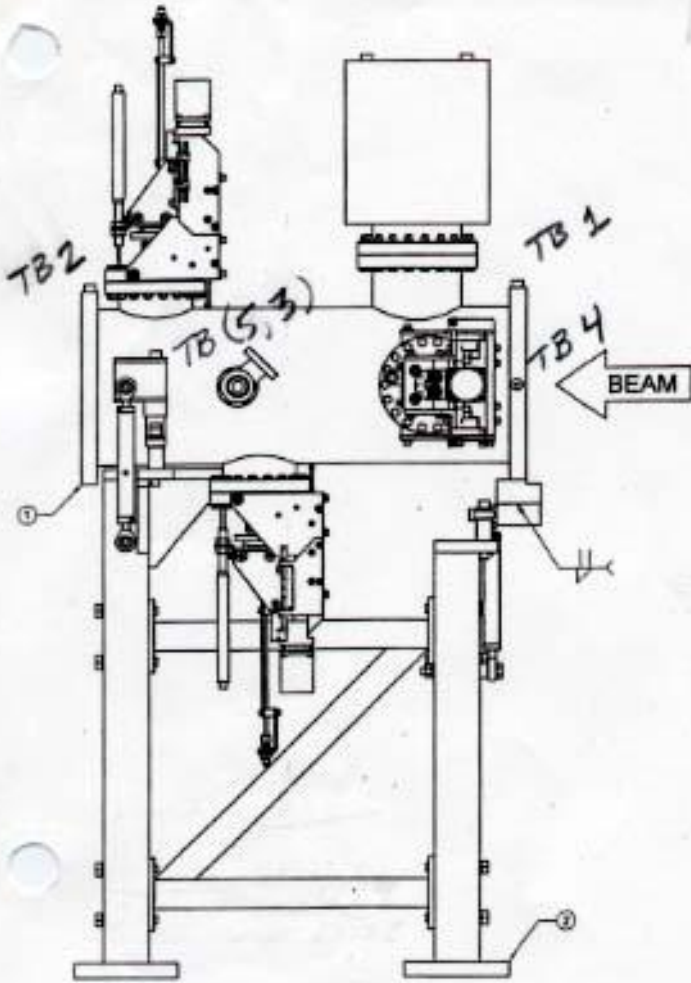


6-2
 MO 4 JAW SLIT
 TANK

6-2
 MO 4 JAW
 SLIT TANK



TB	X	Y	Z
1	-0.009	+8.112	-14.449
2	+0.036	+8.115	+14.438
3	-7.060	+3.494	+10.009
4	+8.113	-0.002	-14.454
5	+6.990	+3.504	+9.986

23
 4/18/03

SSRL

6-2 MO 4 JAW SLIT

4/15/03
F.R., L.G.

TANK

Y)

UIS FL.

DIS FL.

6.579

6.580

Dia = 13.240
÷ 2 = 6.620

HI = $\frac{6.620}{13.200}$ ✓

Took Roll out with DOWEL PINS ON BOLT HOLES OF FLANGES.

TANK

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
4.088	4.085	8.706	12.202	8.696
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
5.088	5.085	9.706	13.202	9.696
13.200	13.200	13.200	13.200	13.200
<u>+8.112</u> ✓	<u>+8.115</u> ✓	<u>+3.494</u> ✓	<u>-.002</u> ✓	<u>+3.504</u> ✓

4/16/03

<u>1</u>	<u>3</u>	<u>5</u>
4.095	8.712	8.703
<u>8.112</u>	<u>3.494</u>	<u>3.504</u>
12.207 ✓	12.206 ✓	12.207 ✓

HI = 12.207
 $\frac{1.000}{+ 13.207 HI}$ ✓

TURTLE

16.551

40

56.551

13.207

EL. = -43.344 ✓

43.344

40

3.344 = $\frac{40}{12}$ ✓

✓ 73
4/17/03

SSRL B6-2 4 JAW SLIT

4/15/03
L.G., F.G.

