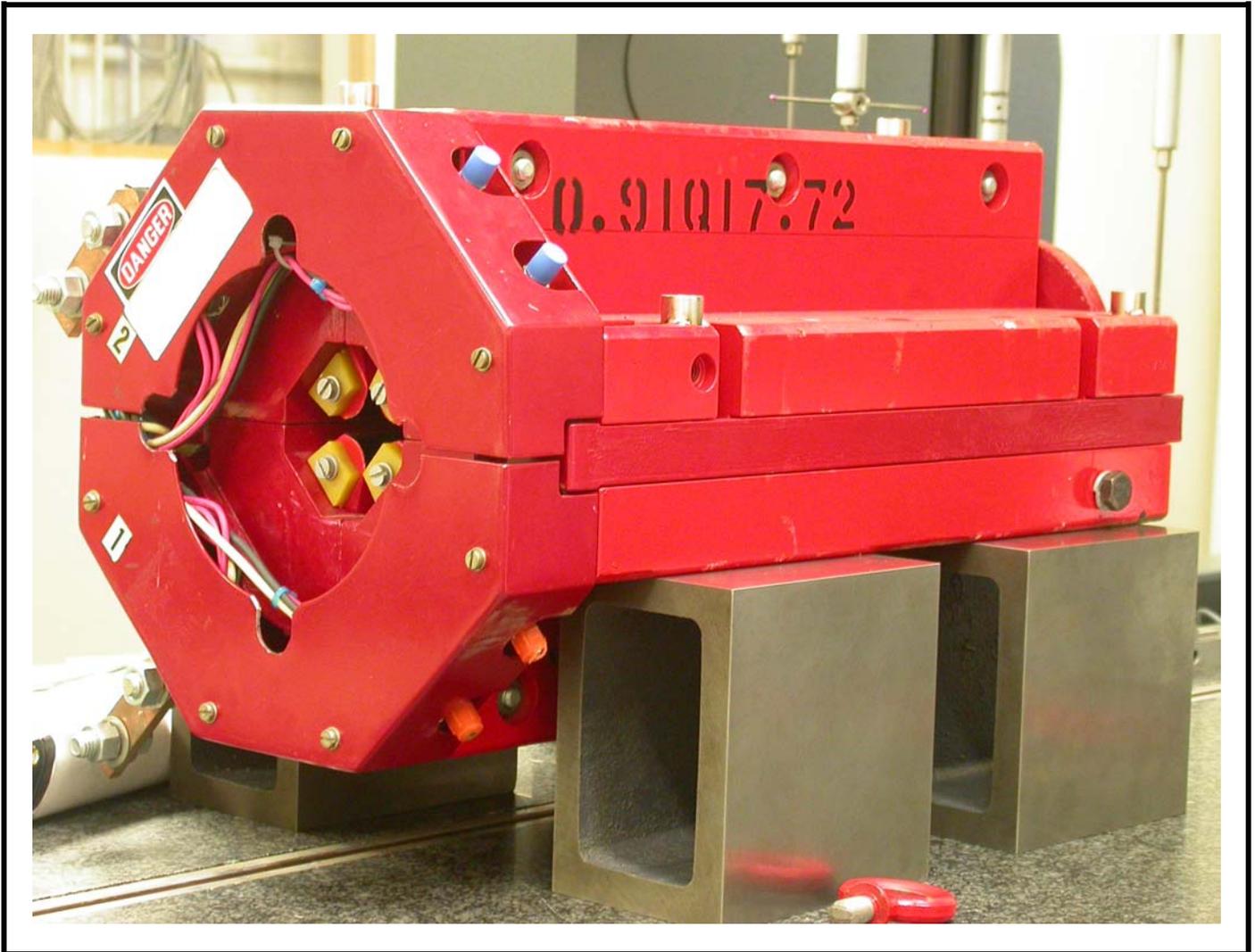


LCLS '0.91Q17.72' LTU Quadrupole Magnet FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Friday, February 23, 2007
Work Order/Charge No.: 21699-1
Serial Number: 000224
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU QUAD\000224.pdf>

