



Jefferson Lab Alignment Group

Data Transmittal

TO: B. Miller

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Checked:

: B1697

DETAILS:

data: inspection\hallb\ltcc : 160126a; 160127a; 160127a; panel2_calcs

The Panel 2 supports were surveyed on January 26th, 27th and 28th. The following shows the relationship between the ideal and found locations for the slotted bolt locations and the support panels.

The world coordinate system is based on the Forward Carriages center hub which is along beamline for x/y and then 262.04 inches downstream of the Hall B center [312.18 inches from 12 G target] for the z direction.

Each of the six sectors have their own local coordinate system based on the plane of the panel 2 support plates and the outside slotted holes. sketch 1 below. The coordinate system origin is the midpoint between slotted bolt point 1A and 2B for the X axis – positive X towards point 2B. The positive Y coordinate is towards the midpoint between points 1D and 2C. Positive Z is pointing away from the beamline – in the plane of the panel 2 support pads. See sketch 2 and 3 below.

The first sketch shows the panel 2 supports for all six sectors. Each sector has a pair of support plates, with 4 slotted holes (see third sketch). The second sketch shows the coordinate system for an individual sector. The last sketch is an additional drawing of the local system but attempts 3d.

The six pages following the sketches show the output for each of the slotted locations, with found locations minus ideal for each sector. This results are the locations for each slotted location. A negative X means the position must move positively along the X axis; A negative Y also moves along the positive Y axis; and negative Z also moves positively (inward towards the joining member) along the Z axis.

At the bottom of each of the sector outputs is a summary of the average plate movements along with the direction of the movements. Note that the movements are opposite to the signs on the coordinates.

Units are millimeters.