$$\begin{aligned}
 (1) \quad F.V. &= 6.620 \quad (D/S \text{ FL.}) \\
 N.V. &= 6.620 \quad (U/S \text{ FL.})
 \end{aligned}$$

$$\begin{aligned}
 1ST F. &= 10. - \\
 1ST N. &= 9.302
 \end{aligned}$$

$$\begin{aligned}
 2ND F. &= 9.168 \\
 2ND N. &= 8.751
 \end{aligned}$$

$$\begin{aligned}
 S/R F. &= 7.933 \\
 S/R N. &= 7.933
 \end{aligned}$$

$$LOS = -14.553 \checkmark$$

21" Ref Blade

$$\begin{array}{r}
 14.553 \\
 \hline
 35.553 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 .750 \\
 \hline
 36.303 \quad (+) \text{ side}
 \end{array}$$

TANK

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
13.544	13.589	6.493	5.047	3.924
<u>1</u>	<u>1</u>	<u>1</u>	<u>17.619</u>	<u>17.619</u>
14.544	14.589	7.493	22.666	21.543
14.553	14.553	14.553	14.553	14.553
<u>-0.009</u> ✓	<u>+0.036</u> ✓	<u>-7.060</u> ✓	<u>+8.113</u> ✓	<u>+6.990</u> ✓

New Los 64.458 Ref Blades

4/16/03

$$\begin{array}{r}
 64.458 \\
 35.553 \\
 + 28.905 \quad LOS \checkmark
 \end{array}$$

<u>4</u>	<u>5</u>
28.905	28.905
<u>8.113</u>	<u>6.990</u>
20.792	21.915
<u>1</u>	<u>1</u>
S/R 19.792 ✓	S/R 20.915 ✓
19.795 -3 ✓	20.912 +3 ✓

2.28

4/17/03

SSRL
 6-2 4 JAW SLIT

4/15/03
 F.G., L.G.

TANK LENGTH = 30" ÷ 2 = 15"

D/S FL.

$$\begin{array}{r} 15.940 \\ 15 \\ \hline + 30.940 = \text{LOS} \checkmark \end{array}$$

66
 64.853
 60
 63.316

TANK

2

$$\begin{array}{r} 15.502 \\ 1 \\ \hline 16.502 \\ 30.940 \\ \hline + 14.438 \checkmark \end{array}$$

5

$$\begin{array}{r} 19.954 \\ 1 \\ \hline 20.954 \\ 30.940 \\ \hline + 9.986 \checkmark \end{array}$$

TANK

4/16/03

u/s Flange
 9.444

1

$$\begin{array}{r} 8.994 \\ 1 \\ \hline 9.994 \\ 24.500 \\ \hline - 14.506 \\ \hline - 14.449 \checkmark \end{array}$$

3

$$\begin{array}{r} 33.452 \\ 1 \\ \hline 34.452 \\ 24.500 \\ \hline + 9.952 \\ \hline + 10.009 \checkmark \end{array}$$

4

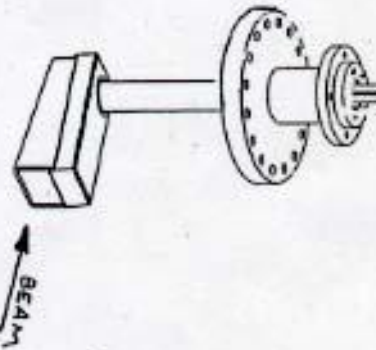
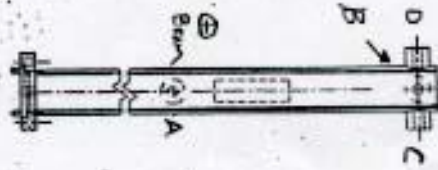
$$\begin{array}{r} 8.989 \\ 1 \\ \hline 9.989 \\ 24.500 \\ \hline - 14.511 \\ \hline - 14.454 \checkmark \end{array}$$

5

$$\begin{array}{r} 33.429 \\ 1 \\ \hline 34.429 \\ 9.986 \\ \hline - 24.500 \text{ LOS} \\ \hline - 24.443 \checkmark \end{array}$$

SSRL
 B/L 6-2 4 JAW SLIT
 D/S HORIZ. SLIT

4-28-03
 F.G., L.L.G.



