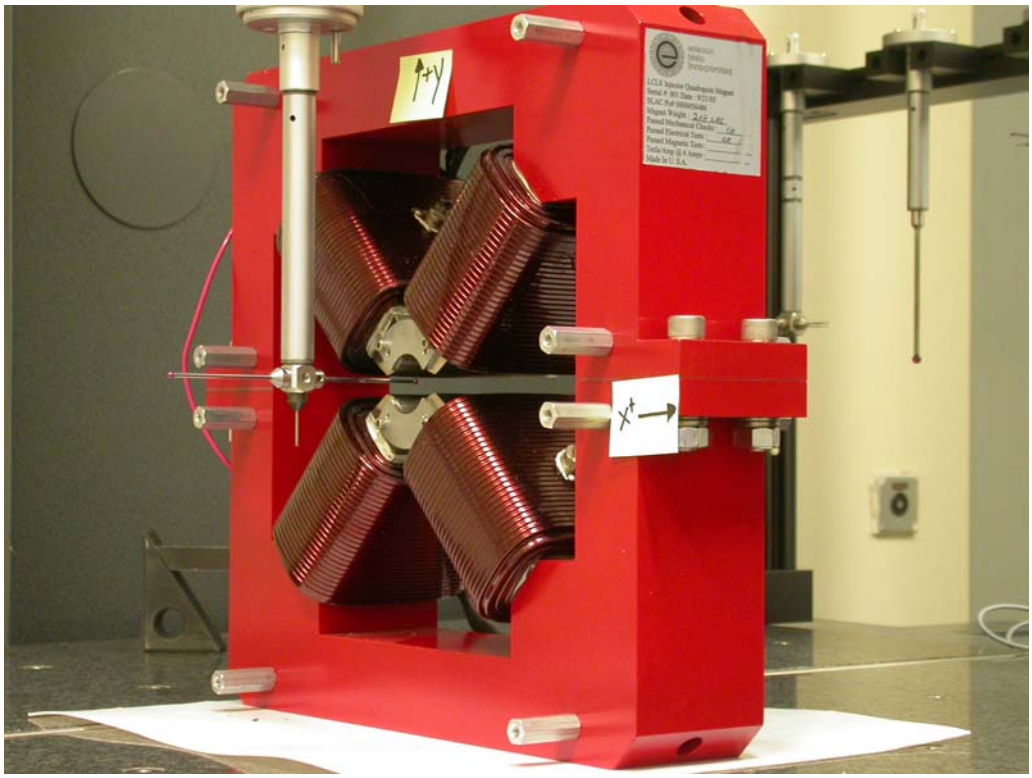
Linac Coherent Light Source
Stanford Linear Accelerator Center
Stanford Synchrotron Radiation Laboratory

LCLS Injector Quadrupole Magnet
FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Roger Carr
Date:	Friday, April 28, 2006
Work Order/Charge No.:	N/A
Serial Number	000379

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

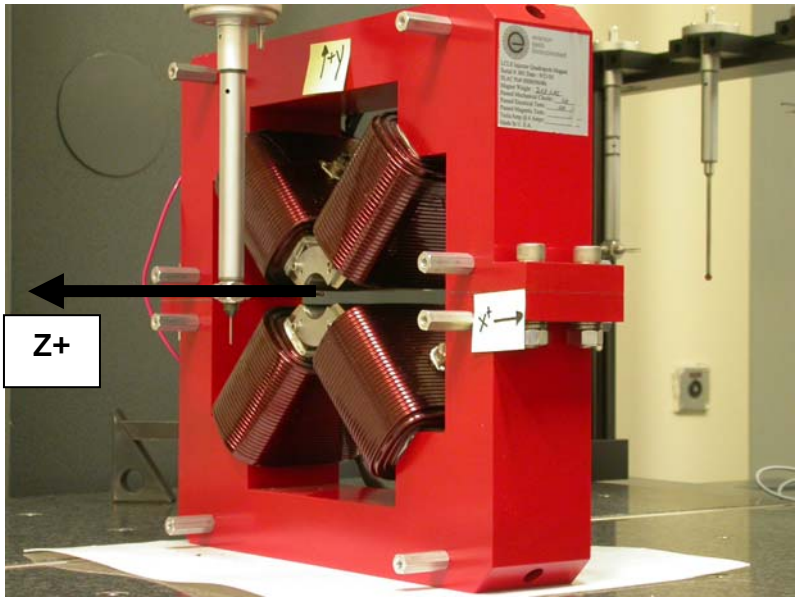
- A line on the top part of the magnet
    - +X goes towards (Magnet Info Label)

