



DAF

NEW EURO 6 ENGINE RANGE



THE POWER OF EFFICIENCY

For the new Euro 6 DAF XF, CF and LF there is a complete range of state-of-the-art PACCAR engines available. From the most compact PX-5 with outputs from 150 hp for the new LF, to the most powerful MX-13 with power outputs up to 510 hp for the new CF and XF. All engines stand out through their high output, torque and driveability. Plus their low fuel consumption, long service intervals and especially their reliability and long life. Good for your return and good for the environment.



PACCAR

PACCAR

DAF developed for the new XF and CF the new 12.9 litre PACCAR MX-13 engine. Thanks to ultra modern and thoroughly proven technologies such as common rail injection, a variable-geometry turbocharger, exhaust-gas recirculation and ingenious exhaust-gas aftertreatment, the stringent Euro 6 emission requirements are met. At the same time, the six-cylinder PACCAR MX-13 engine is synonymous with maximum efficiency, high performance and low operating costs.

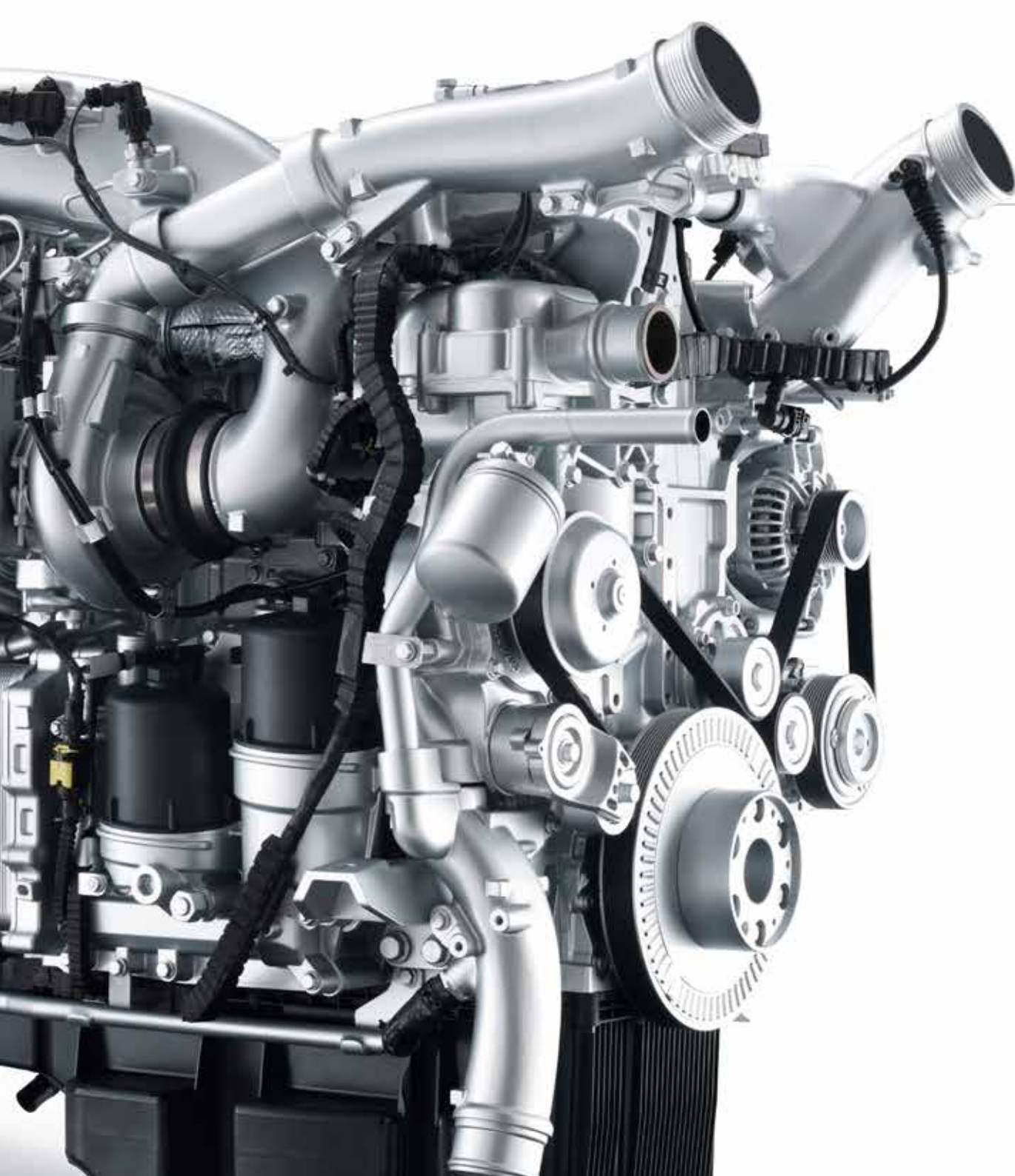
TRIED AND TESTED

Technologies with which DAF gained vast experience in the United States, have been further developed for Euro 6. Use is also made of Euro 5 Advanced Transport Efficiency (ATe) technologies such as the encapsulated exhaust manifold for even higher turbo efficiency and optimized piston rings and cooling. DAF Euro 6 technology is proven technology, developed for optimal reliability and durability.

POWERFUL

The new PACCAR MX-13 engine provides power outputs of 303, 340 and 375 kW with impressive torque figures of 2,000, 2,300 and 2,500 Nm respectively. They are available at low engine speeds and over a broad rev range. This means flexibility, less gear changing, high fuel efficiency and pure driving comfort. Also the engine brake gives excellent performance. More than three quarter of its power is delivered at only 1,500 rpm, resulting in less use and wear on the foundation brakes.





PACCAR *MX13*

EFFICIENT The strict Euro 6 emission requirements are met in the most efficient way with fuel consumption at the favorable Euro 5 Advanced Transport Efficiency (ATE) level. Through intelligent sensors and software the engine and exhaust after treatment work optimally together.