	X	Y	Z
A	-18.858	-.040	-1.326
B	-25.342	-.091	-.966
C	-25.430	+1.756	-2.798
D	-25.489	-2.304	-3.157
		1.756	

FG
 4/28/03

SSRL # 6-2 4 JAW SLIT
D/S HORIZONTAL SLIT

4/21/03
L.B., F.G.

Y)

$$H.I. = \frac{4.370 + .750}{5.120}$$

<u>A</u>	<u>B</u>	<u>D</u>	<u>C</u>
4.160	4.211	2.364	4.560
<u>1</u>	<u>1</u>	<u>1</u>	<u>.5</u>
5.160	5.211	3.364	4.060
5.120	5.120	5.120	1.756
-0.040	-0.091	+1.756	-2.304

X)

$$\begin{array}{r} 49.500 \text{ REF. BLADE} \\ + .042 \text{ MIC'D TO } \# \text{ EDGE} \\ \hline 49.542 \\ 2.555 \text{ GUN 2 REF. BLADE} \\ -46.987 \text{ LOS} \\ \hline \end{array}$$

$$\begin{array}{r} +.042 \\ .603 \\ \hline .645 \text{ S/R.650} \end{array}$$

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
27.129	20.645	20.557	20.497
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
28.129	21.645	21.557	21.498
46.987	46.987	46.987	46.987
-18.858	-25.342	-25.430	-25.489

28
4/21/03

G-2 4 JAW SLIT
D/S HORIZONTAL SLIT

4/21/03
L.G., F.G.

Z)

LOCAL Z'S

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
12.356	11.996	13.844	14.171
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
13.356	12.996	14.844	15.171
16.014	16.014	16.014	16.014
<u>16.014</u>	<u>16.014</u>	<u>16.014</u>	<u>16.014</u>
<u>+2.658</u>	<u>+3.018</u>	<u>+1.170</u>	<u>+0.843</u>

FLANGE D/S END 6.740" Dia.

$$\begin{array}{r} 12.644 \\ 3.370 \\ + 16.014 \\ \hline = 20.028 \end{array} \quad \checkmark$$

1" PIPE

$$\begin{array}{r} 15.753 \\ .5 \\ \hline 16.253 \end{array}$$

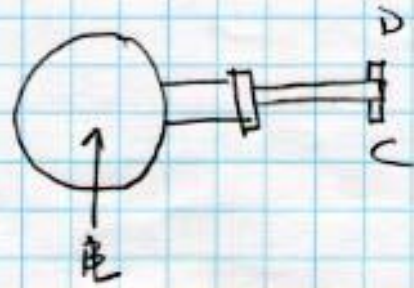
28
4/21/03

SETTING D/S HORIZ. SLIT
 (-) SIDE

4/22/03
 L.G., F.B.

Z)

61.867 Ret. Blade
 35.553
 + 26.314 LOS



<u>C</u>	<u>D</u>	Values
+ 1.170	+ 0.843	$\Delta = .327$

TB 4

6.621
1
 7.621
 14.454
 - 22.075 LOS

C

17.428
 17.417
 17.368
 17.410
 17.396
 17.395
 17.406

D

17.064
 17.066
 17.142
 17.079
 17.105
 17.072
 17.047

disagrees
 within side by
 .040"

