

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 100**

01	GP	3 GEV BOOSTER	SITE PLAN	SITE PLAN	---
02	GP	3 GEV BOOSTER	GENERAL LAYOUT	BOOSTER TO SPEAR	---
03	GP	3 GEV BOOSTER	GENERAL LAYOUT	INJECTOR SHIELDING	---
04	GP	3 GEV BOOSTER	GENERAL LAYOUT	RF CAVITY & KLYSTRON	---
05	GP	3 GEV BOOSTER	GENERAL LAYOUT	GEOMETRY	---
11	SA	3GEV INJECTOR	TOP ASSEMBLY	INJECTOR ASSEMBLY	---
16	GP	SSRL- GENERAL	ALIGNMENT MONUMENT	COORDINATES	---
17	GP	3 GEV BOOSTER	GENERAL LAYOUT	AC- POWER	---
18	GP	3 GEV INJECTOR	LAYOUTS	QD/QF/MAGNET VAC. CHAMBER LA	---
60	SA	3 GEV BOOSTER	SHIELDING	WEST DOOR ASSEMBLY	EARTHQUAKE SAFETY
61	SA	3 GEV BOOSTER	SHIELDING	EAST DOOR ASSEMBLY	EARTHQUAKE SAFETY
62	SA	3 GEV BOOSTER	SHIELDING	LINAC DOOR ASSEMBLY	EARTHQUAKE SAFETY
63	SA	3 GEV BOOSTER	SHIELDING	DIAGNOSTIC DOOR ASSEMBLY	EARTHQUAKE SAFETY
64	SA	3 GEV BOOSTER	SHIELDING	WEST DOOR ASSY (EARTHQUAKE S	POST
65	SA	3 GEV BOOSTER	SHIELDING	WEST DOOR ASSY (EARTHQUAKE S	HORIZONTAL SUPPORT
66	SA	3 GEV BOOSTER	SHIELDING	INJ. DOOR ASSY (EARTHQUAKE SA	ANGLE SUPPORT
67	SA	3 GEV BOOSTER	SHIELDING	EAST DOOR ASSY (EARTHQUAKE S	POST
68	SA	3 GEV BOOSTER	SHIELDING	EAST DOOR ASSY (EARTHQUAKE S	HORIZONTAL SUPPORT
69	SA	3 GEV BOOSTER	SHIELDING	DIAGNOSTIC DOOR ASSY (EARTHQ	POST
70	SA	3 GEV BOOSTER	SHIELDING	DIAGNOSTIC DOOR ASSY (EARTHQ	HORIZONTAL SUPPORT
71	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY	---
72	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY	FLOOR PLATE WELDMENT
73	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY	LATCH PLATE WELDMENT
74	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY	LATCH WELDMENT
75	PF	3 GEV INJECTOR	SHELTER SYSTEM	LINAC & DIAGNOSTIC	DOOR CAGES
76	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY (LEFT)	---
77	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY (LEFT)	LATCH PLATE WELDMENT (LEFT)
78	PF	3 GEV BOOSTER	GENERAL LAYOUT	INTERIOR & EXTERIOR WALL	FOR ACCESS 13 & 19
79	GP	3 GEV BOOSTER	WEST DOOR	WEST DOOR	---
80	GP	3 GEV INJECTOR	BOOSTER RING	LINAC & DIAGNOSTIC	ROLLING DOORS
81	PF	3 GEV BOOSTER	SITEPLAN	WESTWALL BLOCKS	---
82	SA	3 GEV BOOSTER	SHIELDING	DOOR LATCH ASSEMBLY (LEFT)	LATCH WELDMENT (LEFT)
83	PF	3 GEV INJECTOR	SITEPLAN	INJECTOR SHIELDING	DOORS
84	GP	3 GEV BOOSTER	SITE PLAN	ACCESS TO BOOSTER	RING
85	PF	3 GEV BOOSTER	GENERAL LAYOUT	QUAD-PEDESTAL	DRILL JIG
86	SA	3 GEV INJECTOR	SHELTER SYSTEM	ROLLING DOOR	ASSEMBLY
87	PF	3 GEV INJECTOR	SHELTER SYSTEM	ROLLING DOORS	MECHANISM SUPPORT
88	PF	3 GEV INJECTOR	SHELTER SYSTEM	ROLLING DOOR	SLIDING PLATE

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 100**

89	PF	3 GEV INJECTOR	BOOSTER SHELTER	GAGE WEST & EAST	---
90	PF	3 GEV INJECTOR	SUPPORT INSTALLATION	ARC GIRDER	PEDESTAL TEMPLATE
91	GP	3 GEV INJECTOR	WEST ACCESS	OUTER DOOR LAYOUT	---
92	PF	3 GEV INJECTOR	SITEPLAN	INJECTOR SHIELDING	WEST OUTER DOOR
94	PF	3 GEV BOOSTER	SHIELDING	LINAC/ DIAGNOSTIC DOOR ASSY	SPACER
95	GP	3 GEV INJECTOR	DIPOLE GIRDER	STRAIGHT GIRDER	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

### **444 101**

21	GP	3 GEV BOOSTER	STANDARD ARC SECTION	RAY TRACE BASE DRAWING	---
27	GP	3 GEV BOOSTER	BEAM CONTAINMENT	QD10 TO QD16	---
29	GP	3 GEV BOOSTER	BEAM CONTAINMENT	QD14 TO QD18	---
31	GP	3 GEV BOOSTER	BEAM CONTAINMENT	QD10 TO QD12	---
33	GP	3 GEV BOOSTER	RAY TRACE	NORTH & SOUTH ARCS	---
35	GP	3 GEV BOOSTER	GIRDER 12 LEAD	SUPPORT	---
36	GP	3 GEV BOOSTER	BEAM CONTAINMENT	QF11-QF13	---
38	PF	3 GEV BOOSTER	STRAIGHT SECTION 12	LEAD SUPPORT DETAILS	---
39	SA	SSRL- BOOSTER	UTILITIES	CABLE TRAY COVER	CABLE TRAY COVER
44	GP	SSRL BOOSTER	SEPTUM SYSTEM	MAGNET & VAC CHAMBER	ON GIRDER ALIGNMENT
45	GP	3 GEV INJECTOR	EJECTION SYSTEM	SEPTUM TO B3 MAGNET	RAY TRACE
46	GP	3 GEV INJECTOR	EJECTION SYSTEM	B3H--B6H MAGNET	RAY TRACE
47	GP	3 GEV INJECTOR	EJECTION SYSTEM	B6 MAGNET	EXTENDED RAY TRACE
48	GP	3 GEV INJECTOR	EJECTION SYSTEM	Q6 TO SEPTUM	RAY TRACE
50	SA	3 GEV INJECTOR	MONORAIL CRANE	ASSEMBLY	---
52	GP	3 GEV INJECTOR	EJECTION SYSTEM	B4H-B6H MAGNETS	RAY TRACE
53	GP	3 GEV INJECTOR	EJECTION SYSTEM	SEPTUM & BIV	---
54	GP	3 GEV INJECTOR	EJECTION SYSTEM	B1V-B2H MAGNETS	RAY TRACE
55	GP	3 GEV INJECTOR	EJECTION SYSTEM	B2-B3 MAGNETS	RAY TRACE
56	GP	3 GEV INJECTOR	EJECTION SYSTEM	B3-B4	RAY TRACE
58	GP	3 GEV INJECTOR	EJECTION SYSTEM	GIRDER 47-49	RAY TRACE
59	GP	3 GEV INJECTOR	EJECTION SYSTEM	GIRDER 47-12	RAY TRACE

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

### **444 103**

10	ID	3 GEV INJECTOR	STRAIGHT SECTION	QUADRUPLE MAGNET	ALIGNMENT 10
11	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 11
12	ID	3 GEV INJECTOR	STRAIGHT SECTION	GIRDER	ALIGNMENT 12
13	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 13
14	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 14
20	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 20
25	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 25
26	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 26
27	ID	3 GEV INJECTOR	STRAIGHT SECTION	GIRDER	ALIGNMENT 27
28	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 28
29	ID	3 GEV INJECTOR	STRAIGHT SECTION	GIRDER	ALIGNMENT 29
30	ID	3 GEV INJECTOR	STRAIGHT SECTION	GIRDER	ALIGNMENT 30
31	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 31
32	ID	3 GEV INJECTOR	STRAIGHT SECTION	GIRDER	ALIGNMENT 32
33	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 33
34	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 34
35	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 35
36	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 36
37	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 37
38	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 38
39	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 39
40	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 40
41	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 41
42	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 42
43	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 43
44	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 44
45	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 45
46	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 46
47	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 47
48	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 48
49	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	FINAL ARC MAGNET	ALIGNMENT 49
50	ID	3 GEV INJECTOR	STRAIGHT SECTION	EJECTION SEPTUM	INSTALLATION
60	ID	3 GEV INJECTOR	GUN TO ALPHA	FINAL ALIGNMENT	---
62	ID	3 GEV INJECTOR	LINAC TO BOOSTER	MAGNETS ALIGNMENT	---
63	ID	3 GEV BOOSTER	DLWG#1--#3	ALIGNMENT DATAS	---
70	ID	3 GEV INJECTOR	EJECTION SYSTEM	B1V MAGNET	FINAL ALIGNMENT
71	ID	EJECTION SYSTEM	Q1FH, B2HV & Q2DH	ALIGNMENT	---
72	ID	3 GEV INJECTOR	EJECTION SYSTEM	B3H & Q3FH	ALIGNMENT

