



Jefferson Lab Alignment Group

Data Transmittal

TO: B. Metzger

DATE: 11/23/2015

FROM: Chris Gould

Checked:

: C1685

DETAILS:

M:\align\DATA\STEP1\HallC\Pivot Flange\151123A

Below are the results of the Hall C pivot flange as-found. The results show the flange after the final weld. The twelve \varnothing 0.81 thru holes on a 23.00 BCD and pin holes were measured. The coordinate system is relative to the Hall C Target with an ideal CEBAF elevation of 100 meters. A positive X is to the beam left, a positive Y is up and a positive Z is downstream. Values are in inches and degrees.

| | Ideals | | | Measured | | | Deltas | | |
|-------------------------|-----------|-------------------|---------|--------------|--------------|--------|--------|--------|--------|
| FINALS | X | Y | Z | X | Y | Z | X | Y | Z |
| PVTFLGPA | 9.750 | -50.317 | 0.000 | 9.744 | -50.339 | 0.014 | -0.006 | -0.022 | 0.014 |
| PVTFLGPB | -4.875 | -50.317 | 8.444 | -4.863 | -50.333 | 8.441 | 0.012 | -0.016 | -0.003 |
| PVTFLGPC | -4.875 | -50.317 | -8.444 | -4.856 | -50.348 | -8.422 | 0.019 | -0.031 | 0.022 |
| BH CIRCLE | 0.000 | -50.630 | 0.000 | 0.010 | -50.649 | 0.011 | 0.010 | -0.019 | 0.011 |
| FLANGE POST WELD | | | | | | | | | |
| PITCH | ROLL | DIST TO TARGET CL | | IDEAL | DELTA | | | | |
| 0.010° | 0.0208° | 50.649 | | 50.630 | 0.019 | | | | |
| PITCH DIST | ROLL DIST | | | | | | | | |
| 0.005 | 0.009 | | | | | | | | |
| THRU HOLES | | | | | | | | | |
| | X | Y | Z | MEAS. RADIUS | IDEAL RADIUS | DELTA | | | |
| BH1 | 8.130 | -50.645 | 8.136 | 11.502 | 11.500 | 0.002 | | | |
| BH2 | 2.982 | -50.646 | 11.111 | 11.504 | 11.500 | 0.004 | | | |
| BH3 | -2.967 | -50.648 | 11.107 | 11.496 | 11.500 | -0.004 | | | |
| BH4 | -8.113 | -50.651 | 8.129 | 11.485 | 11.500 | -0.015 | | | |
| BH5 | -11.088 | -50.653 | 2.982 | 11.482 | 11.500 | -0.018 | | | |
| BH6 | -11.085 | -50.654 | -2.966 | 11.475 | 11.500 | -0.025 | | | |
| BH7 | -8.109 | -50.653 | -8.115 | 11.472 | 11.500 | -0.028 | | | |
| BH8 | -2.958 | -50.652 | -11.086 | 11.474 | 11.500 | -0.026 | | | |
| BH9 | 2.986 | -50.65 | -11.086 | 11.481 | 11.500 | -0.019 | | | |
| BH10 | 8.135 | -50.648 | -8.109 | 11.486 | 11.500 | -0.014 | | | |
| BH11 | 11.106 | -50.646 | -2.959 | 11.493 | 11.500 | -0.007 | | | |
| BH12 | 11.103 | -50.645 | 2.987 | 11.498 | 11.500 | -0.002 | | | |

| | Measured | | | | Ideals | | | | Deltas | | |
|-----------|----------|---------|--------|--|--------|---------|--------|--|--------|--------|--------|
| Pin Holes | X | Y | Z | | X | Y | Z | | X | Y | Z |
| DS | 0.008 | -50.647 | 9.749 | | 0.000 | -50.630 | 9.750 | | 0.008 | -0.017 | -0.001 |
| US | 0.013 | -50.651 | -9.725 | | 0.000 | -50.630 | -9.750 | | 0.013 | -0.021 | 0.025 |