LOW COSTS An increased oil sump capacity enables service intervals of up to 150,000 kilometres. Fuel filter and water separator are combined in one unit making maintenance easier. The PACCAR MX-13 also has a single auxiliary drive belt for efficiency and lower maintenance.

RELIABLE The use of high quality materials such as Compact Graphite Iron for cylinder block and head results in high reliability and long life. To that end, functions are integrated. Fuel lines are integrated into the cylinder block and head. Oil filter, thermostat and cooler are combined in one module. Moreover, cable harnesses are encapsulated with foam. The new PACCAR MX engine is designed for a service life of up to 1.6 million kilometres.

PACCAR MX11

In developing the new 10.8 litre PACCAR MX-11 engine for the Euro 6 CF and XF, high performance, low weight and low fuel consumption were the main focus. In addition of course to maximum reliability and service life, and optimum vehicle availability. The PACCAR MX-11 engine is available with outputs from 290 to 440 hp and 3 ratings with engine characteristics specific for distribution transport and 2 ratings for haulage applications where low weight and the lowest fuel consumption are of utmost importance.

EFFICIENT The new six-cylinder PACCAR MX-11 engine is completely new off the drawing board. The engine with its double overhead camshafts is lightweight and compact. Thanks, among others, to a synthetic oil sump, a single multi-belt, and a fan driven directly by the crankshaft. The PACCAR MX-11 engine is 180 kg lighter than the MX-13. This means an even higher payload and thus an even better return. A big advantage within the distribution segment and also, for example, bulk or tanker haulage over long distances.

RESPONSIVE The new PACCAR MX-11 engine is available in five versions. With power outputs of 210, 340, 271, 291 and 320 kW. And high maximum torques of 1,200, 1,400, 1,600, 1,900 and 2,100 Nm, available over a wide rev range. For the distribution segment and for heavy applications, there are specific settings. Just like the MX-13, the MX-11 is equipped with common rail fuel injection. The variable geometry turbo ensures excellent engine response and fuel efficiency. The MX-11 reaches maximum torque at 1,000 rpm. This means there is always a lot of torque available and less gear changing is required. The powerful engine brake increases comfort for the driver and means less wear on the foundation brakes. For the lowest operating costs.

