Vink diesel bv

Official dealer of NPS Diesel

MARINE POWERED BY DAF

Product brochure

EU Stage V

INLAND WATERWAYS

MARINE POWERED BY DAF

Marine Powered by DAF

MX11 DAF MX13

A PACCAR Company

Low fuel consumption

Low emissions

Low Total Cost of Ownership

Silent power

Compact design

Modular drive

Low fuel consumption
Euro VI technology:
up to -10% compared to Stage V and
up to -20% compared to CCR2

Low emissions
Euro VI technology: up to 10 times lower emissions compared to Stage V

Low Total Cost of Ownership
Service interval ≥ 1,000 hours

Silent power
Silent engine room
Silent exhaust

Experience
In use since 2017

Compact design
Highly compact after-treatment system

Modular drive
220 to 390 kW
Marine propulsion, auxiliary and generator drive

Cleaner, more efficient and low noise

Why use proven automotive technology to make an inland vessel more sustainable? Why not?! Automotive engines deliver optimum performance and the technology is based on a stable and proven track record.

The standard DAF/PACCAR MX engines are ‘marine-ready’ and therefore comply with all regulations. The IWW Stage V emission legislation has been more than fulfilled.

Results compared to the previous generation CCR2 marine diesels:

- 98% less nitrogen oxides (NOx)
- 99% less soot (PM)
- Up to 20% lower fuel consumption (read CO2 emissions).

Recognition of the EURO VI engine for Stage V was a combined effort

Since December 2019, DAF/PACCAR truck engines have been officially certified as equivalent to the Stage V standard for inland waterways. The certification process took four years of examinations, tests and procedures. It was new and unknown to all parties. But the results are impressive: DAF/PACCAR MX engines are the first to be certified for admission to inland waterways!

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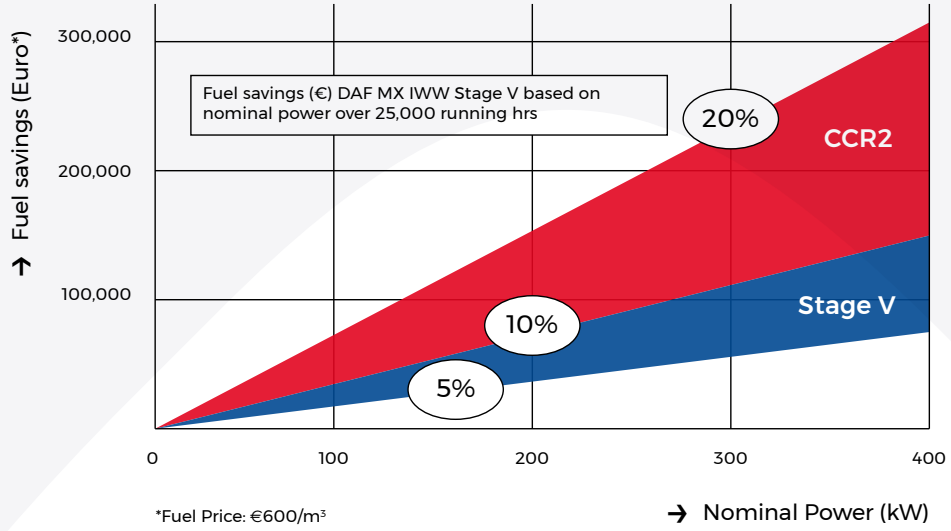
Several parties contributed to make the recognition of equivalence possible.

Low fuel consumption

The DAF/PACCAR engines are best-in-class in terms of fuel consumption. The numbers do not lie: the profit compared to the previous generation CCR2 marine diesels is 10 to 20%. Compared to Stage V engines, there is still a 5 to 10% difference in favour of the MX engines.

