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

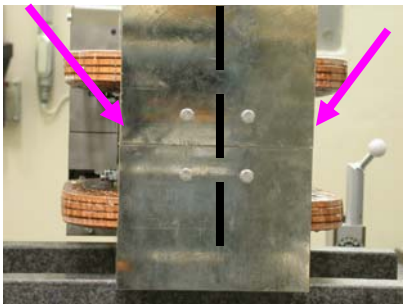
LCLS BC 1 Magnet (Modified Poles)
FIDUCIALIZATION REPORT

Inspector:	Keith Caban
Responsible Engineer:	Scott DeBarger
Date:	Thursday, October 25, 2007
Work Order/Charge No.:	12-7100-8
Serial Number:	LCLS - 001076 MAG SN – 42608-3
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS BC1 MAGNETS\001076-10/25/07.pdf

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

Planar Alignment

- Mid-Plane of the magnet



Spatial Alignment

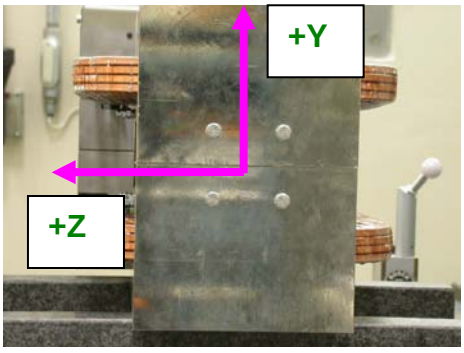
- Top of magnet where label is.

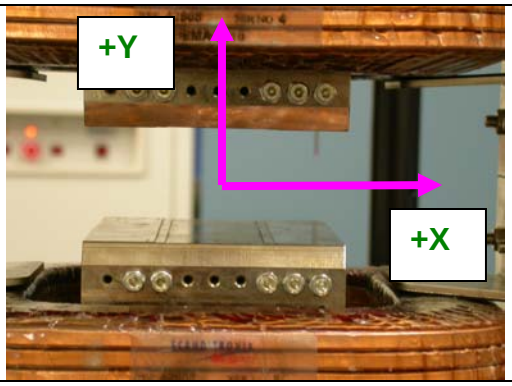
"Z" Zero

- Mid-Plane of the magnet.

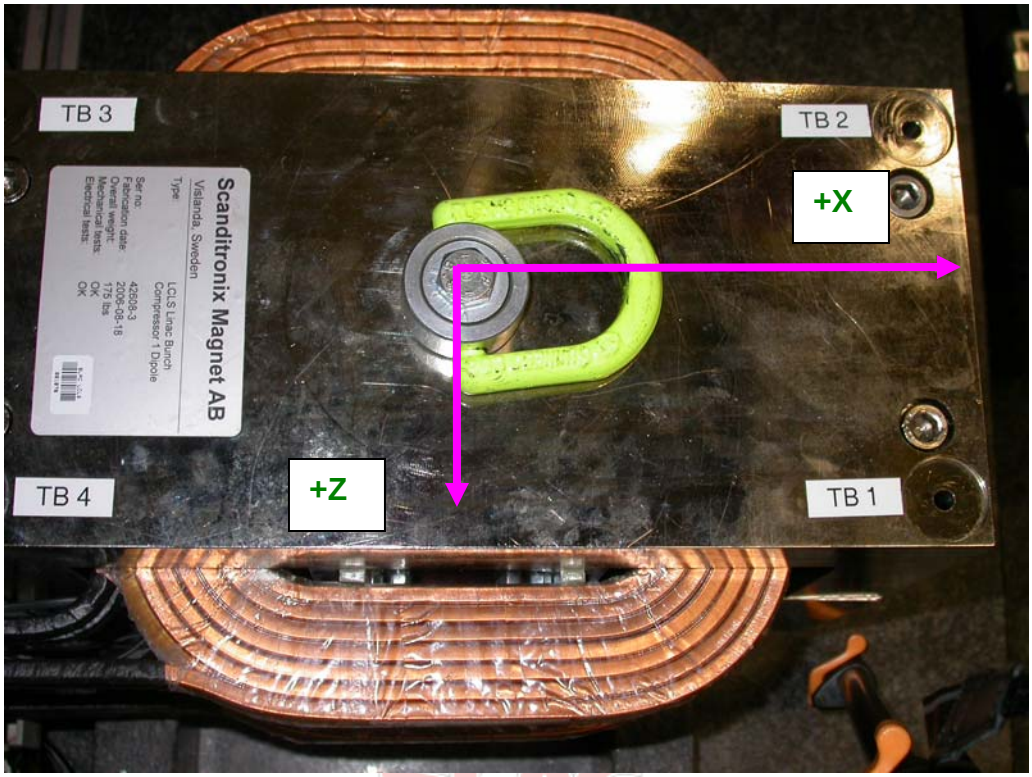
"X" & "Y" Zero

- 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	0.00079	0.49632	6.04474	5.65981	2.52807
TB 2	0.00095	0.49412	6.04650	5.65856	-2.52780
TB 3	0.00036	0.49863	-6.04434	5.67337	-2.53692
TB 4	0.00128	0.49442	-6.04895	5.67816	2.54272

GAP	GAP DIST	X	Z
1	1.69183	-2.96370	2.33534
2	1.69077	0.02298	-0.10091
3	1.69189	2.96343	2.33532
4	1.67170	-2.96354	-2.33577
5	1.69083	2.96353	-0.33586
6	1.69114	-0.49816	-1.41421

** 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 **7.08715 & 7.08690**