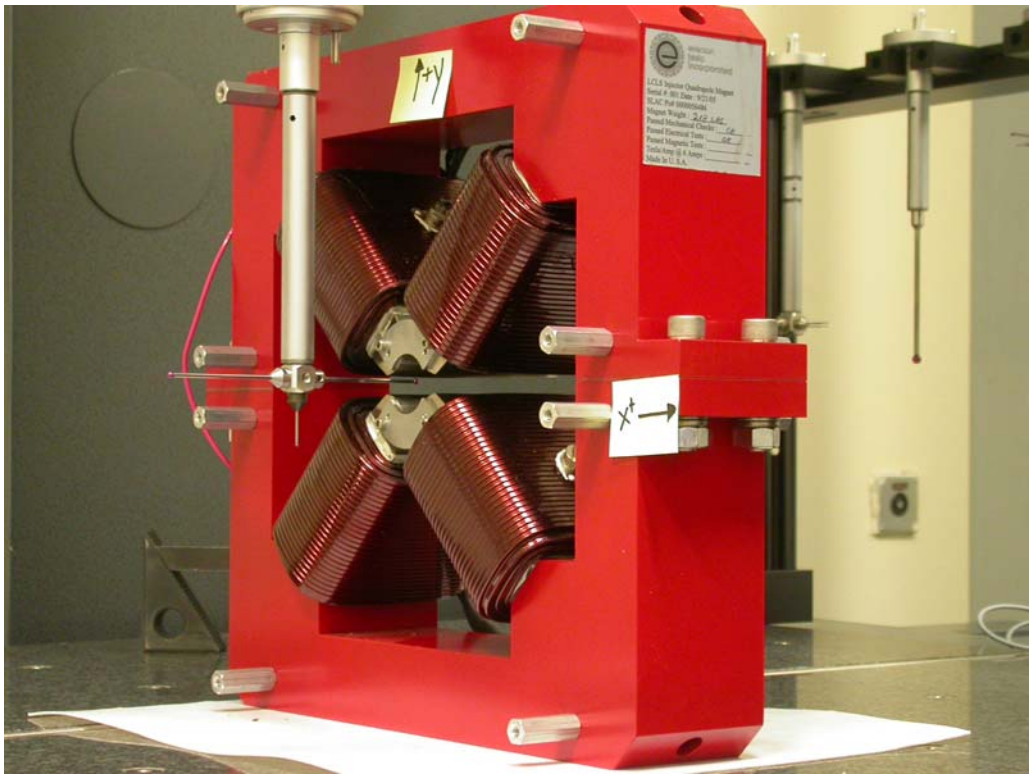
Linac Coherent Light Source
Stanford Linear Accelerator Center
Stanford Synchrotron Radiation Laboratory

LCLS Injector Quadrupole Magnet
FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Roger Carr
Date:	Monday, May 10, 2006
Work Order/Charge No.:	92-4215-8
Serial Number	000387

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

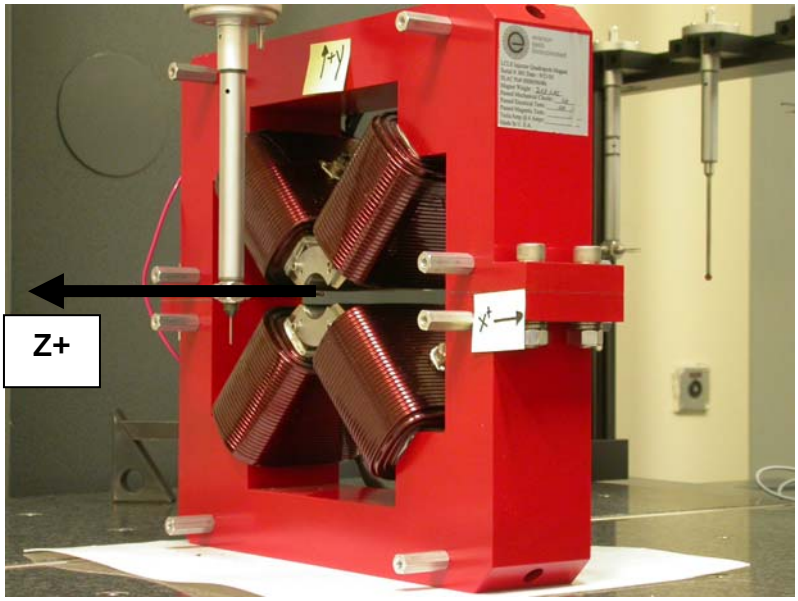
- A line on the top part of the magnet
    - +X goes towards (Magnet Info Label)

