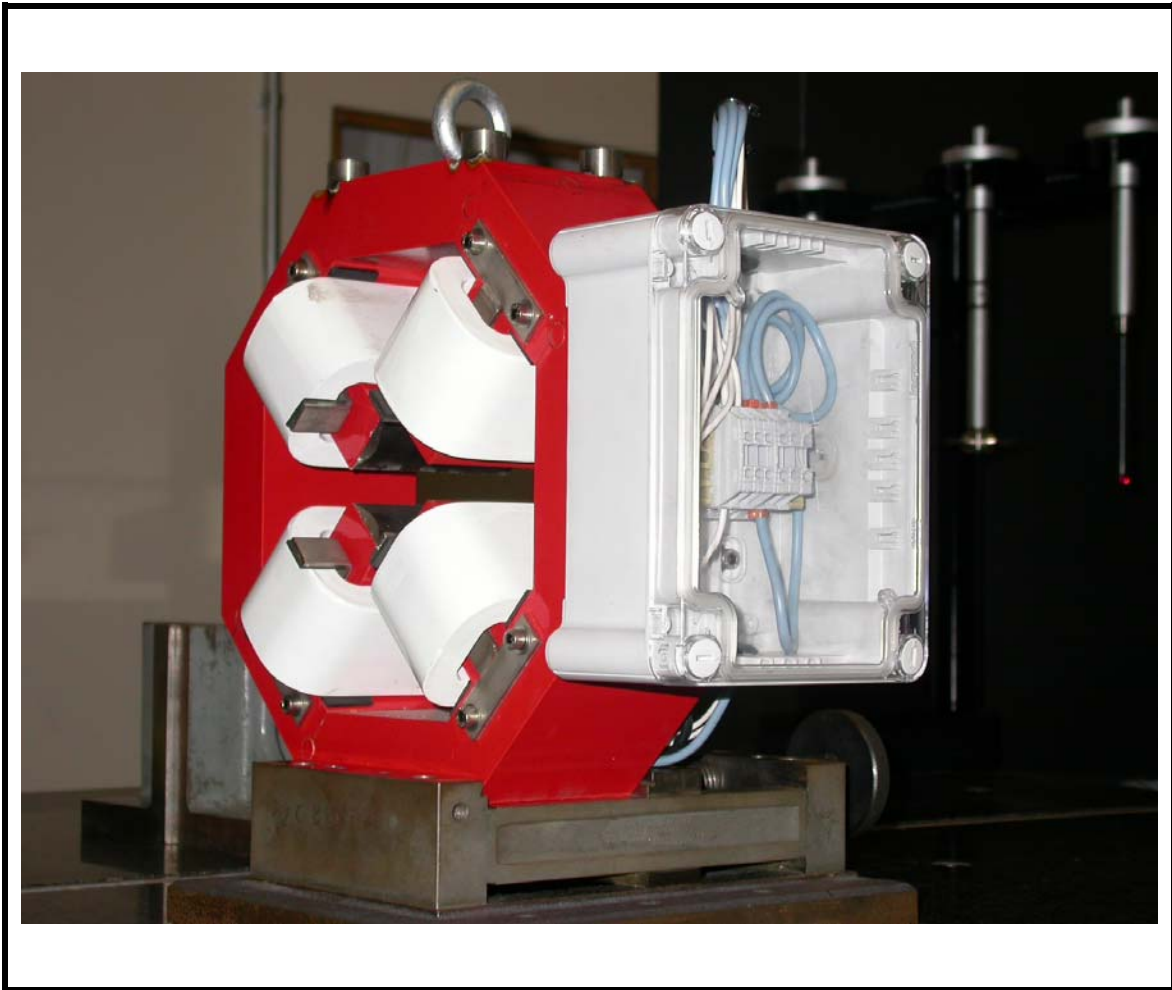


LCLS Tweeter Quadrupole Magnet FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Wednesday, August 09, 2006
Work Order/Charge No.: 92-4261-3
Serial Number: 001028
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS TWEETER QUADS\TWEETER QUAD 3.pdf>

