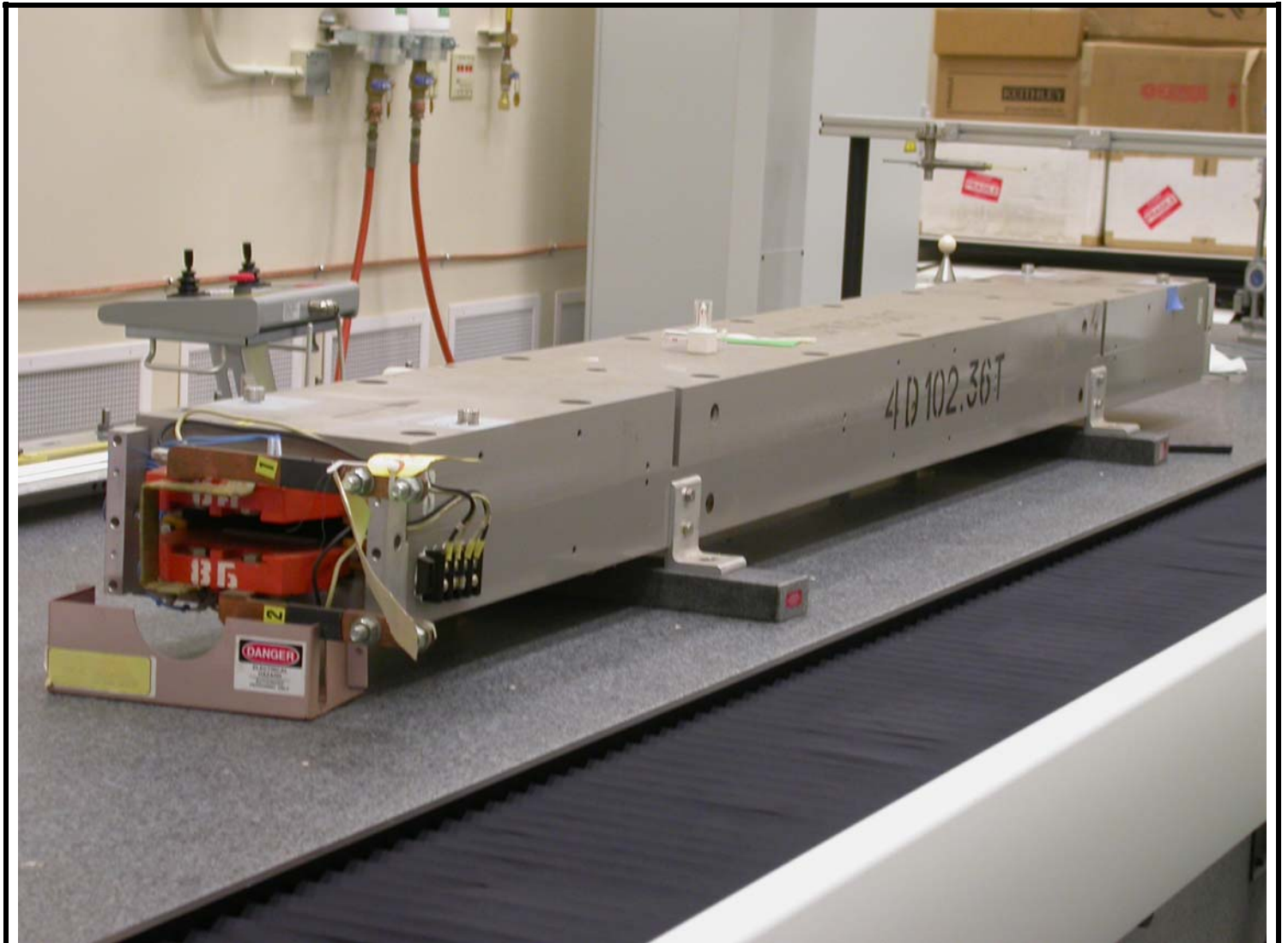


LCLS BX3 DIPOLE MAGNET FIDUCIALIZATION REPORT



Inspector:	Ed Reese
Responsible Engineer:	Carl Rago
Date:	Wednesday, February 14, 2007
Work Order/Charge No.:	21698-1
Serial Number	000240
URL of Fiducial Report:	\\Web002\www-group\met\Quality\FIDUCIAL_REPORTS\LCLS BX3 DIPOLE\000240.PDF

Part Set-up – Coordinate System Set-up

Planar Alignment

- Symmetry Axis between inner side plates of housing

Spatial Alignment

- Symmetry Plane between upper and lower poles

“Z” Zero

- Symmetry Point between faces perpendicular to beam

“X” Zero

- Symmetry Axis between Inner side plate of housing

“Y” Zero

- Symmetry Plane between upper and lower poles



Tooling Ball Measurements/Locations



Top Tooling Ball Sockets

Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00024	0.49894	4.32125	4.64740	-45.19329
TB 2	0.00041	0.49850	-4.32259	4.64943	-45.14145
TB 3	0.00022	0.49787	4.31512	4.64952	45.12009
TB 4	0.00025	0.49711	-4.30754	4.64828	45.10835

Side Optical/Magnetic Precision Sphere Holder

Tooling Ball	FORM	DIAMETER	X	Y	Z
A	0.00006	1.50006	6.62948	2.13387	-31.38417
B	0.00004	1.50006	6.62707	2.13769	31.32683
C	0.00007	1.50007	6.61706	-2.09089	-31.40045
D	0.00004	1.50008	6.61951	-2.07168	31.31292

Additional Requested Measurements

LOCATION	POLE DISTANCE
-X/-Z	0.90673
+X/-Z	0.90626
-X/+Z	0.90635
+X/+Z	0.90610