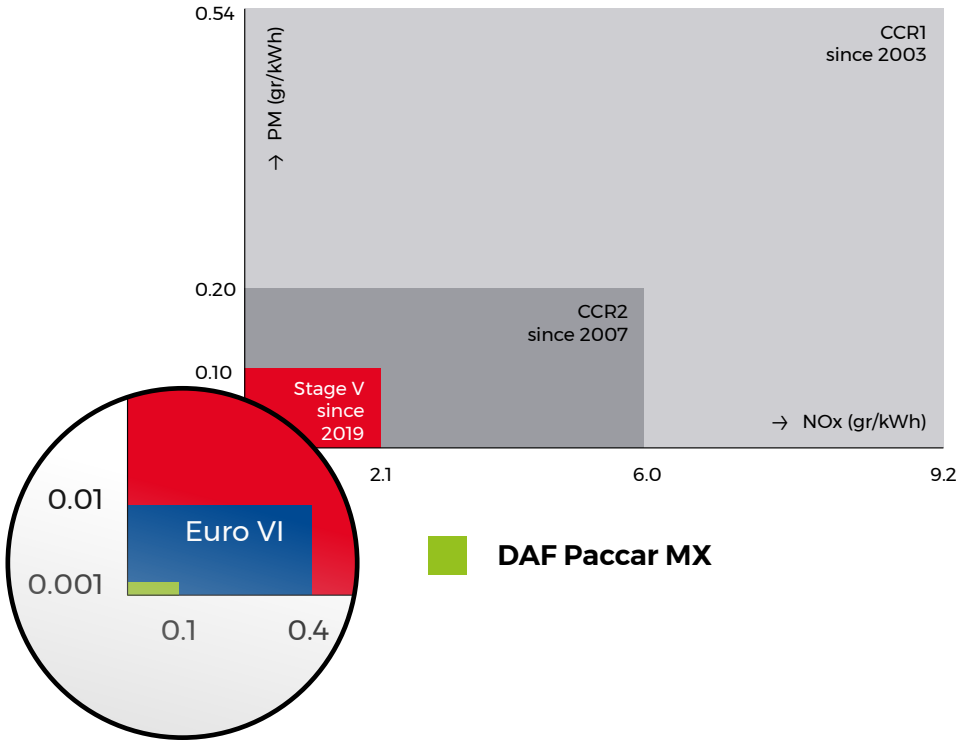
Alternative fuels

In addition to regular diesel fuel, the use of alternative fuels such as HVO (100%), Biodiesel B30 and GTL in the MX engines has been approved. Using HVO reduces your carbon footprint by up to 90% compared to regular diesel fuel.



"Fuel savings of 10% was enough for me to choose DAF/PACCAR Euro VI. The target was to save 15%, in reality this turned out to be 17.5%."

Jan Fernhout, Skipper/owner Ms Wantij
(2 x DAF/PACCAR MX-13 355kW propulsion)



Low emissions

The DAF/PACCAR engines are also best-in-class in terms of exhaust emissions. The combined particulate filter and catalytic converter reduce the emission of soot (PM) and nitrogen (NOx) by 98-99% to an absolute minimum. The low fuel consumption makes that the MX engines also have the lowest CO2 emissions per generated kilowatt.

5 x less nitrogen than the Stage V limits

Euro VI is the new benchmark for inland waterways! Up to 10 times less soot and 5 times less nitrogen than the Stage V standard.

"The wish to green our operations was the biggest driver for us in repowering our work vessels. The super clean DAF engines prove their value time and again in our tendering processes."

Jos Snijders, Head of equipment management
De Klerk (2 x DAF/PACCAR MX-11 220kW propulsion and 2 x DAF/PACCAR MX-11 240kW propulsion)

Low Total Cost of Ownership

Due to the low fuel consumption, the costs per operating hour are far more favourable than comparable CCR2 and Stage V engines. In addition to DAF Paccar's extended maintenance intervals, this results in exceptionally low operating costs... the key to profitability.

Worldwide service

Thanks to DAF's global dealer network, fast service is available anytime and anywhere. The network offers the right expertise and ensures that parts are always available with dealers and customers within 24 hours.

"For the process of making one of our ships more sustainable, we were looking for the best solution in the market. By completely repowering a ship with DAF/PACCAR MX-11 engines, we know that, in addition to high reliability and low maintenance costs, we will be minimising our emissions."

Pim Ligthart, Senior Technical Superintendent, Dredging company De Boer/ Dutch Dredging (2 x DAF/PACCAR MX-11 240kW propulsion, 2 x DAF/PACCAR MX-11 290kW pump motor and 1 x DAF/PACCAR MX-11 390kVa generator)

Silent power

Strict requirements are in place when it comes to noise in road transport. Not only do you have an extremely silent engine room with the MX engines, also exhaust noise is reduced to a minimum.

