

400

Series

A truly global engine in an
ultra-compact package



 **Perkins**[®]

THE HEART OF EVERY GREAT MACHINE

Incredibly compact flexible and efficient

We are committed to meeting our customers' needs around the world, which is why the 400 Series is a truly global engine.

Within its efficient, space-saving package the unique, Perkins-engineered core technology is designed to meet emissions legislation in all your markets. It's all about creating a cost-effective power solution that's small on size, big on flexibility and perfect for you.

Performance you can rely on

The 400 Series gives you a seamless power range, 6.4–50 kW (8.5–67 hp), while offering high torque at low speed. All our engines can be tailored to meet your exacting needs, with variable and fixed-speed packages, low fuel consumption and electronic governing for even better response and load acceptance.

When size matters

When you need power and reliability in even the smallest application, trust the 400 Series to deliver. Our talented teams of engineers have carefully designed every component to minimise space. As with all Perkins engines, each 400 Series model can be flexibly adapted to make installation and servicing easy.

Helping you meet the emissions challenge, affordably

If your key markets are North America or Europe you will be pleased to know the 400 Series meets stringent EPA Tier 4 Interim / EU Stage IIIA legislation. With the release of our latest model, the 400F, you will also meet the new EPA Tier 4 Final / EU Stage IIIB targets.

As a Perkins customer, you are the most important person in our business and so the development of our technology is focused on what is right for you. The 400 Series is built on a common engine platform, which makes the transition to meet the new targets easy and cost-effective. It also has a unique design that requires minimum machine changes and lower development investment – keeping your costs down.

The 400 Series common technology platform means our latest 400F model can be adapted for lower emissions regulation. This gives you an engine with a high residual value if you wish to sell on at a later date into lesser regulated markets; making it an even more cost-effective and attractive option.

Factfile: 400 Series

Overview:	A versatile range of 2- 3- and 4-cylinder engines offering you desirable power in an ultra-compact package, with low ownership costs, high residual value and the ability to meet any emissions targets.
Power:	6.4-50 kW (8.5-67 hp)
Ideal for:	Small tractors, air compressors, mini excavators, skid-steer loaders, ride-on mowers and a wide range of other applications in the agricultural, lawn and garden, construction and materials handling industries.
Emissions:	All levels of emissions legislation and easily optimised for Tier 4 Final.



Auxiliary Power



Excavators



Mowers



Trenchers



Skid Steer Loaders



Tractors



Access Platforms



Rollers

Full specifications available from your nearest distributor and at www.perkins.com or www.tier4air.com

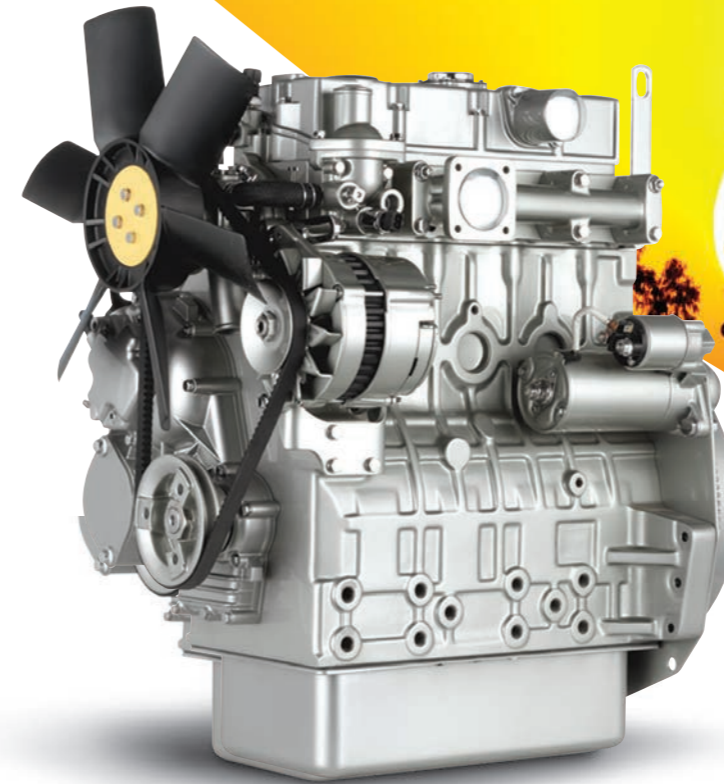
Your 400 Series

Offering you a super-compact design,
great fuel efficiency and high performance,
your 400 Series is available in a wide
range of powers for all your applications.

Choose your perfect power solution

**400 Series: EU Stage IIIA / EPA Tier 4 Interim
EU Stage IIIB / EPA Tier 4 Final**

Model	Cylinder	Maximum power		Maximum torque		EPA Tier 4 Interim	EU Stage IIIA	EPA Tier 4 Final	EU Stage IIIB
		kW	hp	Nm	lb.ft				
402D-05	2	10.2	13.7	29.7	21.9	●	●		
402F-05	2	6.4	8.5	39.9	29.4			●	
403D-07	3	15.3	20.5	44.5	32.8	●	●		
403F-07	3	8.8	11.8	39.9	29.4			●	
403D-11	3	18.1	24.3	70.2	51.8	●	●		
403F-11	3	18.4	24.7	64.6	47.6			●	
403D-15	3	25.1	33.7	96.0	70.8	●	●		
403D-15T	3	30.0	40.2	105.0	77.4	●	●		
403F-E17T	3	30.0	40.2	125.0	92.2			●	
403D-17	3	26.1	35.0	106.0	78.1	●	●		
404D-22	4	38.0	51.0	143.0	105.2	●	●		
404D-22T	4	45.5	61.0	189.1	139.5	●	●		
404F-E22T	4	36.4	48.8	165.0	121.7			●	●
404D-22TA	4	49.3	66.0	208.4	153.7	●	●		
404F-E22TA	4	50.0	67.0	208.0	153.4			●	●



Find out more
For full specifications visit www.perkins.com
or www.tier4air.com
Looking for 400 Series power generation?
See our electrical power brochure
www.perkins.com/products

The 400 Series give you:

Customer benefits	400D	400F
Compact size and design	●	●
Simple installation, even in the smallest machines	●	●
Low noise and smoke levels	●	●
Competitive cost of ownership	●	●
Peace of mind with two-year / 2,000-hour warranty	●	●
500-hour service intervals	●	●
High resell value for lesser regulated markets		●
Automatic aftertreatment management		●
Improved fuel and oil consumption		●
A common platform, easily tailored to meet emissions targets anywhere in the world		●

You can always count on US



Our customers rely on us to deliver the highest standards of quality and innovation, which is why our engines are designed and built from close customer collaboration.

