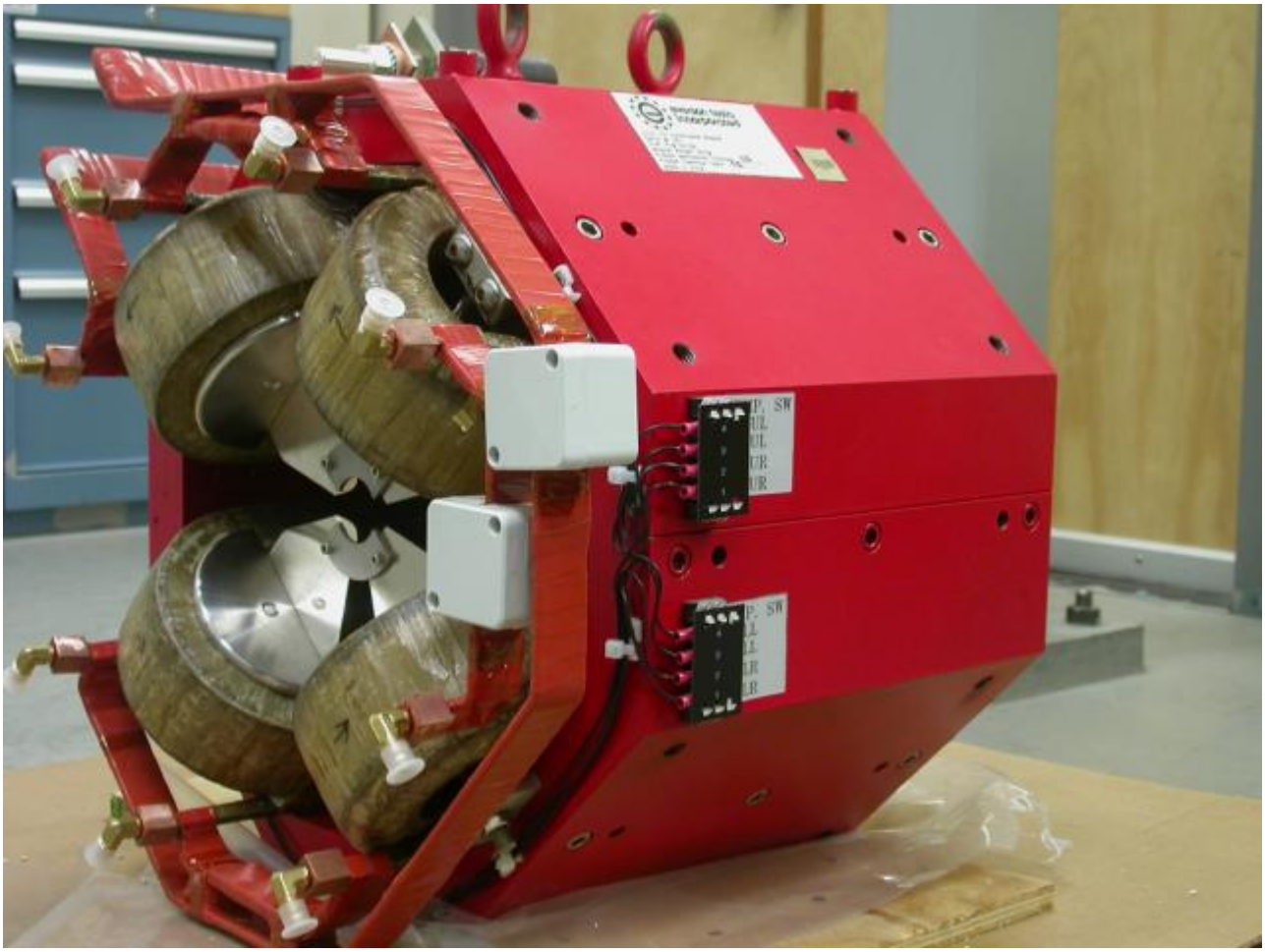
Linac Coherent Light Source
Stanford Linear Accelerator Center
Stanford Synchrotron Radiation Laboratory

LCLS 'Q150kG' LTU QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Carl Rago
Date:	Tuesday, January 15, 2008
Work Order/Charge No.:	9242609
Serial Number:	SLAC – 002099 / SN 011
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU Q150kG QUADS\002099.pdf

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

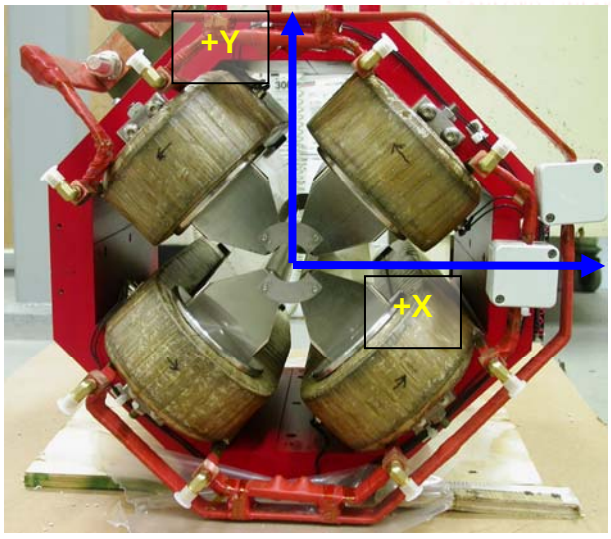
- Plane on top of magnet where tooling ball sockets are welded to.

