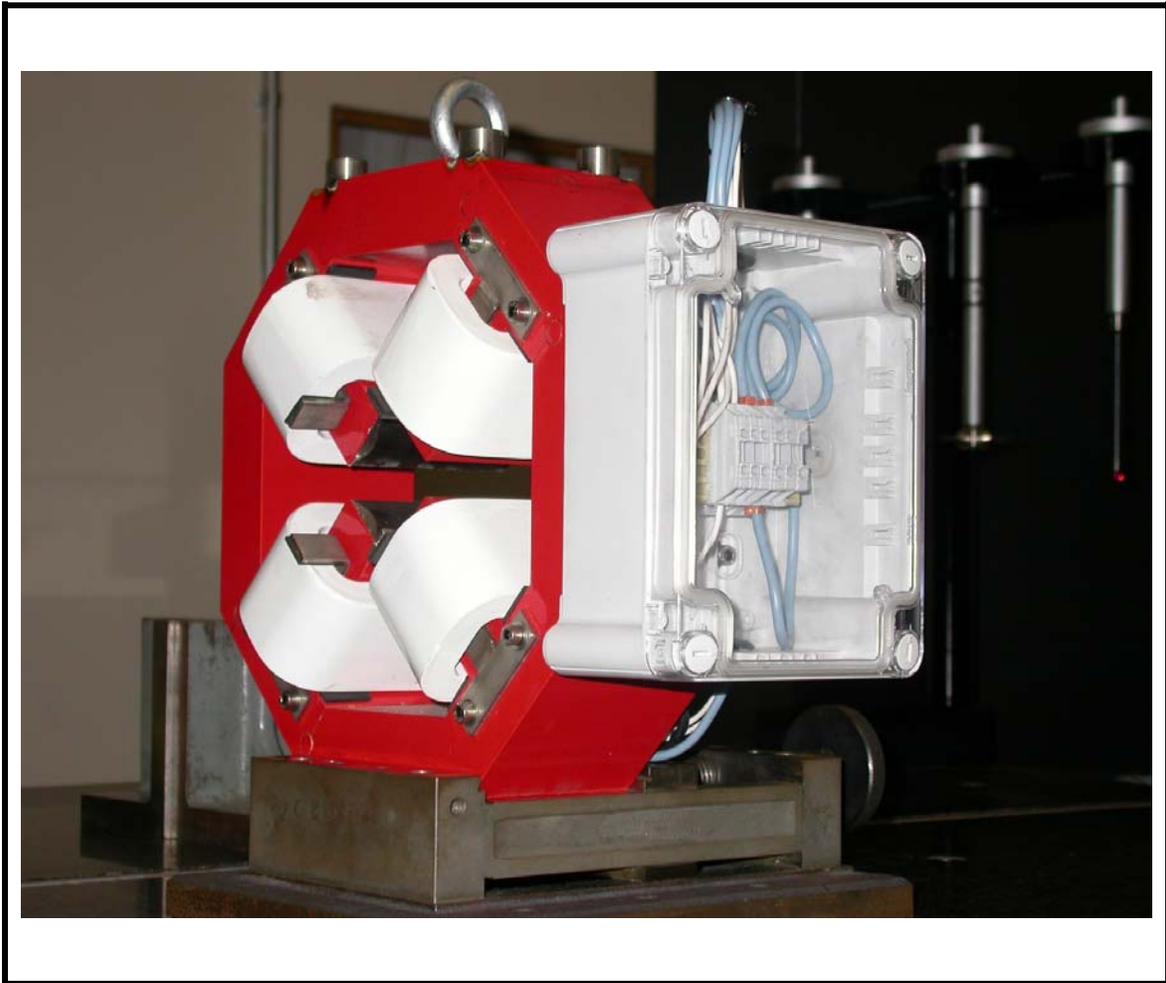


LCLS Tweeter Quadrupole Magnet FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Wednesday, August 09, 2006
Work Order/Charge No.: 92-4261-3
Serial Number: 001026
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS TWEETER QUADS\TWEETER QUAD 2.pdf>