“Z” Zero

- Mid-Plane of the magnet

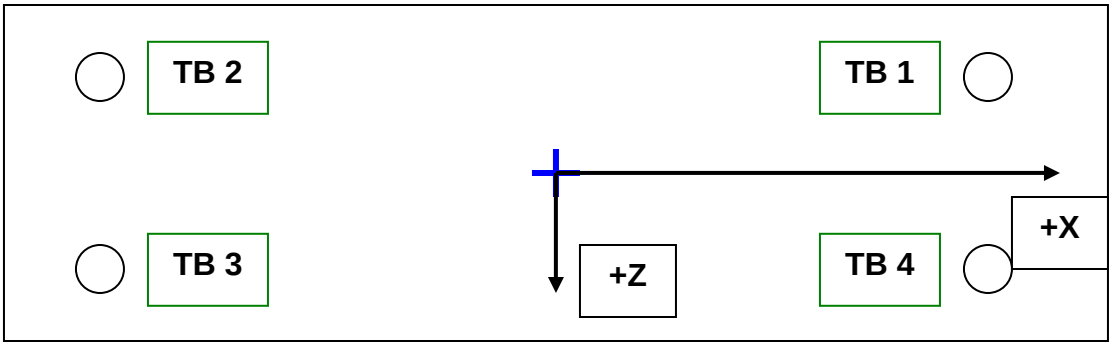
“X” & “Y” Zero

- 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

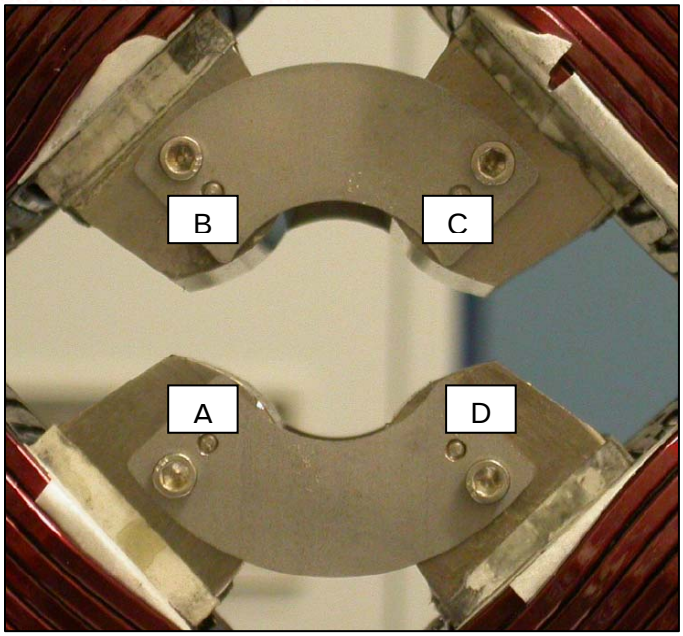
Top of magnet; view from “+Y”



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00061	0.49843	6.50095	8.87582	-1.24974
TB 2	0.00015	0.49970	-6.49782	8.87618	-1.24881
TB 3	0.00034	0.49994	-6.49909	8.87623	1.24942
TB 4	0.00009	0.49994	6.50172	8.87575	1.24810

Additional Requested Measurements

View From +Z



Tangent Point Straightness
- A. 0.00035
- B. 0.00019
- C. 0.00033
- D. 0.00022

Parallelism to Beamline
- A. 0.00025
- B. 0.00015
- C. 0.00039
- D. 0.00032

Distance of opposite Tangent Axis

A-C = 1.25999 (0.62992, 0.623007)
B-D = 1.25911 (0.62973, 0.62938)