For some projects, customers are invited to one of our Technology Integration Workshops, where our engineers will work closely with you to understand your challenges and requirements, tailoring our technology for your specific applications.

It's an approach our customers find stimulating and productive, and one which can significantly reduce your development time and costs, ensuring a maximum return on investment.

Wherever you are in the world, you are always local to Perkins

To all our customers we make a simple promise: to keep your engines running wherever they are in the world.

With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition.

We are committed to building long-lasting partnerships with you, and our distributors understand the unique needs of the market you operate in.

Enjoy peace of mind with warranties and service contracts

A reputation is built on trust and reliability, which is why we provide one-year warranties for constant-speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally and are tailored to suit your needs, offering extra reassurance that your engine is well cared for.

We go the extra distance to bring you unrivalled service. That's why our UK and Singapore parts distribution centres operate around the clock, guaranteeing direct delivery of genuine Perkins parts wherever you are in the world.



Discover more

To find out how Perkins can help transform your business and to download detailed engine specification sheets, please visit www.perkins.com

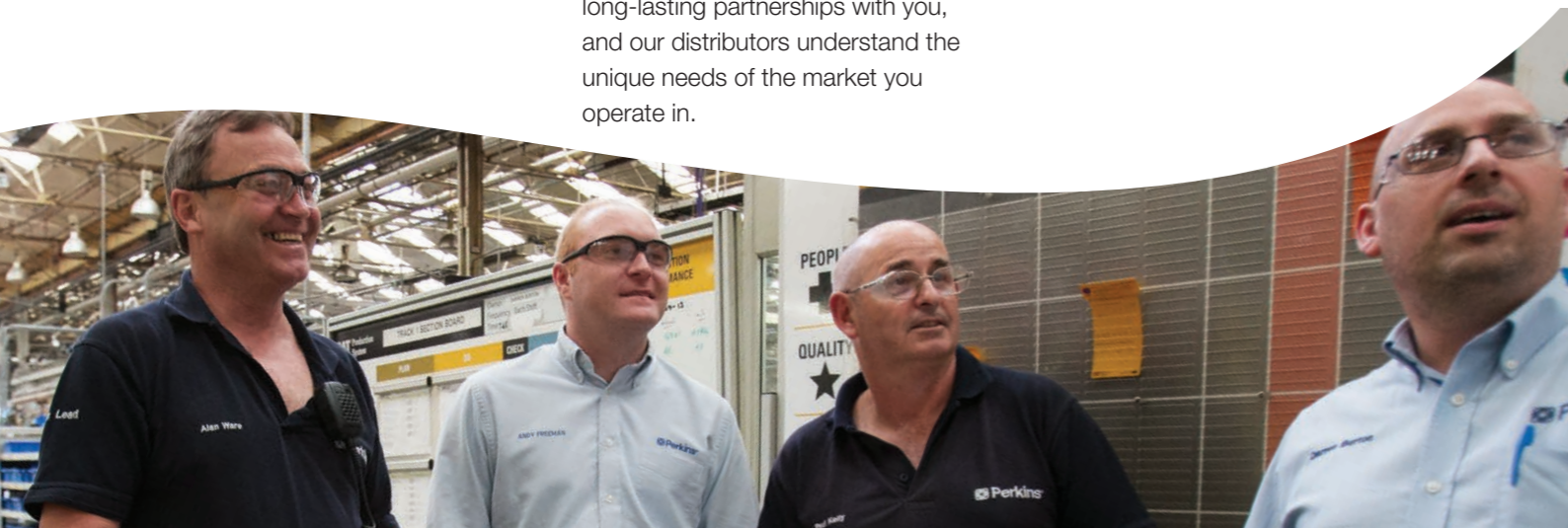
Other useful links

www.perkins.com/distributor

To find your local Perkins distributor.

www.tier4air.com

Learn more about how our innovative technology is leading the way to bring you cleaner, higher performing engines.



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www.perkins.com

850

Series

Power and efficiency
in a small package



 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

Rest assured. It's powered by Perkins

When you are looking to create smaller, higher performing, more cost-effective machines, the 850 Series answers your challenge.

These engines are built on 80 years of Perkins innovation and customer insights, bringing you class-leading power density while meeting the toughest emissions legislation.

Bringing you more power in a smaller package

The space-saving 850 Series offers you a choice of two outstanding models – the 854F: 45–90 kW (60–121 hp) and the 854E: 55–86 kW (74–115.3 hp) – with torque of up to 490 Nm. Compared to previous generations, that's a 40% power increase, and up to 60% more torque.

Listening to your needs, our talented teams have created a much smaller displacement engine than you may be used to at this power range – giving you the same power as our previous generation, 4.5-litre engine. This allows you to develop smaller, more agile machines and frees up valuable space for the engine's aftertreatment system which can be mounted in different locations to give you added flexibility.

Helping you meet the emissions legislation split

Due to the way the emissions legislation is structured in North America and Europe, the 850 Series features two engines that fall either side of the 56 kW (75 hp) cut-off point between EPA Tier 4 Interim and Tier 4 Final.

While the 854E meets EU Stage IIIB/EPA Tier 4 Interim, the 854F is already EU Stage IV / EPA Tier 4 Final compliant, ensuring you have the perfectly tailored model for your applications and markets.

Keeping your costs down

You can always depend on Perkins to deliver technology designed to ensure reliability, fuel efficiency, long-lasting quality components and minimum servicing.

The choice of aftertreatment on both models differs but both options offer superb fuel economy and performance.

In the case of the 854F, the through-flow filter option offers you a service-free after treatment through the use of passive regeneration technology.

