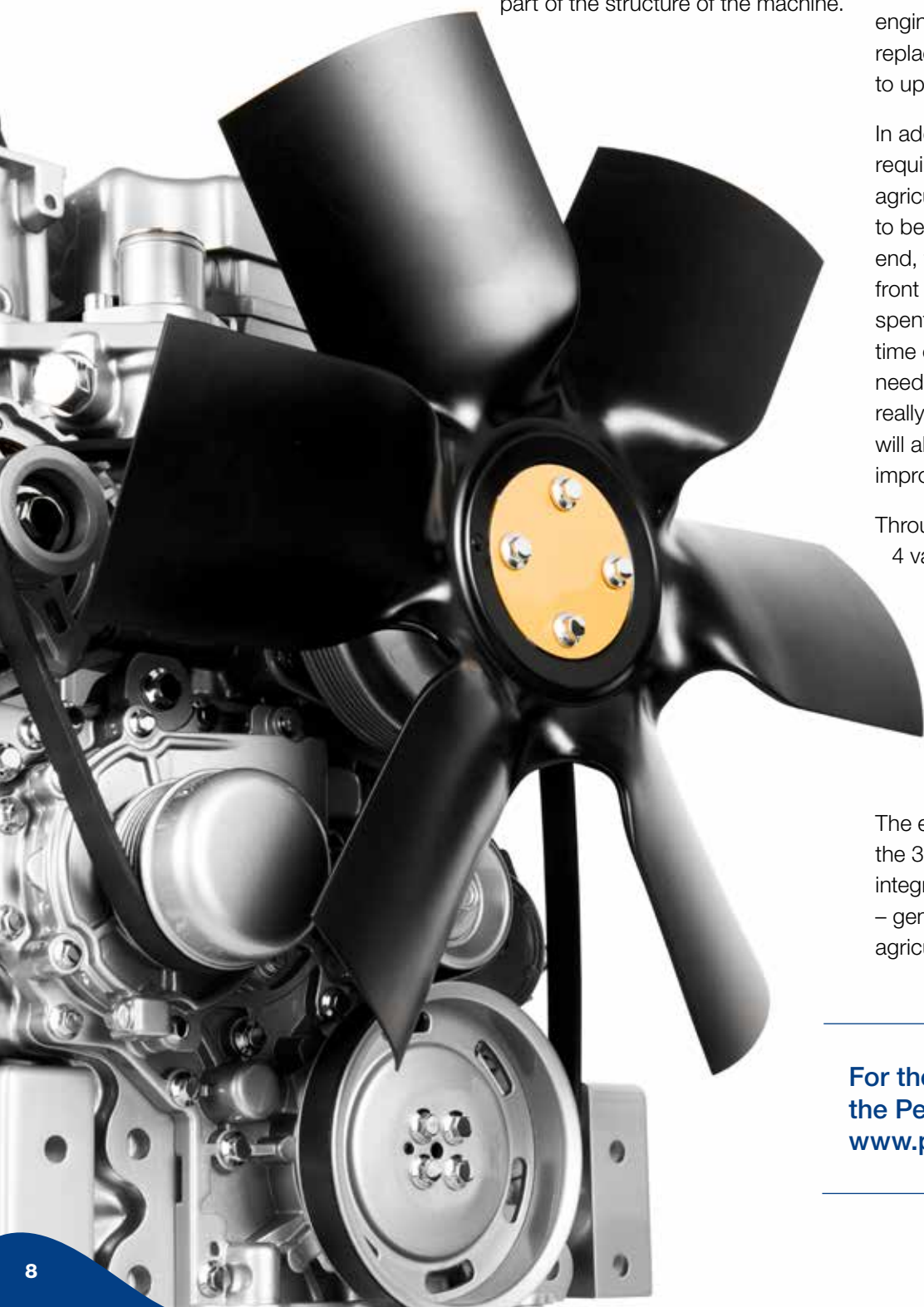
“We have designed this new 3.6 litre engine to be the simplest possible replacement when customers choose to upgrade.”

In addition to the obvious features required to handle structural loads, an agricultural tractor engine also needs to be narrow, especially at the front end, to accommodate the machine's front wheel articulations. Perkins has spent a considerable amount of design time optimising the engine to meet this need, enabling tractors to achieve a really tight turning circle. The engine will also be fitted with a balancer for improved operator comfort.

Through engine features such as a 4 valve head and vertical injector, Perkins offers an efficient combustion system, which has allowed us to keep the size of the radiator pack down and help tractor manufacturers to design machines with good visibility.

The engine's modular design ensures the 3.6 litre model can easily be integrated into existing – and future – generations of tractors and other agricultural equipment.

For the latest information on the Perkins Syncro range visit: www.perkins.com/syncro



3.6 and 2.8 litre – industrial variants

The 3.6 litre agricultural tractor engine is an evolution of the wider Perkins Syncro 3.6 and 2.8 litre industrial engine range, which has been designed to fit into more than 80 machine chassis, and deliver the performance, value and reliability our customers expect to support their productivity and business growth. The industrial variant has the options required to suit applications such as telehandlers, wheeled loaders, pumps, fruit harvesters, small sprayers and feeder mixers.

Agricultural Original Equipment Manufacturers (OEMs) will benefit from high power and torque density, great fuel consumption, fast response and

the electronic integration they need to differentiate their tractors and other agricultural machines.

“Perkins supports hundreds of OEMs in the agricultural market, providing tailored engine packages for a vast array of farm equipment. With more than 500,000 Perkins engines currently in service in agricultural machinery around the world, our products have proven performance in real-world applications,” stated Alex.

“Our new Perkins Syncro engines are the latest in a long line of Perkins diesel engines designed to meet the needs of

tractor manufacturers for dependable, productive and cost-effective power, which can be adapted to meet global emissions standards. The range has been designed as a modular product, enabling OEMs to deliver versions of their machines for different regions, with high commonality of powertrain design.”