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 103**

73 ID 3 GEV INJECTOR  
80 ID 3 GEV BOOSTER

EJECTION SYSTEM  
LINAC TO BOOSTER

Q4DH TO Q7DH  
INSTALLATION & ALIGNMENT

ALIGNMENT  
DATA

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 104**

11	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL G11 & Q12
13	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL P13 & P14
15	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 15, 16, &17
17	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 18
19	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 19 & 20
21	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL P21 & P22
23	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 23 & 24
25	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL P25 & 26
27	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL P27 & 28
29	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL P29 & 30
31	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDSTAL P31 & 32
33	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 33 & 34
35	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 35 & 36
37	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 37 & 38
39	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 39 & 40
41	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 41 & 42
43	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 43 & 44
45	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 45 & 46
47	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL Q47 & P48
49	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL Q49 & Q10
50	ID	3 GEV INJECTOR	PEDESTAL ANCHOR	HOLE LAYOUT	PEDESTAL 40

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 105**

11	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL G11 & Q12
15	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 15, 16, &17
17	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 18
21	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 21 & 22
23	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 23 & 24
25	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 25 & 26
27	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL P27 & P28
29	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL P29 & P30
31	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL P31 & P32
33	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 33 & 34
35	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 35 & 36
37	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 37 & 39
39	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 39 & 40
41	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 41 & 42
43	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 43 & 44
45	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL 45 & 46
47	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL Q47 & G48
49	ID	3 GEV INJECTOR	STRAIGHT GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	PEDESTAL Q49 & Q10
51	ID	3 GEV INJECTOR	ARC GIRDER PEDESTAL	DOWEL ALIGNMENT LAYOUT	IR-12
52	ID	3 GEV INJECTOR	406 PEDESTAL	DOWEL ALIGNMENT LAYOUT	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 140**

00	ID	3 GEV	INJECTOR LINAC	RF SYSTEM LAYOUT	---
00	GP	3GEV	INJECTOR LINAC	RF SYSTEM LAYOUT	---
01	SA	SSRL- LINAC	3 GEV INJECTOR ASSEMBLY	GUN TO BOOSTER ASSEMBLY	---
02	SA	SSRL- LINAC	GUN TO BOOSTER ASSEMBLY	LINAC ASSEMBLY	---
03	GP	SSRL INJECTOR	LINAC	LINAC ROOM	LAYOUT
10	SD	SSRL INJECTOR	LINAC	RF SYSTEM SCHEMATIC	---
11	SA	SSRL LINAC	RECTANGULAR WAVEGUIDE	GUN TEST FACILITY	RWGN #1-K1 TO PCRFB GUN
45	SA	SSRL LTB TRANSFER LINE	MISC VACUUM COMPONENTS	BEAM STOPPER SHIELDING ASSY	---
46	PF	SSRL LTB TRANSFER LINE	MISC. VACUUM COMPONENTS	BEAM STOPPER SHIELDING ASSY	FRONT AND BACK PLATE
47	PF	SSRL BOOSTER	MISC. VACUUM COMPONENTS	BEAM STOPPER SHIELDING ASSY	LATERAL PLATE
48	PF	SSRL LTB TRANSFER LINE	MISC. VACUUM COMPONENTS	BEAM STOPPER SHIELDING ASSY	SPACER
49	PF	SSRL LTB TRANSFER LINE	MISC. VACUUM COMPONENTS	BEAM STOPPER SHIELDING ASSY	ANGLE
50	SA	SSRL LINAC	SHIELDING	RADIATION SHIELDING LOCATIONS	---
50	ID	SSRL - LINAC	SHIELDING	RADIATION SHIELDING LOCATIONS	---
51	SA	SSRL- LINAC	SHIELDING	RADIATION SHIELDING	DLWG #1 LEAD SHIELD ASS'Y
52	SA	SSRL LINAC	SHIELDING	DLWG #1 MTG. ASSY	CHOPPER VERTICAL SHIELDING
52	PF	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	CENTER SUPPORT TOP PLATE
53	SA	SSRL LINAC	SHIELDING	DLWG #1 MTG. ASSY	LINAC HORIZONTAL SHIELDING
53	PF	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	MID CENTER SUPPORT TOP PLATE
54	SA	SSRL LINAC	SHIELDING	DLWG #1 MTG. ASSY	DLWG #1/#2 HORIZONTAL SHIELDI
54	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	END SUPPORT TOP PLATE
56	SA	SSRL- BOOSTER	SHIELDING	BOOSTER SHIELDING	---
57	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	RIGHT SIDE FRAME SUB-ASS'Y
58	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SIDE FRAME WELDMNT
59	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SHORT ANGLE
60	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LONG ANGLE
61	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	MEDIUM ANGLE
62	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	NOTCHED LONG ANGLE
63	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LEFT SIDE FRAME SUB-ASS'Y.
64	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LEFT SIDE LEAD SUP. RAIL WELDM
65	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SIDE SUPPORT RAIL BRACKET
66	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	CENTER, LEFT SIDE COVER
67	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	RIGHT END, LEFT SIDE COVER
68	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LEFT END, LEFT SIDE COVER
69	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	CENTER TOP COVER
70	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	END TOP COVER
71	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	TURN BUCKLE WALL MOUNT
72	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SIDE FRAME FOOT & SHIMS



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 140**

73	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SPACER BRICK FOR ION PUMP
74	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SPACER FRAME FOR DLWG#1 OUT
75	PF	SSRL LINAC	DLWG #1 TO #2 TRANSITION REGIO	ION PUMP SUPPORT	---
76	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	SHORT, LEFT SIDE COVER
77	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LEAD BRICK AND COVER LAYOUTS
78	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	NOTCHED SHORT ANGLE
79	SA	SSRL- LINAC	SHIELDING	DLWG #1 LEAD SHIELD	RIGHT SIDE LEAD SUP. RAIL WELD
80	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	CENTER, RIGHT SIDE COVER
81	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	RIGHT END, RIGHT SIDE COVER
82	PF	SSRL LINAC	SHIELDING	DLWG #1 LEAD SHIELD	LEFT END. RIGHT SIDE COVER
83	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	SUPPORT POST WELDMENT
84	PF	PHOTON BEAMLINES	STOPPERS SB01-5	STOPPER SUPPORT	---
85	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	BASE PLATE
86	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	COVER, 10.50" LG
87	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	COVER, 18.25" LG
88	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	COVER, 20.25" LG
89	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	COVER, 8.25" LG
90	SA	SSRL- BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC SHIELDING	ASSEMBLY
91	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	TOP COVER
92	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	CLAMP
93	PF	SSRL BOOSTER	SHIELDING	LINAC AND DIAGNOSTIC	SPACER
94	PF	SSRL BOOSTER	SHIELDING	BTS SEPTUM	SUPPORT
95	SA	SSRL- BOOSTER	SHIELDING	BTS SEPTUM	---
96	PF	SSRL BOOSTER	SHIELDING	BTS SEPTUM	BACK COVER
97	PF	SSRL BOOSTER	SHIELDING	BTS SEPTUM	FRONT COVER
98	PF	SSRL BOOSTER	SHIELDING	BTS SEPTUM	BASE PLATE

