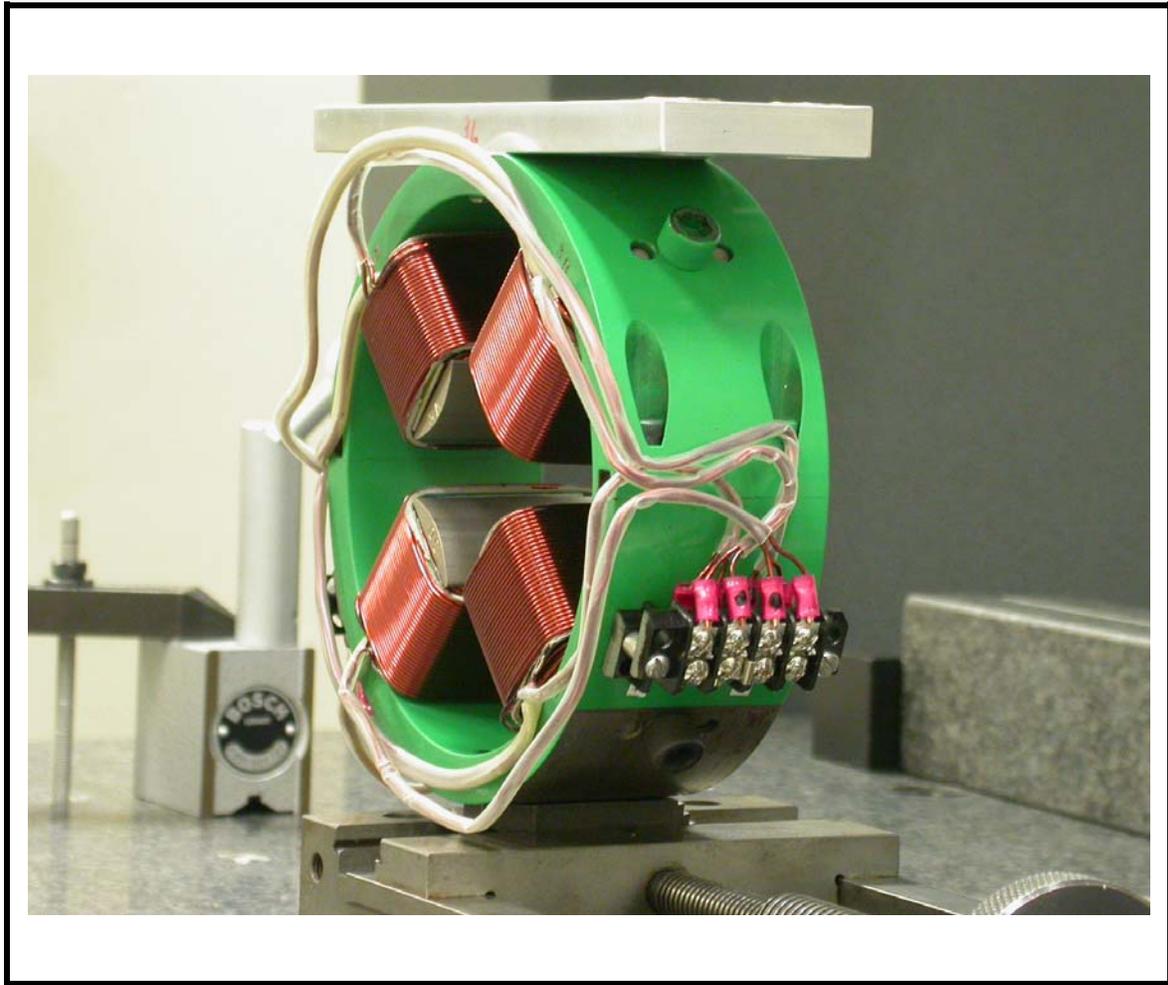


LCLS Gun Spectrometer Quad Dipole Corrector Magnet FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Roger Carr
Date:	Monday, May 15, 2006
Work Order/Charge No.:	20966-1 Task – 30
Serial Number	2