CLEVER To meet the stringent Euro 6 emission requirements, the MX-11 uses the same innovative technologies as the MX-13 for the treatment of exhaust gases. They work in harmony with the engine in conjunction with smart sensors and software. Also in terms of maintenance, the MX-11 is the epitome of efficiency. With intervals of up to 125,000 km. Clever features, such as the combined unit for fuel filter and water separator, and the single multi-belt, keep service costs low.

DURABLE The new MX-11 engine is synonymous with maximum reliability and durability. Compact Graphite Iron for cylinder block and head contributes to this. Function integration has been optimized. Pipelines are cast in the cylinder block. The high-pressure pump units for generating pressure in the common rail system are compactly integrated within the block. And there is a single module for oil filter, thermostat and cooler. For maximum reliability, the cable harnesses are encapsulated with foam. Unique within the industry.



PACCAR **PX7**

Just like the MX series, the PACCAR PX engines are newly developed. The 6.7 litre PACCAR PX-7 six-cylinder is at the top of this line. In four versions with outputs from 220 to 310 hp. This powerful engine is ideally suited for the new LF for distribution applications. With its high power output and torque in a favorable rpm range, the PX-7 engine will also become available in the new CF from the beginning of 2014. The PX-7 is powerful and efficient, smooth and clean. And it's maintenance friendly.

SMOOTH Just like the PACCAR MX engines, the new six-cylinder PACCAR PX-7 engine distinguishes itself by innovative technology. The PX series also uses common rail fuel injection and a variable geometry turbocharger. The powerful PX-7 is available with 164, 186, 208 and 231 kW. With torques of 850, 950, 1,020 and 1,100 Nm respectively. This ensures unprecedented driveability with favorable fuel consumption.

CLEAN AND QUIET Low emissions and low noise are important for intensive distribution work. Naturally the PACCAR PX-7 engine meets the stringent Euro 6 emission requirements. This is achieved, among others, with cooled EGR, through which AdBlue consumption could be reduced by up to 50%. Thanks to the compact design, with various components integrated in the block and the cylinder head, the engine is also remarkably quiet. Comfortable for the driver and also good for the environment.

DEPLOYABLE A distribution truck must do its job without problems. This is why maximum availability is the basis of the reliable PX-7 design. Low maintenance contributes to your return. With service intervals up to 60,000 km and a particulate filter that only needs cleaning after 320,000 km. The PX-7 is also equipped with a single multibelt and various functions and components are clustered in a single module, for low maintenance costs.





The completely new 4.5 liter PACCAR PX-5 four-cylinder is the ideal power unit for inner-city distribution. The most compact engine from the PX series is equipped with the same technology as the larger PX-7 six-cylinder. It is powerful, flexible, economical and clean. The PACCAR PX-5 is available in three variants, from 150 to 210 hp. It offers Euro 6 technology with the lowest emissions. And of course, low fuel consumption as you are used to from DAF.

INTENSIVE Many short journeys, constantly accelerating and braking: the new PACCAR PX-5 is made for it. As always with sufficient power through a high torque. And enough power for heavy loads. Because the maximum torque is already available from 1,200 rpm, the new LF with PACCAR PX-5 engine is a joy to drive.

ECONOMIC PACCAR PX-5 engines are clean and economical besides being also very reliable. The PX-5 can go up to 60,000 km between service intervals. The active particulate filter only needs cleaning after 320,000 km or 5 years. Various engine functions and components are clustered in a single module. This also keeps maintenance costs low and is good for your return.

QUIET Just like the six-cylinder PACCAR PX-7 engine, the PX-5 is ideal for use in urban areas. Because of its high pulling power and driveability, but also because of its low noise and clean exhaust. Ideal for work in the evening or at night.

INNOVATIVE The PACCAR PX-5 four-cylinder uses the same proven technology that is applied to the larger PACCAR PX-7 and MX series. The engine has a single multi-belt and a fan driven directly by the crankshaft. This saves weight and has a beneficial effect on reliability and maintenance. The same applies to the application of advanced technologies for the treatment of exhaust gases.