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 141**

01	SA	SSRL- GUN & GUN TO LINAC	GUN TO LINAC ASSY	GUN TO LINAC ASSY	---
02	SA	SSRL- GUN TO LINAC	GUN MOUNTING ASSY	GUN MOUNTING ASSY	---
03	SA	SSRL- GUN TO LINAC	ALPHA MAGNET TO LINAC	ASSEMBLY	---
04	SA	SSRL-LINAC	MICROWAVE GUN ASSY	MICROWAVE GUN ASSY	---
05	SA	SSRL- GUN TO LINAC	GUN TO ALPHA MAGNET	ASSEMBLY	---
06	PF	3 GEV INJECTOR	ALPHA MAGNET TO DLWG	SUPPORT PLATE	---
07	SA	3 GEV BOOSTER	LINAC LINE	FRONT SUPPORT	ASSEMBLY
08	PF	3 GEV BOOSTER	GUN TO ALPHA MAGNET	SUPPORT PLATE	---
09	PF	3 GEV BOOSTER	LINAC LINE	QUADRUPOLE SADDLE	---
10	PF	3 GEV BOOSTER	GUN TO ALPHA MAGNET	VALVE SUPPORT	---
11	SA	SSRL- GUN TO LINAC	STEERING MAGNET	SUPPORT	---
12	PF	SSRL INJECTOR LINAC	GUN TO ALPHA VALVE	MOUNTING COLLAR	---
13	PF	SSRL INJECTOR LINAC	GUN TO ALPHA MAGNET	VALVE SUPPORT CRADLE	---
14	PF	3 GEV INJECTOR	GTL SUPPORT SYSTEM	SUPPORT PLATE	---
15	SA	SSRL- GUN TO LINAC	GUN SKARPASS FLANGE	HOSE CLAMP MOUNTING ASSY	---
16	SA	SSRL- GUN TO LINAC	2.75 DIA. FLG. CLAMP	MOUNTING ASSEMBLY	---
19	PF	3 GEV BOOSTER	DLWG #1 FRONT STAND	HOLE PATTERN	---
20	SA	SSRL INJECTOR LINAC	MICROWAVE GUN & RF WINDOW	CRADLE	---
21	PF	MICROWAVE GUN	MOUNTING FRAME	MOUNTING FRAME	---
22	PF	SSRL INJECTOR LINAC	MICROWAVE GUN ANGLE	BRACES, HORIZONTAL	---
23	PF	SSRL- GUN & GTL	SUPPORT STRUCTURE	MICROWAVE GUN 2 3/4 CF	MOUNTING COLLAR
24	PF	3 GEV INJECTOR	LINAC SYSTEM	GUN SKARPASS FLANGE	SUPPORT SADDLE
25	PF	SSRL INJECTOR LINAC	MICROWAVE GUN ANGLE	BRACES, UPPER HORIZONTAL	---
26	PF	3 GEV INJECTOR	LINAC SYSTEM	GUN SKARPASS FLANGE	SUPPORT SADDLE HOSE CLAMP
27	PF	SSRL	LINAC VACUUM	MICROWAVE GUN TO GV1	DIFFERENTIAL VACUUM PLUG
28	PF	SSRL INJECTOR LINAC	MICROWAVE GUN ANGLE	BRACES, VERTICAL	---
29	PF	3 GEV BOOSTER	LINAC	GUN STAND	MOUNTING PLATE
30	PF	SSRL INJECTOR	2 3/4 DF FLANGE MOUNTING CLAMP	BOTTOM HALF	---
31	PF	SSRL INJECTOR	2 3/4 CF FLANGE	MOUNTING CLAMP, TOP HALF	---
32	PF	SSRL INJECTOR- 2 3/4 CF FLANGE	MOUNTING CLAMP ANGLE BRACE	MOUNTING CLAMP ANGLE BRACE	---
33	SA	3 GEV INJECTOR	LINAC SYSTEM	GUN MOUNTING FRAME	ASSEMBLY
34	SA	SSRL- GUN TO LINAC	2.75 DIA. FLG. CLAMP ASSY.	2.75 DIA. FLG. CLAMP ASSY.	---
35	SA	3 GEV BOOSTER	LINAC GUN STAND	ASSEMBLY	---
36	SA	SSRL INJECTOR LINAC	ALPHA MAGNET CHAMBER	MOUNTING CLAMP ASSEMBLY	---
37	PF	SSRL INJECTOR LINAC	ALPHA MAGNET CHAMBER	HANGER BLOCK	---
38	PF	SSRL INJECTOR LINAC	ALPHA MAGNET CHAMBER	ALIGNING CLAMP	---
39	PF	SSRL INJECTOR	ALPHA MAGNET CHAMBER	TO MAGNET CLAMP	---
40	SA	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	VACUUM CHAMBER ASSY

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 141**

41	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	RIGHT END PLATE
42	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	LEFT END PLATE
43	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	FRONT PLATE
44	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	TOP/ BOTTOM PLATE
45	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	BACK PLATE
46	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	SCREEN VIEW TUBE
47	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	SCREEN SUPPORT TUBE
48	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC CHAMBER ASS	SCRAPER SUPPORT TUBE
49	SA	3 GEV INJECTOR	LINAC SYSTEM	GTL QUADRUPOLE	ASSEMBLY
50	SA	3 GEV INJECTOR	MAGNET SYSTEM	ALPHA MAGNET ASSEMBLY	---
51	PF	SSRL INJECTOR	MAGNET SYSTEM	ALPHA MAGNET COIL	(PROCUREMENT ONLY)
52	SA	SSRL- GUN TO LINAC	ALPHA MAGNET	CORE ASSEMBLY	---
53	PF	SSRL INJECTOR	MAGNET SYSTEM	ALPHA MAGNET	LAMINATION
54	PF	SSRL INJECTOR	MAGNET SYSTEM	ALPHA MAGNET	LAMINATION TEMPLATE
56	PF	3 GEV INJECTOR	LINAC SYSTEM	ALPHA MAGNET	COIL
57	SA	3 GEV BOOSTER	LINAC	ALPHA MAGNET	SUPPORT PLATE
58	SA	3 GEV INJECTOR	LINAC SYSTEM	GTL QUADRUPOLE	CORE AND COIL
59	SA	SSRL-GUN TO LINAC	STEERING MAGNET	STEERING MAGNET	---
60	SA	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	SCREEN ASSY
61	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	SCREEN COOLING TUBE
62	SA	3 GEV INJECTOR	LOW ENERGY SPECTROMETER	SLIT MODULE (.20" X 1.30")	WELD ASSEMBLY
62	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	SCREEN MOUNTING BRACKET
64	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	SCREEN FLANGE
65	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	PHOSPHORESCENT SCREEN
67	SA	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET VAC. CHAMBER AS	VACUUM CHAMBER IN/OUT BEAM
68	PF	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET VAC. CH PORT ASS	PORT
69	PF	SSRL INJECTOR	LINAC	ALPHA MAGNET VAC. CH. PORT AS	PORT TUBE
70	SA	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	---
71	SA	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ALPHA MAGNET/ CHAMBER ASSY	ABSORBER ASSY
72	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	ABSORBER COOLING TUBE
73	PF	3 GEV INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	ABSORBER MOUNTING BRACKET
74	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER ASSY	ABSORBER FLANGE
75	PF	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	ABSORBER COOLING TUBE PLATE
76	SA	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET	VAC. CHAMBER COOLING TUBE AS
77	PF	SSRL INJECTOR	GUN TO LINAC SYSTEM	ALPHA MAGNET VAC. CH. COOLING	COPPER BAR
78	SA	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ALPHA MAGNET/ CHAMBER ASSY	ABSORBER DRIVE ASSEMBLY
79	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	SWITCH BRACKET POST
80	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	SWITCH MOUNTING BRACKET

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

### **444 141**

81	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	UPPER PIVOT PLATE
82	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	LOWER PIVOT PLATE
83	PF	3 GEV INJECTOR	MAGNET SYSTEM	ALPHA MAGNET CORE	FRONT PLATE
84	PF	3 GEV INJECTOR	MAGNET SYSTEM	ALPHA MAGNET CORE	TIE BAR
85	PF	3 GEV INJECTOR	MAGNET SYSTEM	ALPHA MAGNET CORE	NUT
86	SA	3 GEV INJECTOR	LOW ENERGY SPECTROMETER	MAGNET	---
87	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	MAGNET CORE (TOP)	---
88	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	MAGNET CORE (BOTTOM)	---
89	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	FRONT SIDE PLATE	---
90	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	REAR SIDE PLATE	---
91	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	SIDE PLATE	---
92	PF	3 GEV INJECTOR	LOW ENERGY SPECTROMETER MA	SPACER	---
94	SA	SSRL- LINAC	MAGNETS-GENERAL	DLWG #1 H & V CORRECTOR MAGN & SUPPORT SUBASSEMBLY	ASSEMBLY WITH HINGED SUPPOR
96	SA	SSRL- GUN TO LINAC	STEERING MAGNET	& SUPPORT SUBASSEMBLY	---
97	SA	SSRL- GUN TO LINAC	QUADRUPOLE MAGNET	& SUPPORT SUBASSEMBLY	---
98	SA	SSRL- LINAC	MAGNETS-GENERAL	DLWG #1 H & V CORRECTOR MAGN	COIL ASSEMBLY
99	PF	SSRL- LINAC	MAGNETS- GENERAL	DLWG#1 H & V CORRECTOR MAGNE	HINGED SUPPORT PARTS

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 142**

01	SA	SSRL- LINAC	SHIELDING	RADIATION SHIELDING LOCATIONS	---
02	SA	SSRL- LINAC	SHIELDING	MOUNTING ASSY, DLWG #1 FRONT	CHOPPER VERTICAL STAND
03	SA	SSRL- LINAC	SHIELDING	MOUNTING ASSY, DLWG #1 FRONT	LINAC HORIZONTAL SHIELDING
04	SA	SSRL- LINAC	DLWG #1 TO #2 TRANSITION	TOROID MOUNTING ASSEMBLY	---
05	PF	SSRL INJECTOR LINAC	ALL METAL GATE VALVES (VAT)	(DLWG #3 TO B1)	---
06	SA	SSRL INJECTOR LINAC	SPECIAL TEE	SPECIAL TEE	---
07	SA	SSRL INJECTOR LINAC	SHIELDING	MOUNTING ASSY DLWG #1 FRONT	---
08	SA	SSRL- LINAC	TOROID MOUNTING ASSEMBLY	CERAMIC GAP AND BELLOWS ASSY	---
09	SA	SSRL INJECTOR	LINAC	DLWG #2 MOUNTING ASSY	---
10	SA	SSRL INJECTOR	LINAC	DLWG #3 MOUNTING ASSY	---
11	PF	DLWG STAND WELD'MENT	SSRL INJECTOR LINAC	SSRL INJECTOR LINAC	---
12	PF	SSRL INJECTOR	DLWG STAND DOG	DLWG STAND DOG	---
13	PF	SSRL INJECTOR LINAC	DLWG STAND MOUNTING PLATE	DLWG STAND MOUNTING PLATE	---
14	PF	SSRL INJECTOR LINAC	DLWG STAND SPACER BLOCK	DLWG STAND SPACER BLOCK	---
15	PF	SSRL INJECTOR LINAC	ALIGNING/MOUNTING BRACKET	FOR BEPC DLWG'S	---
16	PF	SSRL INJECTOR LINAC	DLWG STAND MOUNTING PLATE	BEGINNING OF DLWG #1	---
17	PF	3 GEV BOOSTER	LINAC LINE	DLWG#1 FRONT SUPPORT ANGLE	---
18	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	CLAMP, PIVOT PLATE
19	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	MOUNT, EAR
20	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	MOUNT, MOTOR
21	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	MOUNT, PIVOT
22	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	PIVOT
23	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	PIVOT DRIVE SCREW
24	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	SWITCH MOUNTING ANGLE
25	SA	3 GEV INJECTOR	GUN TO LINAC	VACUUM CHAMBER (GV1)	---
26	SA	3 GEV INJECTOR	GUN TO LINAC	CURRENT MONITOR	VACUUM CHAMBER (GV2)
27	SA	3 GEV INJECTOR	GUN TO LINAC	CURRENT MONITOR	VACUUM CHAMBER (GV4)
28	PF	3 GEV INJECTOR	GUN TO LINAC	BELLOWS CUFF	---
29	PF	3 GEV INJECTOR	GUN TO LINAC	GV2, BELLOWS ADAPTER TUBE	---
30	PF	3 GEV INJECTOR	GUN TO LINAC	WELD RING	VACUUM BREAK TO BELLOWS CUF
31	PF	3 GEV INJECTOR	GUN TO LINAC	GV4, BELLOWS ADAPTER TUBE	---
32	PF	3 GEV INJECTOR	GUN TO LINAC	GV1 AND GV2 MODIFIED FLANGE	---
33	PF	3 GEV INJECTOR	GUN TO LINAC	GV2, TUBE	---
34	PF	3 GEV INJECTOR	GUN TO LINAC LAYOUT	BEAM IRIS (GV2 OUTPUT AND GV4	---
35	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	ENCODER SUPPORT
36	SA	3 GEV INJECTOR	GUN TO LINAC	MDC-9632003	CERAMIC GAP SHIELD
37	PF	3 GEV INJECTOR	GUN TO LINAC	CERAMIC GAP SHIELD (GV2)	---
38	PF	3 GEV INJECTOR	GUN TO LINAC	CERAMIC GAP SHIELD (GV4)	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 142**