correct C by +.016
 correct D by -.016

.323
.359

Local Z's

Flange

14.721
 3.370
18.091
 22.075
 - 3.984

CORRECTED VALUES TO TANK

<u>C</u>
+ 1.170
<u>.016</u>
+ 1.186

<u>D</u>
+ 0.843
<u>.016</u>
+ 0.827

<u>A</u>
+ 2.658
3.984
- 1.326

<u>B</u>
3.018
3.984
- 0.966

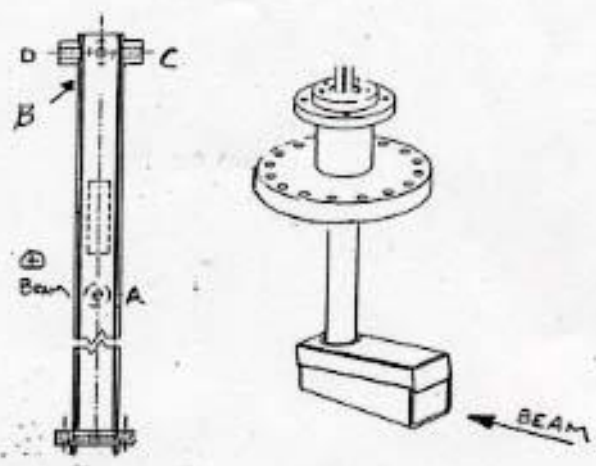
<u>C</u>
1.186
3.984
- 2.798

<u>D</u>
0.827
3.984
- 3.157

Note Z's were read from the other side when fiducializing - the TB's have some slop and the fixture flexes when you push against it.

SSRL
 B/L 6-2 4JAW SLIT
 TOP VERT. SLIT

4-28-03
 F.G., L.G.



	X	Y	Z
A	+ .222 ✓	+18.730 ✓	+12.074 ✓
B	+ .294 ✓	+25.224 ✓	+12.137 ✓
C	-1.773 ✓	+25.272 ✓	+10.133 ✓
D	+2.287 ✓	+25.234 ✓	+10.085 ✓

FG
 4/28/03

SSRL 4 JAW SLIT

Φ 6-2

4/17/03
L.G., F.G.

Top VERTICAL SLIT

ROLL

(+)
+1.009

(-)
+1.009

u/s
+1.364

d/s
+1.009

HI = -1.009

S/R .353
SET .355

PITCH

REF. BLADE = 11.358

25.404

Φ = $\frac{11.358 + 1.009}{1} = 11.367$ ✓

$\frac{25.404 + 11.367}{2} = 14.037$ ✓

A

B

C

D

3.693

9.937

9.985

9.947

1

1.250

1.250

1.250

4.693

11.187

11.235

11.197

14.037

14.037

14.037

14.037

+18.730 ✓

+25.224 ✓

+25.272 ✓

+25.234 ✓



288
4/17

SSRL

TOP VERTICAL SLIT

4/17/03

B 6-2

F.G., L.G.

X)

F.V. = .750

D/S (+)

SIDE OF

COPPER

N.V. = .750

U/S (-)

1ST. F. = ~~1.5~~ 1.679

1ST. N. = ~~1.510~~ 1.691

2ND F. = ~~2.5~~ 2.5

2ND N. = ~~2.454~~ 2.454

S/R F. = ~~1.679~~ ~~1.849~~ 1.837

S/R N. = ~~1.679~~ ~~1.849~~ 1.837

LOS = ~~2.429~~ ~~2.599~~ + 2.587 ✓

REF. BLADES @ 20"

2.587
φ 22.587

A

1.365

1

2.365

2.587

+2.22 ✓

B

1.293

1

2.293

2.587

+2.294 ✓

C

4.560 C-D

.500 1B's

4.060

2.297

-1.773

D

-.050

.250

-.300

2.587

+2.287 ✓

32.567

32.415

6-2

SSRL 4 JAW SLIT

4/18/03
F.G., L.G.

TOP VERTICAL SLIT

Z) REF. BLADE @

$$\begin{array}{r}
 56.376 \\
 22.587 \\
 - 33.789 = \text{LOS (X)}
 \end{array}$$

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
10.828	10.765	12.769	12.817
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
11.828	11.765	13.769	13.817
13.906	13.906	13.906	13.906
<u>+2.078</u>	<u>+2.141</u>	<u>+0.137</u>	<u>+0.089</u>

NOTE: SEE TANK SLIT VALUES

FLANGE (6.740" DIA.)