Manufacturing will start on a proven production line in Peterborough, UK, and Perkins is developing the capacity to manufacture the Perkins Syncro range in facilities in the Americas and in Asia. This multi-region production capability will provide OEMs short, consistent lead times and the business stability they value. [🔗](#)




Value by design

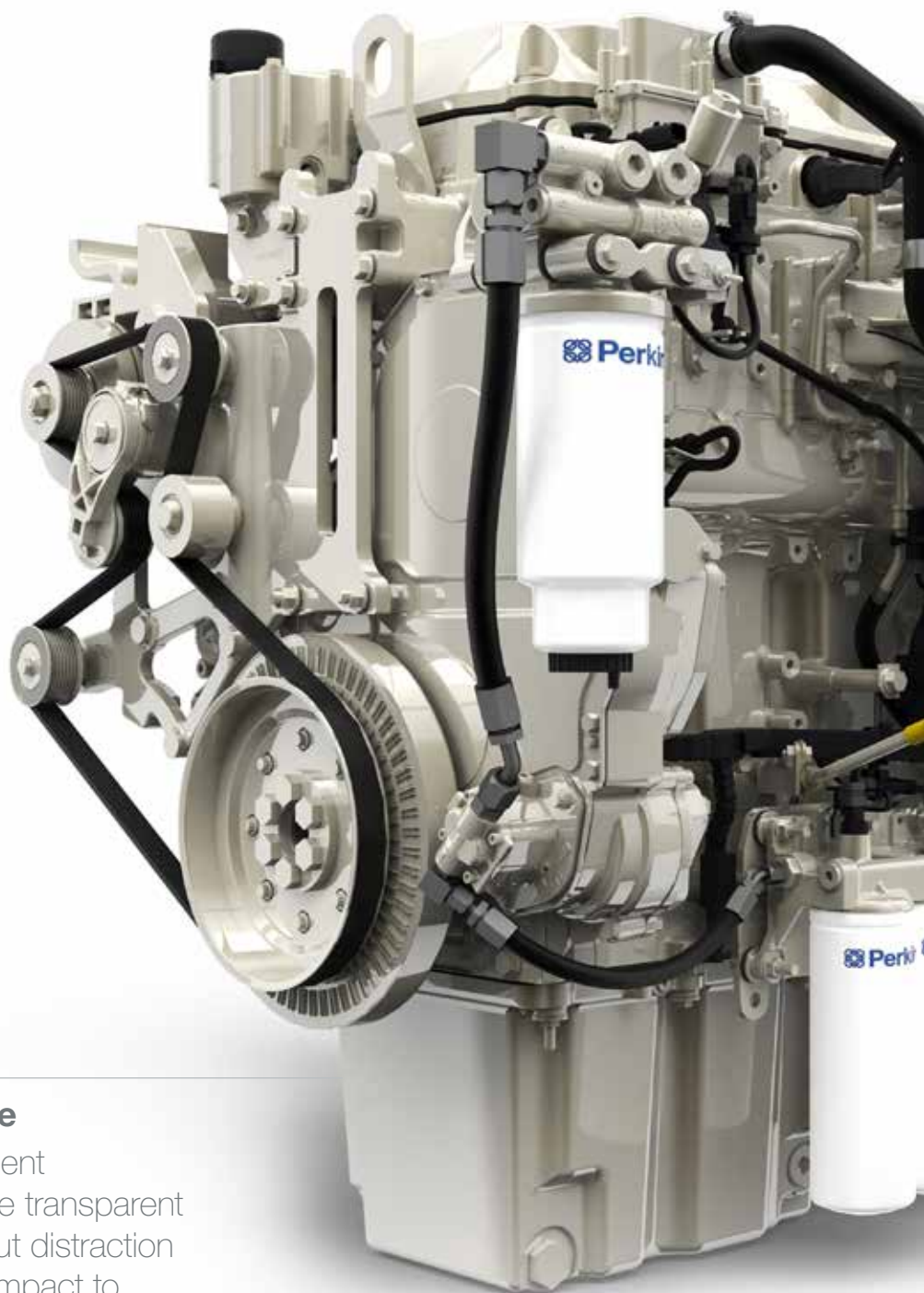
James Schnuriger, product marketing manager for Perkins 9-13 litre engine range, introduces the company's new 2400 Series industrial engine

For over 85 years Perkins has consistently provided innovative products to increase the productivity of its customers – agricultural original equipment manufacturers (OEMs) – and limit the costs to install and operate their machines.

The new Perkins 2400 Series engine continues this trend, building further on the expansion of the company's large, 9-18 litre engine range, which was introduced to the market in April 2016.

“With a proven, reliable 12.5 litre core engine and diesel particulate filter (DPF) solution already in place, our focus for this product at Stage V has been on simplifying design and improving performance for our agricultural customers,” said James.

The new engine features the latest electronics, meaning all engine and aftertreatment systems are controlled through a single engine mounted control module – and a compact aftertreatment to provide high performance characteristics while lowering a customer's cost of ownership and installation. 



• **Maximise uptime**

Thermal management designed to provide transparent regeneration without distraction to the operator or impact to machine performance.



- **Lower cost of ownership**

Optimised design across all systems – fuel, air, electrical, thermal – driving efficiency and lowering fuel consumption.

- **High power density and torque**

6 cylinder, 12.5 litre engine with power up to 430 Nm and peak torque of 2640 Nm to enable engine downsizing.

- **Lower installation costs**

Fully configurable product with factory solutions such as engine mounted aftertreatment and full power units to limit installation complexity.

- **Global solution**

Product will carry dual certification for Stage V and Tier 4 Final, providing global customers with a single solution.

- **Innovative solutions**

Perkins design technology and high-efficiency selective catalytic reduction (SCR) enables compact, lightweight aftertreatment with simple installation requirements.

Working smarter

Perkins launches its low cost engine connectivity device for mechanical and electronic engines

Perkins has launched the world's first low cost engine level connectivity device – the Perkins SmartCap.

The company's latest innovation is a 'smart' oil cap, which can be used on new and existing Perkins mechanical and electronic engines.