39	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	ENCODER MOUNTING PLATE
40	SA	SSRL- LINAC	DLWG #1 TO #2 TRANSITION	LINAC TOROIDS #1 AND #2	HOLDER ASSEMBLY
41	SA	SSRL- LINAC	LINAC TOROIDS #1 AND #2	#1 HOLDER DETAILS	---
42	SA	SSRL- LINAC	LINAC TOROIDS #1 AND #2	#2 HOLDER DETAILS	---
43	SA	SSRL- LINAC	LINAC TOROIDS #1 AND #2	FERRITE CORE ASSY	---
44	PF	SSRL- LINAC	LINAC TOROIDS #1 AND #2	TWINAX CONNECTOR INSULATING	---
45	PF	SSRL- LINAC	LINAC TOROIDS #1 AND #2	BNC CONNECTOR MTG. PLATE	---
46	PF	SSRL- LINAC	LINAC TOROIDS #1 AND #2	KEEPER BLOCK	---
47	PF	SSRL- LINAC	LINAC TOROIDS #1 AND #2	SPLIT SPACER RING	---
48	PF	SSRL- GUN & GUN TO LINAC	ALPHA MAGNETS	ABSORBER DRIVE ASSY	CONNECTOR BRACKET
50	SA	SSRL- LINAC	DLWG #1 TO #2 TRANSITION	STEERING MAGNET	---
54	SA	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	BRAZE ASSEMBLY
57	PF	SSRL- GUN TO LINAC	CHOPPER SUPPORT	HOLDING PLATE	---
58	PF	SSRL- GUN TO LINAC	CHOPPER SUPPORT	CLAMP PLATE	---
59	PF	SSRL- GUN TO LINAC	CHOPPER SUPPORT	HOSE CLAMP	---
60	SA	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR	ASSEMBLY
61	PF	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR ASSEMBLY	MAGNET HOLDER
62	PF	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR ASSEMBLY	MAGNET IRON
63	PF	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR ASSEMBLY	MAGNET SLIDER
64	PF	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR ASSEMBLY	MAGNET CRADLE BAR
65	PF	SSRL INJECTOR	LINAC CHOPPER	DEFLECTOR ASSEMBLY	MAGNET RETAINER BAR
66	PF	SSRL INJECTOR	LINAC CHOPPER	PHOSPHOR SCREEN	MODIFIED FEEDTHRU
67	PF	SSRL INJECTOR	LINAC CHOPPER	CLAMP GRIPPER	GRIP, INSIDE HALF
68	PF	SSRL INJECTOR	LINAC CHOPPER	CLAMP GRIPPER	GRIP, OUTSIDE HALF
69	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	UPPER NUT PLATE
72	SA	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	WELDMENT
77	PF	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	WATER TUBE
78	PF	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	MODIFIED FLANGE
79	PF	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	INPUT FEEDTHRU TUBE
80	PF	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	BEAM EXIT FLANGE
81	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	APERTURE DISK- 4MM
82	PF	SSRL INJECTOR	LINAC CHOPPER	TANK CAP	CAP SLEEVE
83	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	APERTURE DISK- 6MM
84	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	BODY TUBE
85	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	END PLATE
86	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	STRIPLINE GROUND PLATE
87	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	GROUND PLATE SUPPORT
88	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	ALIGNMENT BAR

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 142**

89	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	PIN BLOCK
90	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	SOCKET BLOCK
91	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	SENSOR STRIPS
92	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	PUMP OUT TUBE
93	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	OUTPUT FEEDTHRU TUBE
94	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	ACCESS/ ADJUSTMENT TUBE
95	PF	SSRL INJECTOR	LINAC CHOPPER	TANK BODY	BEAM STOP TUBE
96	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	OUTPUT FEEDTHRU CLAMP PLATE
97	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	LOWER NUT PLATE
98	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	INPUT FEEDTHRU COUPLING
99	PF	SSRL INJECTOR	LINAC CHOPPER	TANK ASSEMBLY	COPPER PIN

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 143**

10	SA	SSRL INJECTOR LINAC	MODULATOR DE'QUING	HIGH VOLTAGE DIVIDER	---
11	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	RESISTOR STACK BOARD, MODEL 1	---
12	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	BASE PLATE	---
13	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	BNC KEY	---
14	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	PC BOARD FOOT	---
15	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	SPLIT RING	---
16	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	LUCITE BODY	---
17	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	TOP	---
18	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	HIGH VOLTAGE CONNECTOR	---
19	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	FEET	---
20	SA	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	RESISTOR STACK BOARD ASSY	---
21	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	RESISTOR STACK BOARD, MODEL 2	---
22	PF	SSRL INJECTOR LINAC	HIGH VOLTAGE DIVIDER	RESISTOR STACK BOARD, MODEL 2	PC BOARD FAB DRAWING
23	PF	SSRL- BOOSTER	LINAC MODULATOR THYRATRON	ENCLOSURE AIR FLOW SWITCH	SUPPORT PLATE DETAILS
24	SA	SSRL-BOOSTER	LINAC MODULATOR	THYRATRON ENCLOSURE	AIR FLOW SWITCH ASSY.
40	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MODULATOR BACK PORCH	& DOOR HORIZ. RAIL
41	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MODULATOR BACK PORCH	COVER SIDE RAILS
42	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MODULATOR SLIDING	THYRATRON MOUNTING PLATE
43	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MODULATOR THYRATRON	BLOWER BOX
44	SA	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MODULATOR BACK	PORCH BASE WELDMENT ASS'Y
45	SA	SSRL-LINAC	MODULATORS & POWER SUPPLIES	MODULATOR UPPER	REAR DOOR W FAN CUTOUT ASS'Y
47	SA	SSRL-LINAC	MODULATORS & POWER SUPPLIES	MODULATOR BACK PORCH	COVER WELDMENT ASS'Y
48	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	UPPER RIGHT & UPPER & LOWER	LEFT SHELF RAIL
49	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	UPPER RIGHT & UPPER & LOWER	LEFT SHELF RAIL
50	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MOD. THYRATRON PLATE	LOWER RIGHT SHELF RAIL
51	PF	SSRL- LINAC	MODULATORS & POWER SUPPLIES	MOD. THYRATRON PLATE	LOWER RIGHT SHELF RAIL
53	PF	SSRL- LINAC	MODULATOR & POWER SUPPLIES	MODULATOR ASSEMBLY	PFN E.Q. BRACKET
54	PF	SSRL- LINAC	MODULATOR & POWER SUPPLIES	MODULATOR ASSEMBLY	PFN E.Q. BRACKET



