

Jefferson Lab Alignment Group

DATA TRANSMITTAL

TO: Dave Kashy

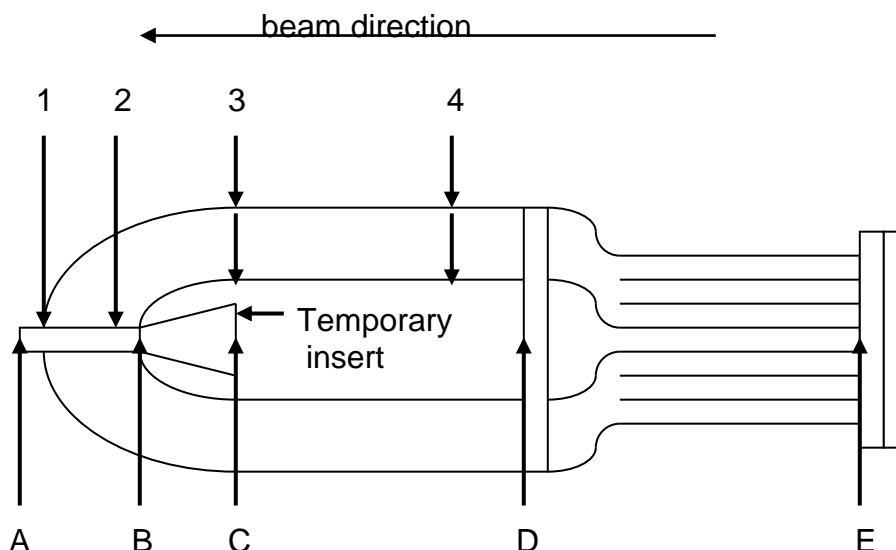
DATE: Sept 11, 2001

FROM: C. Gould, J. Dahlberg

Checked: # : B698

DETAILS:

Below are the results of the Hall B mini torus inspection performed during the week of September 24th. A right-handed coordinate system was established with +X to the beam left, and +Y above center. An average centerline for the Z-axis was defined using circles constructed at six locations along the inside and outside straight sections of the coils. The three inside coil locations toward the downstream end were double weighted as instructed. An average of all six, coil centerline planes were used to set the roll. The planes were constructed using only the area downstream from location 3 shown below. In addition, a second coordinate system and set of data was evaluated with the Z axis centered on points A, B, and C to show the offsets of the coil centerline as set in the beam line. The values are in millimeters and decimal degrees.



COIL CENTERLINE USING CONSTRUCTED CIRCLES.

Loc.	Based on Z axis using coil center.		Based on Z axis using A, B, and C.	
	X	Y	X	Y
1	+0.1	-0.5	+1.2	-1.9
2	0.0	0.0	+0.8	-0.8
3 (inside)	+0.2	+0.5	+0.7	+0.4
3 (outside)	-0.8	+0.4	-0.3	+0.3
4 (inside)	+0.5	-0.3	+0.5	+0.9
4 (outside)	-0.3	-0.2	-0.3	+0.9

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DATA TRANSMITTAL (continued)

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DETAILS:

FLANGE AND LEAD SHIELDING LOCATION

Loc.	Based on Z axis using coil center.		Based on Z axis using A, B, and C.	
	X	Y	X	Y
A (downstream nose)	-1.5	+2.5	0.0	0.0
B (upstream end Pb collar)	-1.1	+1.6	-0.3	+0.9
C (insert)	-0.2	-0.8	+0.3	-0.9
D (Al support flange)	-0.5	0.0	-0.7	+1.7
E (upstream flange)	+3.6	+7.4	+2.3	+12.1

ROTATION ANGLE OF THE COILS RELATIVE TO THE Y AXIS (CLOCKWISE LOOKING DOWNSTREAM).

Coil	Angle
0°	359.49
60 °beam right	59.71
120° beam right	120.95
180°	179.72
120° beam left	240.12
60 ° beam left	300.01