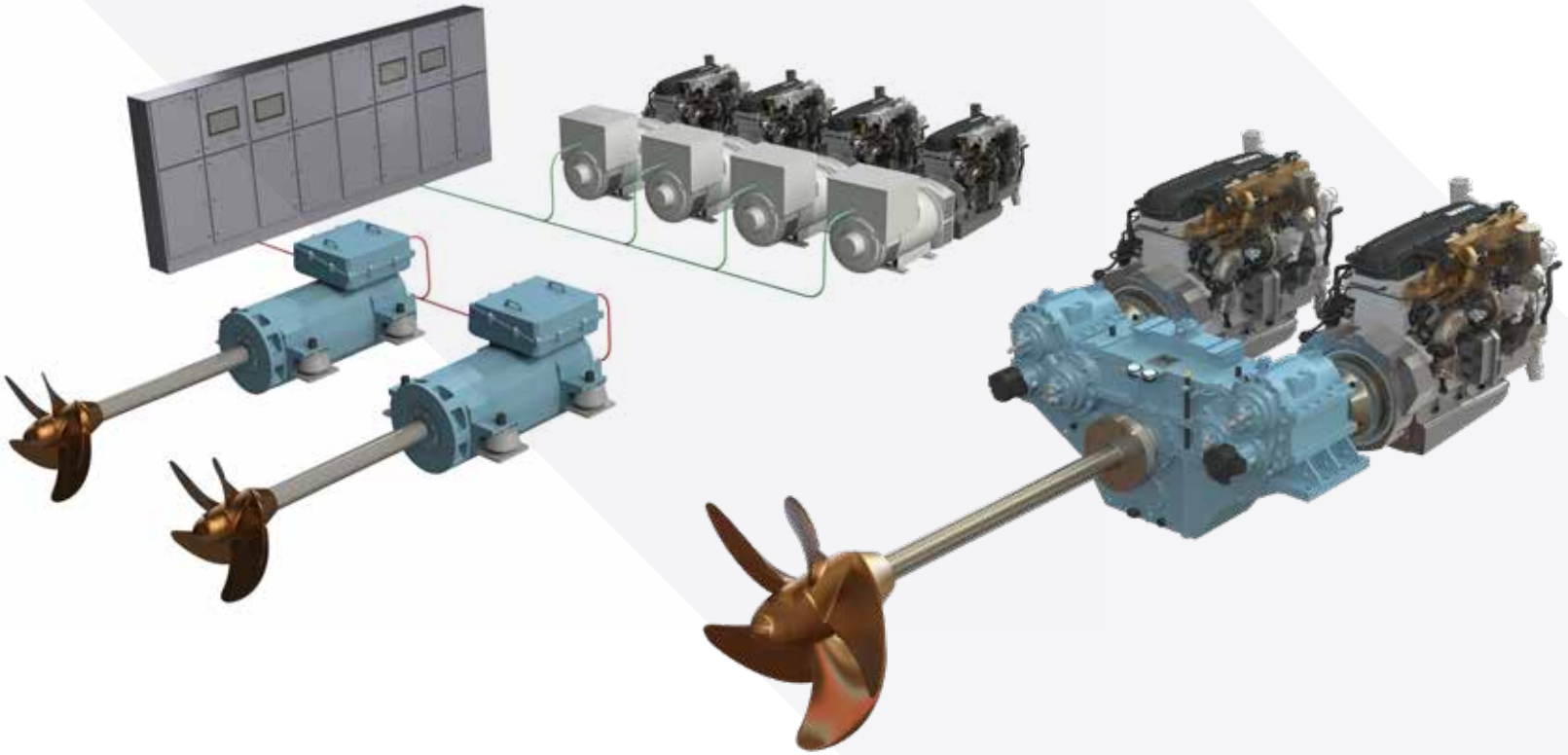
Compact design

The combined exhaust gas aftertreatment unit is the most compact of its kind. So compact that even repowering the smallest engine room is not an issue.

"The Ms. Liane operates mainly in canals with low engine load. In search of increased sustainability and comfort, our focus was on hybrid, but the DAF/PACCAR MX-11 turned out to be a better solution in all areas."

Frans Rennings, Skipper/owner Ms. Liane (DAF/PACCAR MX-11 240 kW propulsion)

Modular drive



The modular application of several smaller diesel engines has major advantages in the area of fuel consumption, emissions, maintenance costs and availability. Switching off “unneeded” engines minimises partial load operation, read up to 2 times higher fuel consumption. Due to the higher specific load, the emissions per generated kilowatt are extremely low and much more effective kilowatts are thus generated for each maintenance interval. Mandatory downtime due to maintenance work belongs to the past.

IODA, Efficient Machine Monitoring

Remotely monitor the new DAF/PACCAR MX engine to prevent downtime, reduce fuel consumption even further and better schedule service work? The machine-to-machine technology of IODA offers a solution, IODA ensures the correct collection of data is displayed in a clear dashboard. IODA provides insight into the performance of your engine remotely and completely digital.

