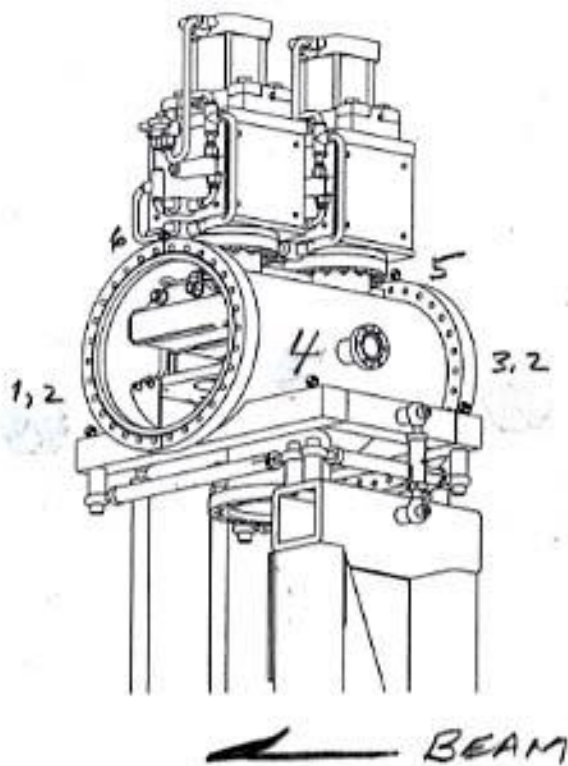


SSRL SPEAR 3  
 BEAMLINE 2 STOPPER

2/24/03  
 M.R.F., G., L.G

KM  
 8/27/03



	X	Y	Z
1	-7.151	-2.377	+5.515
2	-7.138	-2.388	-5.494
3	+7.135	-2.315	-5.520
4	+7.116	-2.292	+5.479
5	+ .010	+8.123	-8.943
6	- .038	+8.120	+8.970

SSRL  $\Phi$  2 STOPPER

2/21/03

F.G., M.R.

(X)

$$\begin{array}{r} \text{D/S FL} \\ \hline 22.742 \\ 6.623 \\ \hline \end{array}$$

$$\begin{array}{r} \text{U/S FL} \\ \hline 22.742 \end{array}$$

$$\Phi \quad 29.365 \checkmark$$

✓ MR  
2/21/03

check	5	6	3	4
	9.987	28.408	21.230	21.249
	19.371	1	1	1
	29.358 ✓	29.408 ✓	22.230 ✓	22.249 ✓
	29.365	29.365	29.365	29.365
	<u>+0.007</u> ✓	<u>-0.043</u> ✓	<u>+7.135</u> ✓	<u>+7.116</u> ✓

No. 2: AVG 5 & 6      some slip in TB's.

TB 5  
+0.010

TB 6  
-0.038

BLADE 47.350  
 $\Phi$  43.361  
LOS -3.989 ✓

U/S BLOCK

U/S	D/S
+0.066	+0.073
-3.923	-3.916
NOMINAL 4.000	4.000
FND +0.077 ✓	+0.084 ✓

BLADE 47.500  
 $\Phi$  43.361  
LOS -4.139 ✓

D/S BLOCK

U/S	D/S
+0.035	+0.018
-4.139	-4.139
4.104 ✓	4.121 ✓
4.000	4.000
-0.104 ✓	-0.121 ✓

SSRL \$2 STOPPERS

(X)

FAR WD'S VALUE = 6.623  
 NEAR WD'S VALUE = 6.623

2/21/03  
 F.G., M.R.

✓ 2/23/03  
 MR

1ST FAR = 5.000  
 1ST NEAR = 5.425  
  
 2ND FAR = 6.997  
 2ND NEAR = 7.001  
  
 SIR FAR = 7.016 ✓  
 SIR NEAR = 7.016 ✓  
  
 LOS = 13.639 ✓

REF. BLADES  
 @ 57.  
13.639

Φ = -43.361 ✓

1  
 5.488  
1  
 6.488 ✓  
 13.639  
          
 -7.151 ✓

2  
 5.501  
1  
 6.501 ✓  
 13.639  
          
 -7.138 ✓

5  
 12.652  
1  
 13.652 ✓  
 13.639  
          
 +0.013 ✓

6  
 12.606  
1  
 13.606 ✓  
 13.639  
          
 -0.033 ✓

~~NEW GUN @ 14.000  
 43.361~~

~~LOS = +29.361~~

check ~~6  
 28.408  
1  
 29.408  
 29.361  
          
 -0.047~~ 5  
 9.997  
1  
 19.994  
 29.358  
          
 29.361  
          
 +.003

~~3  
 21.230  
1  
 22.230  
 29.361  
          
 +7.131~~

~~4  
 21.249  
1  
 22.249  
 29.361  
          
 +7.112~~

SSRL # 2 STOPPER

2/23/03  
MR 2/21/03  
F.G., M.R.

