

**Title:**

Performance of LHC Main Dipoles for Beam Operation

**Authors:**

Gijsbert De Rijk, Marta Bajko, Luca Bottura, Marco Carlo Luigi Buzio, Vinod Chohan, Laurent Deniau, Paolo Fessia, Juan Garcia Perez, Per Hagen, Jean-Pierre Koutchouk, Janusz Kozak, John Miles, Dominique Missiaen, Michele Modena, Pierre Pugat, Vittorio Remondino, Lucio Rossi, Stephane Sanfilippo, Frederic Savary, Andrzej Piotr Siemko, Nikolay Smirnov, Andrzej Stafiniak, Ezio Todesco, Davide Tommasini, Jos Vlogaert, Christine Vollinger, Louis Walckiers, Elena Wildner (CERN, Geneva)

**Abstract:**

At present about 75% of the main dipoles for the LHC have been manufactured and one of the three cold mass assemblers has already completed the production. More than two third of the 1232 dipoles needed for the tunnel have been tested and accepted. In this paper we mainly deal with the performance results: the quench behavior, the magnetic field quality, the electrical integrity quality and the geometry features will be summarized. The variations in performance associated with different cold mass assemblers and superconducting cable origins will be discussed.