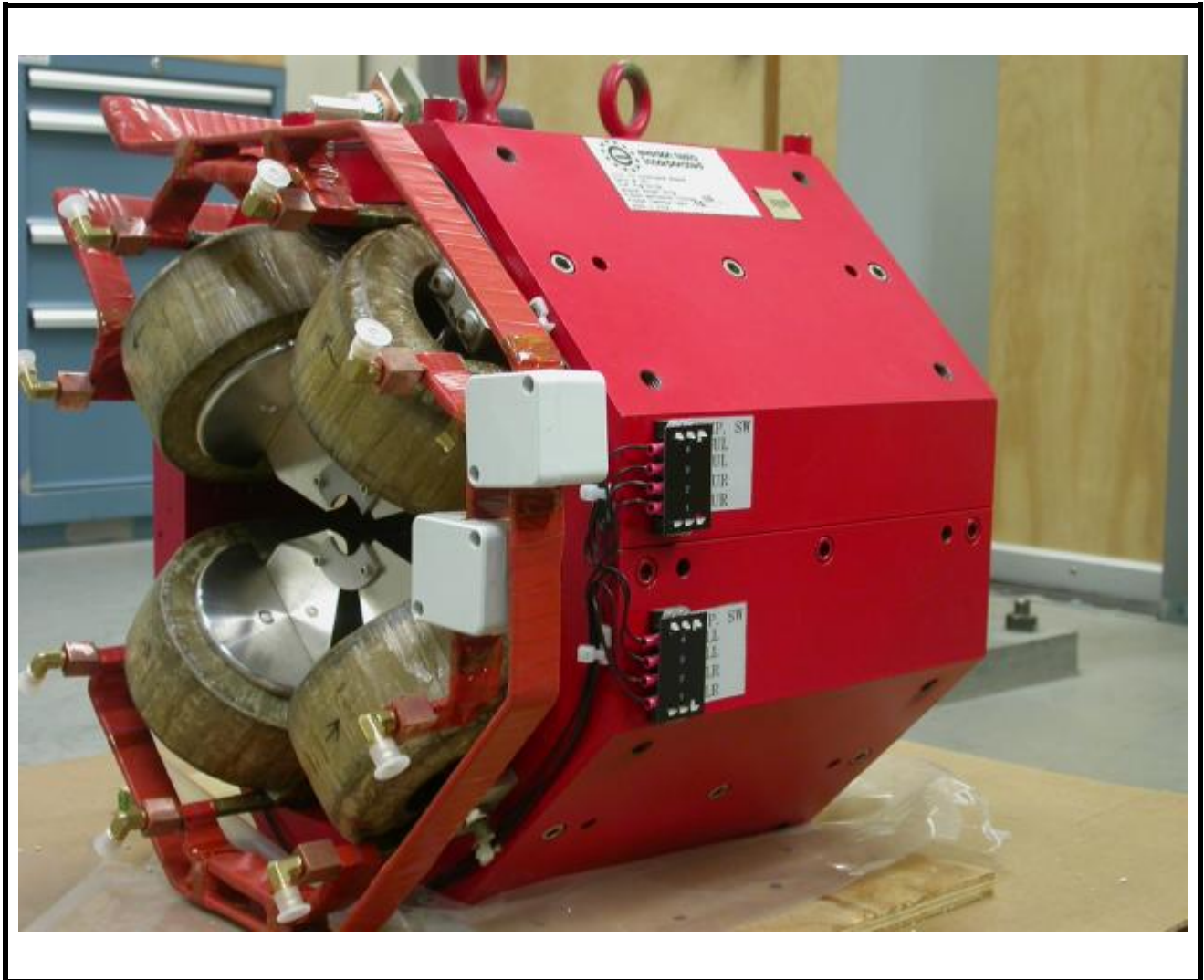


LCLS 'Q150kG' LTU QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Carl Rago
Date:	Wednesday, December 05, 2007
Work Order/Charge No.:	9242609
Serial Number:	SLAC – 002013 / SN 014
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU Q150kG QUADS\002013.pdf

