

LCLS Laser Heater Chicane Dipole Magnet FIDUCIALIZATION REPORT

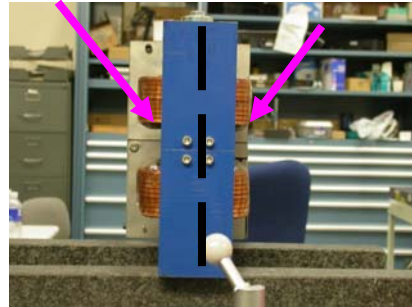


Inspector: Keith Caban
Responsible Engineer: C. Rago
Date: Tuesday, December 18, 2007
Work Order/Charge No.: 96-8337-5
Serial Number: LCLS - 002010 MAG SN – 42611-4
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS Laser Heater Dipole Magnets\002010.pdf>

Part Set-up – Coordinate System Set-up

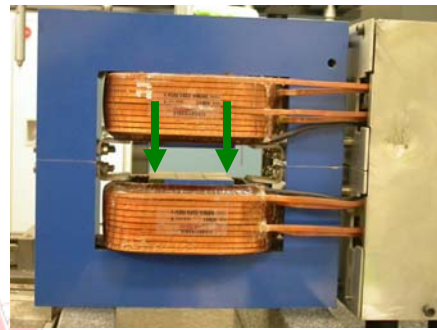
Planar Alignment

- Mid-Plane of the magnet



Spatial Alignment

- Plane along the bottom 2 planes.

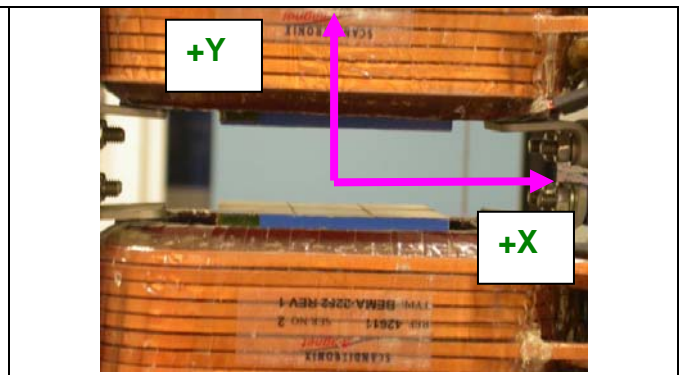
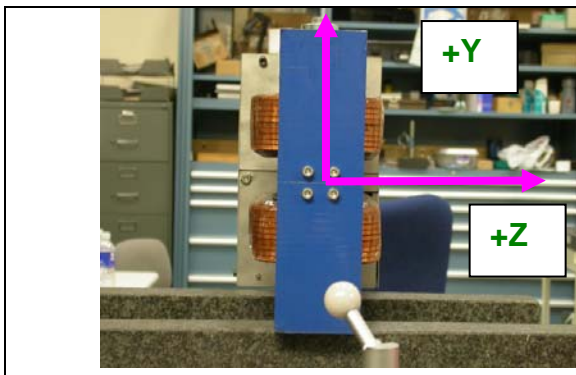