“Z” Zero

- Mid-Plane of the magnet

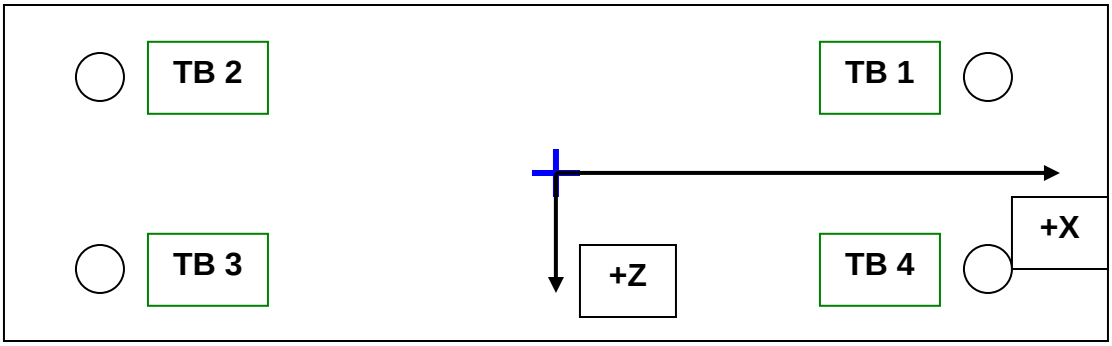
“X” & “Y” Zero

- 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

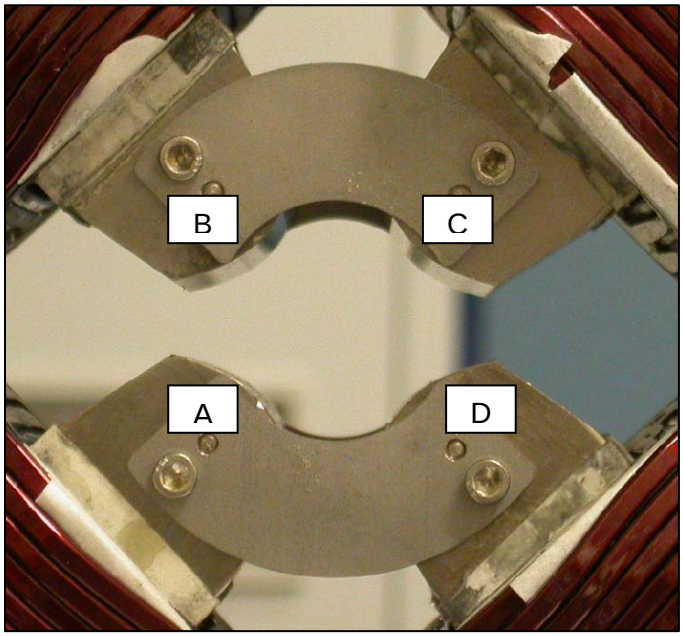
Top of magnet; view from "+Y"



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00062	.49636	6.49971	9.37927	-1.25034
TB 2	0.00055	0.49633	-6.49819	9.37869	-1.24833
TB 3	0.00045	0.49751	-6.49882	9.37880	1.25025
TB 4	0.00046	0.49700	6.50007	9.37959	1.24579

Additional Requested Measurements

View From +Z



Tangent Point Straightness
- A. 0.00021
- B. 0.00017
- C. 0.00021
- D. 0.00036

Parallelism to Beamline
- A. 0.00019
- B. 0.00047
- C. 0.00008
- D. 0.00037

Distance of opposite Tangent Axis

A-C = 1.25846 (0.62917, 0.62928)
B-D = 1.26036 (0.63020, 0.63017)