EXHAUST GAS AFTER-TREATMENT

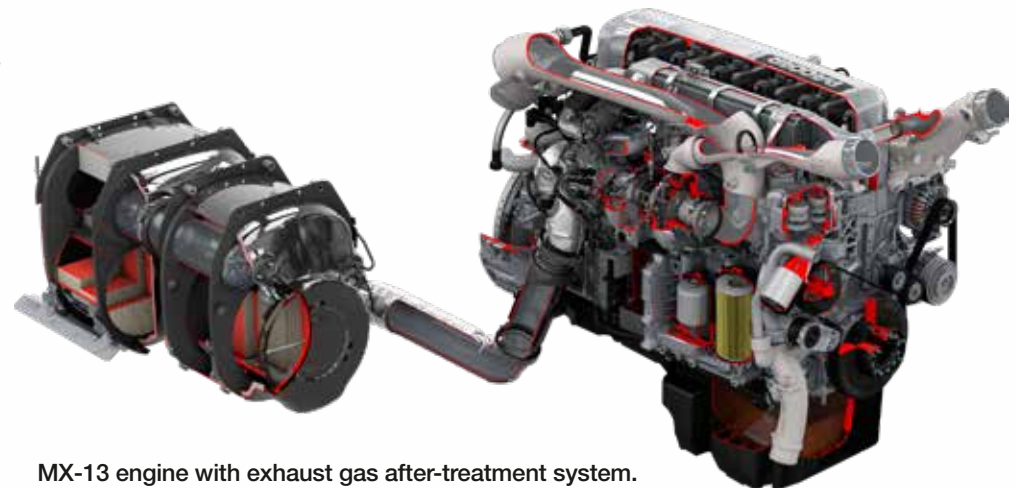
DRIVEN BY EFFICIENCY To meet the stringent Euro 6 emission requirements while ensuring the highest fuel efficiency, DAF has combined its advanced PACCAR Euro 6 engines with various exhaust gas after treatment technologies: an SCR catalytic converter and a diesel particulate filter.

The ultra-modern common rail fuel injection system allows high pressures and enables the possibility for pre-and post-injection, or a combination of both to be applied. This produces a finer atomization of the fuel and many more possibilities to optimize combustion. The result: as low as possible emissions and noise, and the best possible fuel economy. And because the temperature of the exhaust gases can be controlled effectively, it is possible to optimize the integration of the engine with the exhaust gas after treatment system.

What matters, in addition to the exact composition of the exhaust gases, is to achieve the correct temperature in the soot filter. The basic principle is to allow passive regeneration of the soot filter by enabling the ideal conditions to be created by the engine. This is why the exhaust manifold at most of the PACCAR Euro 6 engines is encapsulated, as well as the most essential parts of the exhaust system. If, to a specific vehicle application the passive regeneration is insufficient, the engine can initiate an active regeneration. On the

MX engines, an additional injector for this is added behind the turbo and before the soot filter. This can inject fuel into an oxidation catalytic converter in the exhaust to create sufficient heat to regenerate the soot.

The SCR catalytic converter has also been designed to maintain optimum temperatures. Thanks to its smart coating, it is able to achieve maximum performance across a wider range of temperatures, which means that the engine can function optimally and in the most efficient way.