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 144**

00	SA	SSRL INJECTOR	LINAC	RWGN-KLYSTRON TO DLWG	---
01	SA	DIR. COUP SPOOL TO DLWG H-BEN	LINAC RWGN SSRL INJECTOR	LINAC RWGN SSRL INJECTOR	---
02	SA	PUMP OUT TO WINDOW H-BEND	LINAC RWGN SSRL INJECTOR	LINAC RWGN SSRL INJECTOR	---
03	SA	KLY HANGER TO ABOVE DLWG H-B	LINAC RWGN SSRL INJECTOR	LINAC RWGN SSRL INJECTOR	---
04	SA	SSRL INJECTOR	LINAC RWGN	ABOF DLWG TO DLWG II--BEND	---
05	SA	HORIZONTAL PUMPOUT LENGTH	ASSEMBLY	LINAC RWGN SSRL INJECTOR	---
06	PF	HORIZONTAL RWG PUMPOUT LENG	LINAC RWGN SSRL INJECTOR	LINAC RWGN SSRL INJECTOR	---
07	PF	LINAC RWGN SSRL INJECTOR	RWG STANDARD PUMPOUT TUBE	RWG STANDARD PUMPOUT TUBE	---
08	SA	3GEV INJECTOR	LINAC SYSTEM	GUN ASSEMBLY	---
09	SA	SSRL-LINAC	RF GUN ASSEMBLY	GUN HOUSING & BRAZED TUBING	---
10	SA	SSRL- LINAC	RECTANGULAR WAVEGUIDE	8" SPOOL PIECE ASSEMBLY	MOD A DIR. COUPLER (-56 DB)
11	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	MOD A DIR. COUPLER (-56DB)	WAVEGUIDE LENGTH
12	SA	LINAC RWGN SSRL INJECTOR	DLWG TO LOAD E-BEND	DLWG TO LOAD E-BEND	---
13	SA	SSRL- GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	36DB DIR. COUPLER SPOOL	RWG ASSEMBLY
14	PF	SSRL INJECTOR	LINAC GUN RWGN	-36DB DIR. COUPLER SPOOL RWG	---
15	SA	SSRL- GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	GUN RWGN LAYOUT	---
16	SA	SSRL- GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	PUMPOUT SPOOL	RWG. ASSY.
17	PF	SSRL INJECTOR	LINAC GUN RWGN	PUMPOUT SPOOL RWG	---
18	SA	LINAC RWGN SSRL INJECTOR	FLEXIBLE WAVEGUIDE	(8DEGREE TWIST)	---
19	SA	LINAC RWGN SSRL INJECTOR	RWG STANDARD	PUMPOUT ORIFICE PLATE & TUBE A	---
20	SA	SSRL - GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	MOD "A" DIRECTIONAL COUPLER/	PUMPOUT SPOOL PIECE ASSY
21	SA	SSRL-- GUN & GUN TO LINACC	RECTANGULAR WAVEGUIDE	MOD "A" DIRECTIONAL COUPLER/	PUMPOUT SPOOL PIECE SUB-ASS
22	SA	LINAC RWGN SSRL INJECTOR	MODE"A" DIR COUPL/	PUMPOUT SPOOL PIECE	ORIFICE PLATE AND TUBE ASSY
23	PF	LINAC RWGN SSRL INJECTOR	RWG PUMPOUT ORIFICE PLATE	RWG PUMPOUT ORIFICE PLATE	---
25	SA	SSRL-LINAC	RF GUN ASSEMBLY	HALF CAVITY	---
26	PF	LINAC RWGN SSRL INJECTOR	MOD"A"DIR COUPL/	PUMPOUT SPOOL PIECE	ION GAUGE TUBE
27	PF	SSRL-LINAC	RECTANGULAR WAVEGUIDE	-56DB MOD "A" DIR. COUPLER/	PUMPOUT SPOOL PIECE, WAVEGU
28	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	MOD A DIRECTIONAL COUPLER	LOOP HOUSING
29	SA	SSRL- LINAC	RECTANGULAR WAVEGUIDE	MOD A DIRECTIONAL COUPLER	LOOP ASSEMBLY
30	SA	SSRL-GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	RWG WINDOW ASSY.	---
31	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	MOD A DIRECTIONAL	COUPLER SPLIT CLAMPING RING
32	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	MOD A DIRECTIONAL	COUPLER TOP CLAMPING RING
33	SA	LINAC SSRL INJECTOR	GUN RWGN	LONG STRAIGHT RWG ASSY	---
34	PF	LINAC SSRL INJECTOR	GUN RWGN	LONG STRAIGHT RWG	---
35	PF	SSRL-GUN & GTL	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	L.H. TWIST WAVEGUIDE DETAILS
36	PF	LINAC SSRL INJECTOR	GUN RWGN	SHORT STRAIGHT RWG	---
37	SA	SSRL INJECTOR	LINAC GUN RWGN	MALE SKARPAAS TO CPR 284 SPOO	---
38	PF	SSRL INJECTOR	LINAC GUN RWGN	MALE SKARPAAS TO CPR 284 SPOO	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 144**

39	SA	LINAC RWGN SSRL INJECTOR	-5DB RWG DIRECTIONAL	COUPLER ASSY	---
40	SA	LINAC RWGN SSRL INJECTOR	-7DB RWG DIRECTIONAL COUPLER	ASSY	---
41	SA	LINAC RWGN SSRL INJECTOR	-5DB OR -7DB COUPLER SIDE ARM	SUBASY	---
42	PF	SSRL INJECTOR	LINAC RWGN	-5DB OR -7DB COUPLER SIDE ARM	---
43	SA	LINAC RWGN SSRL INJECTOR	-5DB OR -7DB MAIN ARM SUBASSY	-5DB OR -7DB MAIN ARM SUBASSY	---
44	PF	LINAC RWGN SSRL INJECTOR	-5DB OR -7DB COUPLER	MAIN ARM RWG	---
45	PF	SSRL INJECTOR	LINAC	-7DB COUPLER COUPLING STRIP	---
46	PF	SSRL INJECTOR	LINAC	-7DB COUPLER COUPLING STRIP	---
47	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	MODEL A DIRECTIONAL COUPLER	LOOP PLATE
48	SA	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	MALE SKARPAAS TO CPR284	DIR. COUP. ASSY
50	PF	3 GEV INJECTOR	LINAC	KLYSTRON SUPPORT STRUCTURE	---
51	PF	SSRL PREINJECTOR	HANGER CLAMP, S-BAND RWG	HANGER CLAMP, S-BAND RWG	---
52	SA	LINAC RWGN HANGER	CEILING PENETRATION	CEILING PENETRATION	---
54	PF	SSRL INJECTOR	LINAC KLYSTRON	SUPPORT STRUCTURE HORIZONTAL	---
57	SA	SSRL INJECTOR	LINAC RWGN	SLAC STRIPLINE (239-044) MOUNTIN	---
58	PF	SSRL INJECTOR	LINAC KLYSTRON	SUPPORT STRUCTURE LOWER TIE	---
59	PF	SSRL INJECTOR	LINAC KLYSTRON	SUPPORT STRUCTURE UPPER TIE	---
61	SA	SSRL INJECTOR	LINAC RWGN	WINDOW TO RF GUN #2 H-BEND	---
63	PF	SSRL-LINAC	RF GUN ASSEMBLY	HALF CAVITY	---
67	PF	SSRL- GUN & GUN TO LINAC	RECTANGULAR WAVEGUIDE	CIRCULATOR SUBSTITUTE	---
68	SA	SSRL- LINAC	RWGN	-56 DB DIR COUOPLER/WINDOW/PU	SPOOL BRAZE ASSEMBLY
69	PF	SSRL- LINAC	DLWG/LOAD	-56DB DIR. COUPLER/WINDOW/	PUMPOUT SPOOL RING
70	PF	SSRL- LINAC	RWGN	SLAC KLYSTRON TYPE WINDOW	SPOOL RWG
71	SA	SSRL- LINAC	RWGN	SLAC KLYSTRON TYPE WINDOW	MALE SPOOL PIECE
72	SA	SSRL- LINAC	RWGN	-56DB DIR COUPL/WINDOW/PUMPO	ASS'Y
73	SA	SSRL- LINAC	RWGN	DLWG RF LOAD	DIR. COUPL/GUARD VACUUM ASS'
74	PF	SSRL- LINAC	GUN RWGN	304 SSR, CPR 284 F FLANGE	FOR BRAZING TO WR 284
75	PF	SSRL- LINAC	RWGN	-56DB DIR. COUPLER/PUMPOUT	PUMPOUT TUBE
76	SA	SSRL- LINAC	GUN RWGN	RIGID LEFT-HANDED WAVEGUIDE T	---
80	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE HEAT DAM	MODEL II
81	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE HOLDER	MOUNTING SCREWS
82	SA	SSRL- LINAC	MICROWAVE GUN	CATHODE SPLIT HOLD DOWN	RING- MODEL I
83	SA	SSRL- LINAC	MICROWAVE GUN	CATHODE SPLIT HOLD	RING- MODEL II
84	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE RF SEAL SPRING	---
85	SA	SSRL- LINAC GUN	MICROWAVE GUN	HEATER CATHODE PKG.	---
86	PF	SSRL- LINAC	MICROWAVE GUN	HEATER CATHODE ADAPTER	SLEEVE, MODEL I
88	SA	SSRL- LINAC	MICROWAVE GUN	HEATER CATHODE	SLEEVE ASSY- MODEL 1
92	SA	SSRL- LINAC	GUN CATHODE TESTER	ASSEMBLY	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 144**

93	SA	SSRL- LINAC	GUN CATHODE TESTER	SUBASSEMBLY	---
94	PF	SSRL- GUN & GTL	GUN CATHODE TEST FIXTURE	CATHODE MOUNTING PLATE	---
95	SA	SSRL- LINAC	GUN CATHODE TESTER	CATHODE ENCLOSURE	SPOOL ASSEMBLY
96	PF	SSRL-LINAC	GUN CATHODE TESTER	CATHODE MOUNTING	FLANGE
97	PF	SSRL-LINAC	GUN CATHODE TESTER	CATHODE ENCLOSURE SLEEVE	---
98	PF	SSRL-LINAC	GUN CATHODE TESTER	CATHODE FEEDTHRU	TUBE
99	PF	SSRL-LINAC	GUN CATHODE TESTER	CATHODE ENCLOSURE	FLANGE