IODA

"We considered a hybrid power-train for our re-motorisation. However, IODA's machine-to-machine technology clearly demonstrated that a DAF/PACCAR MX-11 engine with aftertreatment was cleaner and more (cost) efficient than a complex hybrid powertrain. We were able to base the choice for this solution on facts instead of ideas."

Frans Rennings, Skipper/owner Ms. Liane (DAF/PACCAR MX-11 240kW propulsion)

Technical specifications MX-11

The 10.8 litre Euro VI PACCAR MX-11 engine uses state-of-the-art common rail technology, a turbo with variable geometry and advanced control for maximum efficiency. To meet the stringent Euro VI emissions requirements, the engine is equipped with exhaust gas recirculation in combination with SCR technology and an active particulate filter.

MX-11

Bore-stroke ratio	123 mm x 152 mm
Engine displacement	10.8 litres
Compression ratio	18.5 : 1

Marine Powered by DAF

MX11 DAF MX13

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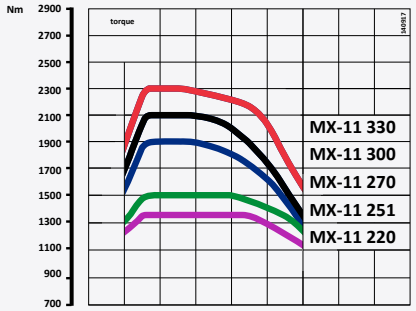
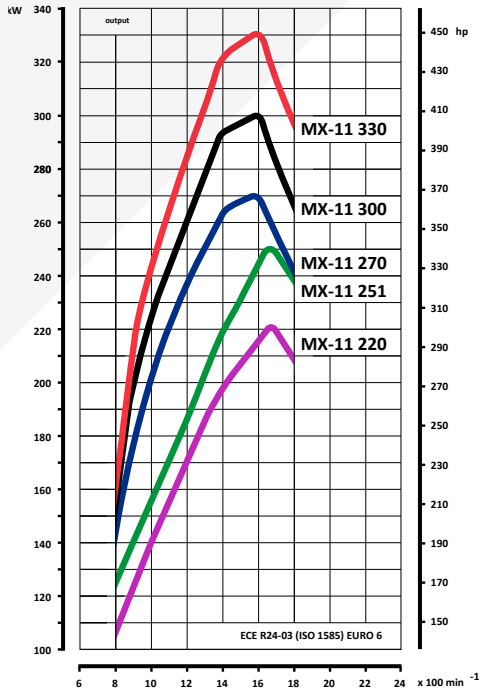
DAF/PACCAR MX-11

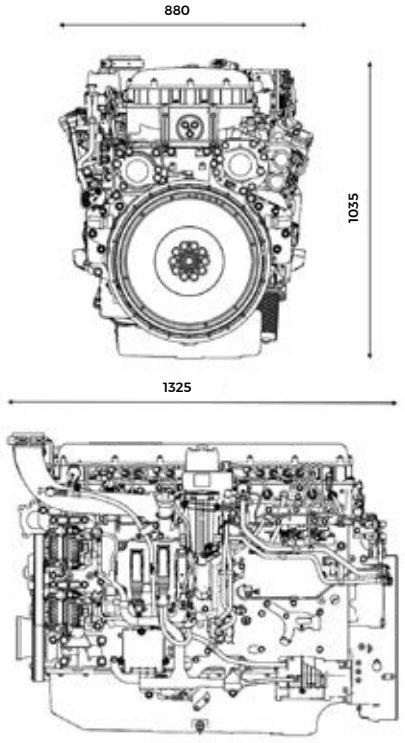
(220, 251, 270, 300 and 330)



DAF/PACCAR MX-11

(220, 251, 270, 300 and 330)





Propulsion + Auxiliary drive			
Engine	**Power (kW/HP)**	**Torque (Nm)**	**Emission level**
MX-11 220	220 kW/299 hp at 1675 rpm	1.350 Nm at 900-1400 rpm	Stage V/Euro VI
MX-11 251	251 kW/341 hp at 1675 rpm	1.500 Nm at 900-1400 rpm	Stage V/Euro VI
MX-11 270	270 kW/367 hp at 1600 rpm	1.900 Nm at 900-1125 rpm	Stage V/Euro VI
MX-11 300	300 kW/408 hp at 1600 rpm	2.100 Nm at 900-1125 rpm	Stage V/Euro VI
MX-11 330	330 kW/449 hp at 1600 rpm	2.300 Nm at 900-1125 rpm	Stage V/Euro VI
Generator (cos.phi 0.8 / rend. 0,9)			
MX-11 220G	230 kvA	50Hz	Stage V/Euro VI
MX-11 250G	258 kvA	50Hz	Stage V/Euro VI
MX-11 270G	298 kvA	50Hz	Stage V/Euro VI
MX-11 300G	330 kvA	50Hz	Stage V/Euro VI