D/S END

$$\begin{array}{r}
 9.536 \\
 1 \\
 \hline
 10.536 \\
 3.370 \\
 + \hline
 13.906 \text{ LOS}
 \end{array}$$

1" PIPE D/S END

$$\begin{array}{r}
 12.442 \\
 1 \\
 \hline
 13.442 \\
 1.500 \\
 + \hline
 13.942 \text{ LOS}
 \end{array}$$

D/S END OF COPPER

$$\begin{array}{r}
 11.939 \\
 1 \\
 \hline
 12.939
 \end{array}$$

SSRL

6-2

SETTING TOP VERTICAL
SLIT IN TANK

4/18/03
L.G., F.G.

TANK

Y)	<u>5</u>	<u>3</u>	<u>1</u>
	8.704	8.712	4.092
	<u>1</u>	<u>1</u>	<u>1</u>
	9.704	9.712	5.092
	3.504	3.494	8.112
	<u>13.208</u>	<u>13.206</u>	<u>13.204</u>

X) TANK
Ref Blade 63.388
35.553
+ 27.835 LOS

	<u>4</u>	<u>5</u>
	27.835	27.835
	<u>8.113</u>	<u>6.990</u>
	19.722	20.845
	<u>1</u>	<u>1</u>
s/k	19.722	s/k 19.845
	18.724 ✓ -2	19.847 ✓ -2

2) SLIT Auto Collimate Read TB C & D on Fixture in Z
To set yaw; tighten Plange
R = (13.769) C R = (13.817) D ΔZ = .048
12.781 12.820

TOP VERTICAL SLIT IN TANK B6-2

4/18/03
L.G., F.G.

Z)

SLIT FLANGE DIS END

$$\begin{array}{r}
 9.490 \\
 \hline
 10.490 \\
 3.370 \text{ Radius} \\
 \hline
 13.860 \\
 23.856 \\
 \hline
 \boxed{+9.996}
 \end{array}$$

Flange
Center

$$\begin{array}{r}
 \text{TB 2} \\
 \hline
 8.418 \\
 \hline
 9.418 \\
 14.438 \\
 \hline
 + 23.856
 \end{array}$$

TB 2 Value
LOS

CORRECTED Z VALUES TO TANK CENTER.

A

$$\begin{array}{r}
 2.078 \\
 9.996 \\
 \hline
 \boxed{+12.074} \checkmark
 \end{array}$$

B

$$\begin{array}{r}
 2.141 \\
 9.996 \\
 \hline
 \boxed{+12.137} \checkmark
 \end{array}$$

C

$$\begin{array}{r}
 0.137 \\
 9.996 \\
 \hline
 \boxed{+10.133} \checkmark
 \end{array}$$

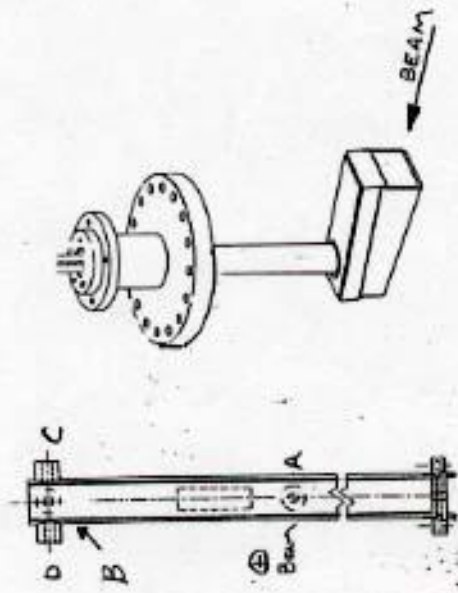
D

$$\begin{array}{r}
 0.089 \\
 9.996 \\
 \hline
 \boxed{+10.085} \checkmark
 \end{array}$$

22
4/18/03

SSRL
 B/L 6-Z 4JAW SLIT
 4/5 HORIZ. SLIT

4-28-03
 F.G., L.G.



