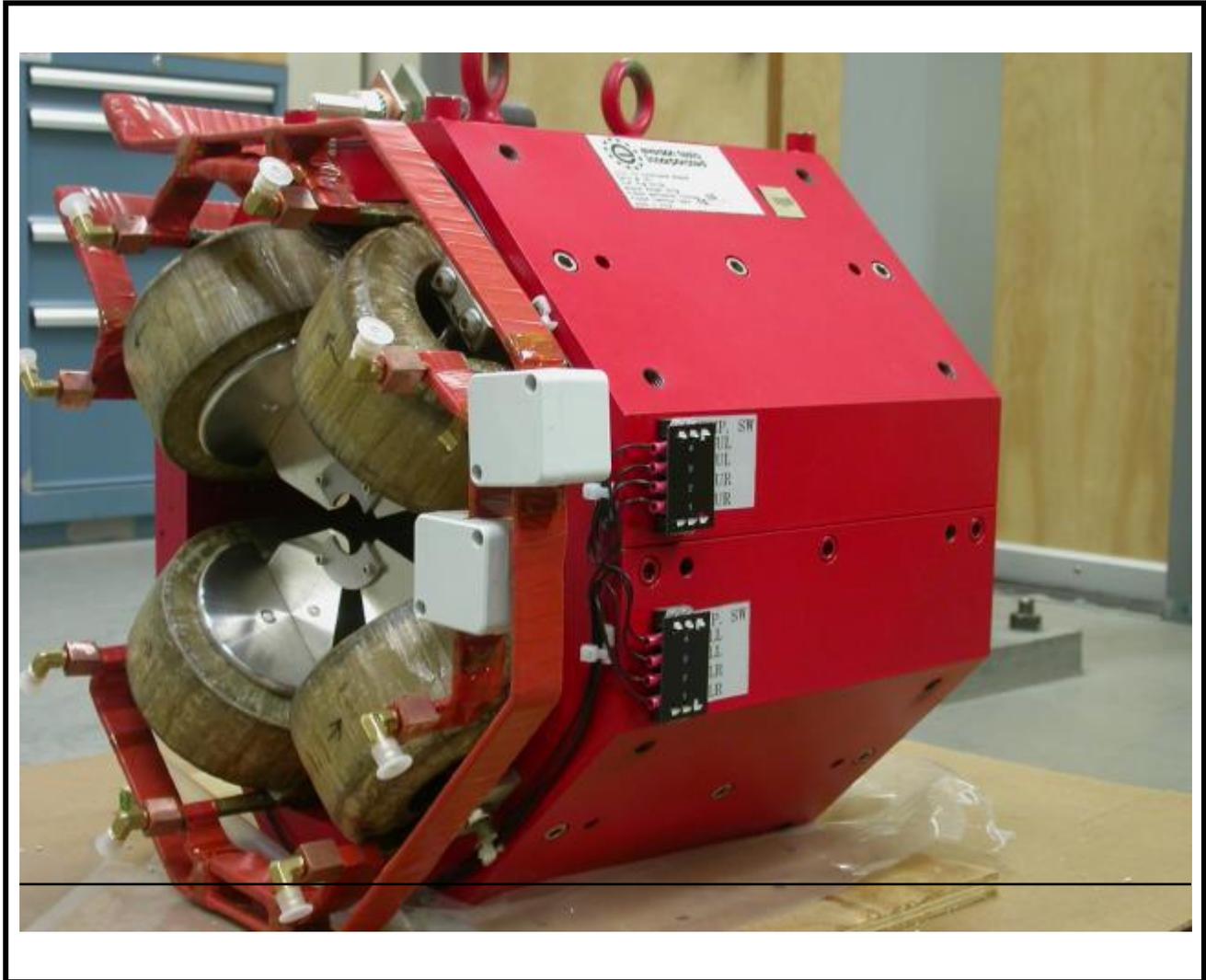


LCLS 'Q150kG' LTU QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Carl Rago
Date:	Wednesday, December 05, 2007
Work Order/Charge No.:	9242609
Serial Number:	SLAC – 000366 / SN 009
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU Q150kG QUADS\000366.pdf

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

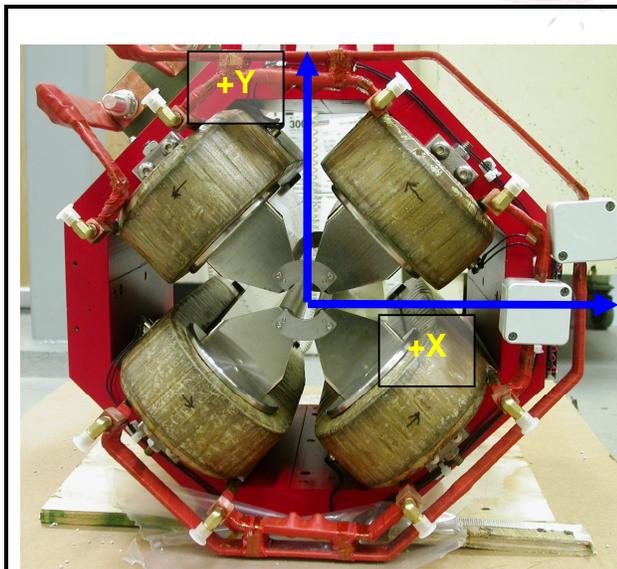
- Plane on top of magnet where tooling ball sockets are welded to.