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 145**

01	SA	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG	PHASE SHIFTER
04	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	U-SHAPE PLATE
05	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	ADJUSTABLE PLATE
06	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	SPRING PLATE
07	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	CONSTANT FORCE SPRING DRUM
09	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	ADJUSTABLE SCREW THREADED
11	PF	3 GEV INJECTOR	PHASE SHIFTER	BRASS GEAR	---
12	PF	3 GEV INJECTOR	LINAC SYSTEM	GUN RWG PHASE SHIFTER	SLIDING GUIDE HOLDER
13	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	COVER PLATE
14	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	SLIDING GUIDE TEFLON TOP AND
15	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	SLIDING GUIDE TEFLON SIDE STRI
16	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	IDLE GEAR
17	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	MOTOR END MOUNTING PLATE
18	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	MOTOR MOUNTING PLATE
20	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	END PLATE
21	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	SECOND PLATE
22	PF	3 GEV INJECTOR	LINAC SYSTEM	GUN RWG PHASE SHIFTER	SPRING HOLDER
23	SA	3 GEV INJECTOR	PHASE SHIFTER	TOP PLATE	---
24	SA	3 GEV INJECTOR	PHASE SHIFTER	BOTTOM PLATE	---
25	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	PINION SHAFT
26	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	SECOND SHAFT
27	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	FLANGE PLATE
28	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	ADAPTER
29	SA	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	TUNNER ASSY.
30	PF	3 GEV INJECTOR	PHASE SHIFTER	PLATE	---
31	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	3RD SHAFT
32	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	FEMALE COUPLING
33	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	MALE COUPLING
34	PF	3 GEV INJECTOR	LINAC SYSTEM	PHASE SHIFTER	TUNER CAVITY
35	PF	3 GEV INJECTOR	LINAC SYSTEM	LINAC GUN RWG PHASE SHIFTER	WIRE GASKET
38	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE RF SEAL SPRING STOCK	---
39	PF	SSRL- LINAC	MICROWAVE GUN	RF SEAL SPRING STRETCHING TOO	---
40	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE RF SEAL	SPRING FORMING TOOL
41	SA	SSRL- LINAC	MICROWAVE GUN	CAVITY TUNING TOOL ASSEMBLY	---
42	PF	SSRL- LINAC	MICROWAVE GUN	CAVITY TUNING TOOL NUT	---
43	PF	SSRL- LINAC	MICROWAVE GUN	CAVITY TUNING TOOL THREAD	---
44	PF	SSRL- LINAC	MICROWAVE GUN	CATHODE GAUGE BLOCK	---
56	SA	3 GEV INJECTOR	LINAC SYSTEM	ALPHA MAGNET TO DLWG #1	CHOPPER SUPPORT

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 145**

60	SA	SSRL- GUN AND GTL	SUPPORT STRUCTURE	RF GUN MOUNTING FRAME ASSEMB	---
61	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	LOWER RIGHT SIDE PLATE
62	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	UPPER RIGHT SIDE PLATE
63	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	LEFT SIDE PLATE
64	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	BEAM OUTPUT END PLATE (SPLIT)
65	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	CATHODE COVER END PLATE (SPL
66	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	RAIL CLAMP BAR
67	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	BOTTOM PLATE
68	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	FLOOR FRAME SIDE RUNNER
69	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	FLOOR FRAME SPREADER
70	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	RWG WINDOW SHELF BRACKET
71	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	RWG WINDOW SHELF
72	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	ION PUMP SHELF
73	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN MOUNTING FRAME	ION PUMP SHELF BRACKET
74	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN END RAIL SUPPORT STAND	BASE PLATE
75	SA	SSRL- GUN AND GTL	SUPPORT STRUCTURE	RF GUN END RAIL SUPPORT STAND	ASSEMBLY
77	PF	SSRL- GUN & GTL	SUPPORT STRUCTURES	RF GUN END RAIL SUPPORT STAND	RAIL SUPP STAND ADJUSTM ANGL
78	SA	SSRL- GUN AND GTL	RECTANGULAR WAVEGUIDE	RF GUN TO WINDOW MITRE ELBOW	ASSEMBLY
79	SA	SSRL- GUN AND GTL	RECTANGULAR WAVEGUIDE	WINDOW TO CIRCULATOR MITRE E	ASSEMBLY
80	SA	SSRL- GUN TO GTL	RECTANGULAR WAVEGUIDE	VARIAN/PMC TO FEMALE SKARPA	ASSEMBLY
81	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	WR-284 VACUUM WAVEGUIDE	VARIAN/PMC FLANGE
82	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	WR-284 VACUUM WAVEGUIDE	FEMALE SKARPAAS FLANGE
83	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	WR-284 VACUUM WAVEGUIDE	MALE SKARPAAS FLANGE
84	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	WR-284 VACUUM WAVEGUIDE	MITRE ELBOW CORNER PLATE
85	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	WR-284 VACUUM WAVEGUIDE	MITRE ELBOW LENGTH
86	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	VARIAN/PMC TO FEMALE SKARPA	TRANSITION SPOOL LENGTH

## SPEAR INJECTOR DRAWINGS - (at SSRL)

444 146

21	SA	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	KLYSTRON I-BEAM	HANGER END ANCHOR
23	PF	SSRL - LINAC	RECTANGULAR WAVEGUIDE	H BEND, MITRE #1 SHORT RWG	---
24	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	H BEND, MITRE #1 ASSY
25	PF	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	E-BEND 6" RAD #1 RWG
26	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	STRAIGHT #2 ASSEMBLY
27	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	H BEND, MITRE #1 LONG RWG	---
28	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN	---
29	PF	SSRL - LINAC	RECTANGULAR WAVEGUIDE	H BEND, MITRE STANDARD,SHORT	---
30	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	H BEND, MITRE #3 ASSY
31	PF	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	E-BEND, RAD #2 RWG
32	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO RGWN #4	H BEND, MITRE #2 ASSEMBLY
33	PF	SSRL - LINAC	RECTANGULAR WAVEGUIDE	H BEND, MITRE #2 LONG RWG	---
34	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO RWGN #4	H BEND, MITRE #2 ASSEMBLY
35	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DLWG #4	LEFT-HANDED TWIST/ PUMPOUT R
36	SA	SSRL - LINAC	RECTANGULAR WAVEGUIDE	RWGN #1 TO DWLG #4	LEFT-HANDED TWIST/PUMPOUT A
37	PF	SSRL- GUN & GTL	RECTANGULAR WAVEGUIDE	KLYSTRON I-BEAM	HANGER END ANCHOR WASHER P
38	PF	SSRL-GUN & GTL	RECTANGULAR WAVEGUIDE	H-BEND 45DEG MITRE ELBOW	RWG PIECE
39	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	H-BEND, MITRE, 45DEG, ASS'Y	---
46	SA	SSRL - LINAC	RECTANGULAR WAVEGUIDE	KLYSTRON #2 TO DWLG #4	STRAIGHT TWIST SECTION ASSEM
47	PF	SSRL-LINAC	RECTANGULAR WAVEGUIDE	KLYSTRON #2 TO DLWG #4	STRAIGHT TWIST SECTION DETAIL
48	PF	SSRL-GUN & GTL	RECTANGULAR WAVEGUIDE	RWGN #4	VERTICAL DETAIL
49	PF	SSRL - GUN & GTL	RECTANGULAR WAVEGUIDE	RWGN #4	HORIXONTAL DETAIL
50	SA	SSRL-LINAC	RECTANGULAR WAVEGUIDE	KLYSTRON #2 TO DLWG #4	H BEND, MITRE #3 ASSY
52	SA	SSRL- LINAC	PCRF GUN RWGN	CPR 90(DEGREE) E-BEND ASS'Y	---
63	PF	SSRL - LINAC	RF GUN TEST FACILITY	GTL ASS'Y-GUN TO SOLENOID	CENTERING RING
64	PF	SSRL - LINAC	PCRF GUN TEST FACILITY	GTL ASS'Y-GUN TO RAILS	SUPPORT SPACER, LEFT SIDE
66	PF	SSRL - LINAC	RF GUN TEST FACILITY	GTL BEAMLINE TO RAIL SUPPORT	MODIFIED HOSE CLAMP
68	PF	SSRL- LINAC	RF GUN TEST FACILITY	GTL RAIL SUPPORT MTG PLATE	ADJUSTING BLOCK
69	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	SOLENOID END	MODIFIED STAND WELDMENT
70	SA	SSRL - LINAC	PC GUN TEST - STAND FACILITY	GTL ASSEMBLY	---
71	SA	SSRL - LINAC	PC GUN TEST - STAND FACILITY	GTL SUPPORT ASSEMBLY	---
72	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	GTL SOLENOID END	MOUNTING PLATE
73	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	GTL RAIL SUPPORT	PLATE
74	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	GTL SOLENOID	---
75	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	GTL SHAFT SUPPORT	---
76	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	GTL 1 1/4 O.D. SHAFT	---
77	PF	SSRL- LINAC	PCRF GUN TEST FACILITY	DLWG SOLENOID END	MOUNTING PLATE
78	PF	SSRL - LINAC	PCRF GUN TEST FACILITY	GTL ASSEMBLY	SOLENOID YOKE TRANSLATION BA

