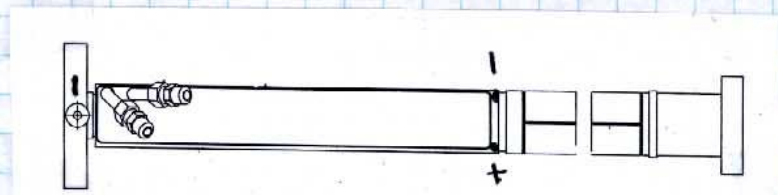


SSRL

2-19-08

BL4-Z 2ND PIVOT MASK

J.M.L.G.



LAB DATA

T(B1) $X = +.018$
 $Y = +3.794$
 $Z = +1.414$

4/s
BODY) $X = X_1$
 $TTOP = +1.000$
 $BBOT = +1.878$

Y
 $(+) = 1.299 (L)$
 $(-) = 1.293 (R)$

$Z = -12.261$

SSRL

3/08

BL4-Z 2ND PIVOT MASK

Job Description:

Report Units: inches, radians

Job File: C:\Documents and Settings\levirt\My Documents\My Documents\SSRL 2008\BL4-2

Job Date: Wednesday, February 20, 2008 02:27:14 PM

Report Frame: PART

BL42DSPM1	0.018	6.433	845.902	
BL42DSPMR	-1.000	3.932	832.227	
BL42DSPML	1.000	3.938	832.227	
BL42DSPMM	0.000	2.639	844.488	TRANSLATED

X

Y

Z

SSRL

BL 4-2 2ND PIVOT MASIC

2-7-08

J.M., L.G.

(X)

1.000

1.000

19.000

18.880

16.100

16.400

18.171 5/2

+19.171 LOS

u/s BODY BOT

18.171 5/2

18.153

1.018

T/B 1) 18.185

1.000

19.185

19.171

-.014

(Z)

-19.130 READ

-12.261 u/s FACE BODY

-31.391 LOS

T/B 1) 31.805

1.000

32.805

31.391

+1.414

SSRL

2-7-08

BL 4-2 2ND PIVOT MASK

J.M., L.G.

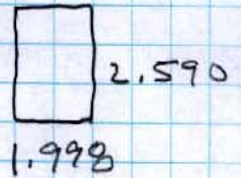
(Y)

13.184 REF. BOT. OF APER. NO ROLL

$$\begin{array}{r}
 1.276 \text{ GAP} \\
 \hline
 13.460 \text{ S/R TOP} \\
 +.004 \text{ TO TOP} \\
 \hline
 13.464 \text{ TOP APER.}
 \end{array}$$

$$\begin{array}{r}
 13.324 = \text{¢} \\
 19.863 \text{ GUN 2} \\
 +6.539 \text{ HI}
 \end{array}$$

$$\begin{array}{r}
 T/B1) 1.745 \\
 1.000 \\
 \hline
 2.745 \\
 6.539 \\
 \hline
 +3.794
 \end{array}$$



4/5 BODY

$$\begin{array}{r}
 +) 6.539 \\
 1.295 \frac{1}{2} \\
 \hline
 5.244 \text{ S/R} \\
 5.240
 \end{array}$$

+004

$$\begin{array}{r}
 5.240 \\
 6.539
 \end{array}$$

+1.299

$$\begin{array}{r}
 -) 5.244 \text{ S/R} \\
 5.246
 \end{array}$$

-002

$$\begin{array}{r}
 5.246 \text{ READ} \\
 6.539 \text{ HI}
 \end{array}$$

+1.293 VALUE

Alignment:

04-2 Pivot Mask, upstream

Alignment crew: _____, _____, _____

Dimensions in { } are absolute dimensions.

