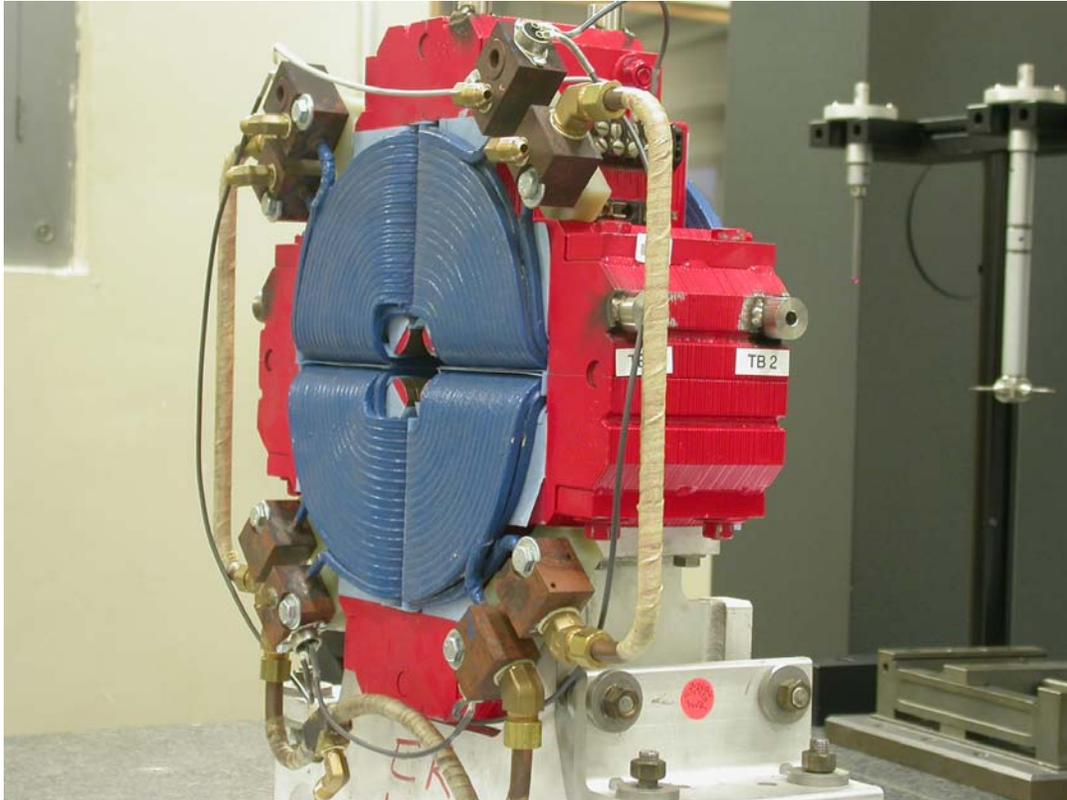


LCLS 'QE' QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Friday, November 10, 2006
Work Order/Charge No.: 92-4264-2
Serial Number: 000017
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS QE QUAD'S\000017.pdf>

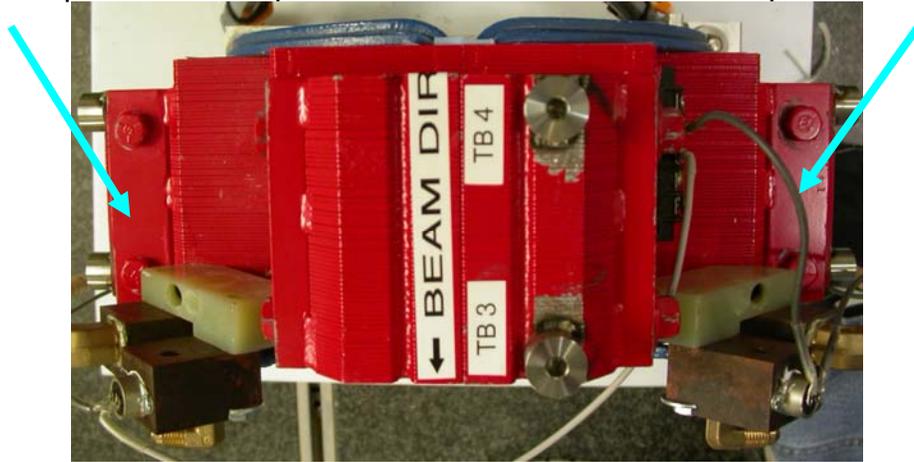
Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

- A 4 point plane on the top of where 2 arrows indicate in the picture below.