Technical specifications MX-13

The 12.9 litre Euro VI PACCAR MX-13 engine uses state-of-the-art common rail technology, a turbo with variable geometry and advanced control for maximum efficiency. To meet the stringent Euro VI emissions requirements, the engine is equipped with exhaust gas recirculation in combination with SCR technology and an active particulate filter.

MX-13

Bore-stroke ratio	130 mm x 162 mm
Engine displacement	12.9 litres
Compression ratio	18.5 : 1

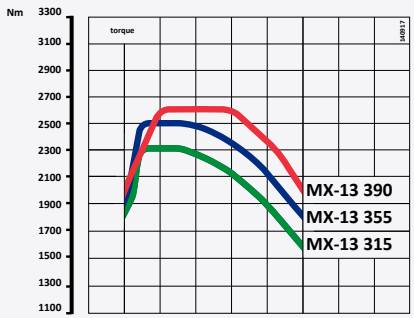
Marine Powered by DAF

MX11 DAF MX13

A PACCAR Company

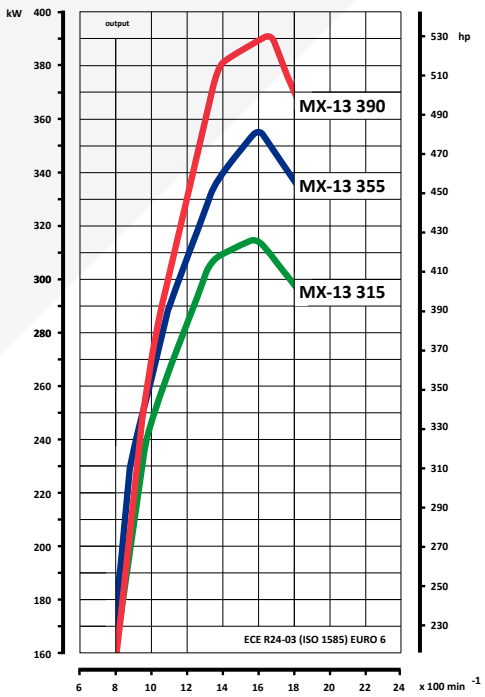
DAF/PACCAR MX-13

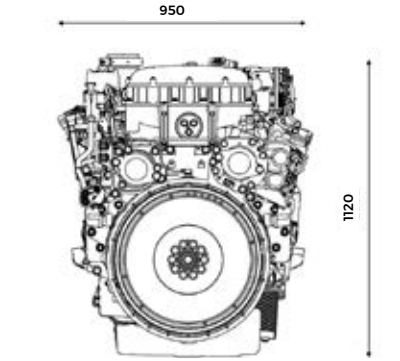
(315, 355 and 390)

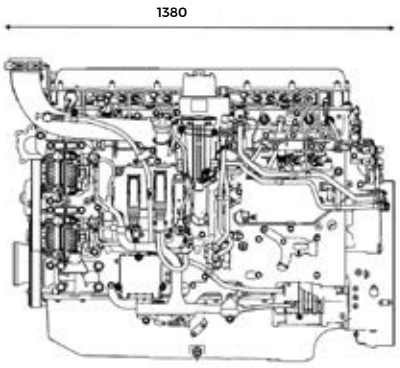


DAF/PACCAR MX-13

(315, 355 and 390)







Propulsion + Auxiliary drive			
Engine	**Power (kW/HP)**	**Torque (Nm)**	**Emission level**
MX-13 315	315 kW/428 hp at 1600 rpm	2.300 Nm at 900-1125 rpm	Stage V/Euro VI
MX-13 355	355 kW/483 hp at 1600 rpm	2.500 Nm at 900-1125 rpm	Stage V/Euro VI
MX-13 390	390 kW/ 530 hp at 1675 rpm	2.600 Nm at 1000-1425 rpm	Stage V/Euro VI
Generator (cos.phi 0.8 / rend. 0,9)			
MX-13 315G	350 kvA	50Hz	Stage V/Euro VI
MX-13 355G	380 kvA	50Hz	Stage V/Euro VI
MX-13 390G	425 kvA	50Hz	Stage V/Euro VI

Dealers

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