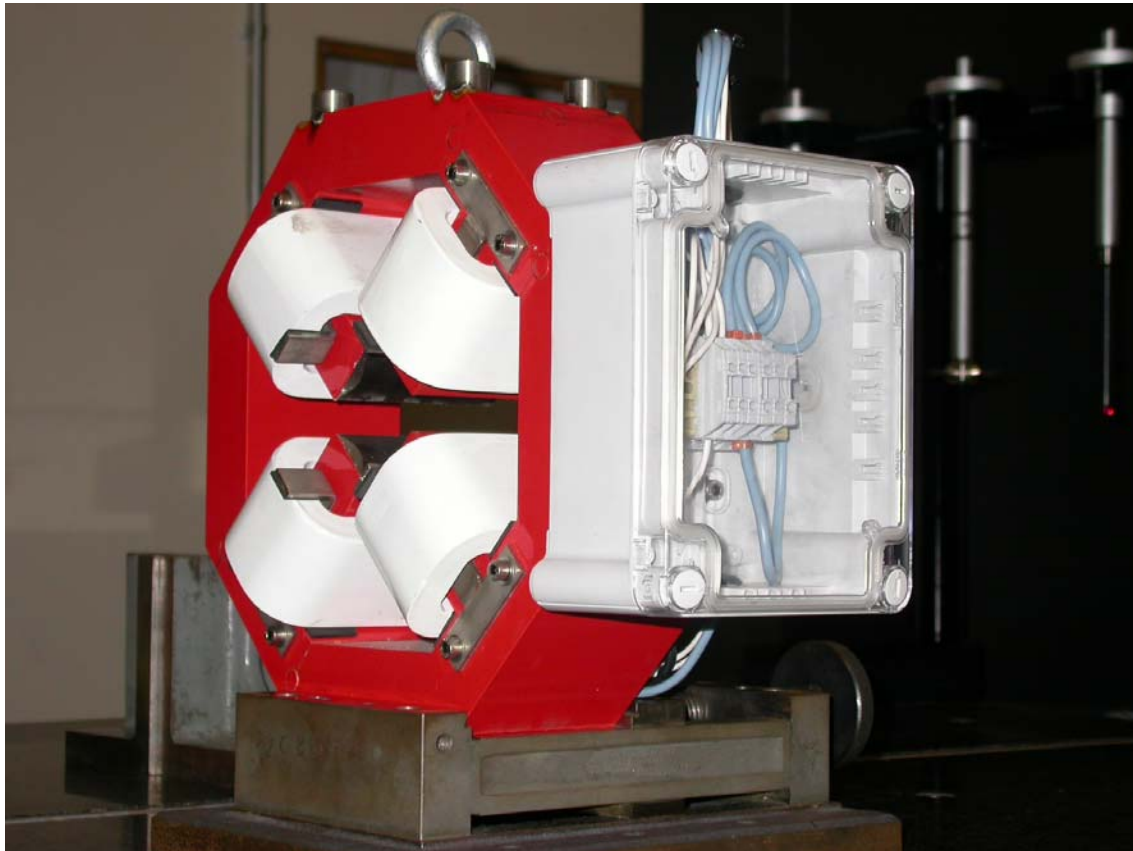


LCLS Tweeter Quadrupole Magnet FIDUCIALIZATION REPORT



Inspector: Keith Caban

Responsible Engineer: Carl Rago

Date: Wednesday, August 09, 2006

Work Order/Charge No.: 92-4261-3

Serial Number: 001027

URL of Fiducial Report: <\\Web002\\www-group\\met\\Quality\\FIDUCIAL REPORTS\\LCLS TWEETER QUADS\\TWEETER QUAD 1.pdf>

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

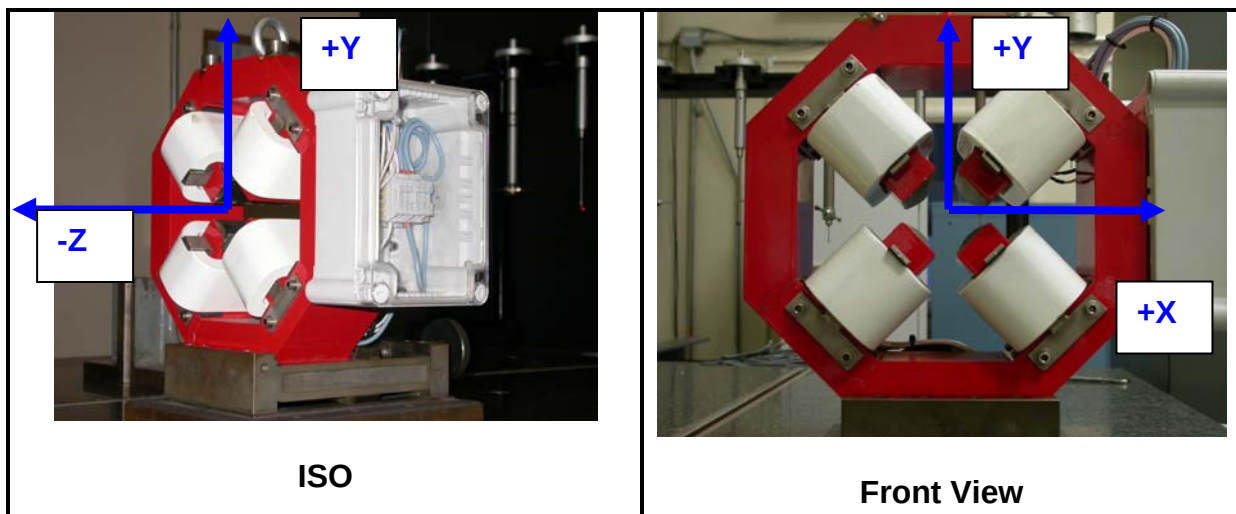
- A plane on the top part of the magnet (red) by the Tooling Ball Sockets.
 - +X is from TB 3 & 4 side to TB 1 & 2 side.

