JT-60SA Newsletter
No.1, 29 January 2010

Success in trial production of VV outboard 20 deg sector for real manufacturing

Trial production of the 20 degree sector of the outboard has been carried out as planned for manufacturing the real outboard and manufacturing the real inboard of the vacuum vessel has just started at the manufacturer.

The picture above is that the prototype of the 20 degree sector of the outboard before attaching the port stubs. Welding distortion of the vacuum vessel with the port stubs and the outer vessel will be inspected in detail later.

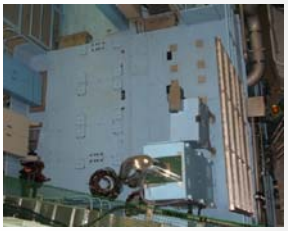
Robot successfully inspects welded areas on vacuum vessel

A robot is going to be used for the welding inspection for the outer vessel of the vacuum vessel.

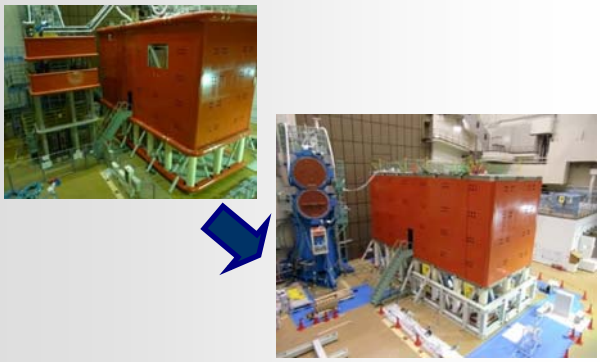
The performance test of the robot was carried out at the manufacturer and the robot inspected the straight section of the inboard. Resolution of images taken by the robot was sufficiently high.

Thomson scattering measurement system disassembled

Thomson scattering measurement system, one of the most important measurement systems, has been disassembled as planned. The optical fibers for the system, laid between the torus hall and the rooms around the hall, were removed, and a cable inspection was carried out before storing them for reuse for the JT-60SA.



N-NBI system in JT-60 assembly hall removed



The High Voltage Table (HVT) is a large four story structure storing the power supplies of the ion sources for the N-NBI system.

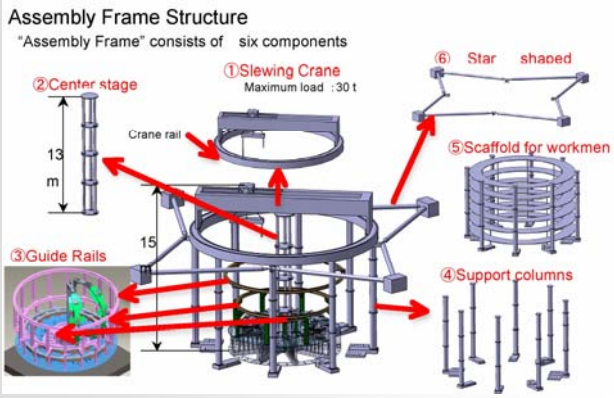
From the second floor to the fourth floor, the power supplies are stored in, and the insulating support structure of FRP is used to support the HVT itself. This HVT is a 13.1 m long, 5.6 m wide and 10 m high, and its total weight is approximately 150 tons.

The support structure for maintaining the Negative Ion sources were removed to the MG room in the JT-60 Motor-generator building.

Discussion on assembly frame structure progressed

The basic plan of the assembly frame structure was studied for the vacuum vessel, the thermal shields for the vacuum vessel, the TF coil, the EF coil, the CS coil, the Cryostat and the ports for the vacuum vessel.

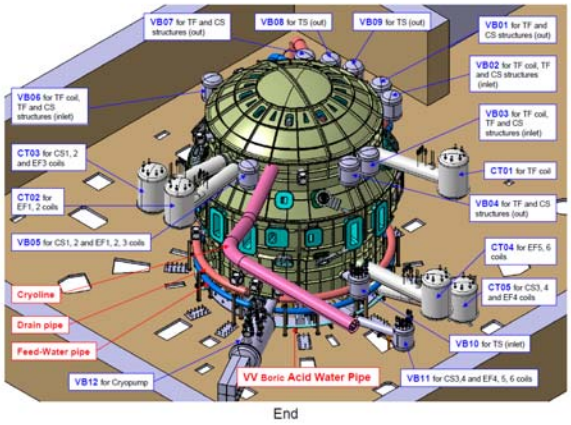
According to the plan, the structure consists of the six major items as described below including eight support columns and the slewing crane of 30 tons.



