

PRESS RELEASE

Cologne, 20 September 2018

DEUTZ embarks on electrification of construction equipment with Manitou Group

- DEUTZ equips two Manitou construction telehandler prototypes with electric and hybrid drive systems
- This first E-DEUTZ customer project confirms market demand
- Hybrid and full-electric systems lower overall running costs

DEUTZ AG and Manitou Group – a world leading OEM in rough-terrain handling equipment – are together embarking upon the electrification of the drive line. DEUTZ has incorporated prototype electric drives into Manitou equipment for the first time. The keys for the first prototypes will be handed over as part of the ELECTRIP Event Week in Cologne. Manitou Group, the first E-DEUTZ partner, has fitted one of its telehandlers with a hybrid drive and a second with a full-electric drive.

DEUTZ provides a modular product portfolio for electric drives, allowing customers to choose the combination of combustion engine, electric motor, battery and power electronics best suited to their needs. A purely electric drive system is also available on request. The aim is to achieve a significant increase in efficiency which will reduce overall running costs, fuel consumption and emissions in equal measure.

The full-electric Manitou MT 1135 telehandler is equipped with a 360-volt vehicle power supply and a 60 kW electric motor. The battery, with a generous 30 kWh capacity, ensures that the required level of energy is delivered. The MT 1335 generally comes with a 75 kW

DEUTZ TCD 3.6 diesel engine. For the hybrid prototype, this diesel engine has been replaced by a DEUTZ TCD 2.2, which generates 55 kW, plus a 20 kW electric motor. The electric system is provided with a 48-volt system voltage.

Michel Denis, President and CEO of Manitou Group explains: "It is the first full electric construction telehandler prototype that we realized thanks to DEUTZ, and we are proud to work in this explorative phase with a confident supplier. The integration of electric drives into our telehandlers is very encouraging for the future. DEUTZ has rapidly assumed a pioneering role in the field of electrification; it has the necessary expertise and knows our applications' special requirements. This telehandler enables Manitou to enhance our existing hybrid and electric ranges. Innovation is really a part of Manitou Group's DNA, and electrification allows us to match our CSR approach and our customers' expectations."

Dr Frank Hiller, Chairman of the DEUTZ AG Board of Management, added: "We initiated our E-DEUTZ strategy last autumn. So, we are now very proud to be carrying out the next step of electrification with Manitou Group. These joint studies reinforce our belief that we can provide the market with the right solutions and to positioning ourselves as the market leader for innovative drive systems."

For further information on this DEUTZ AG press release, please contact:

Public Relations

Michael Ziegler

Tel: +49 (0)221 822 2494

Fax: +49 (0)221 822 152 494

Email: michael.ziegler@deutz.com