“Z” Zero

- Mid-Plane of the magnet

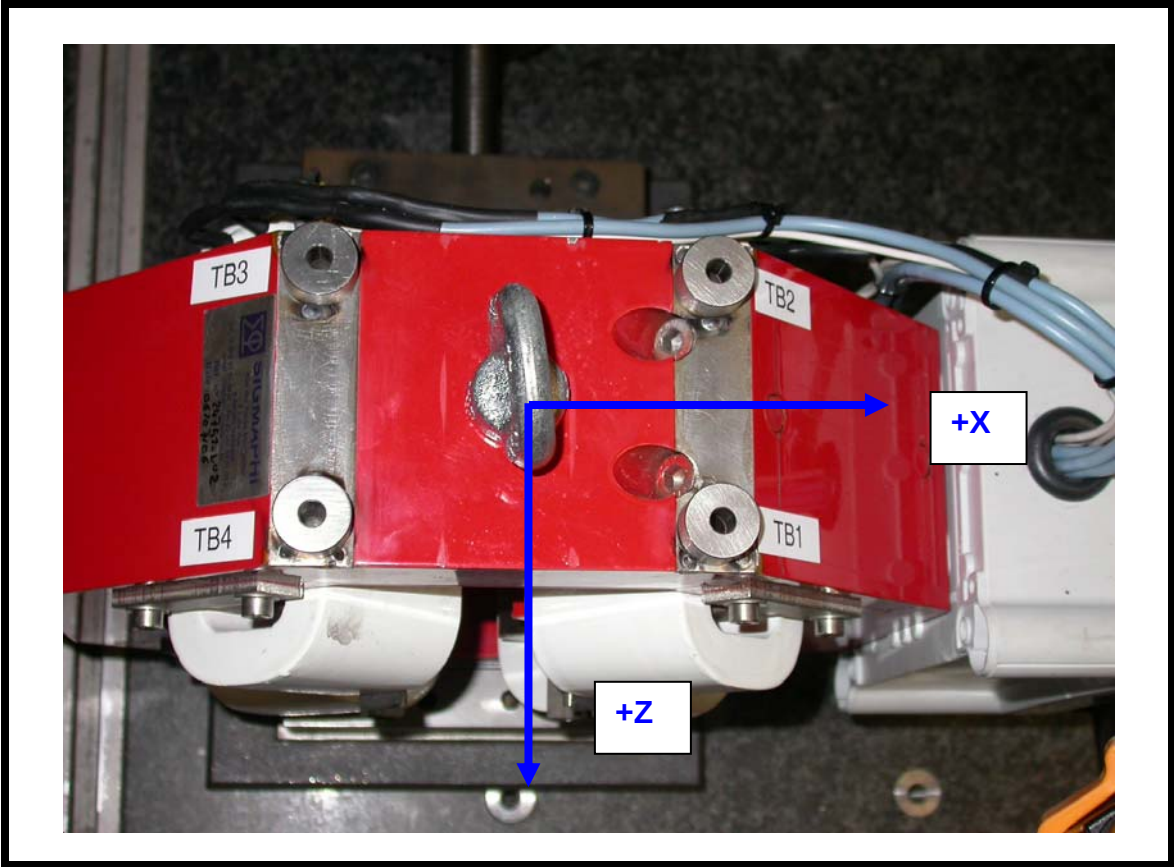
“X” & “Y” Zero

- 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	0.00057	0.49686	1.96840	6.74065	1.25735
TB 2	0.00065	0.49638	1.97196	6.74113	-1.25474
TB 3	0.00057	0.49719	-1.98380	6.74175	-1.23003
TB 4	0.00070	0.49640	-1.96697	6.74069	1.25770

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.69080	1.69202	0.00122
B-D	1.69147	1.69332	0.00185