Factfile: 850 Series

Overview:	Responsive, compact, 4-cylinder engines offering you exceptional power density and torque, a lifetime of low cost and which meet stringent emissions legislation.
Power:	45–90 kW (60–121 hp).
Ideal for:	Telehandlers, backhoe loaders, skid-steer loaders, forklift trucks, access platforms, tractors, air compressor etc.
Emissions:	EU Stage IIIB / EPA Tier 4 Interim / MLIT Step 4 in the 854E and EU Stage IV/EPA Tier 4 Final in the 854F.



Tractors



Telehandlers



Access Platforms



Trenchers



Skid Steer Loaders



Excavators



Back Hoe Loaders

Full specifications available from your nearest distributor and at www.perkins.com

Your 850 Series

Offering you compact design, great fuel efficiency and high performance, the 850 Series is available in two models to meet different emissions legislations and power demands.

Choose your perfect power solution

**850 Series: EU Stage IIIB / EPA Tier 4 Final
EU Stage IIIB / EPA Tier 4 Interim / MLIT Step 4**

Model	Cylinder	Maximum power		Maximum torque		EPA Tier 4 Interim	EPA Tier 4 Final	EU Stage IIIB	EU Stage IV	MLIT Step 4
		kW	hp	Nm	lb.ft					
854F-E34T	4	45-55.4	60-74	291	214.6		•	•		
854E-E34TA	4	55-86	74-115.3	450	331.9	•		•		•
854F-E34TA	4	63-90	84-121	490	361.4		•		•	

The 850 Series gives you:

- 40% more power than previous generations
- High power density combined with excellent torque in a compact 3.4 litre engine
- Optimum fuel consumption for cost savings
- A single core engine platform for a wide range of applications
- A lifetime of low cost with service free components and aftertreatment
- Compact, flexibly fitted aftertreatment

For full specifications visit www.perkins.com



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We are committed to building long-lasting partnerships with you, and our distributors understand the unique needs of the market you operate in.

Enjoy peace of mind with warranties and service contracts

A reputation is built on trust and reliability, which is why we provide one-year warranties for constant speed engines and two-year warranties for variable speed models*, as standard. These are supported by Perkins Platinum Protection, the best extended cover for your engine. Offering you flexible packages between two and ten years, it's unbeatable value for money with no excess to pay. Stay protected with Perkins Platinum Protection.

* Terms and conditions apply

Talk to your local Perkins distributor today or visit www.perkins.com/platinumprotection for more information.

We go the extra distance to bring you unrivalled service. That's why our UK and Singapore parts distribution centres operate around the clock, guaranteeing direct delivery of genuine Perkins parts wherever you are in the world.



Discover more

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Other useful links

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www.perkins.com



1100

Series

Outstanding performance

for lesser-regulated territories

 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

Power you can rely on

Our best-selling 1100 Series gives you outstanding performance, flexibility and low cost of ownership in regions governed by up to EU Stage IIIA / EPA Tier 3 emissions legislation. This currently accounts for around 75% of the world, including many countries going through rapid development and demanding dependable power across a huge range of applications.

The 1100 Series is developed on common platform technology with many of the same components, which means you will benefit from low inventory stocks and easy, cost-effective installation and servicing.

Optional electronic control for precision power

Your flexible 1100 Series includes a wide range of models with a choice of natural, turbocharged or turbocharged chargecooled aspiration for when you need extra power, and can either be mechanically or electronically controlled. The latter offers you a smoother, faster response and greater fuel economy.

Core technology for all your markets

Because the 1100 Series has been developed with you and your customers in mind, we have created a core design for all models in the range, with common hook-up points, components and front and rear ends. This considered, consistent design makes it easy for you to install different models in the same machines. And when the time comes for you to transition to higher regulated engines, we will work closely with you to make that transition simple while keeping your costs to a minimum.

Helping you meet NVH regulations

As the 1100 Series has evolved, our engineers have increasingly minimised noise for greater operator comfort to meet noise / vibration / harshness (NVH) regulations in different territories. In our most advanced models, noise levels have been reduced by up to a huge 5 decibels.

Low cost of ownership

With over 80 years' heritage, you can depend on our proven standards of excellence. So as well bringing you high productivity and reliability, your 1100 Series offers excellent low ownership costs. Our engines give you outstanding fuel economy and have been developed to use various standards of diesel fuel including biodiesel. You will also enjoy two years warranty and 500 hour service intervals with each engine, ensuring it stays hard at work and in peak condition.

Factfile:

1100 Series

Overview:

Our most popular engine range offers you a choice of 3, 4 and 6 cylinder options for lesser regulated emission territories. Each model comes with excellent power density, flexible options, hassle-free installation and overall low cost of ownership.

Power:

36.9 - 205 kW (49.5 - 275 hp)

Ideal for:

A huge range of large to medium-size construction, agricultural, general industrial and materials handling applications including:



Backhoe Loaders



Tractors



Excavators



Telehandlers



Forklift Trucks



Rock Drills

Emissions:

Certified to EU Stage IIIA / U.S. EPA Tier 3.

Full specifications:

Available from your nearest distributor and at www.perkins.com

Your 1100 Series

Our most popular engine series is designed for lesser emission regulated markets and offers you flexibility, high - power density, low noise, reliability and low cost of ownership.