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

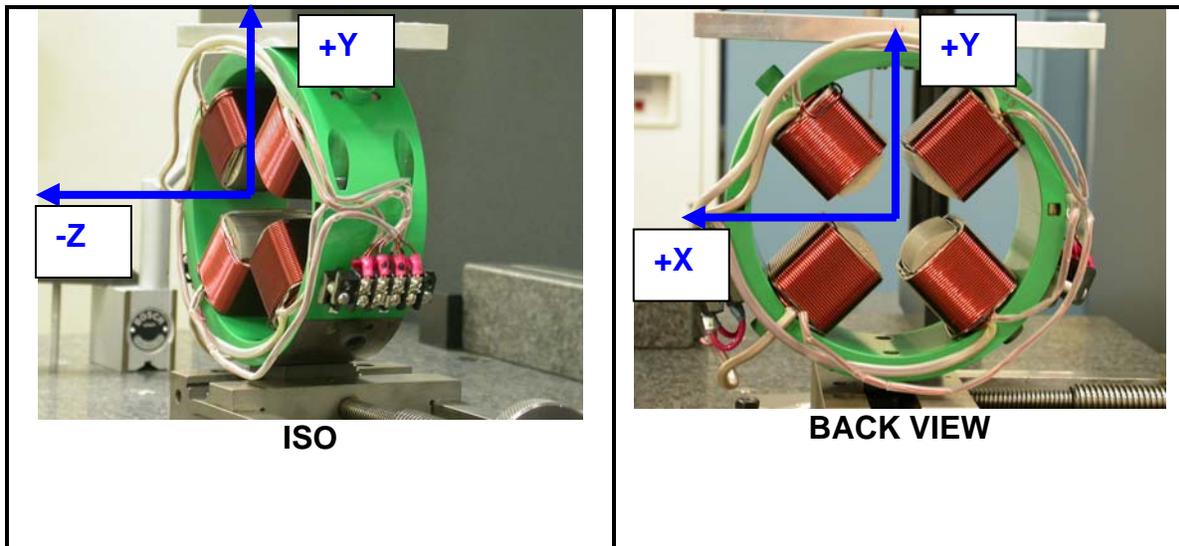
- A line on the top part of the magnet
 - +X is from TB 1 & 2 side to TB 3 & 4 Side