13.246 / 2 = 6.623 ✓ U/S & D/S FLANGES (PITCH)

7.970 / 2 = 3.985 ✓ SMALL FLANGE (ROLL)

U/S FL

D/S FL

SM FL

$$\begin{array}{r} 16.419 \\ 6.623 \\ \hline 23.042 \end{array} \checkmark$$

$$\begin{array}{r} 16.418 \\ 6.623 \\ \hline 23.041 \end{array} \checkmark$$

$$\begin{array}{r} 19.053 \\ 3.985 \\ \hline 23.038 \end{array} \checkmark$$

AVG. HI = 23.040 ✓

1

$$\begin{array}{r} 24.417 \\ 1 \\ \hline 25.417 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline -2.377 \end{array} \checkmark$$

2

$$\begin{array}{r} 24.428 \\ 1 \\ \hline 25.429 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline -2.388 \end{array} \checkmark$$

3

$$\begin{array}{r} 5.984 \\ 19.371 \\ \hline 25.355 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline -2.315 \end{array} \checkmark$$

4 SEE NET PLAN

$$\begin{array}{r} 24.432 \\ 1 \\ \hline 25.432 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline -2.392 \end{array} \checkmark$$

5

$$\begin{array}{r} 13.917 \\ 1 \\ \hline 14.917 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline +8.123 \end{array} \checkmark$$

6

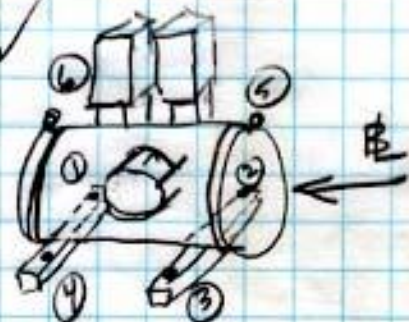
$$\begin{array}{r} 13.920 \\ 1 \\ \hline 14.920 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline +8.120 \end{array} \checkmark$$

TP (TURTLE)

$$\begin{array}{r} 3.680 \\ 57 \\ \hline 60.680 \end{array} \checkmark$$

$$\begin{array}{r} 23.040 \\ \hline -37.640 \end{array} \checkmark$$



SSRL STOPPER B/CZ  
OUT POSITION

2/20/03  
L.H., M.R.

(Y)

✓ 2/23/03  
MR

$$\begin{array}{r} 1) \ 24.472 \\ \quad 1.000 \\ \hline 25.472 \checkmark \\ - 2.377 \\ \hline 23.095 \checkmark \end{array}$$

$$\begin{array}{r} 2) \ 24.482 \\ \quad 1.000 \\ \hline 25.482 \checkmark \\ - 2.388 \\ \hline 23.094 \checkmark \end{array}$$

$$\begin{array}{r} 4) \ 24.387 \\ \quad 1.000 \\ \hline 25.387 \\ - 2.392 \\ \hline 22.995 \checkmark \end{array} \quad \begin{array}{r} 3) \ 6.042 \\ \quad 19.371 \\ \hline 25.413 \\ - 2.315 \\ \hline 23.098 \checkmark \end{array}$$

$$\begin{array}{r} 4/s) \ 16.473 \\ \quad 6.623 \\ \hline 23.096 \checkmark \end{array}$$

$$p/s) \ 16.473$$

$$\begin{array}{r} SIDE) \ 19.110 \\ \quad 3.985 \\ \hline 23.095 \checkmark \end{array}$$

23.095 HI

NEW VALUE

T/P

$$\begin{array}{r} 3.739 \\ 57.000 \\ \hline 60.739 \checkmark \\ - 23.095 \\ \hline 37.644 \checkmark \end{array}$$

$$\begin{array}{r} GUNZ \\ 36.861 \\ \quad 1.000 \text{ FT} \\ \hline 37.861 \checkmark \\ - 37.644 \\ \hline +1.217 \text{ HI} \checkmark \end{array}$$

$$\begin{array}{r} (4) \ 24.387 \\ \quad 1.000 \\ \hline 25.387 \checkmark \\ - 23.095 \\ \hline -2.292 \checkmark \end{array}$$

$$\begin{array}{r} 1) \ +0.760 \\ \quad .217 \\ \hline +977 \end{array}$$

$$\begin{array}{r} 5) \ +0.836 \\ \quad .217 \\ \hline +1.053 \checkmark \end{array}$$