Choose your perfect power solution

1100A Series: EU Stage I / U.S. EPA Tier 1

Model	Cylinders	Power	Control	Maximum torque
1104A	4	63.5-80.5 kW (85-108 hp)	Mechanical	293-404 Nm (216-298 lb-ft)

1100C Series: EU Stage II / U.S. EPA Tier 2

Model	Cylinders	Power	Control	Maximum torque
1103C	3	55 kW (74 hp)	Mechanical	291 Nm (215 lb-ft)
1104C	4	64-97 kW (85.8-130.1 hp)	Mechanical	308-500 Nm (227-369 lb-ft)
1106C	6	112 -162 kW (150-217 hp)	Mechanical	687-900 Nm (507-664 lb-ft)

1100D Series: EU Stage IIIA / U.S. EPA Tier 3

Model	Cylinders	Power	Control	Maximum torque
1103D	3	36.9-58 kW (49.5-77.8 hp)	Mechanical	196-310 Nm (145-228.6 lb-ft)
1104D	4	56-83 kW (75-111.3 hp)	Mechanical	265-410 Nm (195-302 lb-ft)
1104D	4	74.5-106 kW (100-142 hp)	Electronic	420-556 Nm (310-410 lb-ft)
1106D	6	112-129 kW (150-173 hp)	Mechanical	672-750 Nm (496-553 lb-ft)
1106D	6	116.5-205 kW (156.2-274.9 hp)	Electronic	706-1050 Nm (521-774 lb-ft)

The 1100 Series gives you:

- A common platform engine designed for a range of markets
- Available in both mechanical and electronic variants
- High power density combined with excellent torque
- Low noise
- Optimum fuel consumption for cost savings
- A huge range of options to tailor your product to meet your needs
- Low cost of ownership
- Two year / 3,000 hour warranty (36 months on major components)
- 500 hour service intervals

Find out more

For full specifications visit www.perkins.com.

Looking for 1100 Series power generation?

See our electrical power brochure. www.perkins.com/products



1103D

1104C

1104D

1106C

1106D



Key

■ 1100 Series available

■ Highly regulated countries



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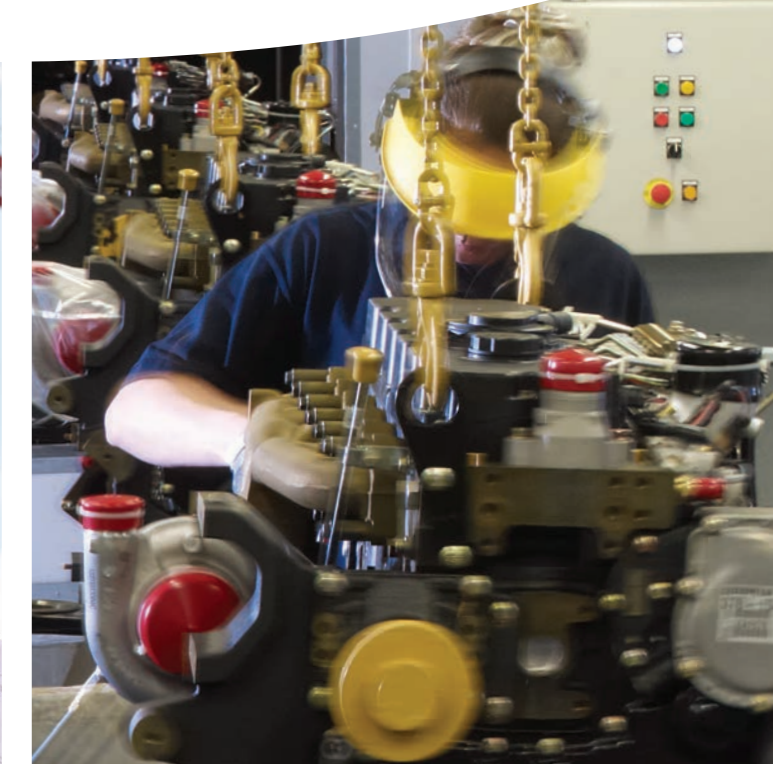
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Other useful links

www.perkins.com/distributor



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Europe, Middle East and Africa

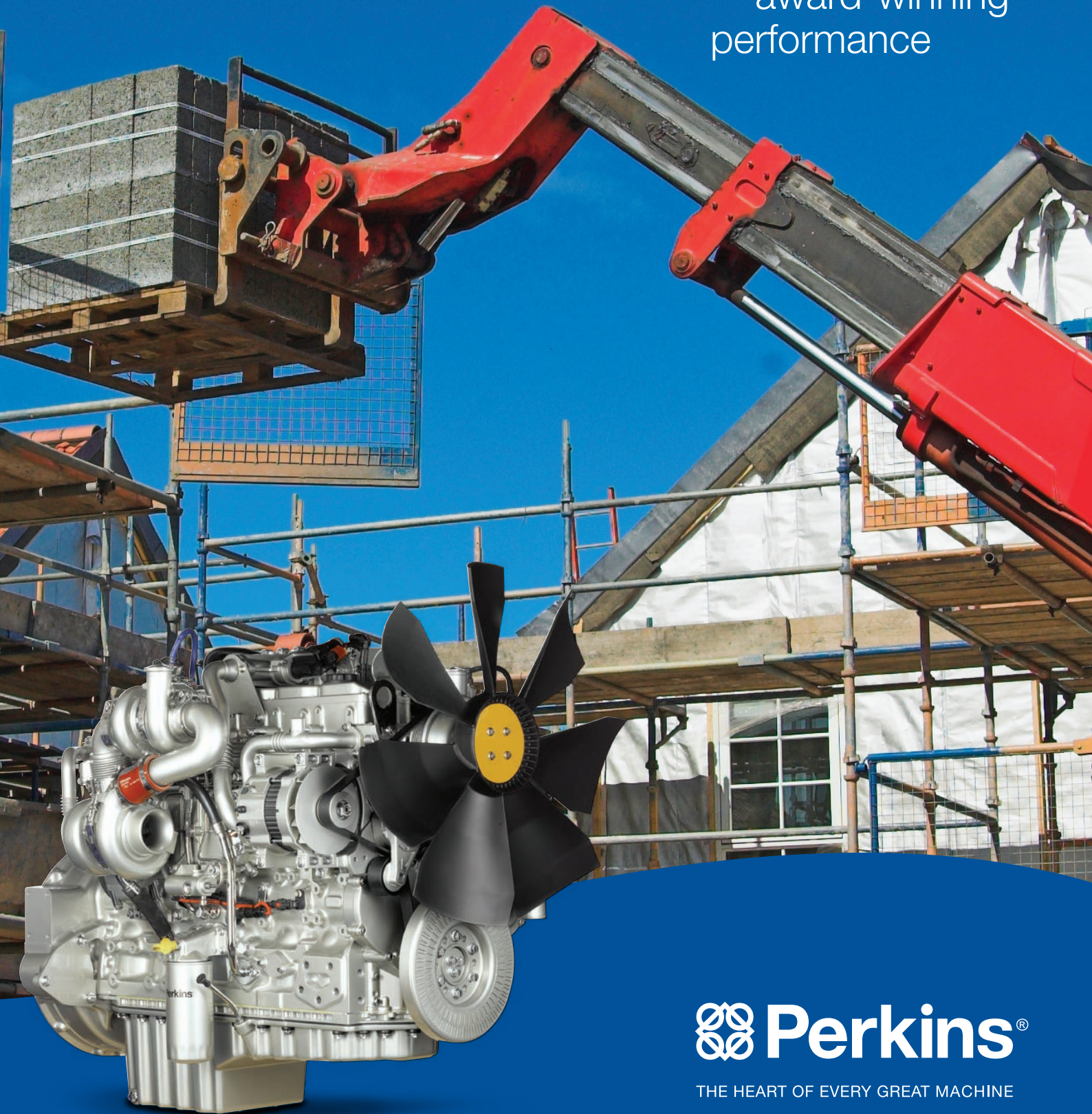
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1200

