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[Invited] JT-60SA Magnet System Status

Monday, 28 August 2017 15:00 (30 minutes)

The JT-60SA experiment will be the world's largest superconducting tokamak when it is assembled in 2019 in Naka, Japan ($R=3\text{m}$, $a=1.2\text{m}$). It is being constructed jointly by institutions in the EU and Japan under the Broader Approach agreement. Manufacturing of the six NbTi equilibrium / poloidal field coils, which have a diameter of up to 12m, has been completed. So far 14 of the 18 NbTi toroidal field coils, each 7m high and 4.5m wide, have also been manufactured and tested at 4 K in a dedicated test facility in France. The first three of four Nb₃Sn central solenoid modules have been completed, as have all of the copper in-vessel error field correction coils. Installation of the toroidal field magnet, around the previously welded 340° tokamak vacuum vessel and its thermal shield, started at the end of 2016. The TF magnet will in turn support the EF and CS coils.

This presentation will summarise some of the highlights of the JT-60SA magnet system design and manufacturing achievements as well as briefly describing the tests performed on the coils and the status of their assembly.

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