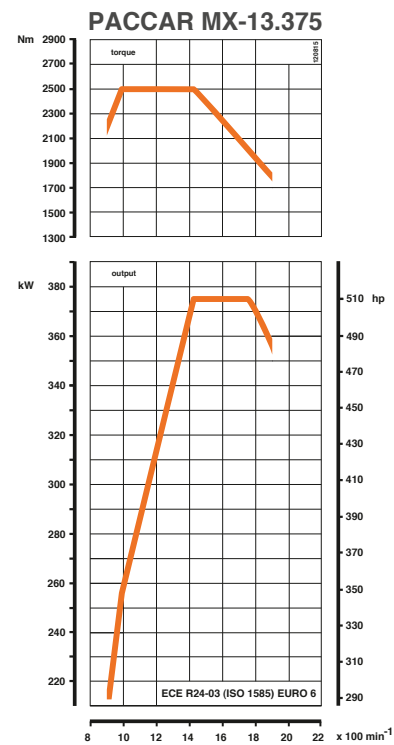
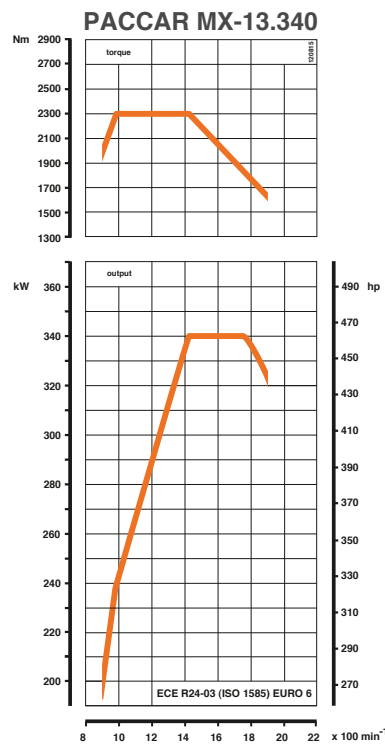
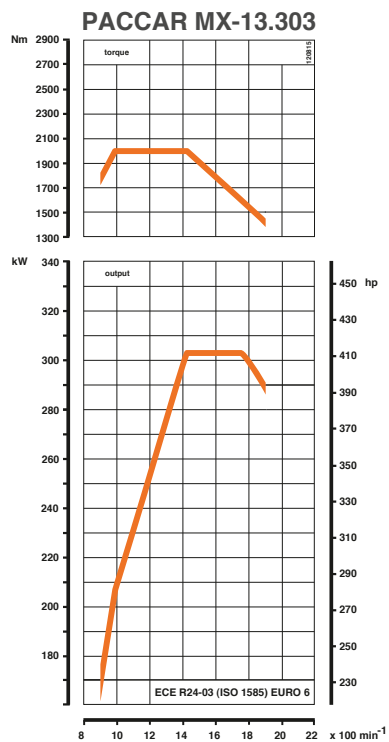


MX-13 engine with exhaust gas after-treatment system.

