

LCLS Laser Heater Chicane Dipole Magnet FIDUCIALIZATION REPORT

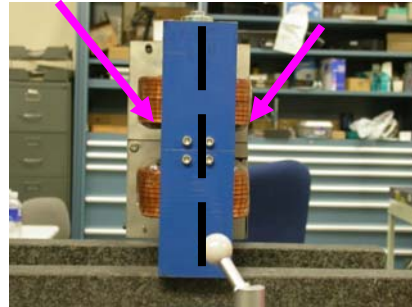


Inspector: Keith Caban
Responsible Engineer: C. Rago
Date: Monday, December 17, 2007
Work Order/Charge No.: 96-8337-5
Serial Number: LCLS - 002007 MAG SN – 42611-3
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS Laser Heater Dipole Magnets\002007.pdf>

Part Set-up – Coordinate System Set-up

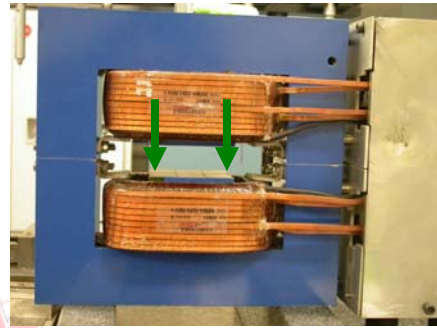
Planar Alignment

- Mid-Plane of the magnet



Spatial Alignment

- Plane along the bottom 2 planes.