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

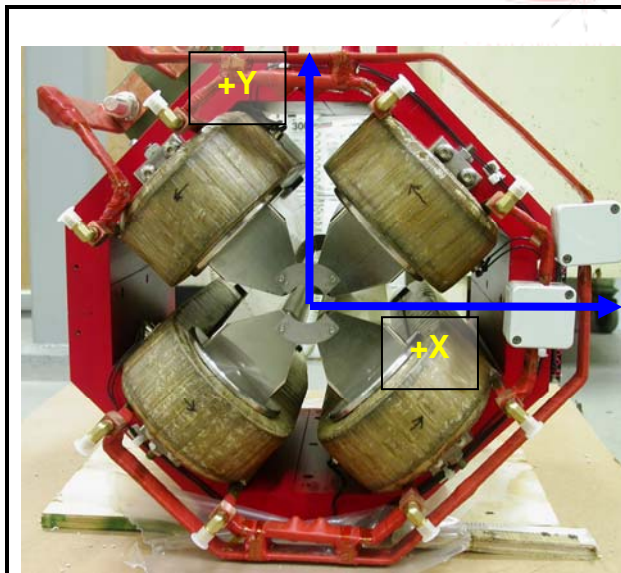
- Plane on top of magnet where tooling ball sockets are welded to.

“Z” Zero

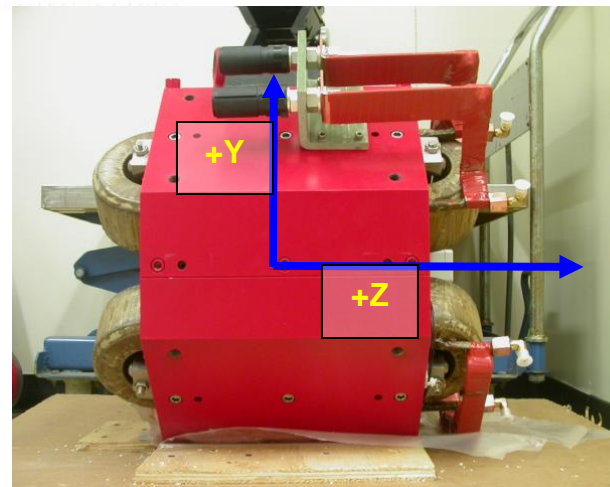
- Mid-plane of the magnet (middle of upstream and downstream ends).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