PACCAR MX13

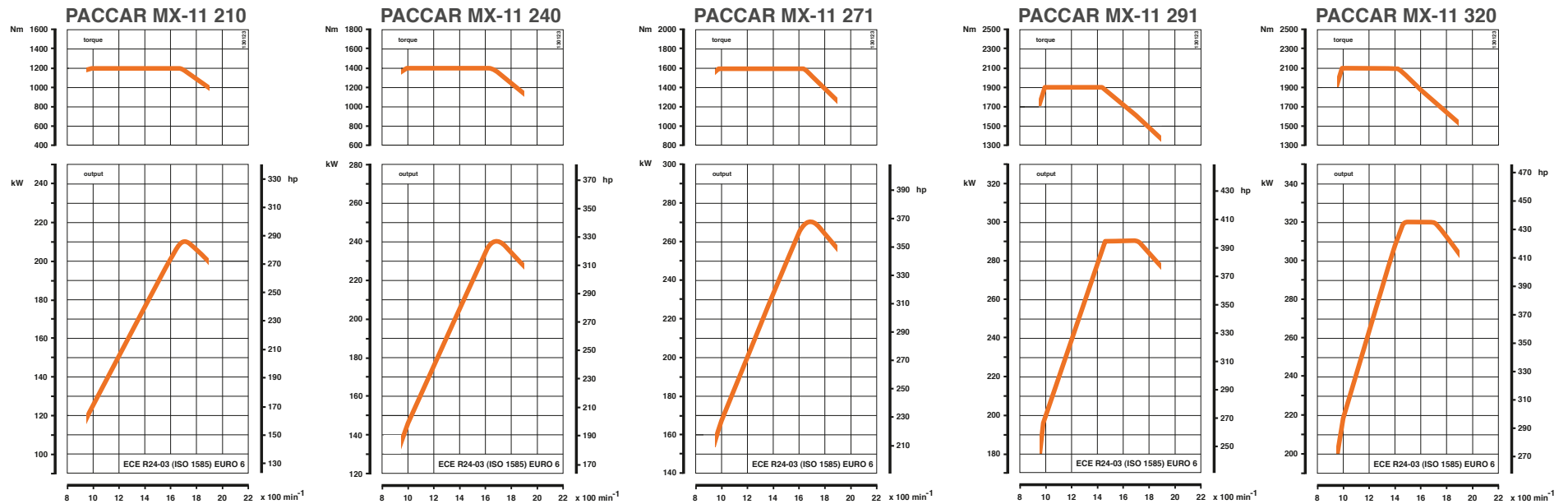
PACCAR MX-13 ENGINE

Engine Type	Performance	Torque	Emission level
MX-13 303	303 kW/410 hp (1,425–1,750 rpm)	2,000 Nm (1,000–1,425 rpm)	Euro 6
MX-13 340	340 kW/460 hp (1,425–1,750 rpm)	2,300 Nm (1,000–1,425 rpm)	Euro 6
MX-13 375	375 kW/510 hp (1,425–1,750 rpm)	2,500 Nm (1,000–1,425 rpm)	Euro 6



PACCAR MX-11 ENGINE

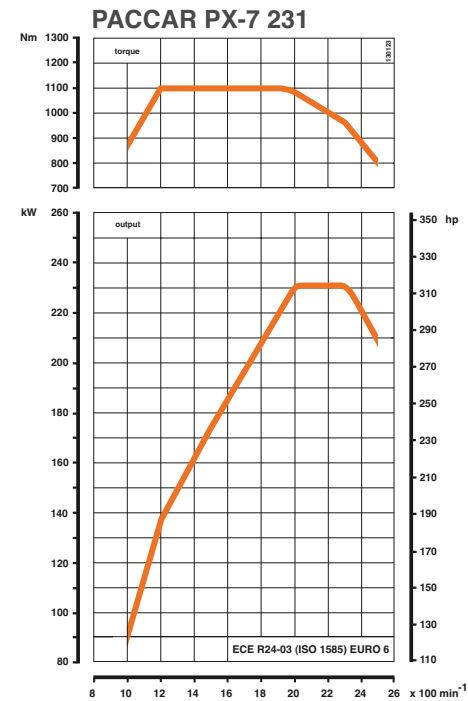
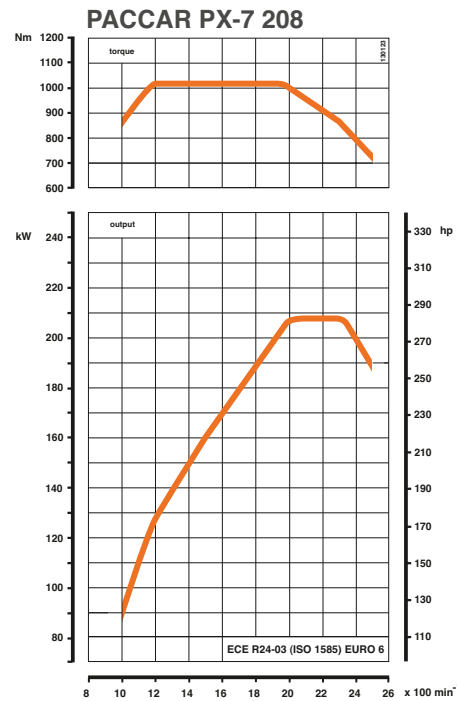