The three different guide rails set in the structure makes possible to accurately move the TF Coil in the toroidal direction. This structure can be used for adjusting locations of the TF coil and/or fixing the coil after the adjustment.

Animation of tokamak assembly

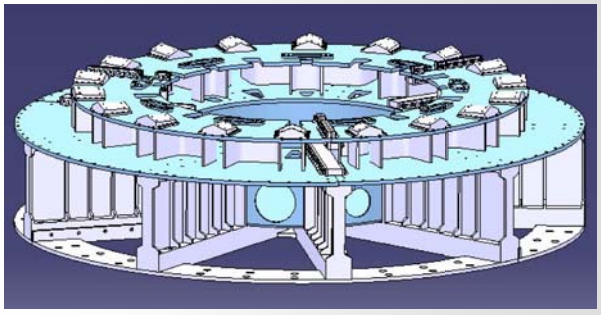
Animation of the assembly sequence was produced. The sequence starts from the Cryostat base installation and shows the assembly sequence of the components for the Tokamak in the Cryostat and the components for the Cryogenic such as the valve box and the coil terminal box for the superconducting coil around the Cryostat. Click the picture below for the animation.



Animation of Assembly Sequence

Cryostat base PA signed, following QPC PA

The PA for the Cryostat base to be procured by CIEMAT in Spain was signed on 7th December following the PA, signed on 3rd December, for the Quench Protection Circuit by RFX in Italy. This Cryostat base PA is the first PA for the Cryostat and the second PA for the Cryostat body is going to be concluded in 2010.



Bird's View of Cryostat Base

Meetings

A video confernece on physics unit activities and the JT-60SA research plan was held on 26th January among F4E in Garhing, RFX in Paduva and JAEA in Naka, which was organzied by K. Lackner and Y. Kamada.

The 13th Meeting of the Project Leaders Meeting was held by the BA Project Leaders (P. Garin for IFMIF/EVEDA, M. Araki for IFERC and S. Ishida for STP) in Ueno on 27th January, and issues of preparation for the Interim Progress Report requested by the BA Steering Committee were discussed.

Calendar

December 4, 2009
6th Meeting of the BA Steering Committee,
Padova, Italy

December 15-17, 2009
7th Technical Coordination Meeting,
Naka, Japan

January 26, 2010
Video conference on JT-60SA Research Plan
remotely between Japan-EU

March 30, 2010
6th Meeting of the STP Project Committee,
remotely between Japan-EU

April 12-14, 2010
8th Technical Coordination Meeting,
Frascati, Italy

April 28, 2010
7th Meeting of the BA Steering Committee,
Rokkasho, Japan

September 14-16, 2010
9th Technical Coordination Meeting

September 27-October 1, 2010
26th Symposium on Fusion Technology
(SOFT 2010)
Oporto, Portugal

October 10-16, 2010
23rd IAEA Fusion Energy Conference
Daejon, Republic of Korea

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Local

Shizu Shrine

Many Japanese people visit a Shinto shrine during the first three days of January in order to make traditional New Year's wishes for health and happiness.

In the beginning of January, the PL and JAEA members visited Shizu shrine, shown in the pictures above, to pray for safety for work and all the members concerned.

Shizu Shrine is located in Naka city, about 15 km to the North of Naka Fusion Institute. It is said to have been established sometime before 850, and has a long and distinguished history.

This shrine is famous for cherry blossom viewing, actually it is one of the most popular spots around this area. There are approximately 2,000 cherry blossom trees in and around the shrine, and those trees will be in full bloom around April.

Contact Us

The JT-60SA Newsletter is released monthly by the JT-60SA Project Team. Suggestions and comments are welcome and can be sent to sato.masayasu@jt60sa.org.