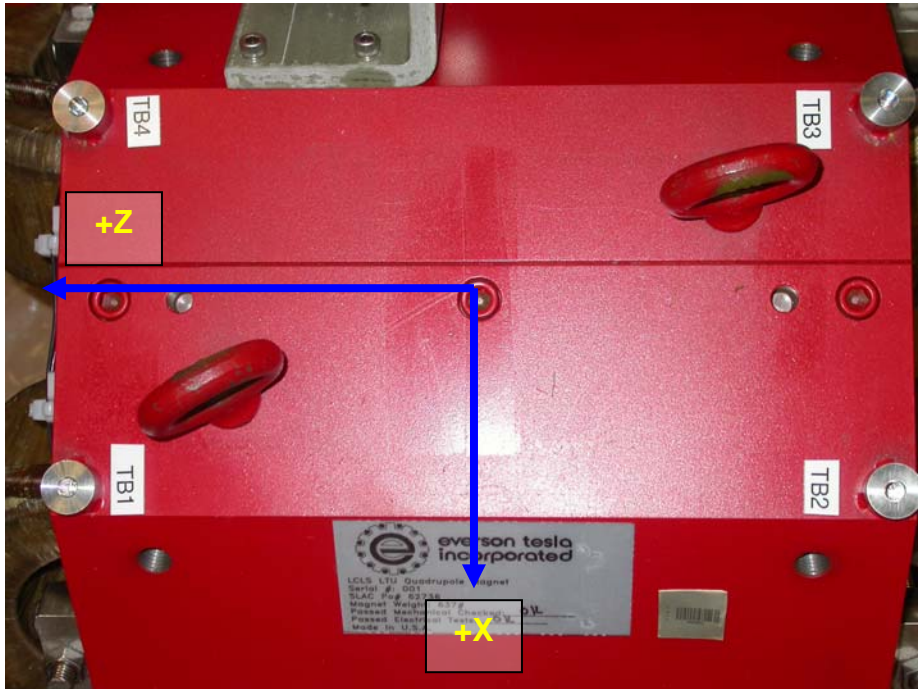


Front View



Side View

Tooling Ball Measurements/Locations

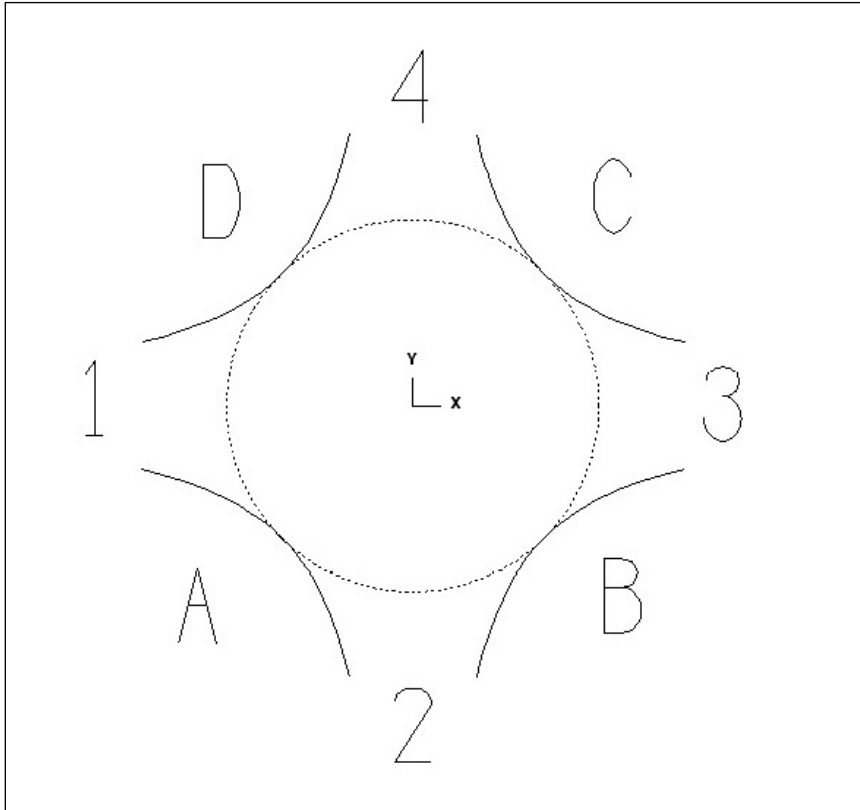


Tooling Ball Adapter Cylinder Projected 1" Offset to the Tooling Ball Adapter Plane

Tooling Ball	Cyl. Dia.	X	Y	Z
Proj. TB 1	0.25005	2.66651	10.21003	5.60837
Proj. TB 2	0.24992	2.66788	10.20399	-5.60948
Proj. TB 3	0.25009	-2.64442	10.20704	-5.61091
Proj. TB 4	0.24999	-2.64199	10.21256	5.60608

Pole Data

*Data looking from Downstream End



Side	Pole Dist A-C	Pole Dist B-D	Gap 1	Gap 2	Gap 3	Gap 4
Downstream End (+Z)	1.26063	1.26113	0.43383	0.43667	0.43336	0.43231
Upstream End (-Z)	1.25891	1.25888	0.43302	0.43345	0.43074	0.43088