Reference point (P) / edge (E) / axis (A) / surface (S):

x:	{0.000"}	center of aperture of the pivot mask body
y:	sec. comment	center of aperture of the pivot mask body
z:	{678.110"}	aperture of the pivot mask body
roll:	{0.000}	aperture bottom edge
pitch:	{0.000}	upstream and downstream flange center
yaw:	{0.000 rad}	side wall of the mask body

Items to fiducialize:

Entrance aperture of pivot mask body, SSRL side edge and bottom edge:

x(ssrl):	measured:	_____
y(bottom):	measured:	_____
z:	measured:	_____
x(ct):	measured:	_____
y(ct):	measured:	_____
z(us):	measured:	_____

04-2 Pivot Mask, downstream

Alignment crew: _____, _____, _____

Dimensions in { } are absolute dimensions.

Reference point (P) / edge (E) / axis (A) / surface (S):

x:	{0.000"}	center of aperture of the pivot mask body
y:	sec. comment	center of aperture of the pivot mask body
z:	{844.488"}	aperture of the pivot mask body
roll:	{0.000}	aperture bottom edge
pitch:	{0.000}	upstream and downstream flange center
yaw:	{0.000 rad}	side wall of the mask body

Items to fiducialize:

Entrance aperture of pivot mask body, SSRL side edge and bottom edge:

x(ssrl):	measured:	_____
y(bottom):	measured:	_____
z:	measured:	_____
x(ct):	measured:	_____
y(ct):	measured:	_____
z(us):	measured:	_____

04-2 Pivot Mask, combined

Alignment crew: _____, _____, _____

Dimensions in { } are absolute dimensions.

Reference point (P) / edge (E) / axis (A) / surface (S):

x:	{0.000"}	center of aperture of downstream pivot mask body
y:	see. comment	center of aperture of downstream pivot mask body
z:	{844.488"}	aperture of downstream pivot mask body
roll:	{0.000}	aperture bottom edge
pitch:	{0.000}	upstream and downstream flange center
yaw:	{0.000 rad}	side wall of the mask body

Items to fiducialize:

Location of the Mask1 aperture and the Mask 2 Entrance due to sagging of the beampipe

x AP (mask 1):	measured:	_____
y AP (mask 1):	measured:	_____
x ENT (mask 2):	measured:	_____
y ENT (mask 2):	measured:	_____
beam pipe max deflection:	measured:	_____

Tolerance at installation:

Alignment crew: _____, _____, _____

Comment:

To align the Pivot Mask: the Breakout as well as the Girder (and preferably the Vert Slit Tank) alignment need to be complete. Next the downstream pivot support will be aligned to be on the same center line as the girder. The girder is then moved (by motor control or by hand) to align the y-locations of the upstream and the downstream pivot points +2.639"

[+67.031mm]. The final alignment of the mask will take place in this orientation. To finish this step the girder will need to move into its extreme positions to verify the required motion.

x:	+/- 0.010"	measured:	_____
y:	+/- 0.005"	measured:	_____
z:	+/- 0.050"	measured:	_____
roll:	+/- 0.000 rad	measured:	_____
pitch:	+/- 0.001 rad	measured:	_____
yaw:	+/- 0.001 rad	measured:	_____

SSRL

2-11-08

BL4-2 PIVOT MASKS

J.M., L.G.

2ND P.M.

(X)

Boof
4/s) -1.000
u/s) -1.000

15.000
14.950
12.000
12.102

14.003

14.013 s/r ✓

-15.013 LOS

T(B1) 15.013
(-) .014
14.999
1. —
13.999 s/r
13.999
0

1ST P.M.

1) 15.013
(+).005
15.018
1. —
14.018 s/r
14.028

+010

2) 15.013
(+).015
15.028
1. —
14.028 s/r.
14.026

-002

2" P.P.E. Spool
u/s

15.013
12.000 R
14.013 s/r
14.012

Tube 2"

SSRL

2-8-08

BL 4-2 PIVOT MASKS

J.M., L.G.