Series

Cleaner, greener,
award-winning
performance



 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

Exceeding your expectations

When you are faced with the toughest jobs, you need the most powerful, responsive and robust engines that consistently deliver.

Not only is the award-winning 1200 Series precisely engineered to offer world-class quality but it also meets the most stringent emissions targets, enabling you to distribute to and operate in key markets.

Helping you meet the emissions challenge, now and in the future

When running engines in North America, Europe or Japan, you are faced with the most demanding emissions legislation on the planet.

Thankfully, you can always count on Perkins to deliver, which is why we have created the 1200 Series to meet the following territorial legislation:

- North America: EPA Tier 4 Interim
- Europe: EU Stage IIIB
- Japan: MLIT Step 4

However, new more stringent legislation – Tier 4 Final / Stage IV – comes into effect in 2014 (EU) and (US). But with Perkins on your side, we will make sure you are ready and compliant.

That's because the 1200 Series is primed for the future. The next generation 1200F Series – due in 2013 – will meet these targets and allow you to meet your legal obligations simply and cost-effectively.

The core technologies of all 1200 Series models are the same, making it easy for you to switch from Tier 4 Interim to Tier 4 Final. It's all about creating technology that consistently delivers for you with a minimum amount of hassle.

The performance you need – no compromises

Like you, we believe there should not be a trade off between emissions and performance. With the 1200 Series powering your equipment, there isn't. Not only does the 1200 Series tackle the emissions challenge head on, but it gives you improved productivity levels and fuel consumption compared to previous generation Tier 3 engines. The result is a machine that empowers you to meet legislation while giving you outstanding, robust performance for the tasks ahead.

Precisely tailored technology for engines you can depend on

Your needs are our number one priority, which is why we provide more tailored technology for original equipment manufacturers than anyone else. Working closely with you to meet your demands, we have created the 1200 Series with hundreds of variables that make it easy for our engine to fit your applications. Its hook-up points are common to our previous generation 1100 Series so you can easily transition from Tier 3 to Tier 4, while a simple, compact aftertreatment can be flexibly fitted.

Working hard to give you lower cost of ownership

With improved productivity and fuel consumption comes lower ownership costs. Years of expertise is poured into every Perkins part to give you improved efficiencies, whether it's longer-lasting belts or service-free diesel particulate filters. Factor in a standard two-year warranty and great value Extended Service Contracts – and the 1200 Series is as cost-effective as it is powerful.

Factfile: 1200 Series

Overview:	Responsive, high-productivity 4- and 6-cylinder engines complying with the toughest global emissions legislation, offering you flexible features and low ownership costs.
Power:	61.5–225 kW (82.5–301.7 hp).
Ideal for:	Large- and medium-sized machines for construction, agriculture, materials handling and general industry, such as hydraulic excavators, rock crushers, backhoe loaders, telehandlers, forklifts, tractors etc. Also available as generator set packs for applications such as lighting rigs.
Emissions:	Compliant with EU Stage IIIB / Stage IV, EPA Tier 4 Interim / Tier 4 Final, MLIT Step 4.



Excavators



Wheeled Loaders



Back Hoe Loaders



Trenchers



Tractors



Motorgraders



Telehandlers



Fork Lift Trucks



Rollers



Harvesters



Irrigation Pumps



Rock Drills



Crushers



Forest Machines



Airport Baggage Trucks



Pavers

Full specifications available from your nearest distributor and at www.perkins.com or www.tier4air.com

Your 1200 Series

The 1200 Series has outstanding fuel efficiency, saving you money every time you use it.

Choose your perfect power solution

**1200 Series: EU Stage IIIB / EPA Tier 4 Interim / MLIT Step 4
EU Stage IV / EPA Tier 4 Final**

Model	Cylinders	Power range
1204E-E44TA	4	61.5–110.1 kW (82.5–147.6 hp)
1204E-E44TTA	4	110.1–129.4 kW (147.6–173.5 hp)
1204F-E44TA	4	70–110.1 kW (93.9–147.6 hp)
1204F-E44TTA	4	105–129.4 kW (140.8–173.5 hp)
1206E-E66TA	6	89–129.4 kW (119.3–173.5 hp)
1206E-E70TTA	6	140–225 kW (187.7–301.8 hp)
1206F-E70TA	6	116–151 kW (156–202 hp)
1206F-E70TTA	6	151–225 kW (202–301.7 hp)



The 1200 Series gives you:

- Highly productive and fuel efficient
- Fast response, high power and torque levels up to 1257 Nm (927 lb.ft)
- Multiple options for flexible and compact installation
- Common hook-ups for easy transition from Tier 3
- Reliable cold starts at –25°C as standard – up to –40°C with add-on cold packs
- Service-free diesel particulate filters on some models

Your high-performing 1200 Series is available as an industrial engine or open power unit, which comes complete with radiator and air cleaner for minimal, hassle-free engineering.

Find out more

For full specifications visit www.perkins.com

Looking for 1200 Series power generation?

See our electrical power brochure
www.perkins.com/products



You can always count on US



Our customers rely on us to deliver the highest standards of quality and innovation, which is why our engines are designed and built from close customer collaboration.