Designed to replace the oil filler cap, Perkins SmartCap is a low cost connectivity solution that allows end users to connect their mobile device to their engine via the free Perkins My Engine App on their smartphone.

The cap monitors the Perkins engine and sends data direct to the Perkins My Engine App. The free app can be downloaded now from the Apple and Google stores.

When combined, the Perkins SmartCap and Perkins My Engine App will give Perkins customers truly useful engine information including:

- Engine running hours
- Engine location
- Service reminders and service log
- Start/stop data
- Parts book and consumables information

"The low cost Perkins SmartCap in conjunction with the Perkins My Engine App will, for the first time, enable Perkins customers to easily track use of their engine and servicing requirements, locate their local Perkins distributor, see parts information and receive service updates, all in one place," said Michael Wright, general manager – Aftermarket.

"The app was launched at ConExpo in March and is already proving popular with end customers, as it allows them to register their Perkins engine, access their OMM (Operating Maintenance

Manual) and parts book. A service record can also be kept, while the user can easily make contact with their local Perkins Distributor, through the Distributor Locator feature.

"The low cost cap and free app are very simple to use. Also, the fact the cap can be fitted to any Perkins mechanical or electronic engine in a matter of minutes and instantly provide engine telematics, will be appreciated by millions of Perkins end users both in the US and around the world."

The Perkins SmartCap and the Perkins My Engine App, which is already available in English, German, French and Spanish, are ideally suited to owners and operators of Perkins powered machines, providing easy access to engine specific information such as; running hours, start/stop data, build list, series, type, model, Perkins® Platinum Protection indicator, parts book, OMM, a consumable list, up and coming services and a completed service log. [🔗](#)



To watch the Perkins SmartCap video visit: perkins.com/smartcap

Priced at an introductory offer of £39.99/€45.99 or equivalent exchange rate, the Perkins SmartCap, which has no ongoing costs, will be sold to the market – initially the EU, Australia and North America – via the Perkins distribution network. To contact your local Perkins distributor visit www.perkins.com/distributor



Aftermarket care

The best value cover for your Perkins engine

Perkins has re-launched its Extended Service Contracts as Perkins Platinum Protection.

For 85 years Perkins has invested time and knowledge into its products to ensure that every Perkins engine offers the quality, reliability and low cost of ownership our customers have come to expect.

To support our construction customers beyond the standard warranty period, we have launched Perkins Platinum Protection which covers up to ten years, 15,000 hours and the repair and replacement of 100 percent of engine components.

The customer benefits of Perkins Platinum Protection are:

- Cost effective, comprehensive cover on up to 100 percent of your engine components
- Access to, and support from, the Perkins global network including our fully trained certified technicians
- Genuine parts that have been rated and tested specifically for your engine
- No excess to pay – we cover you in exactly the same way we cover you during our standard warranty period*
- Unbeatable value for money and inflation-free protection

Perkins Platinum Protection must be purchased before the standard factory warranty expires.

For more information visit www.perkins.com/platinumprotection

Remanufactured and replacement engines solutions from Perkins

As the cost of new machines continues to rise, more people are looking at major overhauls as an alternative to buying new. Perkins provides the industry's most complete range of remanufactured and replacement engines that are now more cost-effective and more readily available than ever before.

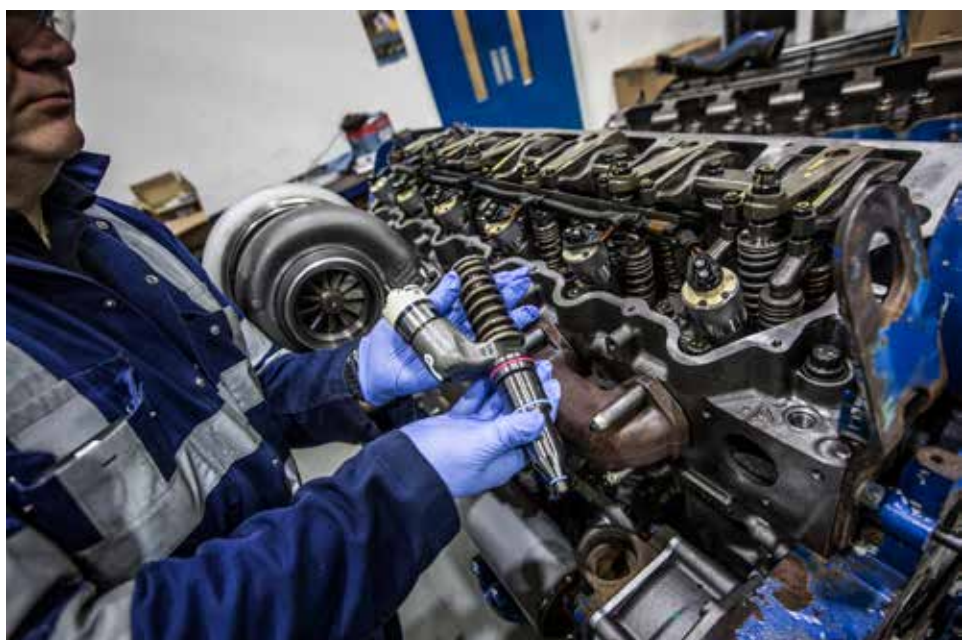
Perkins now offers a full range replacement engine programme, helping end users minimise downtime in the event of in-field failures with more flexible overhaul options and shorter lead times.

General manager – Aftermarket, Michael Wright said: "We now offer better availability than ever before, including support for previous engine generations and even competitor brands. With as-new engine performance, genuine Perkins parts and factory-standard warranties, we can help customers extend the residual worth of their machine when they decide it's time to sell."

Perkins offers off-the-shelf, new complete replacement engines on select models which meet emissions standards and are a drop-in aftermarket overhaul solution as well as offering:

- New long blocks and reman long blocks: our long blocks are built to a design specification that provides flexibility and value for customers requiring a re-power.
- New short blocks and reman short blocks: our short blocks are an economical repair option with minimal downtime, delivering a dependable solution for major engine seizures.
- New complete head: if your cylinder head is damaged but the rest of the engine is in good condition, our complete heads are a quick and cost-effective solution.

