WEG supplies motors for world's most powerful test rig

~ Powering systems to test wind technologies ~

WEG, a leading global motor manufacturer, will supply two drive motors for the world's most powerful test rig. This test rig is being developed by Danish wind turbine test specialist, R&D Test Systems, a company that develops projects and validates new technology with turnkey test systems. With two 30 MW motors from WEG, the test rig will be the world's most powerful powertrain and gearbox test bench and — at 60-meters long — will also be the largest.

ZF Wind Power, an international technology group and market leader in driveline and chassis technology, is the final user of this test rig. This 30 MW powertrain and gearbox test bench will be housed in ZF Wind Powers's Test and Prototype Center in Lommel, Belgium. The test rig is capable of simulating the multiplicity of wind loads that a nacelle powertrain might experience in its lifetime, helping to improve product reliability and shorten time to market.

The test rig sees two nacelle components, for example two powertrains or two gearboxes, tested simultaneously. The two 30 MW motors are positioned on each end

of the nacelle components under test, with an additional load unit located between the two components that simulates wind loads comparable to real-world conditions Together, the motors and load unit can stimulate not only harsh wind loads, but also the effect of wind coming from different directions.

Marek Lukaszczyk, Europe and Middle East marketing manager for WEG, commented on the announcement: “WEG has extensive experience in supplying motors for renewable projects, so we are confident that our motors will help to ensure that this test rig operates at peak performance.

"Rigorously testing new technologies for renewable energy generation is essential for our planet's future. The two motors from WEG will be delivered in October 2023, and the system will ultimately be delivered to ZF Wind Power in 2024.”

Explaining the need for such a powerful system, Ralf Nieschler, Key Account Manager, R&D Test Systems said in the press release from R&D Test Systems, “The wind loads and directions can vary greatly, and each change creates loading on the nacelle powertrain. This new test rig must be much more powerful than the powertrain it tests, providing proof that the next generation of offshore turbines are capable of operating reliably in extreme offshore conditions over the defined lifetime.

“The force of gusts of wind can push the blade around. This twisting and bending of the powertrain in all possible directions in the test rig will simulate the effect of 20 years of wind conditions, in just a few months,” concluded Nieschler.

The test rig is scheduled to be delivered in 2024 and will provide a reliable platform to test and validate wind turbine technology. WEG’s motors will be a key component of the test rig and will be instrumental in helping to ensure wind technology is up to future standards.

More information on WEG can be found at www.weg.net. You can find out more about the world’s most powerful test rig, developed by R&D Test Systems for ZF Wind Power here.

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About WEG: Founded in 1961, WEG is a global electric-electronic equipment company, operating mainly in the capital goods sector with solutions in electric machines, automation and paints for several sectors, including infrastructure, steel, pulp and paper, oil and gas, mining, among many others.

WEG stands out in innovation by constantly developing solutions to meet the major trends in energy efficiency, renewable energy and electric mobility. With manufacturing units in 12 countries and present in more than 135 countries, the company has more than 33,800 employees worldwide. WEG's net revenue reached R$ 17.47 billion in 2020, 56% from external markets. For more information, visit www.weg.net

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