	X	Y	Z
A	+18.888 ✓	-.315 ✓	-6.399 ✓
B	+25.382 ✓	-.440 ✓	-6.351 ✓
C	+25.441 ✓	+1.618 ✓	-8.355 ✓
D	+25.372 ✓	-2.442 ✓	-8.377 ✓

FG
 4/28/07

SSRL ϕ 6-2
 4 JAW SLIT
 1/8 HORIZONTAL SLIT

4/21/03
 L.G., F.G.

y)
$$\begin{array}{r} 4.178 \\ + .750 \\ \hline 4.928 \end{array} = HI$$

A

$$\begin{array}{r} 4.243 \\ 1 \\ \hline 5.243 \\ 4.928 \\ \hline \boxed{-0.315} \end{array}$$

B

$$\begin{array}{r} 4.368 \\ 1 \\ \hline 5.368 \\ 4.928 \\ \hline \boxed{-.440} \end{array}$$

C

$$\begin{array}{r} 2.310 \\ 1 \\ \hline 3.310 \\ 4.928 \\ \hline \boxed{+1.618} \end{array}$$

D C-D
 Cwipered

$$\begin{array}{r} 4.560 \\ .5 \\ \hline 4.060 \\ 1.618 \\ \hline \boxed{-2.442} \end{array}$$

x)
$$\begin{array}{r} 40.210 \text{ Ret. Blade} \\ + .010 \\ \hline 40.200 \quad \phi \\ + 5.955 \text{ Ret. Blade} \\ \hline 34.245 = LOS \end{array}$$

$$\begin{array}{r} .010 \\ + .655 \\ \hline .645 \end{array}$$

S/R .650

A

$$\begin{array}{r} 14.357 \\ 1 \\ \hline 15.357 \\ 34.245 \\ \hline \boxed{+18.998} \end{array}$$

B

$$\begin{array}{r} 7.863 \\ 1 \\ \hline 8.863 \\ 34.245 \\ \hline \boxed{+25.382} \end{array}$$

C

$$\begin{array}{r} 7.804 \\ 1 \\ \hline 8.804 \\ 34.245 \\ \hline \boxed{+25.441} \end{array}$$

D

$$\begin{array}{r} 7.873 \\ 1 \\ \hline 8.873 \\ 34.245 \\ \hline \boxed{+25.372} \end{array}$$

6-2 4 JAW SLIT
W/S HORIZ. SLIT

4/21/03
FG, L.G.

2)

D/S END
FLANGE

1" PIPE

12.879
3.370
16.249 ✓

15.978
.5
16.478 ✓

A

13.192
1
14.192
16.249
+2.057 ✓

B

13.144
1
14.144
16.249
+2.105 ✓

C

15.140
1
16.140
16.249
+0.109 ✓

D

15.178
1
16.178
16.249
+0.071 ✓

2)
4/21/03

2) 6-2 4 JAW SLIT
 SET u/s HORIZ. SLIT (+) SIDE 4/22/03
 LG., FG.

TAKE PITCH OUT WITH C & D BEFORE TIGHTENING FLANGE BOLTS

LOCAL 2 VALUES:

<u>C (TOP)</u>	<u>D (BOT)</u>	
+0.109	+0.071	.038 Δ
13.440	13.403	
13.390	13.368	

.022 Δ Reading these inside pitch adjust TB's by .016"
 -.008 to TBC
 +.008 to TBD

TBY
 7.540
 1
 8.540
 4.454
 -22.994 = LOS

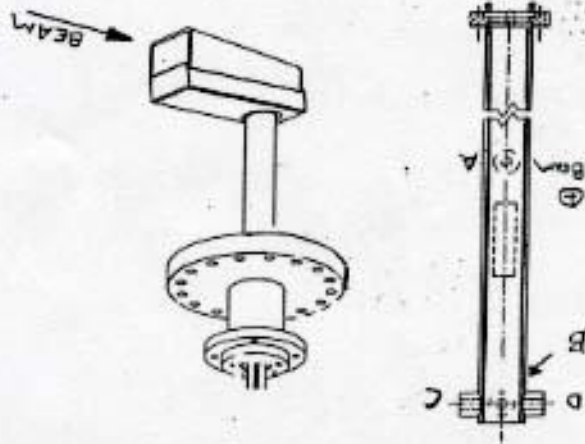
<u>TBC</u>	<u>TBD</u>
+109	+0.071
.008	.008
<u>+101</u>	<u>+0.079</u>