2-11-08

(Y)

2ND P.M.

$$\begin{array}{r}
 T(BI) \ 2.590 \checkmark \\
 \underline{1.000} \\
 3.590 \\
 3.794 \\
 \hline
 7.384 \text{ Hz}
 \end{array}$$

1.299

BODY u/s

$$\begin{array}{r}
 +) \ 7.384 \\
 \underline{1.299} \\
 6.085 \text{ s/r} \\
 6.093 \\
 \hline
 \boxed{-0.008}
 \end{array}$$

$$\begin{array}{r}
 -) \ 7.384 \\
 \underline{1.293} \\
 6.091 \text{ s/r} \\
 6.098 \\
 \hline
 \boxed{-0.007}
 \end{array}$$

6.425

6.095 -10

$$\begin{array}{r}
 7.384 \\
 1.685 \\
 \hline
 5.699
 \end{array}$$

1ST P.M.

T(B's)

BODY

$$\begin{array}{r}
 1) \ 7.384 \\
 \underline{3.163} \\
 4.221 \\
 1. \text{---} \\
 \hline
 3.221 \text{ s/r} \\
 3.227 \\
 \hline
 \boxed{-0.006} \\
 3.236 -15 \\
 \quad -12
 \end{array}$$

$$\begin{array}{r}
 2) \ 7.384 \\
 \underline{3.161} \\
 4.223 \\
 1. \text{---} \\
 \hline
 3.223 \text{ s/r} \\
 3.220 \\
 \hline
 \boxed{+0.003} \\
 3.233 -10 \\
 \quad -2
 \end{array}$$

$$\begin{array}{r}
 +) \ 7.384 \\
 \underline{1.105} \\
 6.279 \text{ s/r} \\
 6.285 \\
 \hline
 \boxed{-0.006}
 \end{array}$$

$$\begin{array}{r}
 -) \ 7.384 \\
 \underline{1.115} \\
 6.269 \text{ s/r} \\
 6.275 \\
 \hline
 \boxed{-0.006}
 \end{array}$$

2" Pipe

SPOOL

$$\begin{array}{r}
 u/s \\
 7.384 \\
 1. \text{---} \\
 \hline
 6.384 \text{ s/r} \\
 6.387 \\
 \hline
 \boxed{-0.003}
 \end{array}$$

TUBE

$$\begin{array}{r}
 7.384 \\
 \underline{1.130 \text{ 1/2}} \\
 6.254 \text{ s/r}
 \end{array}$$

2.265

SSRL

BL 4-2 PINDT MASK
CHECKING TUBE
2 x 2.265
X Y

2-12-08

J.M., L.G.

Ⓚ 7.384 HI

- | | | | |
|---|--|--|--|
| 1) 7.384 HI
1.133 1/2
6.251 3/2
6.250
<u>+001</u> ✓ | 2) 6.251 3/2
6.245
<u>+006</u> ✓ | 3) 6.251 3/2
6.295
<u>-044</u> ✓ | 4) 6.251
6.350
<u>-100</u> ✓ |
| 5) 6.251 3/2
6.365
<u>-114</u> ✓ | 6) 6.251 3/2
6.345
<u>-094</u> ✓ | 7) 6.251 3/2
6.315
<u>-064</u> ✓ | 8) 6.251 3/2
6.275
<u>-024</u> ✓ |

Ⓚ -15.013 LOS

- | | | | |
|--|--|--|--|
| 1) 15.013
1. —
14.013 3/2
13.955
<u>-058</u> ✓ | 2) 14.013 3/2
13.935
<u>-078</u> ✓ | 3) 14.013 3/2
13.930
<u>-083</u> ✓ | 4) 14.013 3/2
13.955
<u>-058</u> ✓ |
| 5) 14.013 3/2
13.955
<u>-058</u> ✓ | 6) 14.013 3/2
14.013
<u>0</u> ✓ | 7) 14.013 3/2
14.023
<u>+010</u> ✓ | 8) 14.013 3/2
14.013
<u>0</u> ✓ |