For more information visit www.perkins.com/replacementengines



* Terms and conditions apply

Perkins genuine turbochargers deliver power, precision and total peace of mind

Perkins genuine turbochargers provide all the reassurance you need. Whether customers opt for new, reman or new-for-old, Perkins has a genuine, precision-built turbocharger that is right for their engine – and which is competitively priced.

When a turbocharger fails, the only way to guarantee your engine will continue to operate at its best is to choose a replacement that's perfectly matched to its exact specifications. And that means choosing Perkins genuine turbochargers.

Perkins genuine turbochargers are built with the unrivalled precision required, with tolerances as fine as one-millionth of an inch. That's 1/100th the thickness of a piece of paper.

Perkins offers three turbocharger options – new, reman and new-for-old (NFO) – designed to suit every customer need. Each offers competitive pricing, good availability and the proven dependability you get when you buy the Perkins brand.

New turbochargers

New Perkins genuine turbochargers are manufactured to the exact same specification as the turbocharger in your original engine. They ensure continued performance at the highest level and are supplied with a 12-month warranty.

Reman turbochargers

Remanufactured Perkins turbochargers are built from an existing turbo core to original OEM specifications, including any engineering updates. Parts are quality assured and tested by Perkins engineers to ensure they perform to the same level as a new turbo. Reman turbochargers come with the same 12-month warranty as new, and offer an average cost saving of around 30 percent compared with buying new.

NFO turbochargers

With NFO, customers receive a brand new turbocharger in exchange for their old turbo core – and pay around 85 percent of the price of a new one. Perkins recently launched a range of NFO turbochargers for its 1104 engines.

Perkins distributors – for all your maintenance needs

Perkins distributors are simply the best when it comes to looking after your engine. Daily they carry out repair, overhaul and servicing to the highest standards, thanks to their Perkins-certified training, unrivalled knowledge of our products, and access to the latest engine data, tools and parts. If you want your engine to stay running reliably, performing to the maximum, and keeping your downtime to a minimum, choose our dedicated distributors to look after your engines. [🔗](#)

**For more information
please contact your
local Perkins distributor
at [www.perkins.com/
distributor](http://www.perkins.com/distributor)**



Valued collaboration

Pellenc values its ongoing collaboration with Perkins

Winemakers get only one chance to pick their grapes while they're at their best. As harvest draws near, the grower constantly monitors sugar levels in his grapes, waiting for the moment when they reach the critical point that will deliver the utmost quality for the resulting wine.

Once that point is reached, it's 'all systems go', the winemaker's objective being to complete harvest as quickly as he can, capturing the grapes while they are in their prime. Leave it too long, he'll face a rapid tail-off in quality.

Weather will always be the ultimate uncontrollable event, but you'll want to do everything you can to avoid any other delays. So when you're dependent on a mechanical harvester to complete that harvest, its performance and reliability are your foremost concerns. That's why French company Pellenc SA, seen as the gold standard of grape harvesters, chooses Perkins engines to power its machines.

"Our customers need and expect a quick reaction from us when they have a machine issue," says the company's Jacques Servole. "It's frustrating, and a potential financial issue, if the grapes are ready for harvest but they can't pick them. So our customers expect an immediate solution."

With the assistance of Secodi, the Perkins distributor for France, that reaction is both rapid and effective. During the harvest season, there's a 24/7 telephone hotline, backed up by a full Monday-Saturday on-the-ground response team, to identify and resolve service and parts matters. Pellenc engineers have been trained by Secodi so that they can be the first contact for maintenance issues, and of course

with today's technology-heavy machines, it's more than just engines that need to be fixed.

"Pellenc machines are recognised around the world for their abilities and performance," explains Jacques. "In every wine-producing country around the world, you'll find a Pellenc machine earning its keep.

"But that's not just because they're great harvesters. We build machines that are multi-tasking, which means growers can use them for other tasks throughout the season – pruning, or spraying, for example – and get more from their investment.

"But that means that while a typical harvester might run up just 400-500 hours a year, a customer who chooses to use it for other jobs might run up more than 1.800 hours, with a far more complex machine," says Jacques.

Clearly, when buying a machine that fulfils such an essential, central role in the business, growers select machines not just on features and ability, but also on the package – servicing, maintenance, access to parts – that comes with it.

"Secodi is proud to work with Pellenc," says Pierre Bonnet, Secodi's OEM account manager. "It's a highly respected premium brand in the vineyard market and over the years that we've been working with them – Pellenc has been using Perkins engines since 1993 – we've built up a very close working relationship."


Pierre says he understands how important it is to Pellenc that they have the support to provide their customers with a flawless aftermarket and

servicing offering, but also points out how the relationship is central to the success of the machines' design and engineering.

"The Technology Integration Workshops (TIWs) that Perkins has pioneered so effectively is the real reason behind this success. We've organised quite a few TIWs for Pellenc, the first being to support the introduction of the Stage III B engines. We subsequently ran one for Stage IV and are organising another for Stage V.

"Take the work we did with the 1204, for example. Here, we started off with the exchange of 3D models and followed it with a one or two-day workshop. This brought together all the relevant engineers, after which we were able to finalise the specification for the Stage IV prototype."

Pierre and Jacques recognise the value of the TIWs in addressing the engineering constraints they face in the design of every new model. "The row width available to a vineyard machine can be as little as 70 cm, once you account for vegetation. We need a really narrow engine, but without compromising the power-to-weight ratio and weight distributions of the finished machine itself.

"So with the 1204E, the compact nature of the aftertreatment unit was an immediate draw. Mounted on top of the engine, it allows a one-module installation. Combine that with the terrific field performance of the engine, which Pellenc uses at 130 kW (175 hp), plus the rapid response from Perkins to any queries, and we have some key success factors in the selection of this engine," Pierre notes. 