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

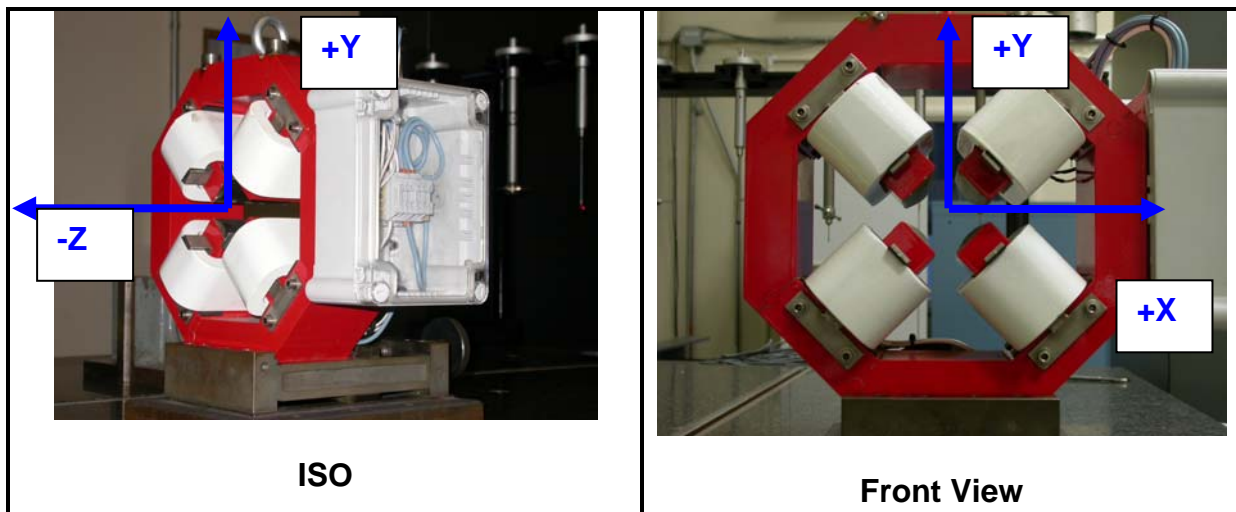
- A plane on the top part of the magnet (red) by the Tooling Ball Sockets.
 - +X is from TB 3 & 4 side to TB 1 & 2 side.

“Z” Zero

- Mid-Plane of the magnet

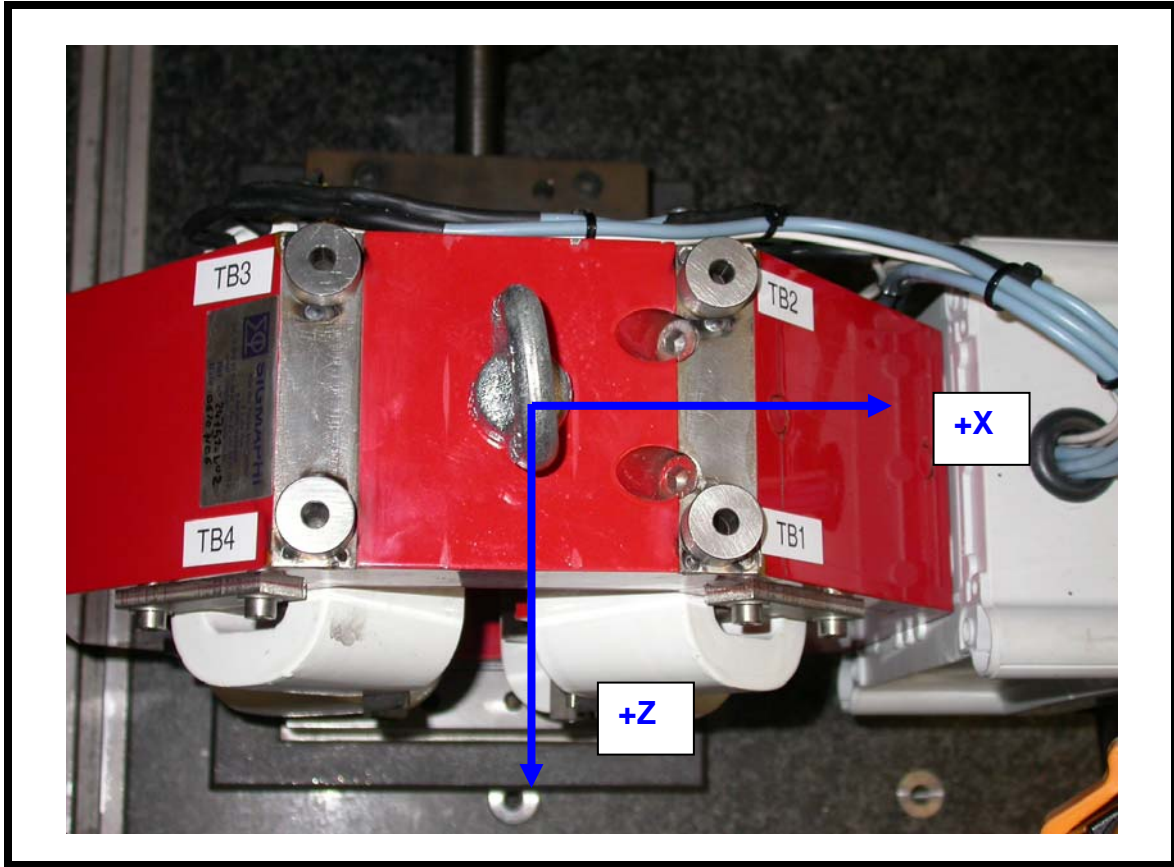
“X” & “Y” Zero

- 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	0.00059	0.49663	1.96530	6.74297	1.25419
TB 2	0.00094	0.49628	1.96462	6.74048	-1.25456
TB 3	0.00026	0.49854	-1.96905	6.73949	-1.25252
TB 4	0.00062	0.49664	-1.97091	6.74026	1.26004

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.69097	1.69067	0.00030
B-D	1.69151	1.69206	0.00055

