

PACCAR PX-4 engines



The 3.8 litre Euro 6 PACCAR PX-4 engine uses common rail technology, a fixed geometry turbo and advanced controls for maximum efficiency.

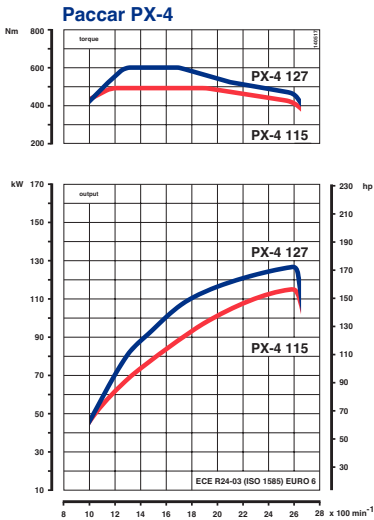
Engine	Output - kW (hp)	Torque - Nm
PX-4 115	115 (156) ¹	500 at 1200 - 1900 rpm
PX-4 127	127 (172) ¹	600 at 1300 - 1700 rpm

¹ at rated engine speed 2600 rpm

General information

Four-cylinder in-line turbocharged diesel engine with intercooling. Clean combustion with Diesel Particular Filter (DPF) and Selective Catalytic Reduction (SCR) aftertreatment for Euro 6 emission levels.

Bore x stroke	102 x 115 mm
Piston displacement	3.8 litres
Compression ratio	17.3 to 1



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Main construction

Cylinder block	cast iron stiffened ladder frame, contoured and deep skirted with cylinder bores direct in the block
Cylinder	head one-piece cast iron cross-flow type cylinder head composite valve cover
Valves	four valves per cylinder
Pistons	aluminium alloy pistons, Ni-resist with symmetrical re-entrant combustion chamber; gallery cooled
Piston rings	2 compression rings; 1 scraper ring
Crankshaft	cast alloy steel with balance weights; supported in 5 bearings
Cam shaft	steel forged and induction hardened supported in 4 bearings; driven from the timing gears (single plain train at the rear of the engine)
Oil sump	17 litres composite oil sump, closed crankcase ventilation with impactor

Fuel injection and induction

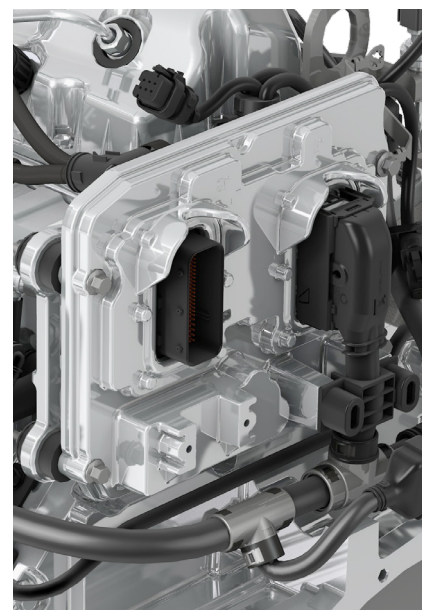
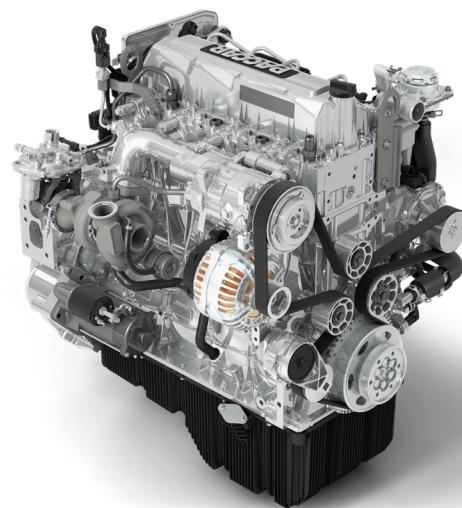
Fuel injection	Common Rail (CR) injection system
Injectors	electronically controlled
Injection timing	variable start and duration, electronically controlled
Injection pressure	max. 1800 bar
Fuel injection	start and duration, as well as the injection pressure, are controlled by the engine mounted electronic control module
Induction	turbocharged with charge cooling (intercooling)
Turbocharger	fixed geometry turbo
Emission control	exhaust gas recirculation (EGR)

Lubrication

Oil filter	full-flow oil filter with replaceable element
Oil cooler	coolant-to-oil plate type heat exchanger
Oil pump	concentric oil pump, driven by crankshaft

Cooling system

Pump	belt driven centrifugal pump
Thermostat	single wax type in cylinder head
Fan drive	crankshaft driven with temperature controlled viscous coupling
Expansion	tank translucent tank (for visual level check) behind the front grille panel



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Auxiliaries and exhaust brake

Compressor	driven from rear timing gears
Alternator	poly-V-belt driven at engine front
Steering pump	driven from timing gears (via compressor)
Exhaust brake	electronically controlled throttle valve

City distribution

The 4 cylinder PX-4 engines are suitable for frequent stop distribution trucks up to 7.5 tonnes. They are available with outputs up to 172 hp with a high maximum torque of 600 Nm.

The engines have composite oil sumps to save weight and reduce noise. The engine mounts isolate engine vibrations from chassis and cab. Efficient fans provide high cooling air flow against a low power demand.

The engines feature a fast transient response and general driveability. The availability of more torque at a low engine speed results in better drive-off characteristics.

Performance

All PACCAR PX-4 engines deliver excellent torque at low engine speeds resulting in easy and comfortable driving, even in dense traffic without frequent gear changes. The characteristics make the PX-4 engines pre-eminently suitable for tough inner-city distribution jobs.

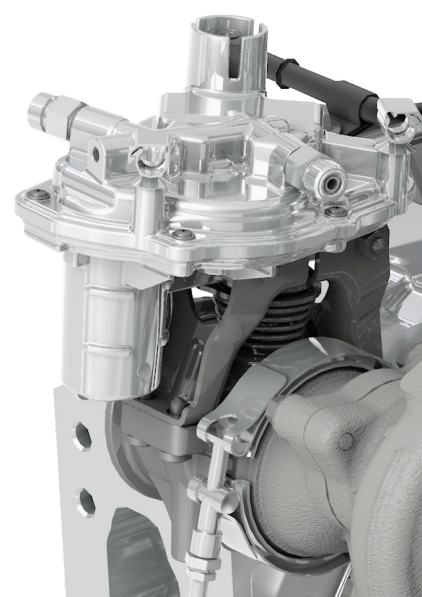
The standard exhaust brake delivers up to 90 kW braking power.

Fuel efficiency

A well-controlled combustion process together with additional technology to achieve the ultra-low Euro 6 emission values. The highly efficient combustion results in an excellent fuel economy as another leading edge of the PACCAR PX-4 engines.

Environment

PACCAR PX-4 engines use the proven PACCAR technology for exhaust gas aftertreatment, consisting of a Diesel Particulate Filter (DPF) and a Selective Catalytic Reducer (SCR) with airless AdBlue injection. The neatly packed aftertreatment unit is placed at the right-hand side of the chassis.



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Legend:

- | | |
|------------------------------|----------------------------------|
| 1. CCV cover | 8. Poly-V-belt auxiliary drive |
| 2. Exhaust manifold | 9. Crank shaft |
| 3. Exhaust brake | 10. Alternator |
| 4. Turbo with fixed geometry | 11. Air conditioning compressor |
| 5. Starter engine | 12. Water pump |
| 6. Engine block | 13. Closed Crankcase Ventilation |
| 7. Oil sump | 14. ECU |