“The row width available to a vineyard machine can be as little as 70 cm, once you account for vegetation. We need a really narrow engine, but without compromising the power-to-weight ratio and weight distributions of the finished machine itself.”



Knight Farm Machinery

has a reputation for reliable, accurate machines

Since the 1980s, sprayer manufacturer Knight Farm Machinery (KFM) has made much of its reputation for reliable, accurate machines that help farmers make the most of expensive, precision-applied plant protection products, while operating safely and efficiently.

Designed and manufactured in Britain, the self-propelled machines are built to order, providing detail-focused farmers and contractors the ability to specify specialist and bespoke requirements to have machines that exemplify the very latest in spraying technology.

“Our biggest market is the domestic UK market,” says Clare Slane, service manager at KFM, “although the recent change in currency markets has increased our export orders too, with Japan now our second-biggest market for self-propelled units.

“Unsurprisingly, the ‘built in Britain’ badge makes our machines a popular choice amongst technically astute farmers, but equally if not more

important is the level of support that customers know we can provide, wherever in the world they are,” notes Clare. “Spraying is such a time-critical process – if they have a problem, they rely on us being able to provide a quick, efficient response to resolve the issue and get them up and running again.”

Customers, Clare says, want to know that the heart of their machine is a good quality, powerful, reliable engine. The strength of Perkins’ brand within the UK, coupled with its robust heritage and track record in agriculture, makes a machine powered by a Perkins unit a sure-fire success.

“Of course, our customers buy on more than the badge alone, and there are a number of factors that affect our engine selection during new product development,” Clare explains.

Power requirements, design for installation and price are only half of the equation, according to Clare.

While important to the customer, they are design-led issues. “Points that really matter to the end-user are maintenance costs, warranty provision, and service and support availability.”

Perkins’ offering matches all KFM’s requirements. The Stage IV 1206F-E70TA 129 kW (173 hp) 6 cylinder is ideal for use in their 1800 series machine, while the 1206F-E70TTA 151 kW (202 hp) and 168 kW (225 hp) versions meet the extra power demand of the larger 2000 series machines.

“The 1206F was a unique offering,” reveals Clare. “The aftertreatment unit is mounted on the engine itself, which for our application was essential – it fitted neatly into the existing space envelope and required only limited redesign of the machine.”



Meanwhile the two-year major component warranty, coupled with reasonable maintenance costs for the end-user, keep KFM customers happy. Service intervals on the 1206F are 500 hours, like those of the Stage III engines that preceded the 1206F. This means customers who are replacing older machines continue to have similar servicing costs.

Emissions standards, says Clare, is a challenging and costly development exercise, especially for a small OEM like KFM. “But there can be silver linings – development to meet new legislation does give us the opportunity to incorporate other new technology at the same time.

“We’re very fortunate to have such a good relationship with DiPerk, the Perkins distributor. They provided us with the information needed to manage our transition from Stage III to Stage IV,

including useful timeline information and advice on the ‘flex’ scheme. This means we could move directly from Stage III to Stage IV, without having to use the interim product.

“Not only was this easier to manage, but it also saved us time and the costs of further development.”


It’s that kind of extra insight that KFM’s engineers really appreciate. Much of this understanding and collaboration with DiPerk is delivered through Technology Integration Workshops (TIWs), the fitting of the Stage IV engine being a good example. KFM, DiPerk and Perkins engineers could discuss all the challenges associated with the engine installation, together in one room, by sharing ideas and troubleshooting the technology issues to arrive at an achievable, smart solution.

Clare says KFM was reassured by the TIW, knowing that its team

was fully conversant with the engine and that both Perkins and DiPerk were fully aware of the constraints of incorporating it into the final product. “Not only does the TIW deliver a superior end-product, but also a much stronger working relationship and commitment to the project from all sides,” she enthuses.

DiPerk is KFM’s main point of contact for all sales and service requirements. They work closely with its engineering team to provide application-specific solutions.

“And DiPerk’s wider network of UK-based service engineers is essential if we’re to keep our customers up and running, while Perkins provides us with worldwide support for exported machines.

“Our success is reliant on that of our customers’.” 



Experts in power and service

As a Perkins distributor in 15 countries, providing support in eight languages, BU Power Systems can draw on a huge bank of accumulated market experience

Founded in Germany in 1963, and originally an engine remanufacturing company, BU Power Systems first became a Perkins distributor in 1989. Today, it has responsibility for the German, Polish and Italian markets, and is the appointed Perkins distributor for Albania, Malta and the territories of the former Yugoslavia. Earlier this year, the company also took on all distribution for Denmark, Greenland and the Faroe Islands.

“For an OEM, the first step is always to choose the right engine,” explains Peter Wagner, the company’s general sales manager. “Nothing’s changed there, except that today there is far more to a ‘solution’ than the engine alone, and that’s why they turn to a company like BU Power Systems.

“For example, manufacturers have to comply with legislation for different markets; there’s also the big issue of reducing fuel consumption and increasing overall efficiency. Innovation is crucial if our OEMs are to be successful in their target markets

“When an OEM comes to us with a new project, we analyse the customer’s requirements and establish with them a drivetrain concept. There’s torque and power requirements to think about, matching those to the basic need for the machine. But then we move on to identifying the optimum power curve, for instance, for this engine, and how we can find the best power curve to suit both the requirements for the machine, and to optimise fuel efficiency.”

The modifications and customisations don’t stop there. Even more important are the interfaces between the engine

and its application: cooling, power take-offs – perhaps multiple – and so on.

“Only through the skills of our application engineers are we able to manage all these factors with our customers,” Peter points out. “It’s what marks us out as true solution providers – not only because of our own engineers, but because we work so closely with Perkins themselves.”

Peter cites the example of the Technology Integration Workshops (TIWs). “We offer these to our customers at a very early stage, showing them the full benefit of the collaboration between our engineers, the Perkins engineers and their own engineers. By building 3D models of the proposed frames, we can have a very early look at the installation and use simulations to implement the engine and choose some basic options or customisation that we’ll need for the finished product.

