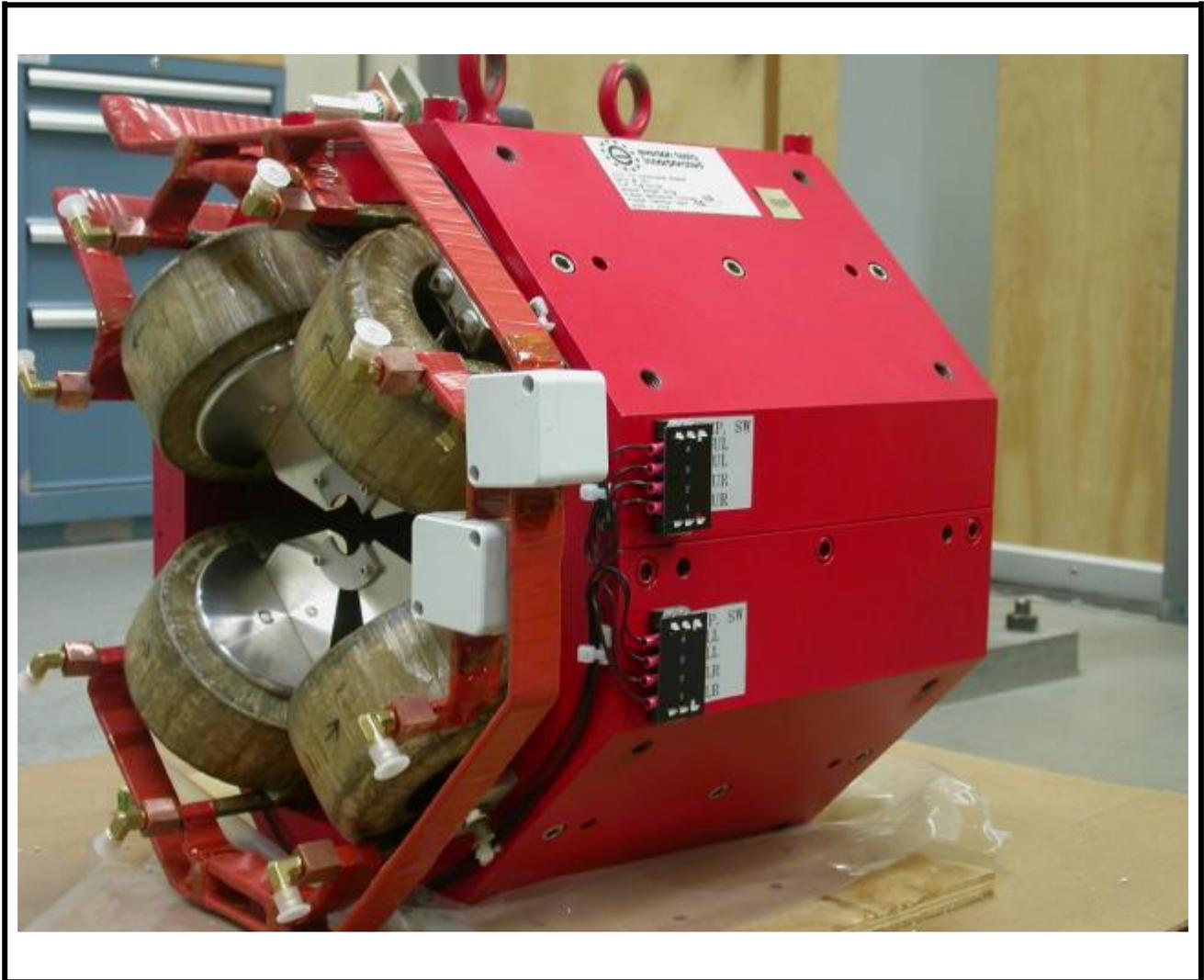


LCLS 'Q150kG' LTU QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Thursday, January 17, 2008
Work Order/Charge No.: 9242609
Serial Number: SLAC – 000367-010
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU Q150kG QUADS\000367.pdf>

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

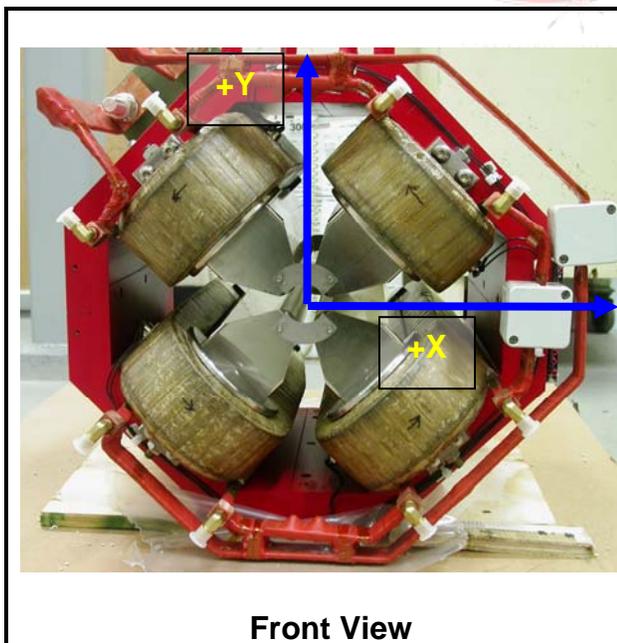
- Plane on top of magnet where tooling ball sockets are welded to.