“Z” Zero

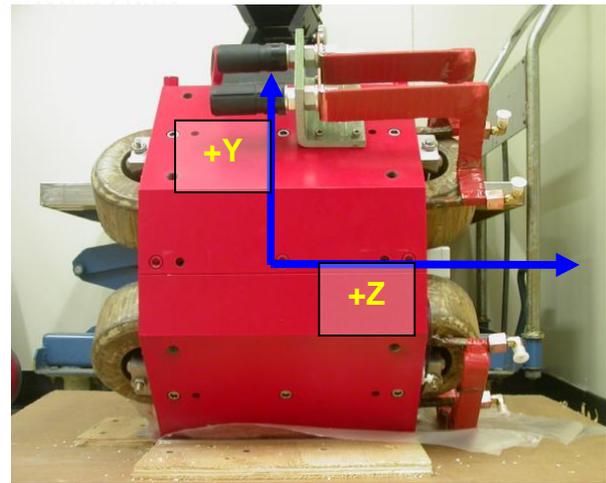
- Mid-plane of the magnet (middle of upstream and downstream ends).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

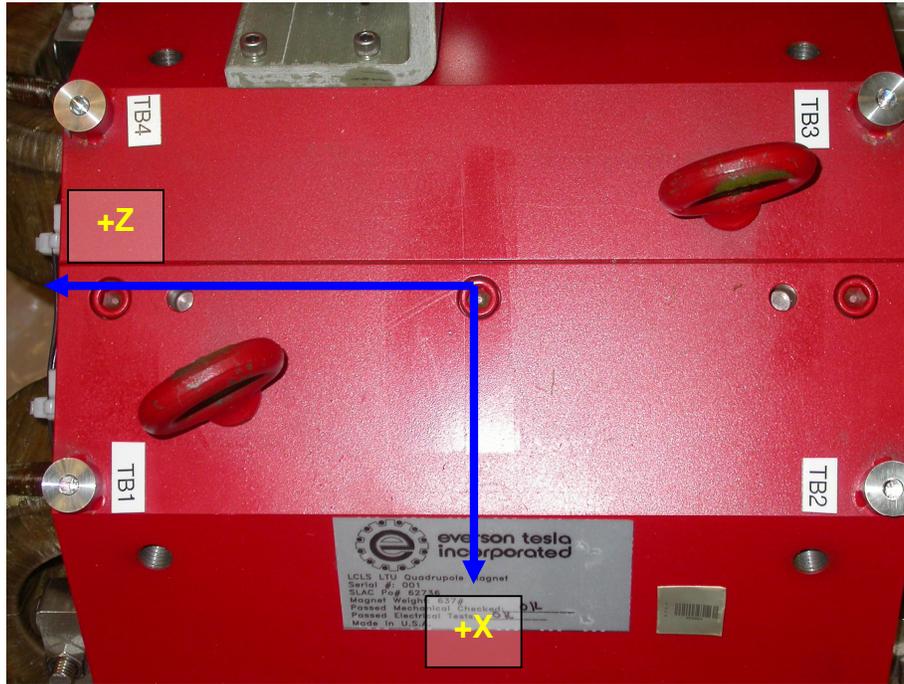


Front View



Side View

Tooling Ball Measurements/Locations

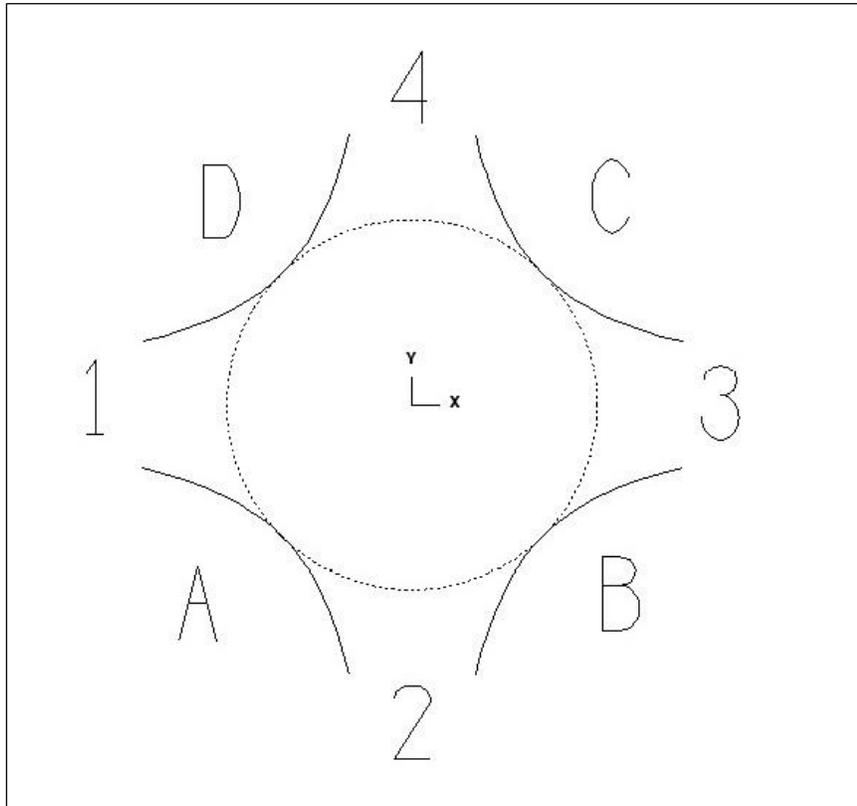


Tooling Ball Adapter Cylinder Projected 1" Offset to the Tooling Ball Adapter Plane

Tooling Ball	Cyl. Dia.	X	Y	Z
Proj. TB 1	0.24999	2.65296	10.21565	5.61107
Proj. TB 2	0.25000	2.65447	10.21373	-5.60579
Proj. TB 3	0.25010	-2.65278	10.21438	-5.60754
Proj. TB 4	0.25001	-2.66054	10.21511	5.60678

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)	1.25931	1.26018	0.43250	0.43558	0.43349	0.43289
Upstream End (-Z)	1.26098	1.25998	0.43390	0.43351	0.43338	0.43525