Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

Below are the results from the lab inspection and field alignment on the moller target assembly performed during the week of February 28, 2005. During the inspection, each target holder was positioned horizontally approximately where the beam center would be to measure the pitch angle. The angle is relative to a plane defined by the horizontal support rail which was also set horizontal in the beam line. Target holder #1 is the furthest to the beam left on the ladder. A +X is to the beam left from ideal and a +Y is above.

Lab Inspection of Target Ladder.

Target	Angle
1	20.075˚
2	19.993˚
3	20.042˚
4	19.915˚
5	20.134˚

Target Chamber Beam Line Alignment (assembly at mid travel).

Drive system set at 20.04˚ from horizontal.

Flange	X	Y
Upst	0.12	0.00
Dnst	0.49	1.44
Beam left		0.28
Beam right		1.18

Target Ladder Pitch angle based on inside horizontal support rail.
The target chamber was at the upstream position during alignment and roll was set with a level vial.

Upstream position:	clockwise 0.01˚ looking from the beam left side.
Mid travel:	clockwise 0.08˚
Downstream position:	counter clockwise 0.05˚