CORRECTED VALUES TO TANK:

<u>FLANGE</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
11.168	-8.456	-8.456	-8.456	-8.456
3.370 RAD.	+2.057	+2.105	+1.101	+1.079
14.538	<u>-6.399</u>	<u>-6.351</u>	<u>-8.355</u>	<u>-9.377</u>
22.994				
-8.456				

SSRL
 BL 6-Z 4 JAW SLIT
 BOTTOM VERT. SLIT

4-28-03
 F.G., L.G.



	X	Y	Z
A	-0.106 ✓	-18.714 ✓	+5.062
B	-0.134 ✓	-25.210 ✓	+5.118
C	+1.894 ✓	-25.245 ✓	+3.080
D	-2.166 ✓	-25.225 ✓	+3.088

FG
 4/28/03

6-2

SSRL 4 JAW SLIT
BOTTOM VERTICAL SLIT

4/16/03
F.G., T.G.

Y)

$$\frac{u/s}{-.359}$$

$$\frac{D/S}{+.002}$$

$$\begin{array}{r} .361 \\ .353 \text{ s/k} \\ - .008 \end{array}$$

Top Bull

A

$$\begin{array}{r} 2.196 \\ 1 \\ \hline 3.196 \end{array}$$

$$21.910$$

$$\boxed{-18.714} \checkmark$$

B

$$\begin{array}{r} 2.300 \\ 1 \\ \hline 3.300 \end{array}$$

$$21.910$$

$$\boxed{-25.210} \checkmark$$

C

$$\begin{array}{r} 2.335 \\ 1 \\ \hline 3.335 \end{array}$$

$$21.910$$

$$\boxed{-25.245} \checkmark$$

D

$$\begin{array}{r} 2.315 \\ 1 \\ \hline 3.315 \end{array}$$

$$21.910$$

$$\boxed{-25.225} \checkmark$$

TURTLE

$$20.434$$

$$1$$

$$21.434$$

$$43.344$$

$$\boxed{-21.910} = HI. \checkmark$$

228
4/17/03



6-2

SSRL 4 JAW SLIT
BOTTOM VERTICAL SLIT

4/16/03
L.G., F.G.

X) \rightarrow <u>u/s</u> .367 .344 .355 .331	\leftarrow <u>D/s</u> .355 .312 .340 .333
--	--