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

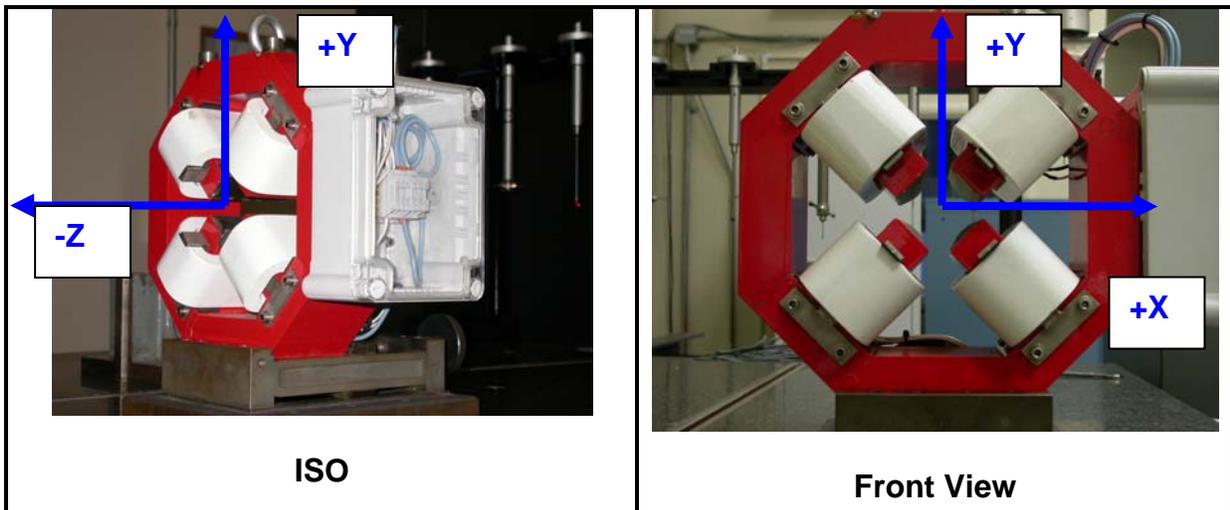
- A plane on the top part of the magnet (red) by the Tooling Ball Sockets.
 - +X is from TB 3 & 4 side to TB 1 & 2 side.

“Z” Zero

- Mid-Plane of the magnet

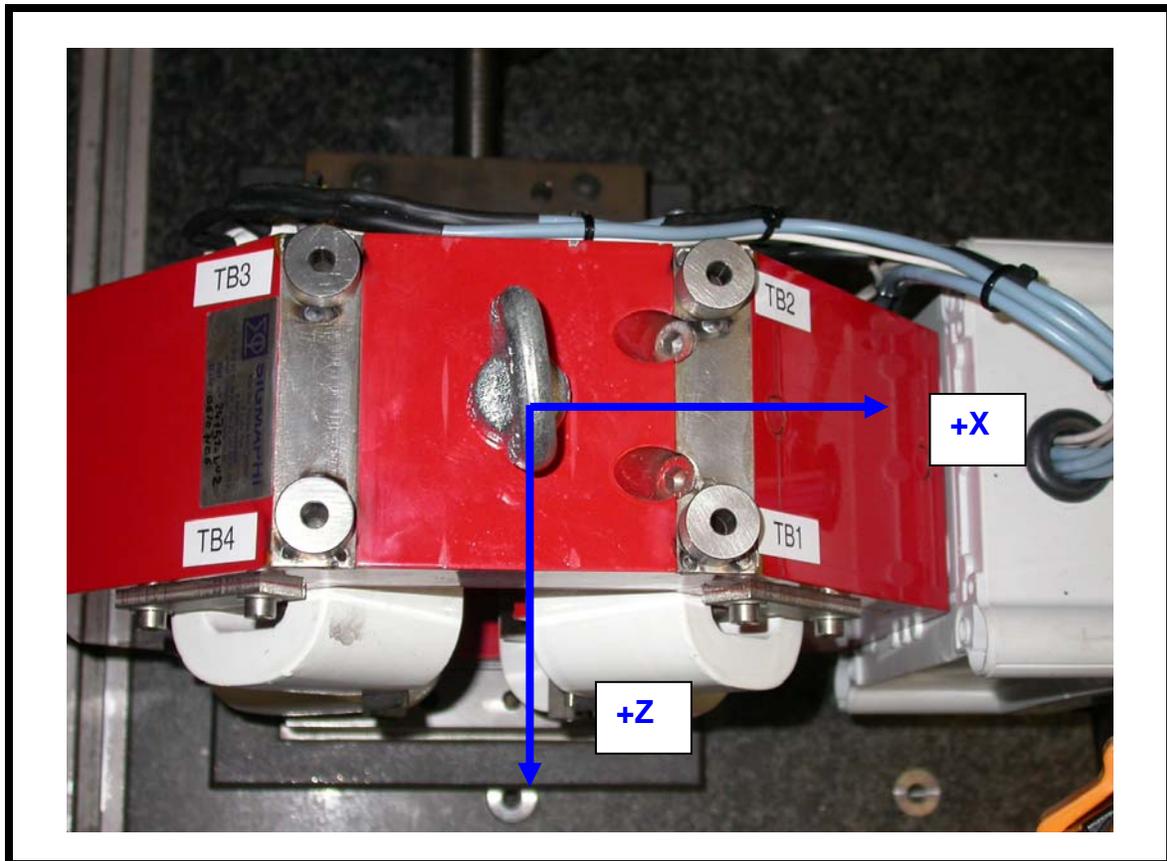
“X” & “Y” Zero

- 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	0.00068	0.49633	1.97206	6.73936	1.25744
TB 2	0.00076	0.49580	1.97336	6.73965	-1.25943
TB 3	0.00072	0.49585	-1.96580	6.74035	-1.25972
TB 4	0.00070	0.49611	-1.96588	6.74152	1.25973

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.69034	1.69091	0.00057
B-D	1.69138	1.69215	0.00077