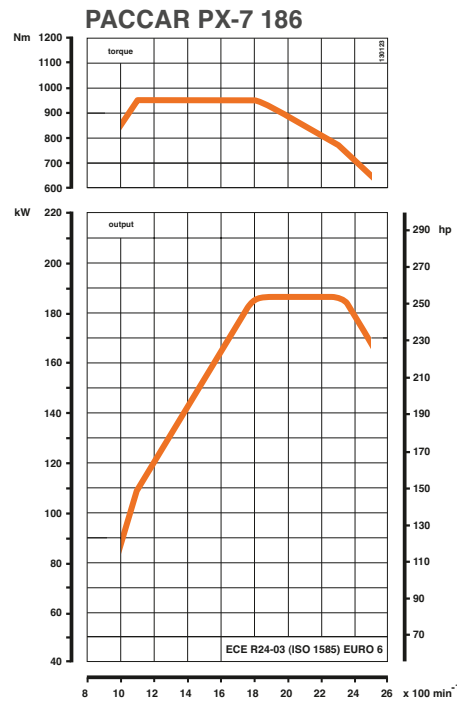
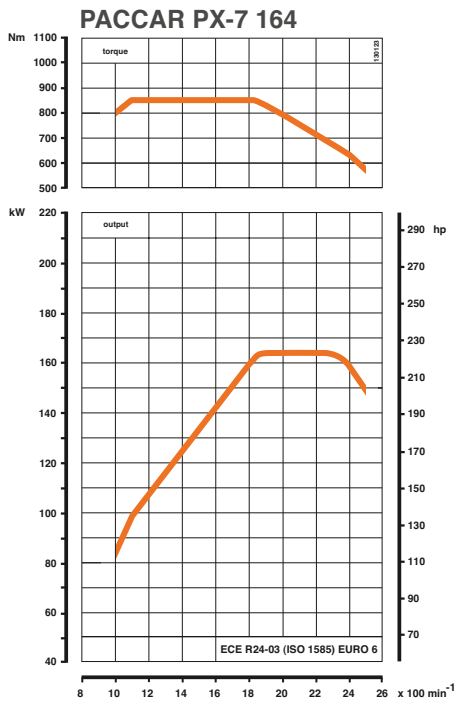
Engine Type	Performance	Torque	Emission level
MX-11 210	210 kW/290 hp (1,700 rpm)	1,200 Nm (1,000–1,700 rpm)	Euro 6
MX-11 240	240 kW/330 hp (1,650 rpm)	1,400 Nm (1,000–1,650 rpm)	Euro 6
MX-11 271	271 kW/370 hp (1,650 rpm)	1,600 Nm (1,000–1,650 rpm)	Euro 6
MX-11 291	291 kW/400 hp (1,450–1,700 rpm)	1,900 Nm (1,000–1,450 rpm)	Euro 6
MX-11 320	320 kW/440 hp (1,450–1,700 rpm)	2,100 Nm (1,000–1,450 rpm)	Euro 6