“Z” Zero

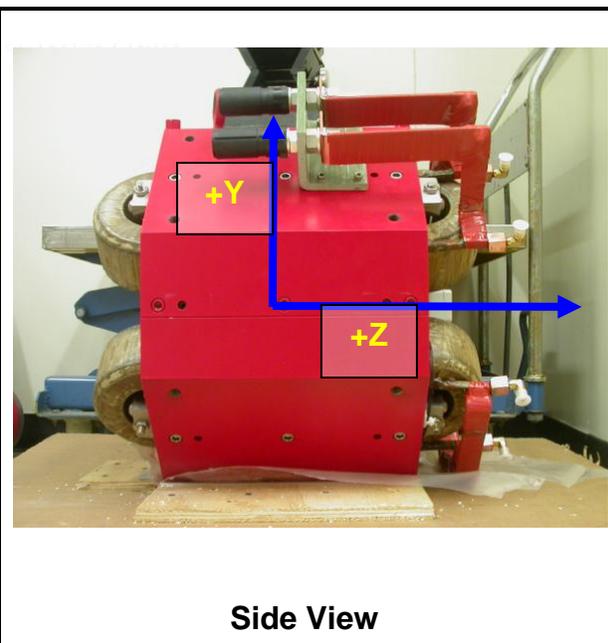
- Mid-plane of the magnet (middle of upstream and downstream ends).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

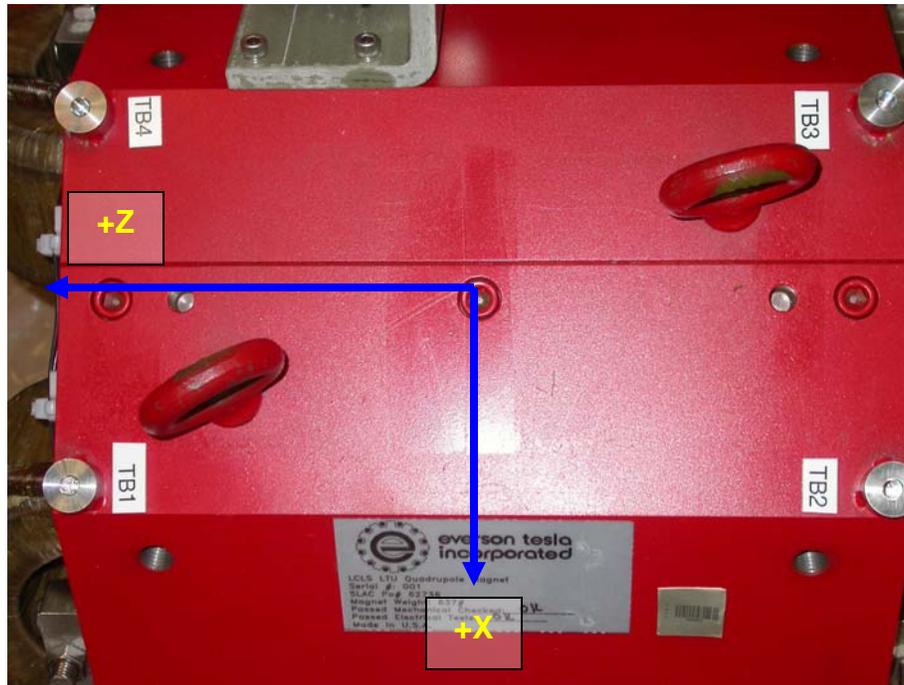


Front View



Side View

Tooling Ball Measurements/Locations

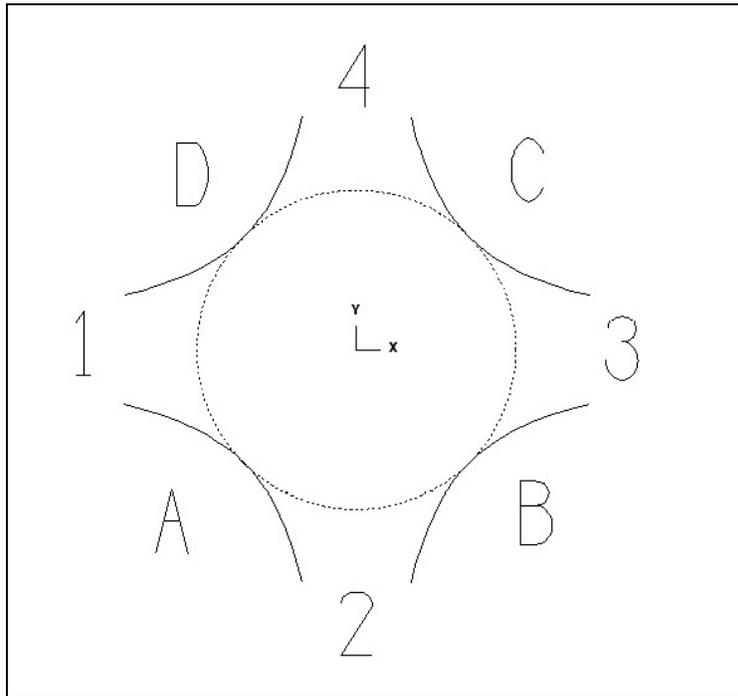


Tooling Ball Adapter Cylinder Projected 1" Offset to the Tooling Ball Adapter Plane

Tooling Ball	Form	Cyl. Dia.	X	Y	Z	⊥
Proj. TB 1	0.00019	0.25011	2.62352	10.20889	5.60625	0.00010
Proj. TB 2	0.00019	0.24990	2.63690	10.20569	-5.59686	0.00015
Proj. TB 3	0.00011	0.24995	-2.67945	10.20133	-5.60844	0.00018
Proj. TB 4	0.00078	0.24984	-2.67361	10.20447	5.60311	0.00038

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)	1.25997	1.25977	0.43422	0.43477	0.42998	0.44133
Upstream End (-Z)	1.25967	1.26010	0.43298	0.43417	0.42880	0.44020