



## **MAN expands its contribution to world's largest fusion experiment**

Deggendorf, 13/07/2017

**MAN Diesel & Turbo has concluded a contract with Walter Tosto S.p.A. for the delivery of essential parts for the worldwide renowned ITER project. The International Thermonuclear Experimental Reactor currently being built in Cadarache (France) aims to demonstrate the feasibility of fusion as a future energy source.**

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With this most recent order to MAN Diesel & Turbo's fabrication specialists in Deggendorf, the company already won the third sub-project contributing to this multinational experimental set-up. The 13 so-called Port Stubs, fabricated for the Italian company Walter Tosto S.p.A., are to be installed in ITER's vacuum vessel. This vessel will house the fusion reactions and act as a first safety containment barrier. The Port Stubs are the connecting element between the vacuum vessel and the ports. The latter provide access for remote handling operations and other installations as diagnostics, heating, and vacuum systems.

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"MAN Diesel & Turbo is proud to be part of the most ambitious energy project in the world today. We are helping to bring the source of the sun's energy down to earth – our experts participate in the construction of a fusion reactor which may soon demonstrate power can be generated in the same way the sun does it", says Dr. Uwe Lauber, CEO of MAN Diesel & Turbo. "MAN continues to contribute to the development of leading-edge technologies with its high-tech equipment and enormous technical knowledge."

The ITER (lat: the way) project is funded and run by seven member entities: Japan, the European Union, the United States, Russia, China, South Korea and India. In southern France, 35 nations are collaborating to build the world's largest tokamak – a magnetic fusion device designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy based on the same principle that powers our sun and stars.

"This third order within the ITER project underlines the industry's confidence in MAN's skills in complex stainless steel processing and innovative welding technology", explains Prof. Dr. Rolf Bank, Head of MAN Diesel & Turbo in Deggendorf, Germany.



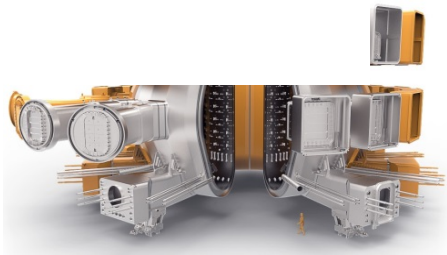
It was booked in 2012. It encompasses the delivery of the Upper Ports to Russian JSC "NII-EFA", D.V. Efremov Institute as sub-contractor. More than 1000 tons of stainless steel is currently being processed by MAN in Deggendorf in order to deliver the Upper Ports starting mid-2017.

MAN received the second ITER order from Indian multinational conglomerate Larsen & Toubro, which is manufacturing the critical Cryostat at Hazira, India. The order comprises the assembly of the Cryostat. The largest stainless steel high-vacuum chamber ever built (16,000 m<sup>3</sup>) provides the high vacuum, ultra-cool environment for the vacuum vessel and the superconducting magnets. With this order, MAN was one of the first companies on the construction site in France, where works started in mid-2016.

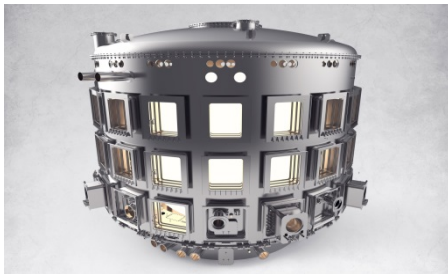
MAN Diesel & Turbo in Deggendorf has a vast experience with demanding projects within the scope of large-scale fusion experiments. The company has already participated in the construction of the Wendelstein 7-x plant and supported the project for 15 years by supplying the internal and external vessel as well as the machinery foundation. Wendelstein 7-x commenced test operation and produced the first plasma in 2016 – scientists from the Max Planck Institute are now studying the basis for the energy supply of the future.

# Press Release

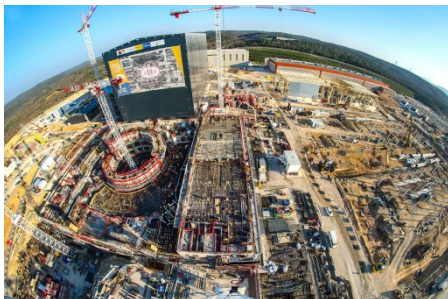
## MAN Diesel & Turbo



*18 Upper Ports and 13 Port Stubs on ITER's stainless steel vacuum vessel are fabricated by MAN Diesel & Turbo in Deggendorf.*



*ITER Cryostat: MAN is assembling the stainless steel high-vacuum chamber in Cadarache, France.*



*ITER's construction site in Cadarache, France*

### **About MAN Diesel & Turbo**

Based in Augsburg, MAN Diesel & Turbo is the world's leading supplier of large diesel engines and turbomachinery. MAN Diesel & Turbo employs around 14,900 staff at more than 100 international sites, primarily in Germany, Denmark, France, Switzerland, the Czech Republic, India and China. The product portfolio includes two- and four-stroke engines for maritime and stationary applications, turbochargers and propellers as well as gas and steam turbines, compressors and chemical reactors. Complete solutions such as ship propulsion systems, engine power stations and turbomachinery sets for the oil and gas and process industry round off the scope of supply and services. Customers receive worldwide after-sales services marketed under the MAN PrimeServ brand.