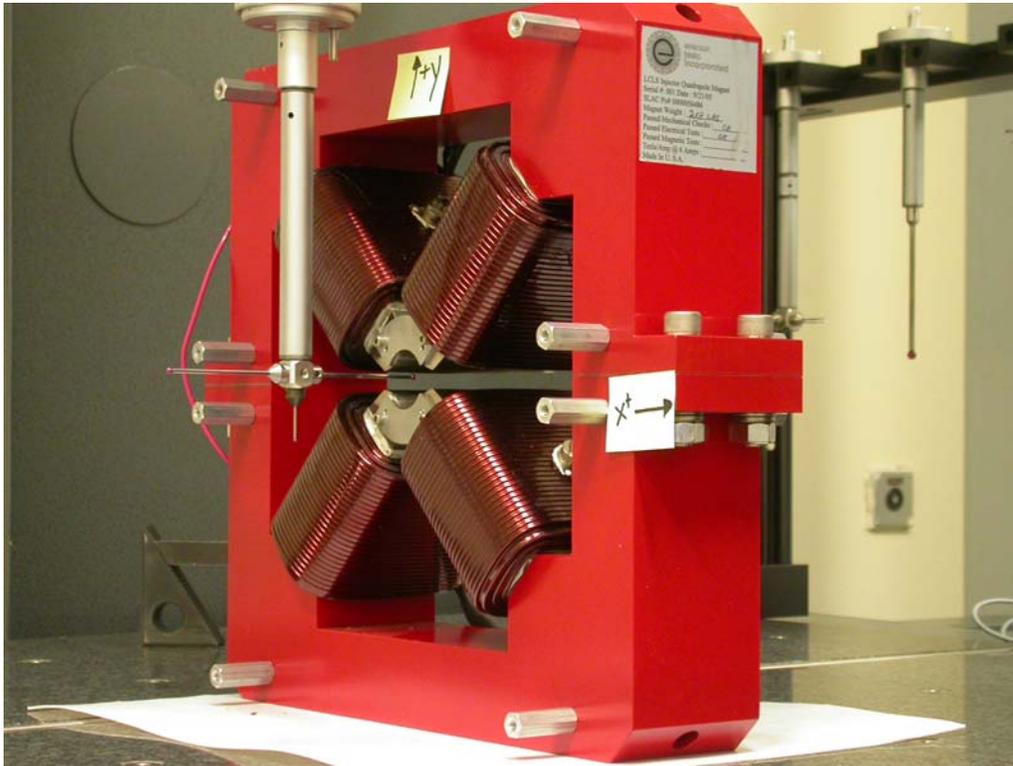


LCLS Injector Quadrupole Magnet FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Roger Carr
Date:	Thursday, June 01, 2006
Work Order/Charge No.:	92-4215-8
Serial Number	000390

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

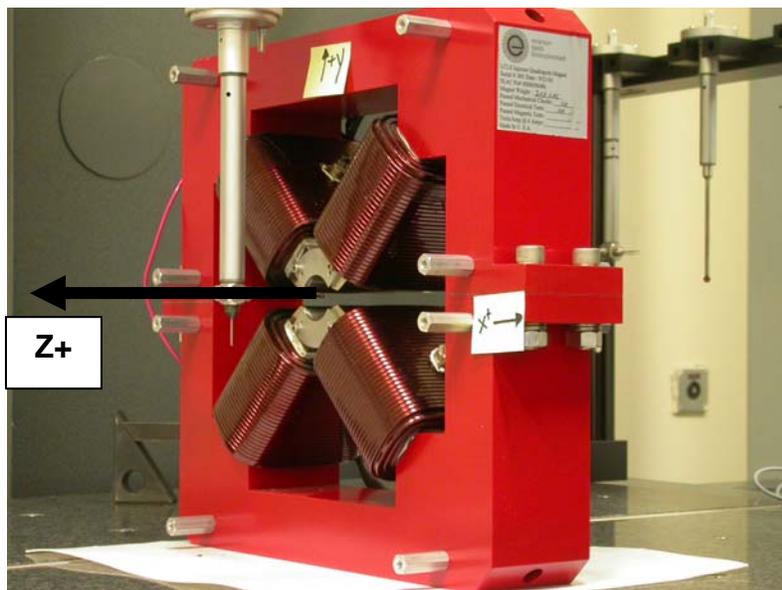
- A line on the top part of the magnet
 - +X goes towards (Magnet Info Label)

