

Kalmar selects Volvo Penta for Stage V

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One of the world's leading heavy-duty equipment manufacturers, Kalmar, has chosen Volvo Penta to supply new Stage V solutions for a range of its machinery in Europe.

Volvo Penta is to supply Stage V solutions for the new European models of equipment made by Kalmar. New emissions regulations are scheduled to come into force in the European Union (EU) in 2019, and OEMs are now planning how to make changes to their production lines. Kalmar produces machinery and provides support services for cargo handling in ports, terminals, distribution centers and heavy industry.

"Stage V is a challenge for manufacturers. With previous emissions levels, Europe and the US have stayed more or less the same, so it's going to be quite an effort to make the change," says Drew Heisel, director of global powertrain sourcing at Kalmar. "Transition rules will be very stringent this time and there's a shorter period of time for engine resourcing, but we've worked through the different combinations together with Volvo Penta."

Industry forerunner

Kalmar provides a wide range of cargo handling solutions, including straddle and shuttle carriers, terminal tractors, yard cranes, ship-to-shore cranes, reach-stackers, empty container handlers and forklift trucks. It is the industry forerunner in providing terminal automation and energy-efficient container handling, with one in four container operations around the world being carried out by a Kalmar solution.

Kalmar has been one of Volvo Penta's biggest off-road industrial OEM customers for many years, and has purchased diesel engines for its manufacturing bases in Europe, the US, and China. The Stage V solutions will be installed in new models Kalmar's existing mobile equipment including reach-stackers, empty container handlers, forklift trucks and terminal tractors, and testing will take place throughout 2017.

"We've had a close collaboration for many years, with good support in the development of our powertrains, from Volvo Penta," adds Heisel. "We've had discussions on what we require and what could be achieved, and both our and their engineering teams have worked in parallel to form decisions."

Kalmar is part of Finnish based Cargotec, one of the world's leading providers of materials handling solutions for ports, off-shore locations, industrial and forestry sites, and roads. In addition to low emissions levels to comply with forthcoming EU Stage V regulations, Kalmar requires reliable high-performance engines and

solutions that produce peak torque at low rpm, immediate load acceptance, excellent uptime, good fuel economy and low noise.

“Based on the current engine supply and relationship we have with Volvo Penta, we’re confident that the new Stage V solutions will work well for us,” says Heisel.

Volvo Penta’s Stage V solution is optimized for tomorrow

EU Stage V regulations are set to apply to a wider power range of off-road diesel engines than Stage IV/Tier 4 Final, and further limit the overall mass of particle emissions as well as the number of particles emitted.

Volvo Penta’s line-up for Stage V includes all five engines – D5, D8, D11, D13, and D16 – offering the same power range from 105 to 565 kW (143-770 hp) as its existing offer for industrial, off-road applications. For Stage V, the engine is matched with an exhaust aftertreatment system (EATS), which includes diesel oxidation catalyst (DOC), diesel particulate filter (DPF), diesel exhaust fluid (DEF; AdBlue®), selective catalytic reduction (SCR), and ammonia slip catalyst (ASC).

“In leveraging a commonality of engine architecture, with the addition of the new exhaust aftertreatment system for Stage V, we are able to provide consistency of high quality and performance our products, says Johan Carlsson, chief technology officer at Volvo Penta. “Customers can be assured of ease of installation and the same support from us, in any market, throughout the emissions levels.”

Upon the successful completion of testing Kalmar’s prototype machinery, the Swedish OEM and Volvo Penta aim to move forward with the provisions of Stage V solutions for Europe. Volvo Penta will continue to provide other emissions level engines to Kalmar’s additional manufacturing bases, globally.

“This is an exciting step forward for us as it confirms that we have a strong and thoroughly developed offer for the next emissions step, and that Kalmar is assured that we can deliver what they require,” says Giorgio Paris, head of Volvo Penta’s industrial segment.

“Our two companies have collaborated well in finding a solution to suit Kalmar’s requirements. Our Stage V concept is optimized for the future, and we believe that any OEM will benefit from our new offer to meet the upcoming emissions legislation in Europe.”

Volvo Penta will be at booth N10036 at CONEXPO/CON-AGG, from March 7-11.

Source: Volvo Penta