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 146**

79	PF	SSRL - LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	MIRROR INSULATOR
80	SA	SSRL - LINAC	PC GUN TEST - STAND FACILITY	ASSEMBLY	---
81	PF	SSRL - LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	MIRROR
82	PF	SSRL - LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	SCREEN HOLDER
83	PF	SSRL - LINAC	RF GUN TEST FACILITY	GTL	NIPPLE
84	PF	SSRL - LINAC	RF GUN TEST FACILITY	ELECTRICALLY ISOLATED FLEXIBLE	COUPLING
85	PF	SSRL - LINAC	RF GUN TEST FACILITY	MODIFIED BLANK FLANGE 2 3/4"	---
86	PF	SSRL - LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	MIRROR, MODIFIED
87	PF	SSRL - LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	SCREEN HOLDER, MODIFIED
88	PF	SSRL - LINAC	PCRF GUN TEST FACILITY	GTL ASS'Y	GUN TO SOLENOID CENTERING PI
90	SA	SSRL -- LINAC	RF GUN TEST FACILITY	GTL SUPPORT ASSEMBLY	PUMP SUPPORT
91	SA	SSRL - LINAC	PC GUN TEST - STAND FACILITY	GTL ASSEMBLY	MIRROR ASSEMBLY
92	PF	SSRL-LINAC	RF GUN TEST FACILITY	PROFILE MONITOR	MIRROR INSULATOR/MODIFIED
93	PF	SSRL - LINAC	RF GUN TEST FACILITY	LASER BEAM	MIRROR MOUNTING BLOCK
94	PF	SSRL - LINAC	PCRF GUN TEST FACILITY	GTL ASS'Y - GUN TO RAILS	SUPPORT SPACER, RIGHT SIDE
95	SA	SSRL - LINAC	PC GUN TEST - STAND	LTD DUMP LEAD ASSY	---
97	SA	SSRL - LINAC	PC GUN TEST - STAND	BEND MAGNET STRAIGHT AHEAD	LEAD SUPPORT ASSEMBLY
98	SA	SSRL - INJECTOR	LINAC	TEST-STAND	LEAD SUPPORT PLATE
99	SA	SSRL - LINAC	PC GUN TEST - STAND	BEND MAGNET STRAIGHT AHEAD	LEAD SUPPORT FRAME

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 147**

01	SA	SSRL - LINAC	PCRF GUN TEST FACILITY	GTL ASSEMBLY	SOLENOID ASSEMBLY
02	SA	SSRL - LINAC	PCRF GUN TEST - FACILITY	SOLENOID ASSEMBLY	CORE ASSEMBLY
03	SA	SSRL - LINAC	PCRF GUN TEST - FACILITY	GTL ASSEMBLY	COIL ASSEMBLY
03	PF	SSRL - LINAC	RF GUN TEST FACILITY	SOLENOID MAGNET	FIBERGLASS SPACER
08	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	COIL BUSHING "A"
09	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	COIL BUSHING "B"
10	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	COIL BUSHING "C"
11	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	TERMINAL, COIL #7
12	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	MANIFOLD
13	SA	SSRL - LINAC	RF GUN TEST FACILITY	SOLENOID MAGNET	SYNFLEX HOSE ASSEMBLY
13	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	ELECTRICAL INSULATING COUPLIN
14	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	BUS BAR
15	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	TERMINAL "A"
16	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	INSULATE PLATE "B"
17	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	TIE ROD
18	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	INSULATE PLATE "A"
19	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	SPECIAL CNDCT-TUBING CPLG. #1
20	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID MAGNET COIL	ELECTRICAL/WATER TUBES COUP
21	PF	SSRL-LINAC	RF GUN TEST FACILITY	SOLENOID ASSEMBLY	SPECIAL CNDCT-TUBING CPLG. #2
22	SA	SSRL - LINAC	PCRF GUN TEST - FACILITY	SOLENOID ASSEMBLY	COIL
23	SA	SSRL - LINAC	RF GUN TEST FACILITY	SOLENOID MAGNET COIL	ELECTRICAL/WATER TUBES CPLG
25	SA	SSRL - LINAC	RF GUN TEST FACILITY	PCRF GUN SOLENOID	WATER MANIFORLD ASSEMBLY
27	PF	SSRL - LINAC	RF GUN TEST FACILITY	PCRF GUN SOLENOID	WATER MANIFORLD CAP
30	SA	SSRL - LINAC	TEST - STAND FACILITY	LTD ASSEMBLY	---
50	SA	SSRL - LINAC	PC GUN TEST - STAND	LINAC ASSEMBLY	---
97	SA	SSRL- LINAC	GENERAL	ALIGNMENT FIXTURE	FIXTURE ASSEMBLY
98	PF	SSRL- LINAC	GENERAL	ALIGNMENT FIXTURE	FIXTURE CLAMP
99	PF	SSRL- LINAC	GENERAL	ALIGNMENT FIXTURE	FIXTURE BASE



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 148**

15	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	EXIT PORT	---
16	SA	BNL/SLAC/UCLA	PCRF GUN--MODEL 3+	PUMP--OUT PORT BRAZEMENT	---
20	SA	BNL/SLAC/UCLA	PCRF GUN MODELL 3++	TUNER ASSEMBLY	---
21	SA	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNER BELLOWS WELDMENT	---
22	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3++	TUNER BELLOWS FLANGE	---
23	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3++	TUNER SHAFT	---
24	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3++	TUNER PROBE	---
25	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3++	TUNER HOUSING	---
26	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3++	TUNER KNOB	---
31	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3+	BODY FULL CELL	---
32	PF	BNL/SLAC/UCLA	PC RF GUN MODEL 3++	BODY HALF CELL	CONFLAT SEAL TYLE
34	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3+	TUNEABLE CATHODE PLATE	---
35	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNEABLE CATHODE PLATE	TUNNING NUT
36	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNEABLE CATHODE PLATE	PRESSURE RING
37	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNEABLE CATHODE PLATE	SPLIT CLAMP RING
38	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3+	TUNEABLE CATHODE PLATE	ENCLOSURE TUBE
39	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	CATHODE ENCLOSURE	TUBE CONFLAT FLANGE
40	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	WATER PASSAGE PLUG	---
41	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3+	FULL CELL TUNER PORT	TUBE
42	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNER SHAFT	---
43	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	FULL CELL PUMPOUT PORT	TUBE
44	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	FULL CELL MONITOR	TUBE
45	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNER KNOB DRIVE SCREW	---
46	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	WATER INLET/OUTLET TUBE	---
47	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	WEEP GROVE FILLER RING	---
51	SA	BML/SLAC/UCLA	PCRF GUN MODEL 3+	TUNEABLE CATHODE PLATE	BRAZED & NITRIDED ASSY
53	PF	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	TUNER PORT TUBE FLANGE	---
54	PF	BNL/SLAC/UCLA	PCRF GUN-MODEL 3+	TUNER PROBE	MALE CONTACT RING
55	SA	BNL/SLAC/UCLA	PCRF GUN MODEL 3+	RF MONITOR WELDMENT ASSEMBL	---
61	SA	BNL/SLAC/UCLA	PC RF GUN MODEL 3+	GUN BRAZEMENT	---
62	SA	BNL/SLAC/UCLA	PC RF GUN MODEL 3+	GUN WELDMENT AND	FINAL ASSEMBLY
63	SA	BNL/SLAC/UCLA	PCRF GUN--MODEL 3+	CATHODE PLATE (W/O TUNER) ASS	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 149**

77 PF

SSRL - STORAGE RING - SPEAR

SHIELDING

ROLLING DOOR LATCH ASSY

GUSSET PLATE

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 152**

01	PF	SSRL INJECTOR	SUPPORT SYSTEM	DIPOLE GIRDER QD/QF	(MACHINING DRAWING)
03	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	PEDESTAL
04	PF	3 GEV BOOSTER	SUPPORT SYSTEM	QUAD PEDESTAL	---
06	SA	3 GEV INJECTOR	BOOSTER RING	SUPPORT SYSTEM	X, Y, Z MOVER
11	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	OUTER HOUSING
12	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORTING SYSTEM	INNER HOUSING
14	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	COVER PLATE
15	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	MOVER PLATE-1
16	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	MOVER PLAT-2
17	SA	3 GEV INJECTOR	BOOSTER RING	SUPPORT SYSTEM	XYZ ADJUSTMENT
18	PF	3 GEV BOOSTER	GENERAL LAYOUT	SUPPORT SYSTEM	SHIM PLATE
19	PF	3 GEV BOOSTER	SUPPORT SYSTEM	MOVER PLATES	---
21	PF	3 GEV BOOSTER	SUPPORT SYSTEM	RODS WELDING	---
22	PF	3 GEV BOOSTER	MAGNET SUPPORT	SYSTEM	QUAD PLATE
23	PF	3 GEV BOOSTER	SUPPORT SYSTEM	STRAIGHT SECTION	GIRDER

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 155**

50	SA	3 GEV BOOSTER	BTS	RING JUMP ASSY	---
51	SA	3 GEV BOOSTER	BTS	RING JUMP	MAINFRAME MODIF.
52	SA	3 GEV BOOSTER	BTS	17D2 MAGNET	SUPPORT MODIFICATION
54	SA	3 GEV BOOSTER	BTS	17D3 MAGNET	SUPPORT MODIFICATION
55	PF	3 GEV BOOSTER	BTS	17Q4 MAGNET	SUPPORT
56	PF	3 GEV BOOSTER	BTS JUMP	17D3 MODIFY SHIMS	PLATE
57	PF	3 GEV BOOSTER	BTS JUMP	17D3 MODIFY SHIMS	ANGLE