“Perkins is highly capable of producing consistent, standard engines at a high volume, but the customisation – to get the most from that engine in the OEM’s setting – is our job, using added value components.”

Peter’s understanding of the OEM process reveals why BU Power Systems is so highly regarded amongst European Perkins distributors, last year bringing 20,000 Perkins engines to the market: they truly understand the needs of their customers.

According to Peter, it’s come about through a lot of hard work. “About ten years ago, we started to look more closely at the needs and wants of OEMs within our market. What we

found was a surprising bottleneck: their engineering department.

“Take an OEM, building ten different machines in a power segment or an emissions segment. The pressure’s on to re-engineer all those machines to suit ten different requirements. Very often, they don’t have the resources and capacity to do so, in a realistic timescale.

“We saw the opportunity to be their partner, stepping in as an engine supplier who can sharpen those development times, using a combination of our knowledge and components that are certified by us, in accordance with the Perkins guidelines.”

Peter uses the example of a CANBUS control and diagnostic panel, developed by BU, which provided an immediate plug-and-play solution for smaller OEMs. Peter says they are often ‘over-challenged’ by implementation of CANBUS technology. “The panel allows them to take an electronic engine with a CANBUS interface, while we supply them with a wiring loom and a CANBUS control system. Hey presto, they have a plug-and-play solution that needs only a battery.”

It’s this type of service – effectively a consultancy – that Peter marks out as a point of differentiation between BU and other engine suppliers. “OEMs approach us to ensure that they can find a product that fulfils their needs. We’re getting more and more demand for this kind of support, and for the components that match those needs.

“Last year we sold added value solutions to 78 percent of our OEMs.”

When customers have an especially tricky requirement, BU can also leverage its long-standing relationship with Perkins. “Sometimes there are cases when even the combination of the Perkins standard offering and BU’s added value parts and engineering is not enough to fulfil a customer’s requirement,” Peter notes. “Take the example of the flywheel housing, needed by an OEM to fit a special gearbox in a particular model of vineyard tractor.

“We found out that Perkins had previously had the flywheel housing as a part, but that it was never an option for this engine. While small volumes meant it was difficult to justify the build list in the factory, it was nevertheless something that we could secure from Perkins and then assemble the components ourselves to provide the solution for the customer.

“For another project, we helped our OEM’s engineers design a new oil sump to work within the constraints of the machine’s chassis. Then we worked with Perkins to produce that sump as a special item for this customer.”

Such skills and abilities, says Peter, are very reassuring to many OEMs, especially the mid and smaller sized companies who don’t have this kind of knowledge and expertise in-house. “Technology especially is a challenge – aftertreatment systems, or selective catalytic reduction (SCR), perhaps. These are often completely new concepts and, what’s more, there are more and more questions from the end-users who are more and more sensitised by public discussions on emissions and so on.

“Twenty years ago, an end user would equate black smoke with power. Now they want to know about emission control and fuel efficiency.”

These same two factors are crucial issues in servicing these modern machines, too – another area where



BU Group works very closely with its OEM customers. “Education of service technicians has completely changed,” says Peter. “They are technically sophisticated engineers, needing as much an electrical brain as a mechanical brain. Furthermore, OEMs want to reassure their customers that as well as sell them a machine, they can service it. It’s in their interests to keep service competence in-house and to demonstrate that to their customers.

“Our training centre handles that. Here is where we seek to educate our customers perfectly. We’ve test cells running all the different engine models, where we can simulate all sorts of faults to train the technicians to identify them. We can also bring in a whole machine, and train technicians on the interface between engine and machine.”


And for those OEMs who don’t have their own service teams, or need back-up, it’s another job for BU Group; they’re a Perkins Level 3 certified distributor. In Germany, for example, the group has five branches and more than 15 service vans in the field, to support its customers.

This first-class approach to service is matched by a similarly attentive parts capability, handled from Perkins parts distribution centre in Manchester, United Kingdom. “We hold more than 12,000 part numbers in stock,” says Peter, “with

customers in Germany able to place orders until 16:30 hours to ensure next-day delivery – an offering that has a fill rate in excess of 98 percent, even where customers are choosing direct delivery to the end customer.

“We help our OEMs far beyond the consulting on, and supplying of, engines. We cover the complete aftermarket business – service, parts, training and even the warranty work, for which we have created the BU Tech Share platform. It’s a digital interface that works throughout a customer’s project – they have just one point of communication with us, for all the correspondence and technical data, as a project grows and develops.”

Looking to the future, Peter says BU Group is ready to respond to the variety of challenges facing their OEM customers, but also the opportunities for innovation. “There’s so much more functionality now. Hydraulics, for example – increasingly electronic, an integrated system with several components. It’s new, it brings new possibilities, and promises more efficiency – and we’re here to help manage the added complexity for our customers, just as we are with EU Stage V, CANBUS and so on.

“We’re far more than just a provider of engines.” 

Open for business

Secodi Power Systems officially opens its Spanish headquarters



The Perkins distributor in Spain since March 2016, Secodi Power Systems has been serving customers with Perkins' complete diesel and gas engine range and aftermarket service and support

Secodi Power Systems, the appointed distributor for Perkins engines in Spain, has officially opened its Spanish headquarters. The inauguration event was attended by representatives from Perkins and many Spanish original equipment manufacturers and local dignitaries.

The Perkins distributor in Spain since March 2016, Secodi Power Systems has been serving customers with Perkins' complete diesel and gas engine range and aftermarket service and support.

Led by Damien Fetis, Secodi chief executive officer, the inauguration was the perfect opportunity to reflect on Perkins' history in the Spanish market

and focus on its future engine and aftermarket service offering.


"We are very enthusiastic to offer our customers a high level of service and personalised products that would fulfil their expectations," stated Damien.

The event also featured the Spanish launch of the Perkins Syncro 3.6 and 2.8 litre range of engines, designed to meet the forthcoming Stage V emission standards.

"Today, we are introducing our Perkins Syncro engine range as a symbol of our commitment to offer the best technology to our customers in Spain," said Trevor Toulson, Perkins regional sales director, EAME and CIS. "It can

be adapted to all your business needs and integrated into any kind of off-highway equipment."