“Z” Zero

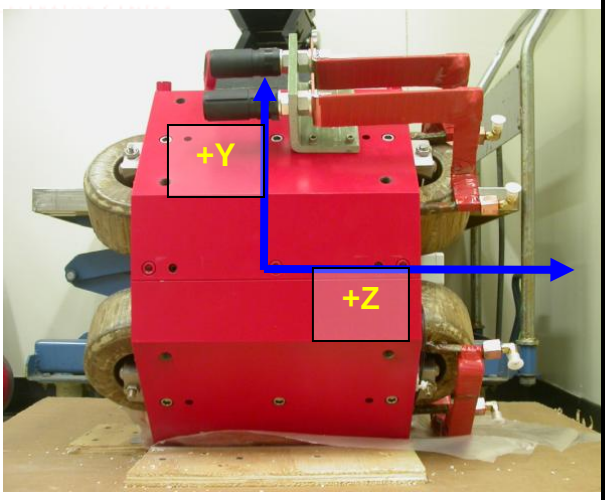
- Mid-plane of the magnet (middle of upstream and downstream ends).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

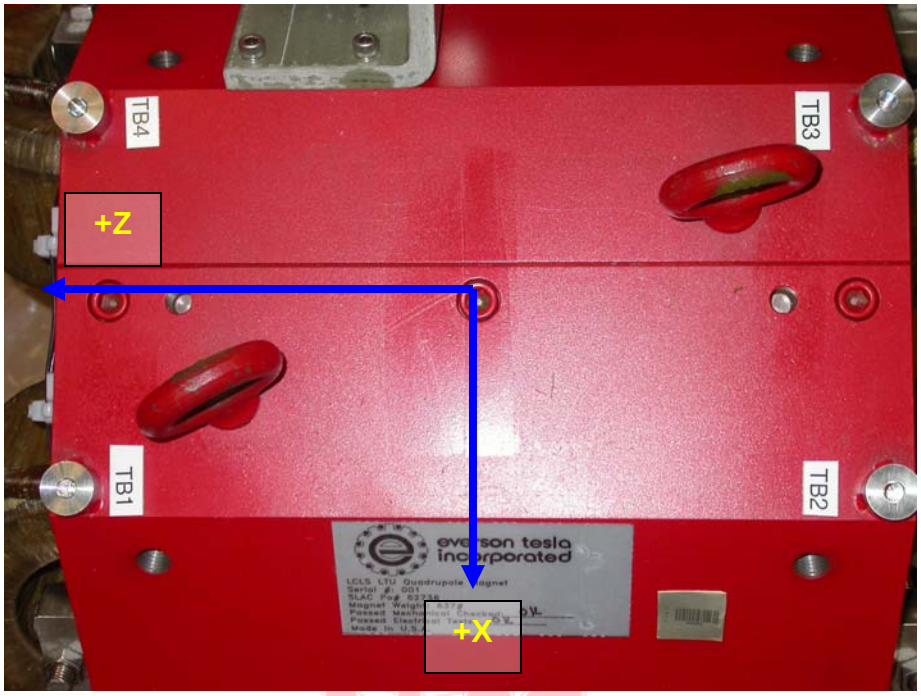


Front View



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	0.00011	0.25007	2.66195	10.19988	5.60651	0.00064
Proj. TB 2	0.00013	0.24998	2.67786	10.19699	-5.58986	0.00008
Proj. TB 3	0.00016	0.25005	-2.62726	10.20078	-5.60394	0.00012
Proj. TB 4	0.00013	0.24995	-2.63036	10.20295	5.60405	0.00013

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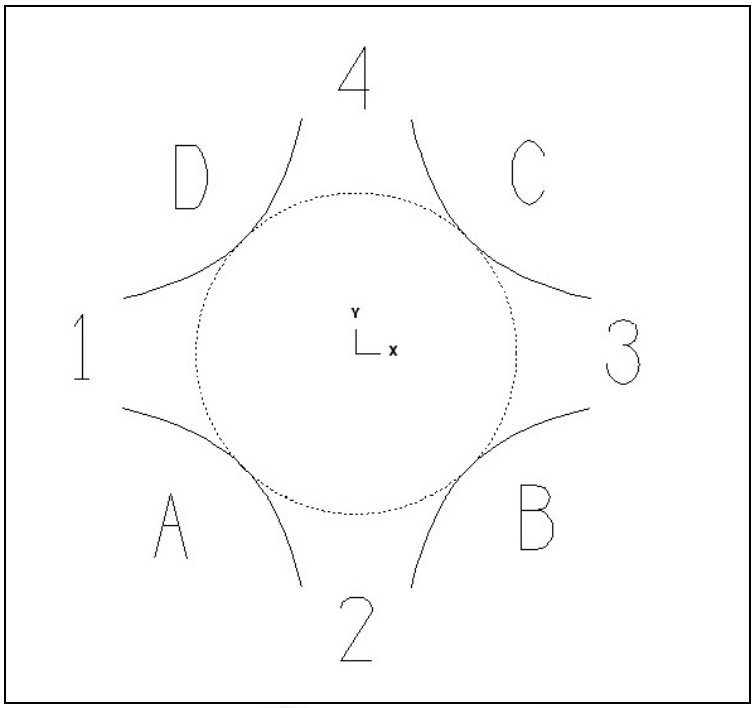
Pole Data
*Data looking from Downstream End



Side	Pole Dist A-C	Pole Dist B-D	Gap 1	Gap 2	Gap 3	Gap 4
Downstream End (+Z)	1.26443	1.26004	0.43439	0.43871	0.43480	0.43650
Upstream End (-Z)	1.26201	1.25828	0.43121	0.43812	0.43082	0.43240