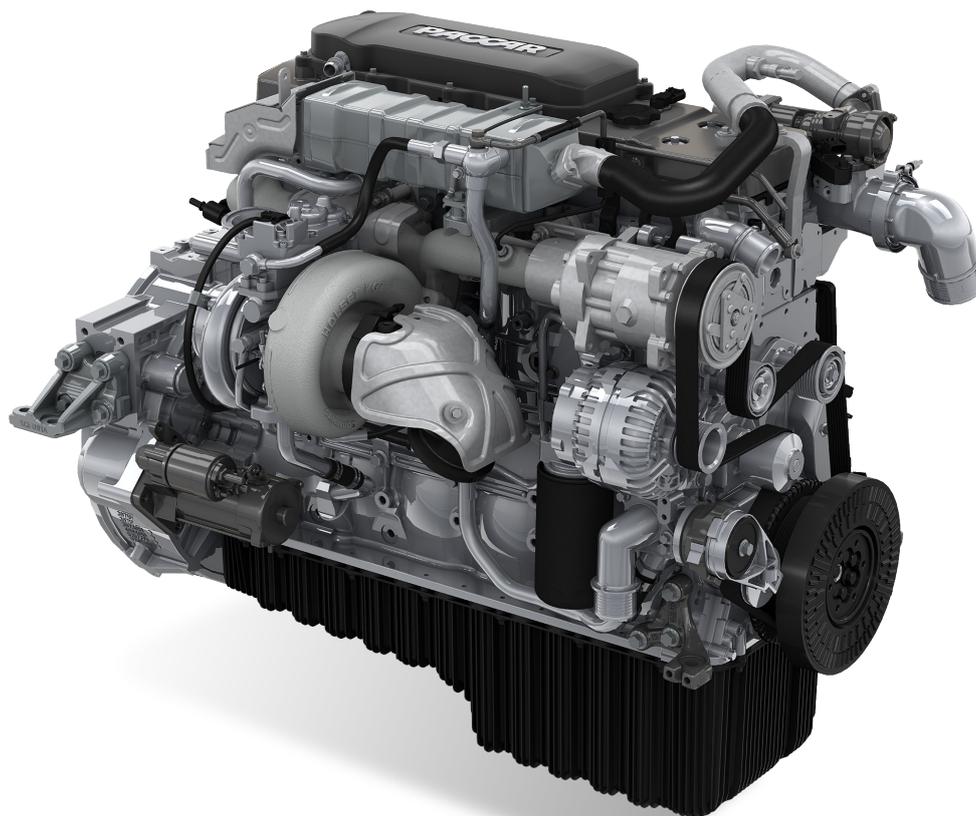


PACCAR PX-7 engines



The 6.7 litre Euro 6 PACCAR PX-7 engine uses ultra-modern common rail technology, a turbo with variable geometry and advanced controls for maximum efficiency. In order to comply with the strict Euro 6 emissions requirements, it features exhaust gas recirculation, together with SCR technology and an active soot filter.

Engine	Output - kW (hp)	Torque - Nm
PX-7 172	172 (234) ¹	900 at 1000 - 1700 rpm
PX-7 194	194 (264) ²	1000 at 1000 - 1700 rpm
PX-7 217	217 (295) ¹	1100 at 1000 - 1700 rpm
PX-7 239	239 (325) ³	1200 at 1100 - 1700 rpm

¹ at rated engine speed 2000 - 2300 rpm

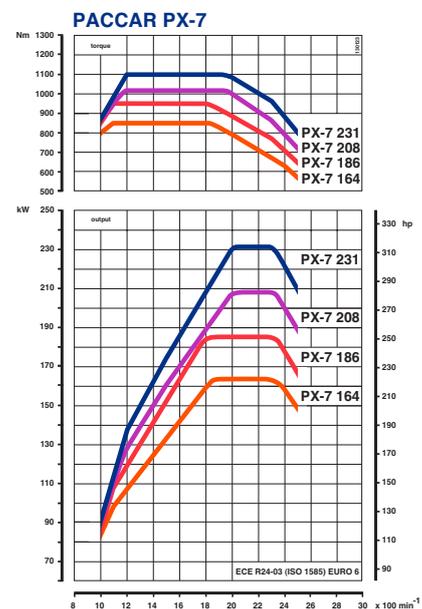
² at rated engine speed 2100 - 2300 rpm

³ at rated engine speed 2200 - 2300 rpm

General information

Six-cylinder in-line turbocharged diesel engine with intercooling. Ultra clean combustion with Exhaust Gas Recirculation (EGR), Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) aftertreatment for Euro 6 emission levels.

