

Collimator Design Meetings

Minutes of the meeting 54 (12/01/2005)

Present: Aberle, Assmann, Bertarelli, Calatroni, Chiaveri (partially), Kadi, Mayer, Perret

As an introduction to the meeting, Manfred remarked the mention of the important progress of the Collimation progress made by the DG in his latest message to all CERN staff. Ralph informed that the TT40 collimator was open and no sign whatsoever of jaw material degradation was found (both for graphite and C/C)

Minutes # 53: some items in the action list should be removed as obsolete or closed (see action list below)

STATUS OF COMPONENT ORDERS

1. Oliver informed that Finance Committee has officially chosen CERCA as collimator manufacturer. To meet the expected production schedule (including preseries tests), all required material should be available at manufacturer premises by end of May 2005.
2. Alessandro informed that all the required offers have been received.
3. Particular care should be paid to the supply of stainless steel, Glidcop and CuNi pipes.
4. Roger suggested to supply the manufacturer some Cu-OFE pipes in order to anticipate the preparation of pipe bending tools.
5. The order procedures for C/C and Glidcop have been issued.
6. Alessandro and Oliver reported on the meeting with SKF on roller / ball screws. After discussion on the technical / economical implications of the two solutions it was formally decided to order Roller screws with dry lubrication. The order will be launched as soon as information on the friction coefficient of Graphite and WS₂ dry coatings will be provided by the bidder.
7. Electrical Feedthroughs manufacturer required a prompt order so as to meet the required schedule for the supply. Nevertheless the order cannot be launched as long as this component is not approved by Roberto. **Action** Roberto

TORQUE MEASUREMENTS AND CALCULATION

1. Several tests were performed in weeks 1 and 2 on SPS prototype to measure the necessary torque to move the collimator tables and blocs. The tests revealed no mechanical problem and the measured values (~0.4 Nm at full close stroke) quite well matched the data predicted by Alessandro's calculations.
2. The same mechanical equipment, with some minor adaptation will be used to measure the available torque provided by the motor.

ELECTRONIC COMPONENTS

1. No update could be made since Roberto was absent.

THERMOCOUPLES TYPE AND FIXING

1. The issue is currently been studied by Roger.

RF CONTACT TEST BENCH

1. the test bench is being assembled. Tests will start in week 3.

WATER CONNECTIONS

1. No important update could be made since Rosario was absent.
2. Roger is trying to organize a meeting with a delegate from TS/CV

POSITION OF TCDI COLLIMATORS

1. Yacine informed that the position of TCDI for TI8 has been completely defined. This should be confirmed by Ramillon. Based on this information, design activity on these components may restart.

2. TCDI positions for T12 are still to be defined.

ACTION LIST to be followed up:

Play between motor spindle and jaw	#34	Roger
Non-symmetric heating of vacuum flanges	#34	Vasilis, Oliver, Miguel, Rathjen
Radiation issues – heat evacuation, air duct, space, shielding		Ralph
Detailed information on electrical plug-in and sensors (URGENT)	#45	Roberto
Detailed information on water plug-in (URGENT)	#45	Manfred
New Fluka simulation for 7TeV accident case	#47	Vasilis
Updated calculation on beam optics during transient	#49	Ralph
Acceptable RF design by RF people	#50	Ralph
Radiation dose on electrical components (URGENT)	#50	Vasilis, Roberto