LCLS type 1g Corrector Magnet FIDUCIALIZATION REPORT


Inspector:
Responsible Engineer:
Date:
Work Order/Charge No.:
Serial Number:
URL of Fiducial Report:

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T. Borden

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## Part Set-up - Coordinate System Set-up

Spatial Alignment

- Inner Center line created below ( $\mathrm{x}, \mathrm{y}$ zero setup)

Planar Alignment

- 4 intersection points of the inner planes in the horizontal plane.
"Z" Zero
- Mid-Plane of the magnet
"X" \& "Y" Zero
- Inner planes intersect with each end to create 4 diagonal axis
o 4 Diagonal Axis intersect to create 4 points on each side.
o Use radius side intersection points to create $X$ axis
o Use top and bottom intersection points to create $Y$ axis
o Intersect x,y axis' on both sides to get center points
o These center points collected create a line which is the center of the magnet and $x, y$ zero and Spatial Alignment



## Tooling Ball Measurements/Locations

Top of magnet; view from "+Y"


| Tooling Ball | FORM | DIAMETER | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| TB 1 | 0.00052 | 0.49758 | 2.68859 | 1.50484 | 0.75188 |
| TB 2 | 0.00079 | 0.49792 | 2.68810 | 1.50427 | -0.74822 |
| TB 3 | 0.00142 | 0.49601 | -2.68527 | 1.50468 | -0.75053 |
| TB 4 | 0.00108 | 0.49549 | -2.68653 | 1.50421 | 0.74926 |