Located in Alcalá de Henares, in the Madrid region of Spain, Secodi's impressive facility includes a spacious workshop featuring the latest equipment to service an extensive range of Perkins powered equipment.

Francisco Javier Abajo Dávila, industry general director of the Comunidad de Madrid (Madrid region) added: "Having industrial companies like Secodi in the Comunidad de Madrid is something that is always welcome, as they bring innovation through knowledge and investment in new technologies as well as expert skills." 



Erkunt

sets its sights on
continued growth



For a company that started producing tractors only 14 years ago, Turkey's Erkunt is the ultimate success story

Designed completely by Turkish engineers, the brand offers a true domestically produced tractor and now ranks as one of the top three brands in the market. That's no mean feat; Turkey is Europe's biggest tractor market and the fourth-largest globally. What's their secret?

"The brand has a lot of powerful elements that resonate with its Turkish audience," says Tolga Saylan, Erkunt's general manager. "Because we produce our own designs, we're able to react rapidly to farmers' wants and needs. That means we're seen as the closest brand to farmers."

"We invest three percent of our revenue

in research and development each year, in our own Ministry of Industry-recognised R&D centre. That ensures we can drive our own innovation – creating a strong farmer-focused, dedicated, productive and decisive image," explains Tolga.

Erkunt's product range stretches across sectors, providing choices from 50 hp up to 110 hp. Despite the country's seventh-place ranking in world agricultural productivity, Turkey's low average holding size and producers' relatively weak purchasing power necessitates this broad portfolio. Nevertheless, the market's growing fast – five percent in

2016, soaring to a record 70,205 units according to TURKSTAT, the Turkish Statistical Institute.

Aptly demonstrating its innovative approach as a young player in a marketplace of mature brands is the tractor competition sponsored by Erkunt this year. Traktör Arena (Tractor Arena Show) is broadcast on Bereket TV, a television channel dedicated to farming and food production. It aims to display the talents of the country's tractor drivers over a 25-week period – an 'X Factor' for tractor skills.

"Drivers from all over Turkey are participating in the competition," Tolga says, "competing against one another

Visit Erkunt in Hall 07, at stand B02. An ArmaTrac tractor will also be displayed on the Mahindra & Mahindra stand in Hall 05, at stand D03

in Erkunt tractors. On private courses, farmers can test the performance and comfort of our tractors in challenging conditions, while displaying their skills and aptitude.

“Of course, besides providing a popular and well-watched TV show, our objective is to increase awareness of the Erkunt brand, marking it out as a brand that makes their lives easier and that makes them smile!

“Our slogan is ‘The Power of the Farmer’ – giving the farmer confidence and power. There are just a few weeks remaining before the final, when the winner will drive away in the grand prize: a special production Erkunt Haşmet 110 hp.”

As Erkunt’s engine provider, Perkins was delighted to assist Erkunt with the competition. “Perkins is a brand that has proven itself in the tractor sector,” says Tolga, “giving our customers confidence in our products and in itself a quality world brand. That’s why we

prefer Perkins engines in our tractors.”

The 1103 and 1104 – 3 and 4 cylinder models respectively – are the most common Perkins engines deployed by Erkunt. But the most common model throughout the 18,000/year production run is the 68 hp variant, used in the Nimet 70 models.


Perkins’ worldwide reputation, service provision and parts availability is another important factor in their selection as Erkunt’s preferred power partner. That’s because, not content with its success in the domestic market, the company is also becoming a major global tractor manufacturer under the ArmaTrac brand. Its first export, to Bulgaria, was in 2007; ten years later, the ArmaTrac badge now appears in 24 overseas distributors, spread across 21 countries on three continents.

“Export is challenging,” admits Tolga. “We are introducing a very young brand in many countries and although robustness and reliability are our

hallmarks, in some markets they’re not always the drivers.

“Some markets are more price-sensitive than others. Sometimes it comes down to timing and local issues. Sometimes being a Turkish brand is the difficulty, although the award of the Turqum badge – the certificate of conformity provided through the Ministry of Economy’s Turquality Brand Support Programme – helps with recognition and brand respect.

“In general, our approach of a comprehensive analysis of the market – legislation, farmer profiles and behaviour, competitors, and so on – allows us to pitch our offering just right. With eight types of models, we’ve a wide enough product range to find an approach that suits us.

“We’ll continue to produce tractors that are efficient, economical, farmer-friendly, well-equipped and suitable for a range of conditions,” he enthuses. 



FXS Sauerburger new Grip4-50

FXS Sauerburger from Wasenweiler near Freiburg, Germany, will unveil a prototype of its new Grip4-50 at Agritechnica 2017

The new lightweight two-axis slope vehicle is very versatile and will create new opportunities for customers, as according to FXS Sauerburger, there is nothing comparable in the market at the same size and power offering.

Valley and mountains

The Grip4-50 has been developed to support river-master stations, companies and organisations who are responsible for the floodplains across Europe. It can be used with lightweight double mowers, hay-reeds and banding or light mulching. This also applies to the care of sea and river dikes, as well as to wetlands and marshy surfaces, as the tractor offers a range of applications with wide, large-volume tyres and lights and powerful attachments.

Even in mountainous and alpine regions, the new Grip4-50 slope tractor from FXS Sauerburger packs a powerful performance, just like its bigger brothers

which have 75, 95 and 113 hp options. The tractor also offers the end user a stable ride as the front axle bend is 240 mm above the axle centre so that it does not tilt – a technology which FXS Sauerburger has patented.

In contrast to pushed single-axle mowers or remote-controlled robots, this new, lightweight two-axle tractor offers users the opportunity to work in alpine agriculture in a comfortable cabin, while protected against the weather.

