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

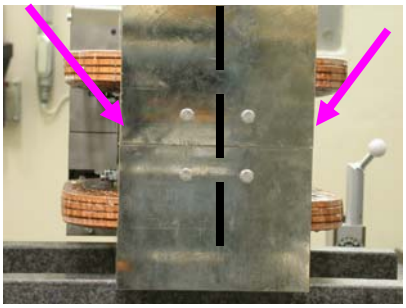
LCLS BC 1 Magnet (Modified Poles)
FIDUCIALIZATION REPORT

Inspector:	Keith Caban
Responsible Engineer:	Scott DeBarger
Date:	Thursday, October 25, 2007
Work Order/Charge No.:	12-7100-8
Serial Number:	LCLS - n/a MAG SN – 42608-2
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS BC1 MAGNETS\42608-2-10/25/07.pdf

Part Set-up – Coordinate System Set-up
** Poles have been modified

Planar Alignment

- Mid-Plane of the magnet



Spatial Alignment

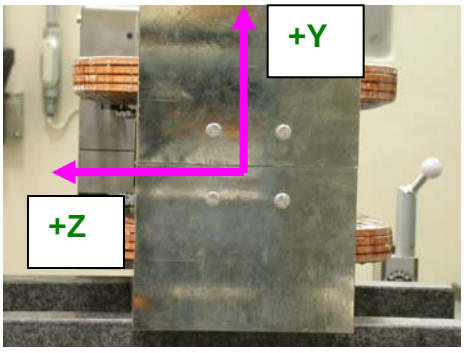
- Top of magnet where label is.

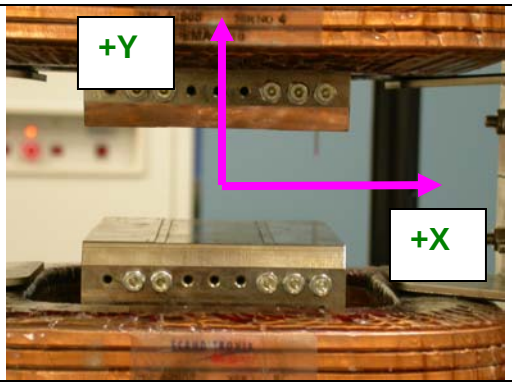
"Z" Zero

- Mid-Plane of the magnet.

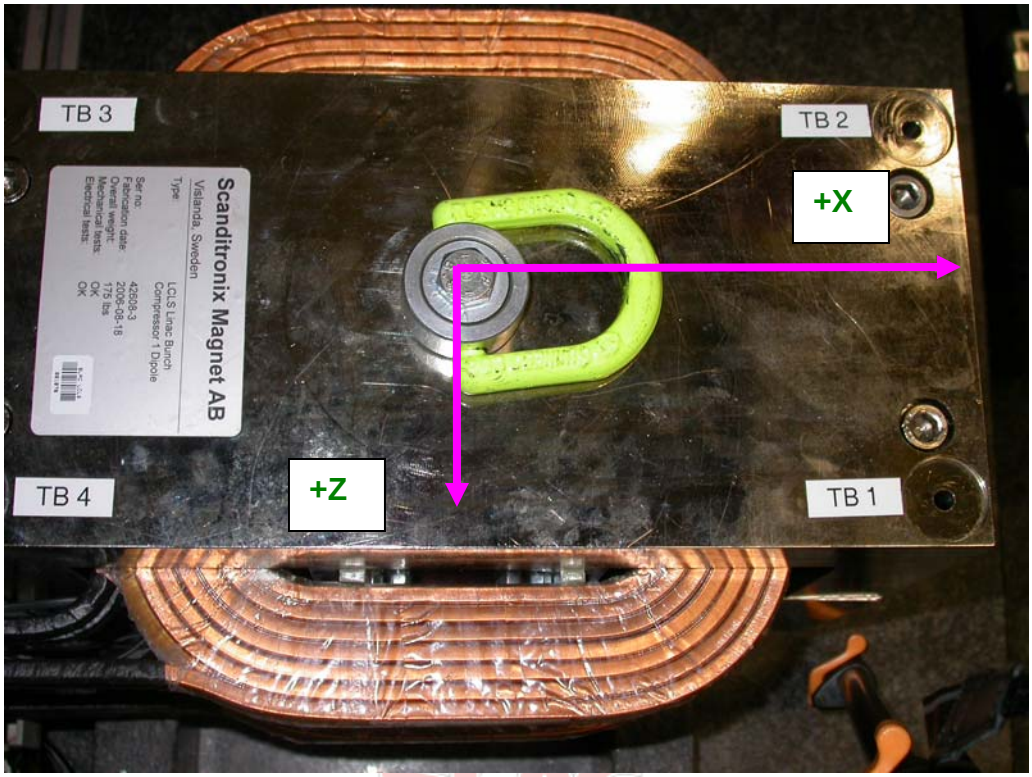
"X" & "Y" Zero

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





Tooling Ball Measurements/Locations



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00101	0.49538	6.04772	5.67000	2.53987
TB 2	0.00061	0.49538	6.04626	5.67044	-2.53540
TB 3	0.00054	0.49793	-6.04101	5.66965	-2.52785
TB 4	0.00051	0.49816	-6.04552	5.66951	2.52987

GAP	GAP DIST	X	Z
1	1.69207	-2.96368	2.33537
2	1.69123	0.02299	-0.10087
3	1.69207	2.96343	2.33532
4	1.69202	-2.96353	-2.33587
5	1.69122	2.96356	-0.33591
6	1.69154	-0.49813	-1.41427

** Gap location are related to fiducial coordinate system
Nominal Gap per SA-380-321-62 = 1.6920 +0.0005

Distance 7.087 ± 0.0005 measures **7.08690 & 7.08668**