

Q1-3 Cryostat advancement

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- Instrumentation and CLIQ feedthroughs
 - HL-LHC Integration meeting 18th August: <https://indico.cern.ch/event/574336/>
 - Clear preference to exit at the level of the respective cryostat
 - To be discussed what to do for the 35 A leads
- Position of jacks
 - Cryostat interface meeting 29th August 2017: <https://indico.cern.ch/event/661726/>
 - Working group on alignment 18th October 2017: <https://indico.cern.ch/event/666376/>
 - In short: all cryo-magnets supported on 3 jacks (isostatic)
 - Cryostats subjected to pressure end effects are equipped with a tie-rod for longitudinal anchoring
- Longitudinal anchor specification
 - <https://edms.cern.ch/document/1856323/0.1>
- New support post design
 - Conical monolithic component: stiffness doubled compared to previous design, better long term stability
- Support post design loads
 - Functional spec document under preparation
 - Longitudinal pressure end effects are very large – they drive the design of the support
 - Transport and handling transverse accelerations should be kept at a level below the pressure end effect loads
 - Vertical transport acceleration: 0.4g?
- Procurement
 - Specification committee for tooling: 9th November
 - Market survey committee for Support posts: 9th November
 - Specification committee for Support posts: December
- Design: Q2 prototype on-going.
 - Integration of IFS position monitoring
 - Optimising the position of the heat intercept in the support post
 - Static and transient analysis of the thermal shield. Implications in the operation conditions.
 - Pressure drop in piping being calculated (TE/CRG)