“Z” Zero

- Mid-Plane of the magnet

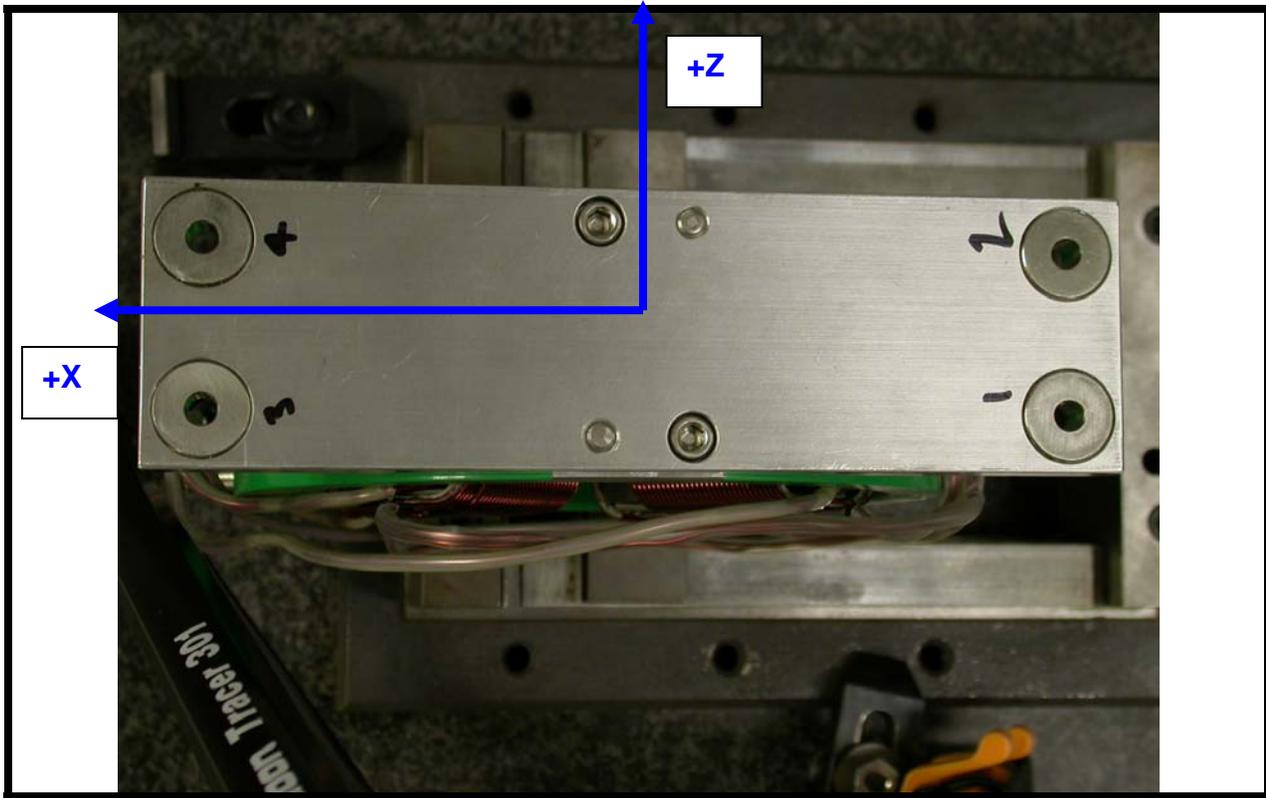
“X” & “Y” Zero

- On both ends
 - Tangent point of each radii (4 on each end, 8 total).
 - Create a line between diagonal tangent points creates 2 lines.
 - Intersect the lines.
 - Creates a point on each end.
- Create a line of these 2 end points
 - This is the “X” & “Y” Zero, and Beamline or” Z” Axis.



Tooling Ball Measurements/Locations

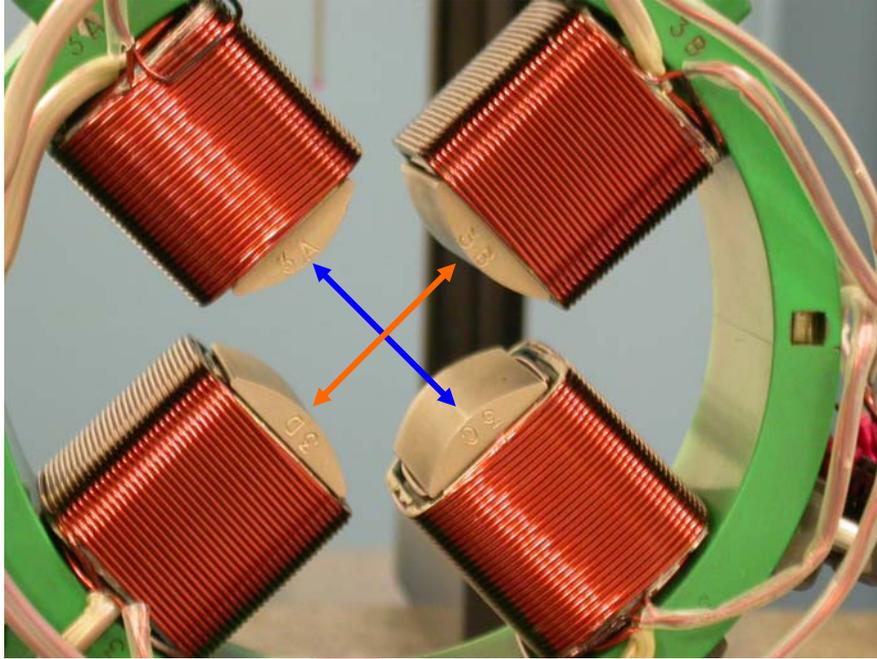
Top of magnet; view from "+Y"



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00046	0.49781	-3.52429	4.82648	-0.67471
TB 2	0.00049	0.49756	-3.52376	4.82367	0.67490
TB 3	0.00037	0.49750	3.52979	4.82395	-0.67762
TB 4	0.00078	0.49708	3.53067	4.82600	0.67068

Additional Requested Measurements

Distance from Tangent point of 4X poletips



A-C = 1.66595

B-D = 1.66559



Parallelism of 4X pole tips to the beamline

- A. 0.00058**
- B. 0.00047**
- C. 0.00055**
- D. 0.00069**