New performance class

In those instances when single-axle mowers are not robust enough for the environment, and two-axle mowers from 75 hp are either too expensive, not profitable or too heavy, FXS Sauerburger now offers the new Grip4 concept at 50 hp. This new application weighs about 2200 kg when empty and can load 1000 kg. At the same

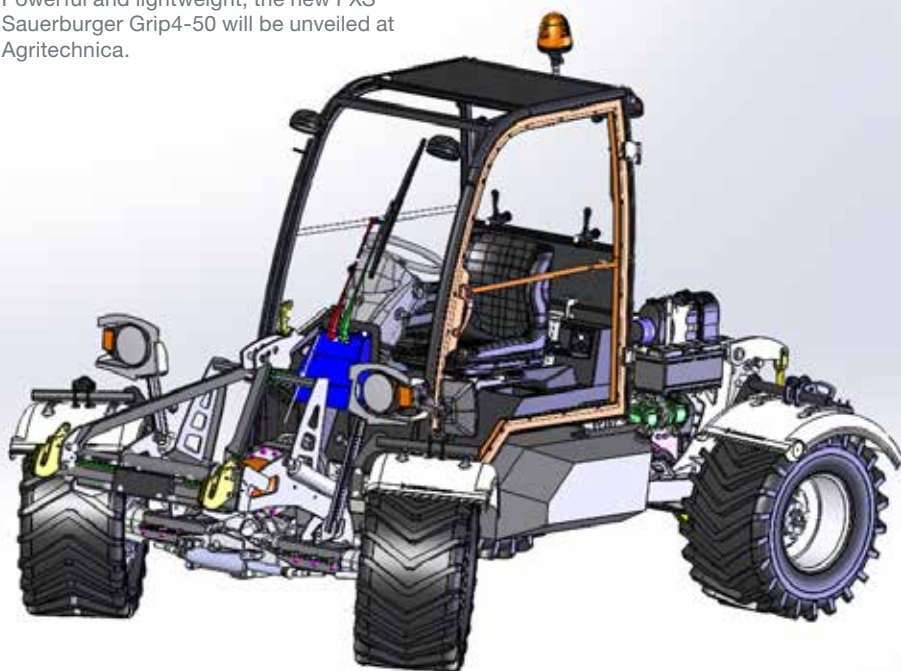
time, the power lifters in the front and rear lift are about 1900 daN.

The FXS Sauerburger Grip4-50 is powered by a 4 cylinder Perkins 404D-22 engine in the rear and fulfils the current exhaust-gas standard, achieves 4900 revs/min approximately 49 h p (38 kW) and reaches its maximum torque 147 Nm at 1,600 rpm. The drive is adjustable and the tractor offers three steering modes for front, 4 wheel and dog steering. With a low centre of gravity, the risk of overturning has also been minimised.

Compact, manoeuvrable and quiet

The Grip4-50 is extremely manoeuvrable, as the wheelbase is 2.20 m and the outer width is approx. 2.01 m. FXS Sauerburger says the rear-mounted engine in conjunction with the most common front-end space offers a very good weight distribution and therefore good traction in uneven terrain. The centrally placed ROPS-FOPS comfort cab provides the driver with an all-round view, while the entry and exit from the left is very comfortable. The ergonomically arranged controls offer the user – along with the low noise level – a relaxed workplace even on long working days. 🔄

Powerful and lightweight, the new FXS Sauerburger Grip4-50 will be unveiled at Agritechnica.



See the new Grip4-50 which FXS Sauerburger says underlines its “competence in special tractor construction for extreme operating conditions” as well as the Grip4-75 and Grip4-115 at Agritechnica in Hall 14, Stand 26E

Lindner's Lintrac 110 tractor

Lindner's latest model is ready for the future

Fifty-four years since Austrian tractor manufacturer Lindner started using Perkins engines in its machines, its newest model – which launches at Agritechnica – shows how that partnership goes from strength to strength.

Lindner describes the continuously variable Lintrac 110 as compact and manoeuvrable, suitable for mountain farming and grassland cultivation, viticulture, forestry and urban applications. So far, so Lindner – but this new model has a couple of tricks under its sleek lines.

Taking power from the 113 hp, 450 Nm torque 4 cylinder Perkins 854 engine is ZF's continuously variable TMT11 gearbox. With all the well-known ZF features, the TMT11 boasts powershift reverse, stationary control and continuous acceleration from standstill to maximum speed without interrupting power flow.

Enhanced four-wheel steering gives the Lintrac 110 above-average manoeuvrability, while a redesigned cab offers more space and even better visibility – which the upgraded lighting system takes full advantage of during long, night-time operations.

But perhaps the most notable feature on the Lintrac 110 is not what it can do now, but what it might be able to do in the future. Experts agree that autonomous driving is becoming increasingly important for agriculture. "That's why we're developing the TracLink Pilot together with ZF Friedrichshafen," says Hermann Lindner, managing director, "which will provide highly automated driving functions for grassland areas."

Currently, an intensive test phase is underway, using a Lintrac 90 which ZF has equipped with a range of intelligent systems. Cameras, LIDAR and radar sensors feed their output to the deep-learning capable control platform ZF Po AI, giving the tractor a 360-degree surround view and person recognition. A GPS system connected to the steering, hydraulic and gearbox functions allows various operations to be run automatically, or even automated via an app.

Such a tractor can learn a driven route, so after the first tour of a field, the tractor can work the given area automatically while person and object recognition ensures its safe operation within its surroundings. Another example is the 'follow me' function, which allows the tractor to autonomously follow a preceding

vehicle. If each vehicle is equipped with different implements, two operational steps could be combined in one route.

"The Lintrac 110 is designed to be retrofitted with this autonomous driving equipment as soon as the legislation permits it," Hermann enthuses.

With the new Lintrac, which will start production in summer 2018, Lindner intends to strengthen its core markets and explore new export areas. "The continuously variable technology will appeal to our core markets in Austria, Germany and France, but also in new markets," says export manager David Lindner. More than 50 percent of Lindner production is currently exported, and the company will be looking to grow its sales in Scandinavia, Great Britain and Ireland, he says. [🔗](#)



The Lindner team intends to use the new Lintrac 110 to strengthen its core markets and explore new export opportunities.

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