For some projects, customers are invited to one of our Technology Integration Workshops, where our engineers will work closely with you to understand your challenges and requirements, tailoring our technology for your specific applications.

It's an approach our customers find stimulating and productive, and one which can significantly reduce your development time and costs, ensuring a maximum return on investment.

Wherever you are in the world, you are always local to Perkins

To all our customers we make a simple promise: to keep your engines running wherever they are in the world.

With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition.

We are committed to building long-lasting partnerships with you, and our distributors understand the unique needs of the market you operate in.

Enjoy peace of mind with warranties and service contracts

A reputation is built on trust and reliability, which is why we provide one-year warranties for constant-speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally and are tailored to suit your needs, offering extra reassurance that your engine is well cared for.

Discover more
www.perkins.com/esc

We go the extra distance to bring you unrivalled service. That's why our UK and Singapore parts distribution centres operate around the clock, guaranteeing direct delivery of genuine Perkins parts wherever you are in the world.



Discover more

To find out how Perkins can help transform your business and to download detailed engine specification sheets, please visit www.perkins.com

Other useful links

www.perkins.com/distributor

To find your local Perkins distributor.

www.tier4air.com

Learn more about how our innovative technology is leading the way to bring you cleaner, higher performing engines.

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Europe, Middle East and Africa

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www.perkins.com



Power generation

when it matters most

4000

Series

 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

Power generation you can rely on

Whether your generator set needs to operate at peak times on prime power or purely for standby purposes, we guarantee that the reliable and durable 4000 Series engines will deliver consistent performance that provides you with electricity for many years to come. You can be assured that these engines will measure up to the toughest demands you place on them, whatever environment they are operating in. That is because we are committed to providing you with clean, efficient power you can depend on - you can always count on us.

Working with you to meet power generation needs

Through close collaboration, we can develop engines that hit all the key power nodes and incorporate the technology to operate in either emissions-regulated or unregulated territories. By working closely with you in this way we share a commitment to bring the highest quality of products to the power generation market, which can be seen with the excellent durability that we build into each engine - enabling them to operate in the harshest of environments.

Low cost of ownership

You can expect world-class quality from the Perkins® 4000 Series engines, designed with common components to reduce inventory, digital governing to control fuel consumption and improved load acceptance. Our team of experts go the extra distance to ensure that new designs are optimised to reduce downtime and the cost of parts for your engine, contributing to a low cost of ownership. The engines also come with excellent service access, 12 months warranty and 500 hour service intervals to ensure your engine continues to deliver reliable power you can depend on.

Factfile:

4000 Series

Power:

600-2500 kVA

Overview:

Our widest range brings you a choice of 6, 8, 12 and 16 cylinder options to ensure you have the engine that is perfect for your specific power generation requirements.

Each model of these high performance engines come with exceptional power-to-weight ratio, improved fuel efficiency and easy service access. They also include an option of either temperature or tropical cooling and comply with international emissions standards.

- 4006D-23 - All engines below 800 kVA meet the CPCB II emissions norms requirements

Class-leading warranty

- For prime applications:
 - one-year unlimited hours running or for engines which operate less than 6,000 hours in the first year
 - two-year or 6,000 hours which ever expires first
- For standby applications:
 - up to three years or 1,500 hours maximum for engines which operate less than 500 hours in the first year

Full specifications:

Available from your nearest distributor and at www.perkins.com/power

By 2040 it is estimated that global electricity demand will grow by 85 percent.

Source: ExxonMobil – Outlook for Energy: a View to 2040

Your engine of choice

Choose your perfect power solution

50 Hz, 1500 rpm

Model	Net Engine Output			Typical Generating Set Output					
	Baseload	Prime	Standby	Baseload		Prime		Standby	
	kWm	kWm	kWm	kWe	kVA	kWe	kVA	kWe	kVA
6 cylinder									
4006-23TAG2A	501	628	691	480	600	600	750	660	825
4006-23TAG3A	536	675	756	512	640	640	800	720	900
8 cylinder									
4008TAG1A	606	767	844	576	720	720	900	800	1000
4008TAG2A	681	861	947	647	809	800	1000	880	1100
12 cylinder									
4012-46TAG0A	842	1053	1158	800	1000	1000	1250	1100	1375
4012-46TWG2A	833	1055	1166	791	989	1000	1250	1108	1385
4012-46TAG1A	909	1148	1263	864	1080	1100	1350	1200	1500
4012-46TWG3A	909	1149	1263	864	1079	1100	1350	1200	1500
4012-46TWG4A	-	1254	1342	-	-	1200	1500	1280	1600
4012-46TAG2A	1005	1267	1395	955	1194	1200	1500	1320	1650
4012-46TAG3A	1200	1440	1583	1140	1425	1350	1710	1500	1875
16 cylinder									
4016-61TRG1	1179	1558	1684	1120	1400	1480	1850	1600	2000
4016TAG1A	1219	1537	1690	1170	1463	1480	1850	1600	2000
4016-61TRG2	1347	1684	1895	1280	1600	1600	2000	1800	2250
4016TAG2A	1362	1715	1886	1307	1634	1600	2000	1800	2250
4016-61TRG3	1500	1875	2083	1440	1800	1800	2250	2000	2500

60 Hz, 1800 rpm

6 cylinder									
4006-23TAG2A	511	638	702	480	600	600	750	660	825
4006-23TAG3A	570	715	795	540	675	675	844	750	938
8 cylinder									
4008TAG1	584	744	821	555	694	707	884	780	975
4008TAG2	659	838	924	626	783	800	1000	875	1100
12 cylinder									
4012-46TWG2A	833	1055	1166	791	989	1000	1250	1100	1375
4012-46TWG3A	909	1149	1263	864	1079	1100	1350	1200	1500
4012-46TAG1A	914	1153	1267	868	1085	1100	1350	1200	1500
4012-46TWG4A	-	1254	1342	-	-	1200	1500	1280	1600
4012-46TAG2A	1009	1272	1399	959	1199	1200	1513	1330	1675
4012-46TAG3A	1200	1440	1583	1140	1425	1350	1700	1500	1880