“Z” Zero

- Mid-Plane of the magnet

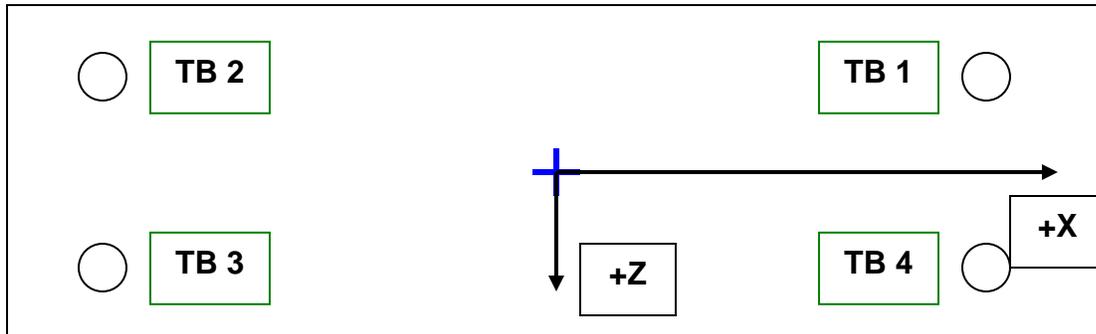
“X” & “Y” Zero

- 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	0.00026	0.49951	6.50040	8.87769	-1.25336
TB 2	0.00030	0.49946	-6.49850	8.87782	-1.25064
TB 3	0.00049	0.49881	-6.49924	8.87906	1.24996
TB 4	0.00013	0.49906	6.50023	8.87856	1.24858

Additional Requested Measurements

View From +Z

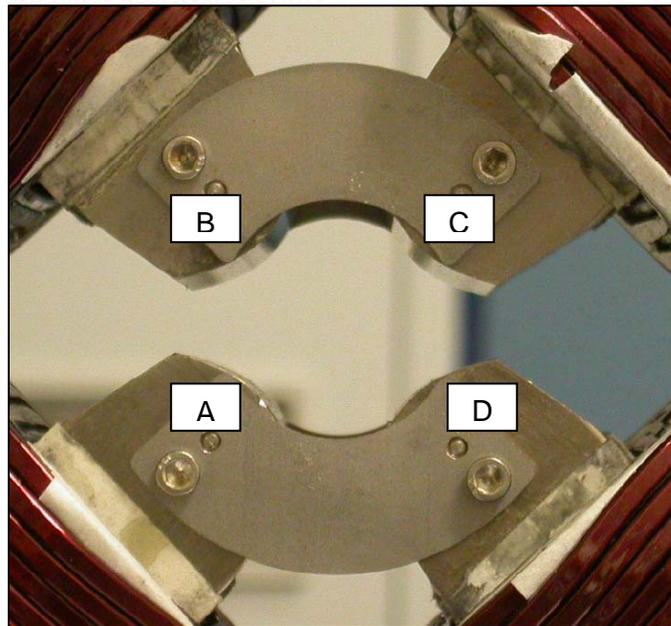
Tangent Point Straightness

- A. 0.00030
- B. 0.00020
- C. 0.00030
- D. 0.00020

Parallelism to Beamline

- A. 0.00018
- B. 0.00018
- C. 0.00027
- D. 0.00029

Distance of opposite Tangent Axis



A-C = 1.25895 (0.62947, 0.62947)

B-D = 1.25932 (0.62946, 0.62935)