

# Agritechnica 2017: New D964 four-cylinder engine extends Liebherr diesel engine portfolio

- The third model of the new diesel engine generation the D964
- 4-cylinder 9-litre in-line engine with power output of up to 300 kW

Nussbaumen (Switzerland), November 2017 – At Agritechnica 2017, Liebherr unveils its 4-cylinder in-line D964 engine. This 9-litre engine can generate a maximum power output of 300 kW. It is part of the new generation of engines from Liebherr to comply with the EU Stage V emission standards, and will be available from 2019.

The new 4-cylinder in-line D964 engine is the third new engine model that Liebherr has already presented this year. This 9-litre engine generates a maximum torque of 1,700 Nm at 1,400 rpm to achieve a power output of 300 kW. With its heavy-duty equipment, it is ideally suited for use in off-highway applications with frequent load and engine speed variations. It has wet-running cylinder liners for optimal cooling, an extremely robust turbocharger design, and high protection class cable harness and connectors. Three optional auxiliary outputs enable multiple deployment possibilities, with up to 665 Nm output torque possible on the main auxiliary output.

To ensure particularly low-vibration operation, the compact 4-cylinder engine is fitted with a balance shaft, which compensates the dynamic forces. The D964 therefore runs significantly more quietly than other comparable 4-cylinder engines, with values more akin to those of a 6-cylinder engine.

To facilitate servicing and maintenance work, attention was paid to ensuring a high percentage of identical parts across the wide engine range when developing the new products, and to easy service point accessibility. A new design for the crankcase ventilation also leads to extended servicing intervals.

Like the D956 and D966 six-cylinder engines presented early this year, the D964 belongs to a new generation of engines, which not only fulfils the demanding EU Stage V exhaust emission standards, but on account of the modular exhaust gas aftertreatment system can also be used in less strictly regulated markets. For Stage V, the Liebherr SCRFilter

system is employed, containing both a diesel oxidation catalyst (DOC) and a SCR-coated particulate filter. The Liebherr SCRonly system for Tier 4f only contains a SCR catalytic converter, making it practically maintenance-free. For markets with emission standards corresponding to Stage IIIA, the engine is fitted with exhaust gas recycling. For all variants, flexibility is shown in taking into account the customer-specific installation situation.

Like all engines of the latest generation, the D964 is distinguished by a high level of system integration: both the ECU3 engine control and the 11.2 common rail system are Liebherr-own developments.

### Weblink

www.liebherr.com/diesel-engines

## Captions

liebherr-9X6-01-persp-left\_web.jpg Thanks to its balance shaft, the new 4-cylinder in-line engine is extremely low-vibration.

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