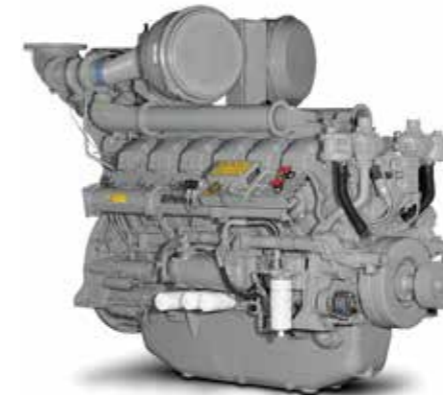
4006

- 23 litre
- Inline 6 cylinder
- Turbocharged, air-to-air chargecooled
- Temperate or tropical cooling groups
- Available as either Electrounit or ElectropaK specification (with loose-coupled cooling group, fan, pipes and guards)
- Commonality of components



4008

- 30 litre
- Inline 8 cylinder
- Turbocharged, air-to-water chargecooled
- Temperate or tropical cooling groups
- Available as either Electrounit or ElectropaK specification (with loose-coupled cooling group, fan, pipes and guards)
- Commonality of components



4012

- 46 litre
- Vee 12 cylinder
- Turbocharged, air-to-air/air-to-water chargecooled
- Temperate or tropical cooling groups
- Available as either Electrounit or ElectropaK specification (with loose-coupled cooling group, fan, pipes and guards)
- Commonality of components



4016

- 61 litre
- Vee 16 cylinder
- Turbocharged, air-to-air/air-to-water/externally chargecooled
- Temperate or tropical cooling groups
- Available as either Electrounit or ElectropaK specification (with loose-coupled cooling group, fan, pipes and guards)
- Commonality of components

Find out more

For full specifications visit www.perkins.com/power

For information on 4000 Series gas brochure product visit www.perkins.com/gas



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We are committed to building long-lasting partnerships with you, and our distributors understand the unique needs of the market you operate in.

Enjoy unbeatable protection for your Perkins engine

A reputation is built on trust and reliability, which is why we provide one-year warranties for constant speed engines and two-year warranties for variable speed models*, as standard.

These are supported by Perkins Platinum Protection, the best extended cover for your engine. Offering you flexible packages between two and ten years, it's unbeatable value for money with no excess to pay. Stay protected with Perkins Platinum Protection.

* Terms and conditions apply

Talk to your local Perkins distributor today or visit www.perkins.com/platinumprotection for more information.

You can always count on us

Wherever you are in the world, we go the extra distance to bring you unrivalled service. That's why our UK and Singapore parts distribution centres operate around the clock, guaranteeing direct delivery of genuine Perkins parts whatever your region.

You rely on us to deliver the highest standards of quality and innovation, which is why we design and build our engines from close customer collaboration. Our engineers will work closely with you to understand your challenges and requirements, tailoring our technology for your specific applications.

It is an approach we believe can significantly reduce your development time and costs, ensuring a maximum return on investment.

Discover more

To find out how Perkins can help transform your business and to download detailed engine specification sheets, please visit www.perkins.com/power

Other useful links

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engineered
to fit your
strategy

1.7 and 2.2 litre
diesel engines



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more? Let's talk.

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www.perkins.com

An expanded
compact
engine offering



Perkins®
SYNCRO

1.7 and 2.2 litre

 **Perkins®**

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Publication No. PN3151EN/02/17

Introducing the 1.7 and 2.2 litre engines as part of the Perkins® Syncro range

Global offering

Evolving from our U.S. EPA Tier 3 base, a high level of commonality across global machine models simplifies your business.

For many years, our trusted 400 Series has been the platform of choice for over a million off-highway machines worldwide. Now part of the Perkins® Syncro range, our 1.7 and 2.2 litre engines have been re-engineered to deliver a high-performance, high-value powertrain solution that supports your business ambitions.

By extending our global compact engine offering, which already includes the 2.8 and 3.6 litre engines, the 1.7 and 2.2 litre engines now provide even greater choice and flexibility for compact machine development, helping you to take advantage of growth market opportunities.

Both engine models also include various features, such as an electronic fuel system and a wide variety of installation options, that integrate perfectly with your next generation machine designs.

One global partner

As your partner, Perkins offers comprehensive assistance at every step of the machine development process, ranging from technical integration workshops and prototype solutions through to fully validated, tailored hardware. We also provide global support for your supply chain and dedicated services built around your needs.

Re-engineered for next generation machines



Compact size

Evolving from a range that has powered hundreds of the most compact machines, the 1.7 and 2.2 litre engines have been engineered for simple installation in even the most space constrained designs.



Proven reliability

Individually tested through our stringent in-house validation programmes, the robust 1.7 and 2.2 litre engines ensure consistent performance in the toughest environments, including extreme altitudes and temperatures.



Fully supported

We understand that aftersales is vital to maintain the loyalty of your customers. We provide a flexible, dedicated support service and product features such as service-free aftertreatment to minimise maintenance costs.



Exceptional performance

With low-noise characteristics, you can ensure a comfortable operator experience without the need for additional (and costly) machine engineering. In addition, the engines' low fuel consumption greatly reduces operating costs.



Trusted technology

With a core product and technologies proven countless times in the field, you can be sure of minimum downtime for your machine owner. A simple Diesel Oxidation Catalyst (DOC) aftertreatment system eliminates the need for operator interaction.

