



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** T. Carstens, F. Martin

**DATE:** 21 Oct 2009

**FROM:** J. Dahlberg

**Checked:**

**# :** D1246

**DETAILS:**

Data: Inspection\HALLD\Solenoid

Below are the results from the recent Hall D Solenoid coil inspection surveys. A right handed coordinate system (in millimeters) was established using the inside face of the large 3090mm dia. flange for the XY plane and origin. This is the face of the flange closest to the vacuum tube supporting the chimney. The Y axis (rotation about the Z axis) is set using a bisected point between two threaded holes closest to the vacuum tube. The values below are to the actual chimney flange, not to the blank-off. The yaw angles are based on the rotation of the bolt hole pattern. A +yaw (in degrees) is counter clockwise looking down, a +pitch is ccw looking from the right, and a +roll is cw looking downstream.

**Note:** The attached file contains bolt hole locations measured on the coil and yoke assemblies. <..\DATA\Inspection\HalID\Solenoid\HDCoils.xls>

CHIMNEY FLANGE	Z	X	Y	YAW	PITCH	ROLL
COIL 1	107.5	-0.7	2898.3	-3.497	-1.368	0.484
COIL 2	97.8	4.9	2897.8	-5.721	-0.708	0.156
COIL 4	69.7	19.3	2873.2	4.967	-1.198	-1.358