PACCAR PX7

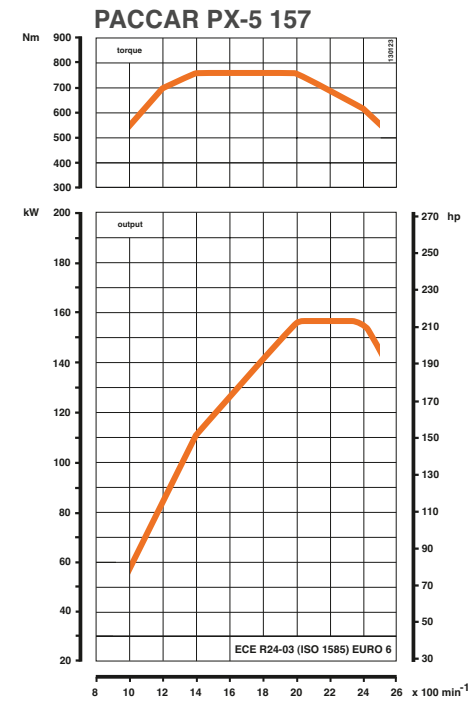
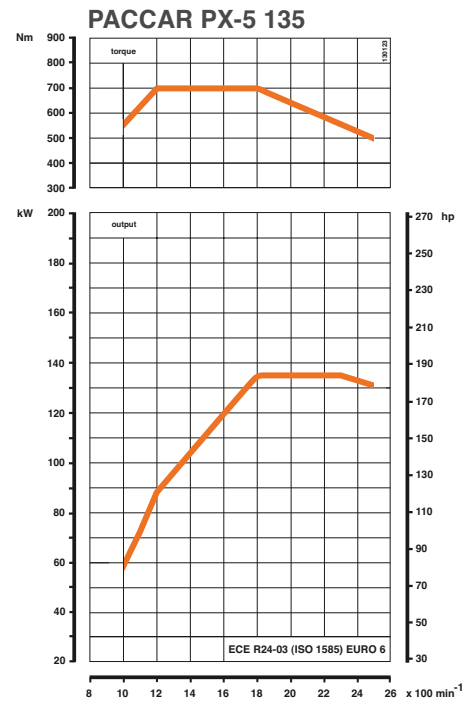
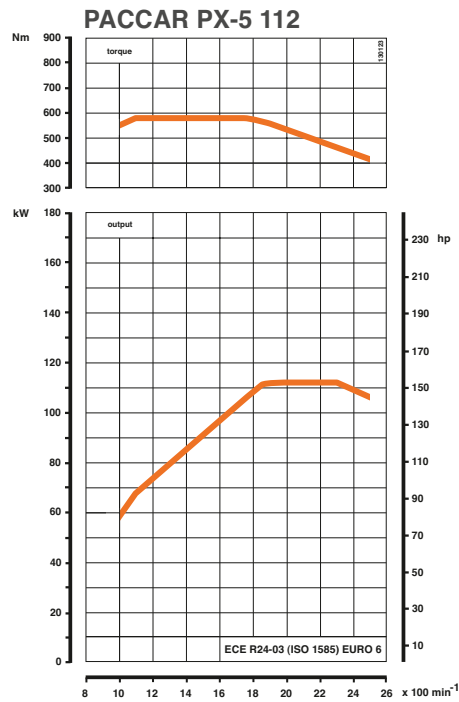
PACCAR PX-7 ENGINE

Engine Type	Performance	Torque	Emission level
PX-7 164	164 kW/220 hp (1,800–2,300 rpm)	850 Nm (1,100–1,800 rpm)	Euro 6
PX-7 186	186 kW/250 hp (1,800–2,300 rpm)	950 Nm (1,100–1,800 rpm)	Euro 6
PX-7 208	208 kW/280 hp (2,000–2,300 rpm)	1,020 Nm (1,200–2,000 rpm)	Euro 6
PX-7 231	231 kW/310 hp (2,000–2,300 rpm)	1,100 Nm (1,200–2,000 rpm)	Euro 6



PACCAR PX-5 ENGINE

Engine Type	Performance	Torque	Emission level
PX-5 112	112 kW/150 hp (1,800–2,300 rpm)	580 Nm (1,100–1,800 rpm)	Euro 6
PX-5 135	135 kW/180 hp (1,800–2,300 rpm)	700 Nm (1,200–1,800 rpm)	Euro 6
PX-5 157	157 kW/210 hp (2,000–2,400 rpm)	760 Nm (1,300–2,000 rpm)	Euro 6



A worker in a factory is assembling a truck engine. The worker is wearing safety glasses and is focused on the task. The engine is a large, complex mechanical assembly with various components like pipes, hoses, and a fan. The background shows a typical industrial factory setting with overhead lights and structural beams.

DAF TRUCKS N.V.

As a subsidiary of PACCAR Inc., DAF Trucks is one of the most successful truck manufacturers in Europe. The key to success: first class tractors and rigids and the right services behind them. All of this is supported by a network of over 1,000 independent dealers in Europe, the Middle East, Africa, Australia, New Zealand, Taiwan and Brazil. DAF has production facilities in the Netherlands, Belgium and the UK. Besides trucks, DAF develops and produces components such as axles and engines for bus and coach manufacturers all over the world.

More information and dealer addresses you will find on www.daf.com





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DAF Trucks N.V.
Hugo van der Goeslaan 1
P.O. Box 90065
5600 PT Eindhoven
The Netherlands
Tel: +31 (0) 40 21 49 111
Fax: +31 (0) 40 21 44 325
www.daf.com

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