“Z” Zero

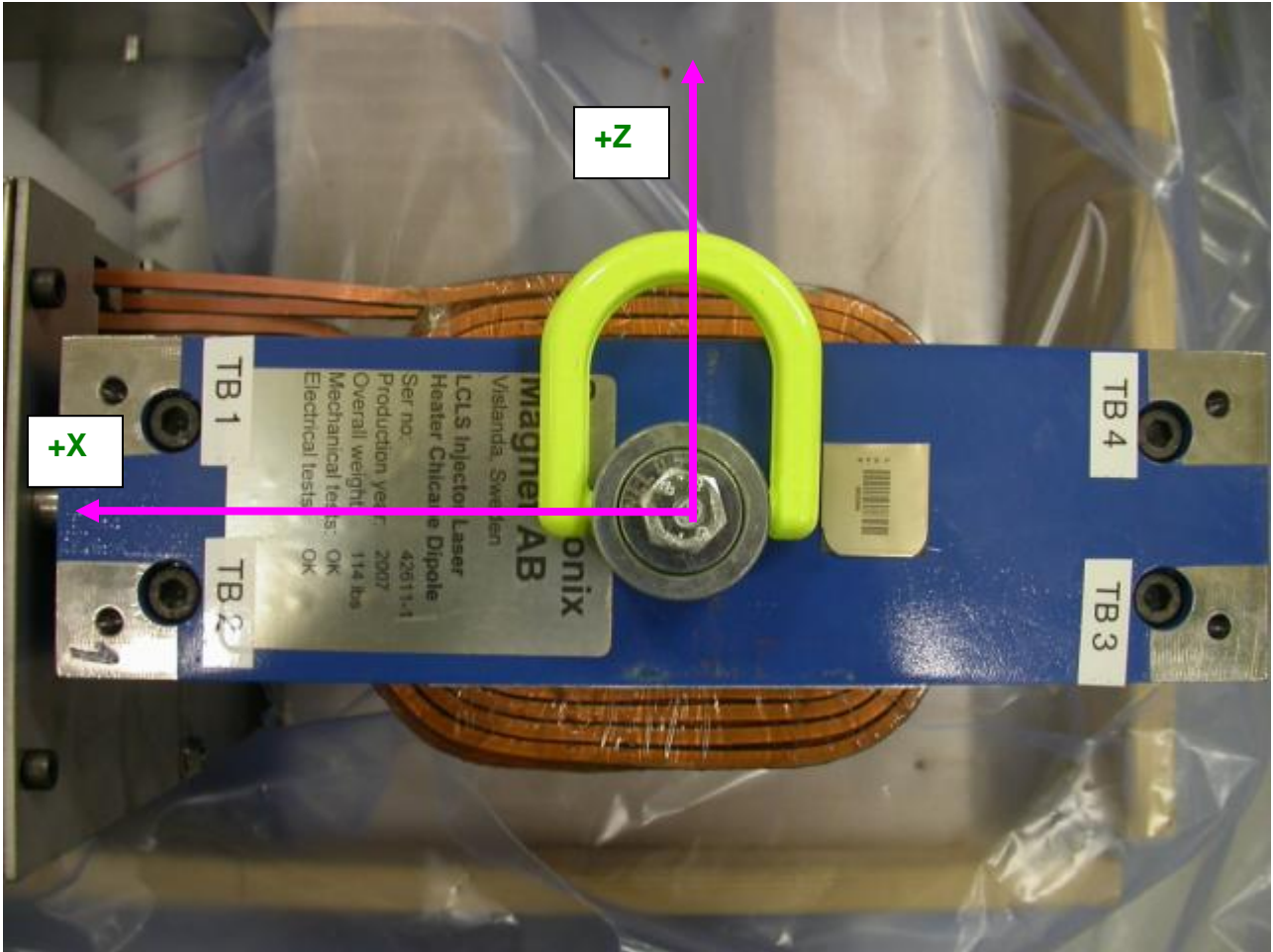
- Mid-Plane of the magnet. (see dashed planar alignment above)

“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	0.00087	0.25022	5.19466	6.50845	1.06585	0.00108
TB 2	0.00093	0.25076	5.19361	6.50942	-1.05899	0.00148
TB 3	0.00082	0.25058	-5.19853	6.50877	-1.06150	0.00081
TB 4	0.00208	0.25190	-5.20092	6.50778	1.06280	0.00228

Pole Gaps

GAP	GAP DIST	STEP	STEP DIST	LG GAP	LG DIST
14P	1.18120	P1	0.00939	P	1.19762
23P	1.18138	P2	0.00699	N	1.19762
14N	1.18112	N1	0.00918		
23P	1.18126	N2	0.00720		