$\phi @$ 35.553
36.700
 + 1.147 LOS ✓
.750 (+) SIDE ✓
 S/R .397 ✓

Ave. .332 +.065 ✓ Correct TB's
 S/R .397

F.G., T.B

A

27.946
1
 28.946
 28.905
 - .041 ✓
 + .065
F-.106 ✓

B

27.974
1
 28.974
 28.905
 - 0.069 ✓
 0.065
[-.134] ✓

C

25.946
1
 26.946
 28.905
 1.959 ✓
 .065
[+1.894] ✓

C-D

Culipered C-A
 4.560
1.894
 2.666
 .5
[-2.166] ✓

28
 4/17/03

6-2

BOTTOM VERTICAL SLIT

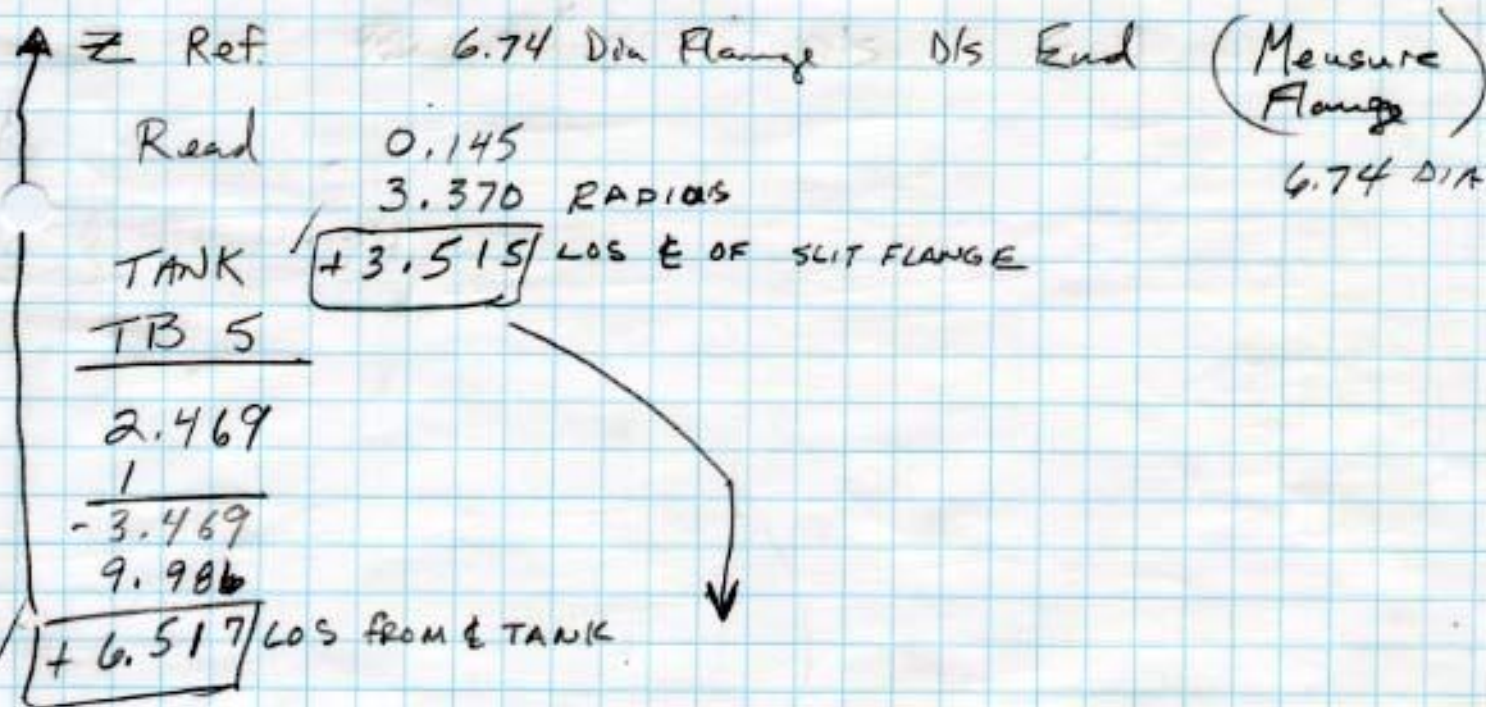
SSRL 4 JAW SLIT

4/16/03
F.G., T.G.

2)

TO TANK 4

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
0.455	0.399	2.437	2.429
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
-1.455	-1.399	-3.437	-3.429
6.517	6.517	6.517	6.517
+5.062 ✓	+5.118 ✓	+3.080 ✓	+3.088 ✓



READING + FT LOS	A) -1.455 +3.515	B) -1.399 +3.515	C) -3.437 +3.515	D) -3.429 +3.515
+2.060 ✓	+2.116 ✓	+0.078 ✓	+0.086 ✓	

4/17/03

BOTTOM VERTICAL SLIT

6-2

4/17/03

1" SLIT PIPE.

Values
from 1" pipe

L.G., F.G.

$$\begin{array}{r} 15.885 \\ .5 \\ \hline 16.385 \end{array}$$

B

C

D

132.53

15.278

15.279

1

1

1

14.253

16.278

16.279

16.385

16.385

16.385

+ 2.132

+ 1.107

+ 1.106