

JCB EXPANDS COMPACT TIER 4 WHEELED LOADER LINE-UP

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JCB is upgrading its compact articulated wheeled loader range, with the introduction of Tier 4 engines, offering increased torque and reduced emissions.

Revised Loader Line-Up

The previous T3 406 and 409 loaders have been replaced by 407 and 409 models. These machines are powered by 153 cu. In. (2.5-liter) JCB Diesel by Kohler engines, that have been specifically designed and developed for use in JCB machines, where they operate without the need for a costly Diesel Particulate Filter (DPF).

The 407 takes on the role previously played by the 406, with a 64hp (48kW) water-cooled electronically-controlled engine. The 409 remains the high performance model, with a 74hp (55kW) version of the same extremely efficient power plant.

Announced in September 2013, JCB has forged a partnership with engine supplier Kohler to produce engines specifically for its compact machinery ranges. The water-cooled Kohler direct injection engines are branded as JCB Diesel by Kohler and, in line with JCB's own Ecomax engine, meet Tier 4 Final emissions standards without the need for a complex DPF.

"Kohler's achievement of Tier 4 Final without the need for a bulky DPF is fully in line with our own strategy and allows out designers maximum flexibility when it comes to meeting machine design and packaging requirements," says JCB's Director of Engine Programs Alan Tolley.

"These highly efficient engines will offer our customers improved performance and lower fuel consumption."

Improved Performance

Though providing similar power outputs as the previous machines, the 407 is 4% up on the old 406, the 407 benefits from an incredible 58% higher peak torque output, while the 409 gets a 20% torque boost at a lower engine speed of just 1,500rpm. This translates to improved loading ability and stronger breakout forces, even at lower operating revs, making life easier for the operator and reducing noise and emissions.

Noise levels are further cut through the use of a temperature-controlled cooling fan, that only operates when required, reducing fuel consumption and demand on the engine.

The loaders benefit from a redesigned rear main frame that allows for towing equipment to be installed, or for rear-mounted implements, improving versatility and utilization for the customer. The 407 is available with an optional high speed transmission, making it ideal for towing and travelling between job sites. In addition there are high-flow auxiliary hydraulic options to make the machine more suitable for use with a wider range of powered attachments. Revised joystick controls incorporating gear change and hydraulic multi-function control, make the machines more comfortable and intuitive to operate.

Customers can also specify a 100% differential lock in the front axle, for maximum traction when digging and in poor site conditions.

Visually a new hood and counterweight deliver a stronger corporate appearance. The machines also have an upgraded cab environment with a new instrument panel. An immobilizer is available as an option, increasing protection against theft from site.

Source: wyynot GmbH; JCB