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

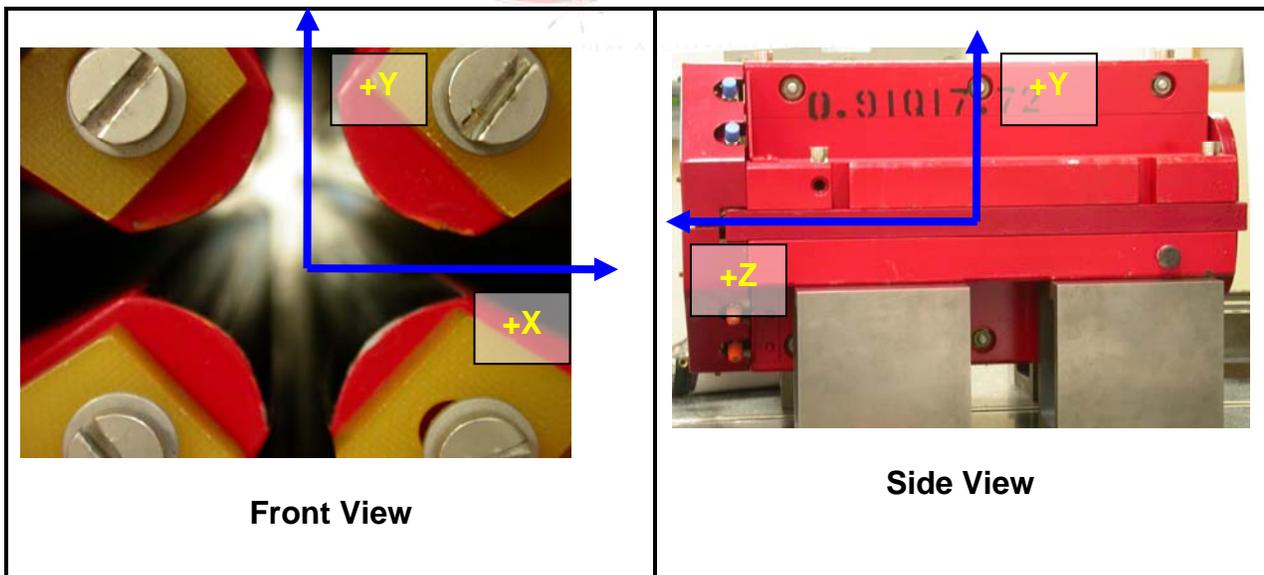
- Clocking plane where TB A,C, D, & E reside.

“Z” Zero

- Mid-plane of the magnet (pole planes on each end).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

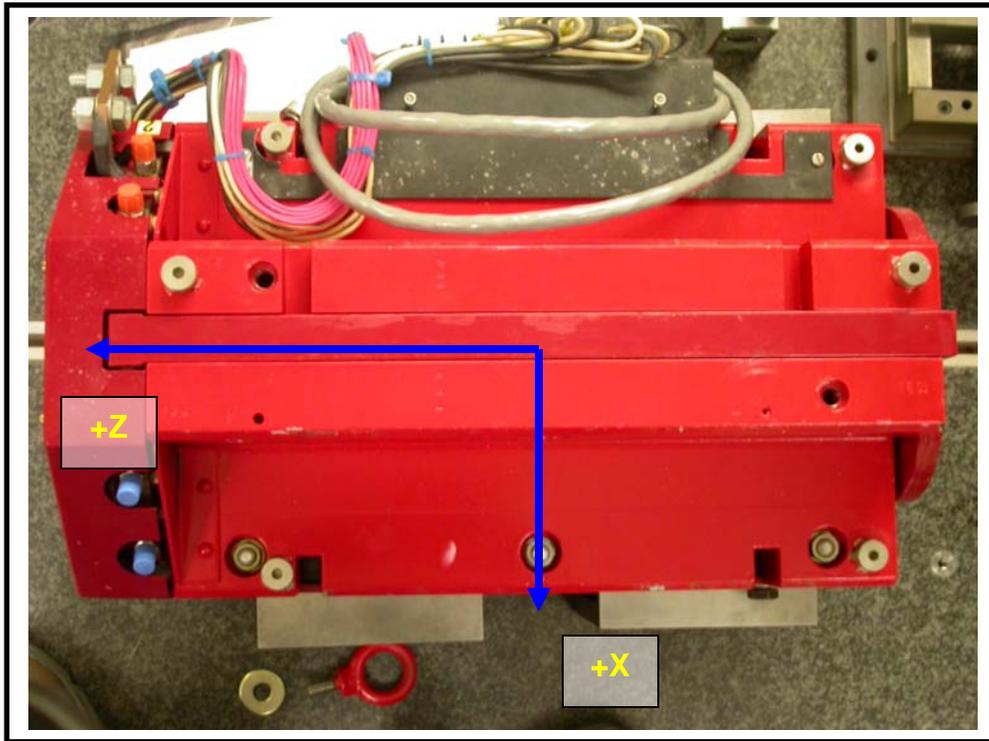


Front View

Side View

Tooling Ball Measurements/Locations

Top of magnet; view from “+Y”



| Tooling Ball | FORM | DIAMETER | X | Y | Z |
|--------------|---------|----------|----------|---------|----------|
| TB A | 0.00075 | 0.49795 | 5.01858 | 3.69907 | -8.05430 |
| TB B | 0.00038 | 0.49899 | -1.43032 | 7.31203 | -8.03075 |
| TB C | 0.00014 | 0.49787 | -5.00935 | 3.70064 | -8.02983 |
| TB D | 0.00031 | 0.49900 | -5.20288 | 3.69879 | 6.27695 |
| TB E | 0.00023 | 0.49928 | -1.41740 | 7.31151 | 8.06072 |
| TB F | 0.00012 | 0.49722 | 5.25594 | 3.69857 | 6.26839 |

Pole Distances

| Pole | -Z side | +Z side | Δ |
|------|---------|---------|----------|
| A-C | 0.90626 | 0.90598 | 0.00028 |
| B-D | 0.90738 | 0.90776 | 0.00042 |