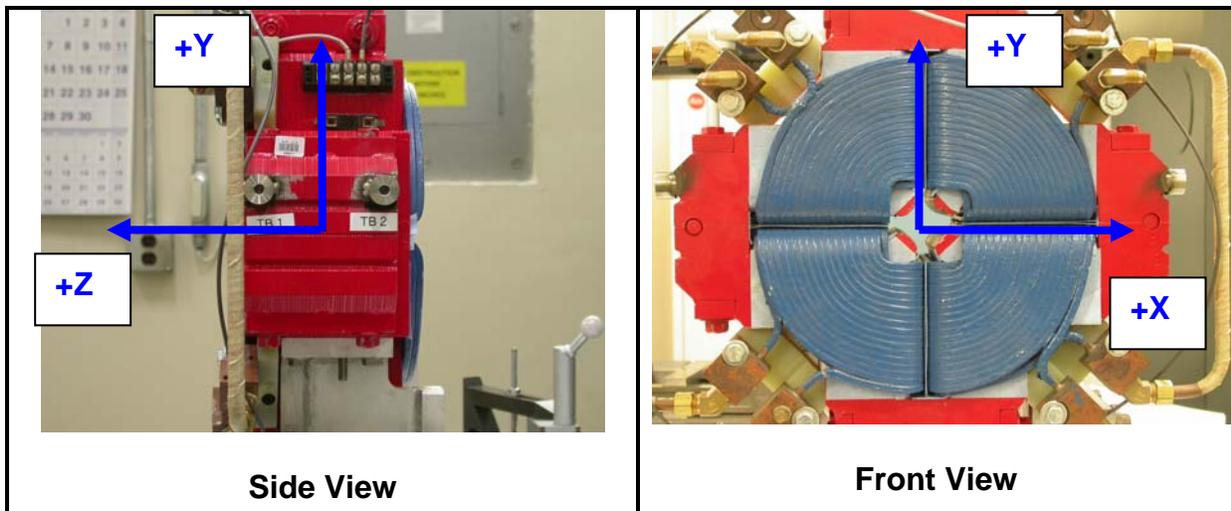


"Z" Zero

- Mid-Plane of the magnet

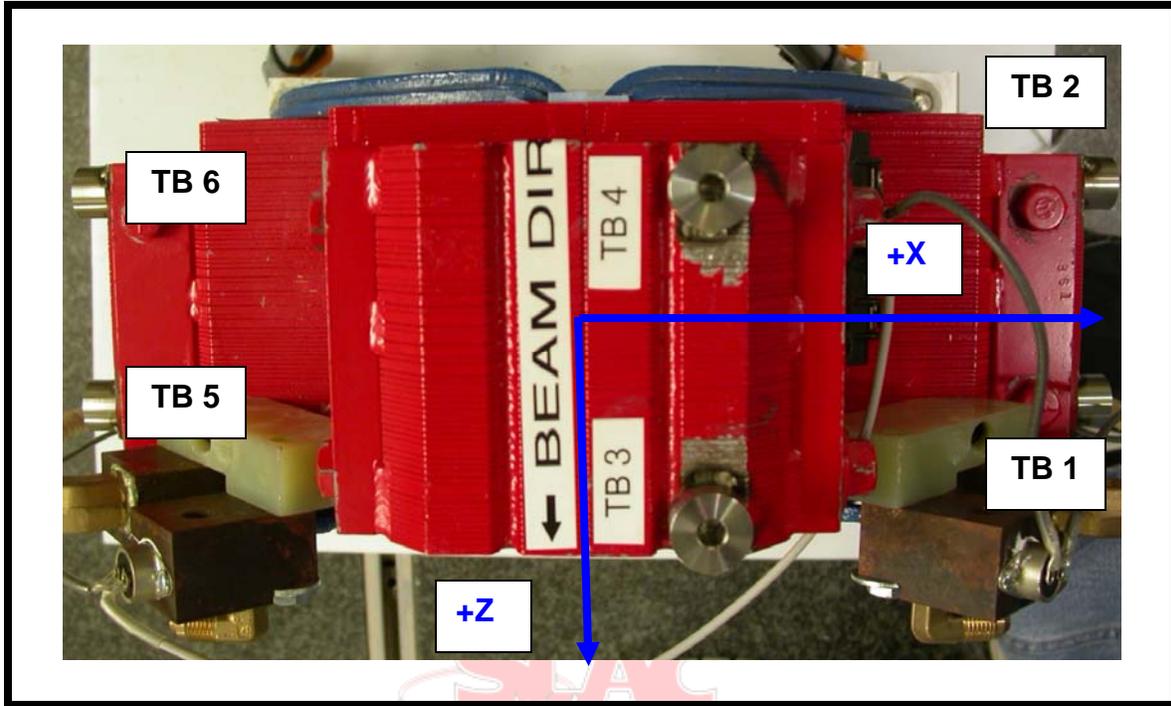
"X" & "Y" Zero

- Geometric Axis of the Poles of the magnet.



Tooling Ball Measurements/Locations

Top of magnet; view from "+Y"



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00127	0.49534	8.21676	1.13766	1.84496
TB 2	0.00137	0.49525	8.24388	1.13813	-1.25992
TB 3	0.00009	0.49976	1.11001	8.24943	1.82847
TB 4	0.00016	0.49987	1.12762	8.25347	-1.25292
TB 5	0.00003	0.49983	-8.29285	1.14297	1.68450
TB 6	0.00055	0.49631	-8.25927	1.16411	-1.38513

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.08425	1.08651	0.00226
B-D	1.08458	1.08660	0.00202

*** Points collected approx. 0.125 from each end

*** Picture to the left is looking down from +Z

