



Jefferson Lab Alignment Group

Data Transmittal

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DATE: 25 Apr 2019

FROM: Kelly Tremblay

Checked:

: B1918

DETAILS:

data: fiduc\hallb\hps\190318a & calcs\hallb\2019_hps

The Hall B HPS Hodoscope was fiducialized and inspected March 18th, 2019. The ideal data was calculated from the JT file, Beamline_Assy_hps_2019.jt. The found data is from our survey results. The found coordinates were transformed to the designed
The flange points are the interior projected interior corners (not radii). The Ideal and delta values are in the first table and the found data is in the second table.
+z coordinate is from the hall center, +x left is to the straight ahead beam left (same as target), +y is above the beam.

Design					Deltas [design - found]				
	corner	x[mm]	y[mm]	z[mm]		corner	x[mm]	y[mm]	z[mm]
downstream bottom detector	bot- left	330.20	-74.20	18297.89		bot- left	-0.52	-0.02	-0.03
	bot-right	147.90	-74.20	18297.89		bot-right	-0.19	-0.45	-0.60
	top -left	330.20	-14.20	18297.89		top -left	-0.96	0.18	-0.41
	top - right	147.90	-14.20	18297.89		top - right	-0.72	-0.32	-0.98
downstream top detector	bot- left	330.20	14.20	18297.89		bot- left	0.11	0.80	0.92
	bot -right	147.90	14.20	18297.89		bot -right	0.01	0.82	0.14
	top - left	330.20	74.20	18297.89		top - left	-0.06	0.99	0.45
	top - right	147.90	74.20	18297.89		top - right	0.08	0.89	-0.33
upstream bottom detector	bot - left	324.86	-74.20	18275.89		bot - left	-1.89	-1.01	-0.04
	bot - right	142.56	-74.20	18275.91		bot - right	-2.01	-1.00	-0.44
	top - left	324.86	-14.20	18275.89		top - left	-1.50	-0.95	-0.58
	top - right	142.56	-14.20	18275.89		top - right	-1.70	-0.70	-1.00
upstream top detector	bot - left	324.86	14.00	18275.89		bot - left	-1.53	-0.26	0.63
	bot - right	142.56	14.00	18275.89		bot - right	-1.93	0.48	0.30
	top - left	324.86	74.20	18275.89		top - left	-1.79	-0.03	0.36
	top - right	142.56	74.20	18275.89		top - right	-1.62	0.91	0.02
	Flange Data								
	design flange					Delta [design – found]			
	corner	x[mm]	y[mm]	z[mm]		corner	x[mm]	y[mm]	z[mm]
	F_bot_bl	425.175	-167.400	18494.891		F_bot_bl	0.06	-0.02	0.07
	F_bot_br	-225.175	-167.400	18494.891		F_bot_br	0.02	-0.12	0.01
	F_top_bl	425.175	167.400	18494.891		F_top_bl	-0.01	0.03	0.08
	F top br	-225.175	167.400	18494.891		F top br	-0.02	-0.09	0.02

	Found Corner Points			
	found points	x[mm]	y[mm]	z[mm]
downstream bottom detector	bot- left	330.72	-74.18	18297.92
	bot-right	148.09	-73.75	18298.49
	top -left	331.16	-14.38	18298.30
	top - right	148.62	-13.88	18298.87
downstream top detector	bot- left	330.09	13.40	18296.97
	bot -right	147.89	13.38	18297.75
	top - left	330.26	73.21	18297.44
	top - right	147.82	73.31	18298.22
upstream bottom detector	bot - left	326.75	-73.19	18275.93
	bot - right	144.57	-73.20	18276.35
	top - left	326.36	-13.25	18276.47
	top - right	144.26	-13.50	18276.89
upstream top detector	bot - left	326.39	14.26	18275.26
	bot - right	144.49	13.52	18275.59
	top - left	326.65	74.23	18275.54
	top - right	144.18	73.29	18275.87
	us face of flange corners			
	corner	x[mm]	y[mm]	z[mm]
	F_bot_bl	425.1169	-167.3836	18494.817
	F_bot_br	-225.194	-167.2784	18494.878
	F_top_bl	425.1853	167.37237	18494.814
	F_top_br	-225.159	167.4896	18494.875