Bore x stroke	107 x 124 mm
Piston displacement	6.7 litres
Compression ratio	17.3 to 1



PACCAR PX-7 engines

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
Crank shaft	forged alloy steel with balance weights; viscous damper at front end; supported in 7 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	23.4 litres composite oil sump with closed crankcase ventilation

Fuel injection and induction

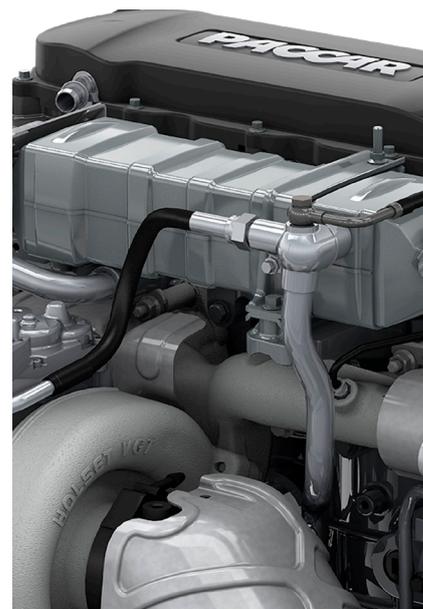
Fuel injection	Common Rail (CR) injection system
Injectors	electronically controlled
Injection timing	variable start and duration, electronically controlled
Injection pressure	max. 1800 bar
Fuel injection	start and duration, as well as the injection pressure, are controlled by the engine mounted electronic control module
Induction	turbocharged with charge cooling (intercooling)
Turbocharger	variable geometry turbocharger (VGT) with electrical actuator
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	gear-type, 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



PACCAR PX-7 engines

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	VGT turbo with electrical control
Cold start system	automatically controlled electric grid heater in the air inlet manifold (optional)



Distribution applications up to 19 tonnes

The PACCAR PX-7 is ideally suited for rigid trucks due to the high torque and power. It is used in application classes up to 19 tonnes or drawbar applications. Major improvements have been introduced: the engine is now available up to 239 kW (325 hp) with a high maximum torque of 1200 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. A Frigoblock application mounted to the engine is available as an option to serve the conditioned distribution.

Performance

All PACCAR PX-7 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-7 engines pre-eminently suitable for tough inner-city distribution jobs.

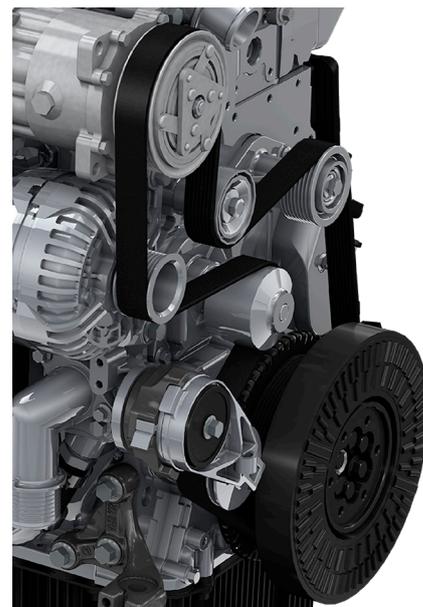
The standard exhaust brake delivers up to 165 kW braking power.

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-7 engines.

Environment

PACCAR PX-7 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. A vertical installation behind the cab is available for specific applications.



PACCAR PX-7 engines

Legend:

- | | |
|---------------------|---------------------------------|
| 1. CCV cover | 8. Poly-V-belt auxiliary drive |
| 2. EGR cooler | 9. Crankshaft |
| 3. Exhaust manifold | 10. Alternator |
| 4. VGT Turbo | 11. Water pump |
| 5. Engine block | 12. Air conditioning compressor |
| 6. Starter engine | 13. Air intake elbow |
| 7. Oil sump | 14. EGR valve |