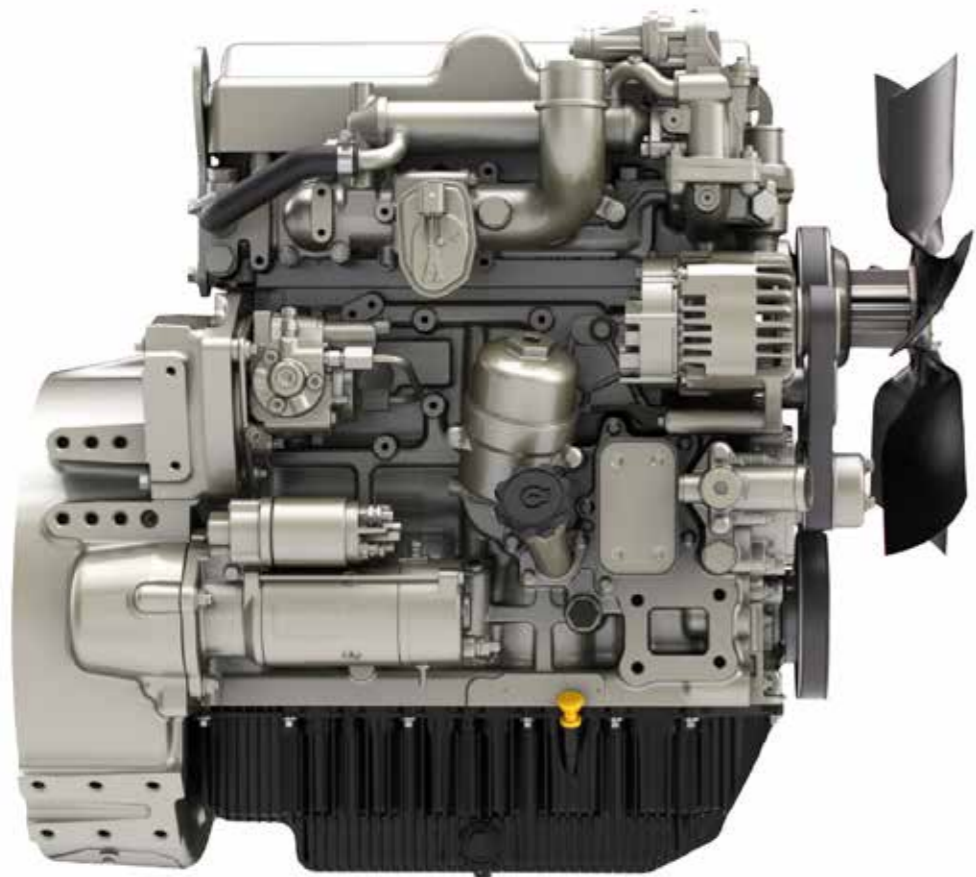


Engine	1.7 litre	2.2 litre	2.2 litre
Cylinders	3	4	4
Emissions	Tier 4 Final*	Tier 4 Final*	Tier 4 Final*
Aspiration	Turbocharged	Turbocharged	Turbocharged aftercooled
Power	29 kW (39 hp)	36 kW (48 hp)	50 kW (67 hp)
Maximum torque	120 Nm	165 Nm	208 Nm
Rated speed	2800 rpm	2800 rpm	2800 rpm
Aftertreatment	DOC	DOC	DOC

* EU Stage V offering in development.

engineered
to fit your
strategy

2.8 and 3.6 litre
diesel engines



Interested to know
more? Let's talk.

If you have any questions, or need more
information about the new 2.8 and 3.6 litre
engines or any of the other Perkins products,
please visit us at www.perkins.com

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A new compact engine platform

Perkins®
SYNCRO

2.8 and 3.6 litre



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Introducing the new 2.8 and 3.6 litre engines as part of the Perkins® Syncro range

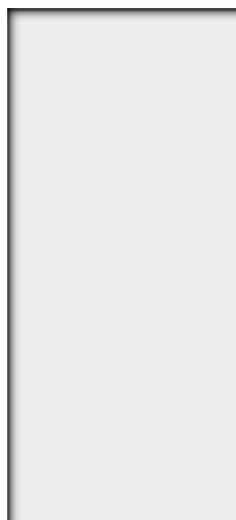
Part of the Perkins® Syncro range, the new 2.8 and 3.6 litre engines have been engineered not only to integrate perfectly with your machine design, but to deliver the right performance and value to support your business ambitions.

Whether you need a single engine platform to meet emissions standards (including EU Stage V) in new export markets or the quality and reliability to develop the most competitive machines, our 2.8 and 3.6 litre engines have been designed to help ensure your success.

One global partner

The 2.8 and 3.6 litre models are the latest in our full range of off-highway diesel engines built for your machines and markets, worldwide.

As your partner, Perkins offers comprehensive assistance at every step of the machine development process, ranging from technical integration workshops and prototype solutions through to fully validated hardware tailored to your machine designs. We also provide global support for your supply chain with facility locations across three continents and dedicated services built around your needs.



Stage V-capable*

The compact 2.8 litre and 3.6 litre diesel engines meet current and future emissions standards, world-wide, including Stage V.

*as proposed Stage V emissions standards

Your next generation of machines



Compact size

The 2.8 and 3.6 litre engines have been designed to fit in more than 80 machine models. This guarantees the most compact engine package possible, saving you significant time and cost in research and development for your next machine design.



Excellent performance

Our choice of power curves is perfectly matched to the latest transmissions and hydraulics. With high torque at low speeds, valuable fuel economy and fast transient response, you will have a machine that is not only more powerful, but more efficient and easier to operate.



Trusted reliability

Reliability is critical to your reputation. We guarantee the highest quality standards with in-house predictive and physical testing to simulate real-world conditions and technologies that deliver proven performance.



Future proofed

In addition to meeting immediate requirements, the 2.8 and 3.6 litre engines are also designed to be adaptable to new machine technologies as they evolve. This means your investment will be as valid and secure tomorrow as it is today.



Serviceable and supported

We understand that after-sales is vital to maintaining the loyalty of your customers. Whether you are an OEM or a distributor, we are here to help you with a flexible support service that meets your needs.



A single platform

Both engines share a common system architecture, allowing you to develop competitive single machine platforms that will meet emissions standards in any territory, while at the same time minimising business variety and complexity.



Displacement	2.8 litre	3.6 litre
Cylinders	4	4
Maximum power	55 kW (74 hp)	100 kW (134 hp)
Maximum torque	325 Nm	Up to 500 Nm
Rated speed	2200-2500 rpm	2000-2400 rpm

Emissions	2.8 litre	3.6 litre
EU Stage IIIA/ U.S. EPA Tier 3	904D-E28T/TA	904D-E36TA
U.S. EPA Tier 4 Final	904F-E28T/TA	904F-E36TA
EU Stage V-capable	904J-E28T/TA	904J-E36TA