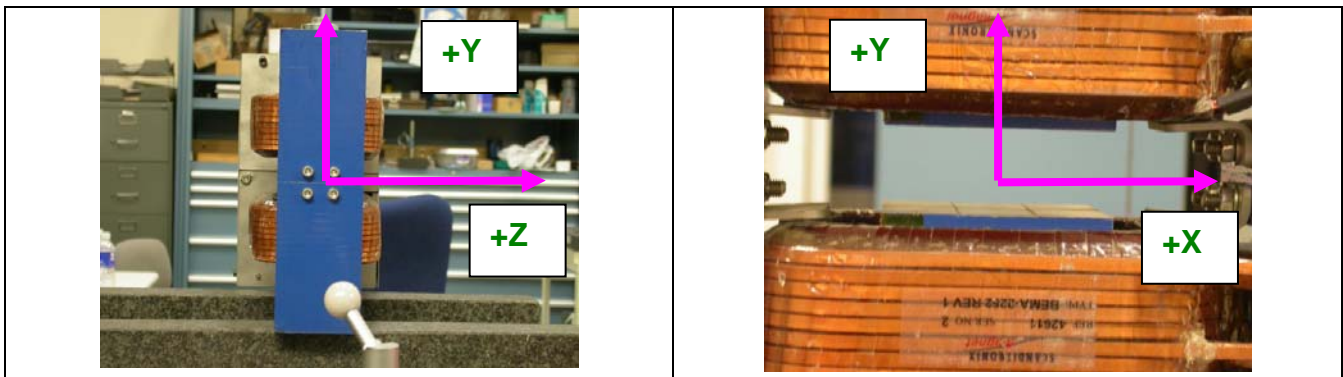


“Z” Zero

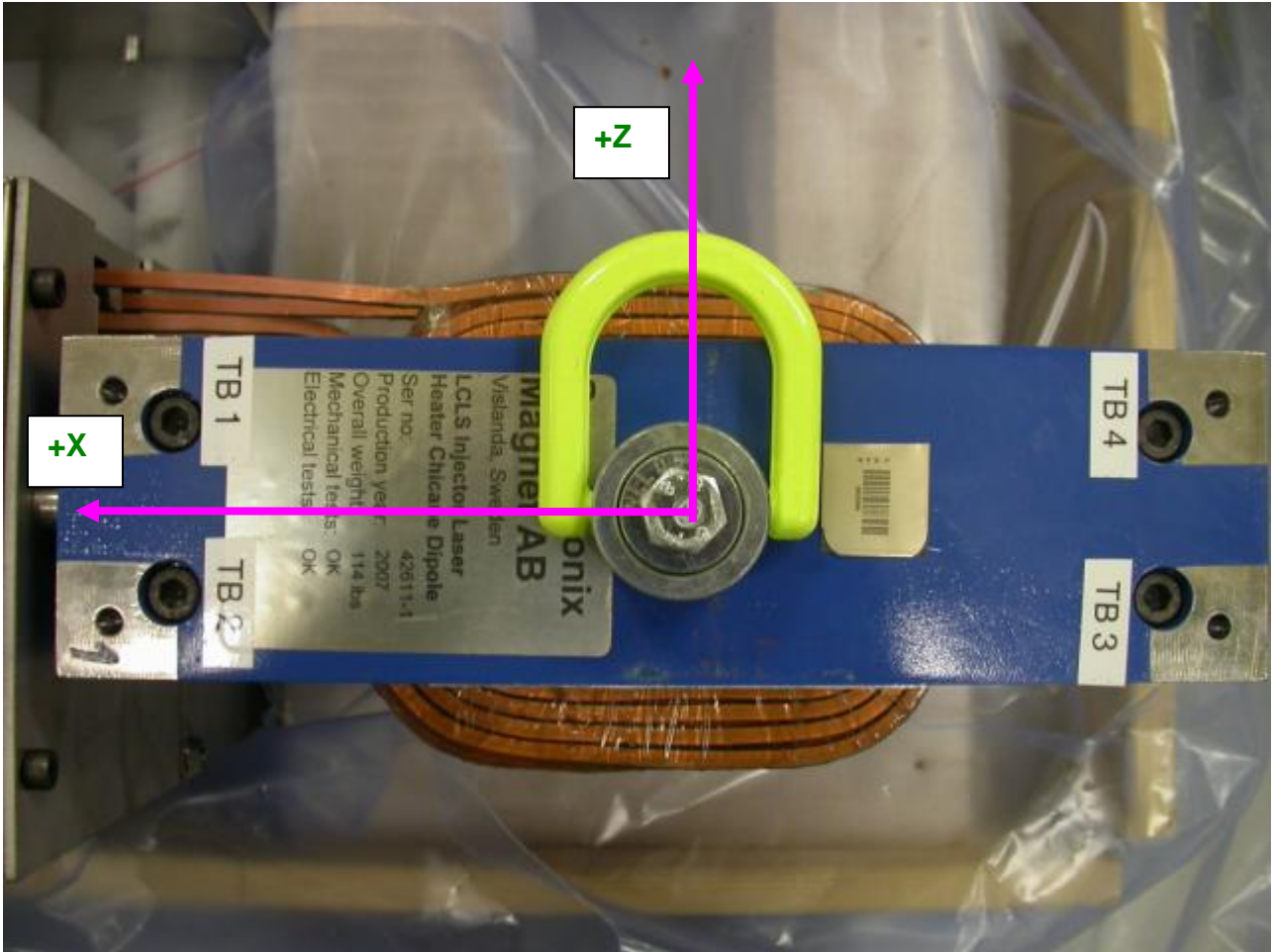
- Mid-Plane of the magnet. (see dashed planar alignment above)

“X” & “Y” Zero

- X zero is created by the symmetry point of the inner stainless steel where coils lie.
 - Both ends of both sides, lower pole only.
 - Create lines which is y axis.
 - This Creates X- zero
- Symmetry of pole planes
 - This creates Y- zero



Tooling Ball Measurements/Locations



Projected cylinder into 1" offset plane

Tooling Ball	FORM	DIAMETER	X	Y	Z	⊥
TB 1	0.00112	0.25096	5.19874	6.50891	1.06876	0.00104
TB 2	0.00227	0.25167	5.19683	6.51057	-1.05565	0.00124
TB 3	0.00115	0.25025	-5.19707	6.50983	-1.05843	0.00050
TB 4	0.00105	0.25016	-5.19559	6.50803	1.06631	0.00072

Pole Gaps

GAP	GAP DIST	STEP	STEP DIST	LG GAP	LG DIST
14P	1.18064	P1	0.00843	P	1.19652
23P	1.18102	P2	0.00723	N	1.19696
14N	1.18076	N1	0.00867		
23P	1.18100	N2	0.00743		