HPDi™

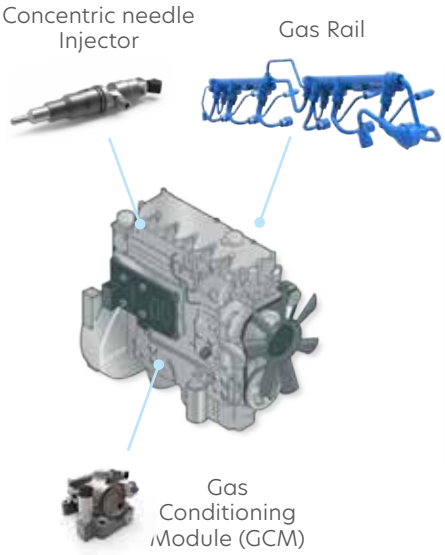
Liquefied Natural Gas “LNG” mobility

Westport’s HPDI™ fuel system is a complete system offering OEMs the flexibility to differentiate their natural gas product lines easily while also maintaining maximum commonality with their conventional diesel fueled products.

HPDI fuel system consists of a fully integrated “tank to tip” solution, with a cryogenic tank and integral high pressure liquefied natural gas “LNG” pump mounted on the chassis of the truck and plumbed to the engine where fuel pressure is regulated before being supplied to the injectors via high pressure fuel rails.

At the heart of the engine is a revolutionary patented injector with a dual concentric needle design. It allows for small quantities of pilot fuel and large quantities of natural gas to be delivered at high pressure to the combustion chamber. The natural gas is injected at the end of the compression stroke.

ON ENGINE



ON CHASSIS

ON LNG TANK

Westport™ Fuel Systems

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The LNG HPDI fuel system is based on diesel technology. A small amount of diesel fuel is injected into the cylinder prior to the gas, to initiate the ignition. The injector uses concentric needles to enable diesel and gas to be delivered through the same injector.

Gas engines can achieve higher horsepower and torque by using direct injection and relying on heated compression for ignition. Thus, the characteristic of the gas engine is very similar to a diesel engine.

The LNG HPDI system is designed for heavy long-haul and distribution operations. It offers an alternative with low climate impact while meeting the highest industry standards for performance, fuel efficiency and operating range required for heavy-duty transport.

A truck equipped with the LNG HPDI system is an ideal solution for fleets wanting to reduce their fuel costs and offer decarbonized regional and long distance road transport solutions to their customers with no compromise on vehicle performance.

LNG HPDI - Technical Specs*		
Max power output at 1700–1800 r/min	338 kW	460 hp
Max revs	2100 r/min	
Max torque at 1050–1300 r/min	2300 Nm	
No. of cylinders	6	
Compression ratio	18.0:1	
Exhaust brake effect (EPG) at 2300 r/min	200 kW	268 hp
Engine braking effect (VEB+) at 2300 r/min	375 kW	503 hp
Economy revs range	1000–1400 r/min	
Optimum rev range	1050–1300 r/min	
Oil-change volume incl. oil filter	approx. 33 l	approx. 8.7 gal (US)
Oil filters	2 full-flow, 1 bypass	
Cooling system, total volume	approx. 38 l	approx. 10 gal (US)
Dry weight (base engine)	approx. 1116 kg	approx. 2460 lb
Exhaust after treatment system, weight	approx. 130 kg	approx. 287 lb
100% lower CO_2 emissions (WTW - Well To Wheel)		

* Based on G13C460 engine

TA01Z237 - Westport Fuel Systems retains the right to modify design and specifications without prior notification.

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