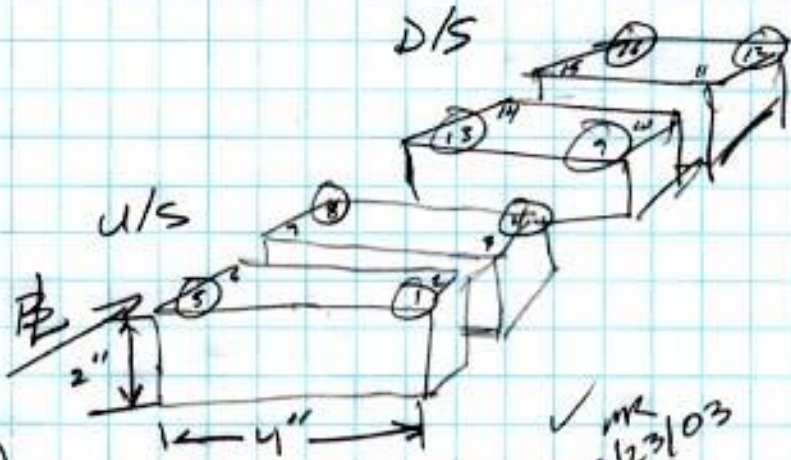
$$\begin{array}{r} 12) \ +0.815 \\ \quad .217 \\ \hline +1.032 \checkmark \end{array}$$

$$\begin{array}{r} 16) \ +0.785 \\ \quad .217 \\ \hline +1.002 \checkmark \end{array}$$

(Y)

TURTLE

37.811  
1  
 38.811 ✓  
 37.640  
 HI = 1.171 ✓



U/S BLOCKS (IN)

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
HI	1.171					
Value	<u>1</u>					
S/R	.171 ✓	S/R .171	S/R .171	S/R .171	.171	.171
FND	.241 -70 .207 -36 .203 -32	.246 -75	.241 -70	.243 -72 .217 (-46) .210 -39	.158 +13 -114 +57	.164 +

7

8

Read Tops of Blocks  
Ref. To  $\phi$  of Blocks

	<u>7</u>	<u>8</u>
Value	<u>1.171</u>	
S/R	.171	S/R .171
FND	.167 +4	.172 -1 .125 +46 .129 +42 ✓

D/S BLOCKS (IN)

	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
S/R	.171			S/R .171	S/R .171
FND	.178 -7 .186 -15 .179 (-7) ✓	.153 +18 ✓		.152 +19 .162 +9 .160 (+11) .140 +31 ✓	.155 + .170 +1 .175 (-4) .184 ✓ -13

14

15

16

S/R	.171
FND	.134 +27 .149 (+23) ✓ .178 -7 ✓

SSRL # 2 STOPPERS

2/21/03

F.L.M.R.

19.010 calipered.  
17.010

$$19.010 \div 2 = 9.505 \checkmark$$

✓ MR  
2/23/03

2

$$\begin{array}{r} -9.505 \\ 3.761 \text{ inside} \\ \hline 5.744 \checkmark \\ .250 \\ \hline \boxed{-5.494} \checkmark \end{array}$$

3

$$\begin{array}{r} -9.505 \\ 3.735 \text{ inside} \\ \hline 5.770 \checkmark \\ .250 \\ \hline \boxed{-5.520} \checkmark \end{array}$$

5

$$\begin{array}{r} -9.505 \\ .912 \text{ outside} \\ \hline 8.593 \checkmark \text{ of blade} \\ .350 \\ \hline \boxed{-8.943} \checkmark \end{array}$$

U/S Flange  
Read ( )  
1 1/2 TB

40 Blade width 100 mil

1

$$\begin{array}{r} +9.505 \\ 3.740 \\ \hline 5.765 \checkmark \\ .250 \\ \hline \boxed{+5.515} \checkmark \end{array}$$

4

$$\begin{array}{r} +9.505 \\ 3.776 \\ \hline 5.729 \checkmark \\ .250 \\ \hline \boxed{+5.479} \checkmark \end{array}$$

6

$$\begin{array}{r} +9.505 \\ .885 \\ \hline 8.620 \checkmark \\ .350 \\ \hline \boxed{+8.970} \checkmark \end{array}$$

~~6~~

$$\begin{array}{r} 9.505 \\ .910 \\ \hline 8.595 \\ .350 \\ \hline 8.945 \end{array}$$

Dist 1-2

$$\begin{array}{r} 11.510 \\ -.5 \\ \hline 11.010 \checkmark \\ (11.009) \end{array}$$

DIST 3-4

$$\begin{array}{r} 11.482 \\ .5 \\ \hline 10.962 \checkmark \\ (10.999) \end{array}$$