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 156**

10	SA	3 GEV INJECTOR	BOOSTER RING	MAGNET SYSTEM	QD ARC GIRDER
11	SA	3 GEV INJECTOR	BOOSTER RING	MAGNET SYSTEM	QF ARC GIRDER
13	SA	3 GEV INJECTOR	MAGNET SYSTEM	QF/QD ARC GIRDER	LCW MANIFOLD
14	PF	SSRL INJECTOR	GENERAL & FACILITIES	ELECTRICAL- GENERAL	COIL SPOOL WITH IRON
15	PF	SSRL INJECTOR	GENERAL & FACILITIES	ELECTRICAL- GENERAL	BOTTOM PLATE
16	SA	SSRL INJECTOR	GENERAL & FACILITIES	ELECTRICAL- GENERAL	PEAKING STRIPS ASSEMBLY
17	PF	SSRL INJECTOR	GENERAL & FACILITIES	ELECTRICAL- GENERAL	COIL SPOOL WITH TAP HOLES
18	PF	SSRL INJECTOR	GENERAL & FACILITIES	ELECTRICAL- GENERAL	STOPPER TIP
20	PF	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE LAMINATION	---
25	PF	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE MAGNET	MISCELLANEOUS PARTS
47	PF	3 GEV INJECTOR	BOOSTER RING	DIPOLE MAGNET	COVER
50	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE CURING MOLD	---
51	PF	SSRL INJECTOR	MAGNET SYSTEM	CURING MOLD	BASE PLATE
52	PF	3 GEV INJECTOR	MAGNET SYSTEM	CURING MOLD	SHELL
53	PF	SSRL INJECTOR	MAGNET SYSTEM	CURING MOLD	SLUG
54	PF	SSRL INJECTOR	MAGNET SYSTEM	CURING MOLD	TOP CLAMP
55	PF	SSRL INJECTOR	MAGNET SYSTEM	CURING MOLD	END CLAMP
56	PF	SSRL INJECTOR	MAGNET SYSTEM	WINDING FORM- DIPOLE	SHOE
57	SA	SSRL INJECTOR	MAGNET SYSTEM	WINDING FORM	TRIM COIL
58	SA	SSRL INJECTOR	MAGNET SYSTEM	WINDING FORM	MAIN COIL
60	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE COIL	VAC IMPREGNATED
61	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE MAGNET ASSY	END PACK SQUARE
62	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE MAGNET ASSY	TAPERED END PACK
63	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE BLOCK WELD	BOTTOM
64	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE BLOCK WELD	TOP
65	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE BLOCK WELD	BOTTOM END-LEFT
66	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE BLOCK WELD	BOTTOM END-RIGHT
67	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE BLOCK WELD	TOP-END
68	PF	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE COIL	WELD PLATES
70	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE MAGNET ASSY	---
80	SA	SSRL INJECTOR	MAGNET SYSTEM	DIPOLE COIL	STACKING FIXTURE-- ASSY

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 157**

01	SA	SSRL - LINAC AIP - 97	RECTANGULAR WAVEGUIDE	5DB RWG DIRECTIONAL COUPLER A	---
11	SA	SSRL- INJECTOR	QUADRUPOLE QD MAGNETS	ALIGNMENT FIXTURE	---
12	SA	SSRL- INJECTOR	QUADRUPOLE QF MAGNETS	ALIGNMENT FIXTURE	---
20	PF	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE LAMINATION	---
25	PF	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE	MISCELLANEOUS PARTS
30	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QD'	CORE ASSY
35	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QD'	QUADRANT ASSY
40	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QF'	CORE ASSY
45	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QF'	QUADRANT ASSY
50	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QD'	COIL ASSY
60	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QF'	COIL ASSY
70	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QD'	MAGNET ASSY
80	SA	SSRL INJECTOR	MAGNET SYSTEM	QUADRUPOLE 'QF'	MAGNET ASSY

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 158**

20	PF	SSRL INJECTOR	MAGNET SYSTEM	SEXTUPOLE LAMINATION	---
25	PF	SSRL INJECTOR	MAGNET SYSTEM	SUXTUPOLE MAGNET ASSY	MISCELLANEOUS PARTS
30	SA	SSRL-INJECTOR	MAGNET SYSTEM	SEXTUPOLE COIL ASSY	---
40	SA	SSRL-INJECTOR	MAGNET SYSTEM	SEXTUPOLE MAGNET ASSY	---
50	SA	SSRL-INJECTOR	MAGNET SYSTEM	SEXTUPOLE MAGNET ASSY	CORE ASSY, TOP
56	PF	SSRL- LINAC	RECTANGULAR WAVEGUIDE	PHOTOCATHODE RF #3 GUN ASSY	MOUNTING BASE
57	SA	SSRL - LINAC	RECTANGULAR WAVEGUIDE	LINAC TEST STAND	PHOTOCATHODE RF #3 GUN ASSY
58	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	PULSER POWER SUPPLY	PRE XFM BUSS BAR SUBASSEMBL
59	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	P/S OUTPUT DIODE SUBASSEMBL
60	SA	SSRL-INJECTOR	MAGNET SYSTEM	SEXTUPOLE MAGNET ASSY	CORE ASSY, BOTTOM
81	PF	3 GEV BOOSTER	PULSE CHOKE	PULSE CHOKE	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 159**

01	SA	SSRL- INJECTOR ELEC. SYSTEMS	HV PULSED MAGNET SYSTEMS	WHITE CIRCUIT PULSE	MODIFIED ENCLOSURE LAYOUT
02	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	PULSE NETWORK & CHOKE ENCL	EXTENDED ENCLOSURE ASSEMBL
03	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	PULSE NETWORK ENCLOSURE ASS	ENCLOSURE FRAME STRUCTURE
04	SA	SSRL-BOOSTER	PULSE NETWORK & CHOKE ENCL.	EXTENDED ENCLOSURE ASSY	SLIDING DOOR ASSEMBLY
05	SA	SSRL-BOOSTER	GENERAL & FACILITIES	BUILDING 140 P/S LAYOUT	---
07	DL	SSRL-BOOSTER	GENERAL FACILITIES	BUILDING 140 POWER SUPPLIES	DRAWING LIST
10	SA	SSRL-INJECTOR	PULSE CHOKE	PULSE CHOKE	---
11	SA	SSRL-INJECTOR	PULSE CHOKE	TAPERED END PACK	---
12	SA	SSRL-INJECTOR	PULSE CHOKE	BLOCK WELDMENT	---
13	SA	SSRL-INJECTOR	PULSE CHOKE	CORE ASSEMBLY	---
14	SA	SSRL-INJECTOR	PULSE CHOKE	MISCELLANEOUS PARTS	---
16	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	MECHANICAL CABLING
17	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	DC BIAS POWER SUPPLY ASSY	FAN DUCT MOUNTING PLATE
18	PF	SSRL BOOSTER	PULSE NETWORK & CHOKE ENCL.	EXTENDED ENC. ASSEMBLY	SLIDING DOOR RETAINING BRACK
19	PF	SSRL BOOSTER	MAGNETS-GENERAL	WHITE CIRCUIT POWER SUPPLY	PULSE CHOKE & EJE. SEPTUM COI
20	SA	SSRL-BOOSTER	MAGNETS-GENERAL	WHITE-CIRCUIT POWER SUPPLIES	FUSE BLOCK ENCLOSURE ASSY
21	SA	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	BOTTOM FLAG
22	SA	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	RIGHT SIDE BUSS FLAG
23	SA	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	MIDDLE BUSS FLAG
24	PF	SSRL BOOSTER	WHITE CIRCUIT/BTS POWER SUPPL	FUSE-BLOCK ENCLOSURE ASSY	BASE PLATE
25	PF	SSRL BOOSTER	WHITE CIRCUIT/BTS POWER SUPPL	FUSE-BLOCK ENCLOSURE ASSY	BOTTOM PLATE
26	PF	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	TOP PLATE
27	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	CLAMP PLATE #1
27	SA	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSER POWER SUPPLY	PRE XFM BUSS BAR SUBASSEMBL
28	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	CLAMP PLATE #2
29	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SUPPLY	THERMAL SWITCH MOUNTING PLAT	---
30	SA	SSRL-BOOSTER	MAGNETS-GENERAL	BTS POWER SUPPLIES	FUSE BLOCK ENCLOSURE ASSY
31	SA	SSRL-BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY.	BOTTOM FLAG
32	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	CLAMP PLATE #3
33	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	CHOKE EARTH QUAKE ASSEMBLY
34	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #1
35	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #2
36	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #3
37	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	FUSE-BLOCK ENCLOSURE ASSY	BRIDGE BUSS BAR
38	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	FUSE-BLOCK ENCLOSURE ASSY	MIDDLE BRIDGE BUSS BAR #2
39	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	CHOKE EARTH QUAKE PARTS
40	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BRIDGE BUSS BAR #1
41	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BRIDGE BUSS BAR #2



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

444 159

42	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BRIDGE BUSS BAR #3
43	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #1
44	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #2
45	PF	SSRL BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	CHOKE EARTHQUAKE PLATE- RIG
46	PF	SSRL BOOSTER	BTS POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	STANDOFF SUPPORT PLATE
47	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	STANDOFF SUPPORT ANGLE
48	SA	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	LEFT SIDE BUSS FLAG
49	PF	SSRL-BOOSTER	WHITE-CIRCUIT/BTS POWER SPLY.	FUSE-BLOCK ENCLOSURE ASSY.	SINGLE DOOR ENCLOSURE MOD
50	PF	SSRL- BOOSTER	WHITE CIRCUIT/BTS POWER SUPPL	FUSE-BLOCK ENCLOSURE ASSY	CABINET TOP MODIFICATION
51	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	CHOKE EARTHQUAKE PLATE- LEF
52	PF	SSRL- BOOSTER	MAGNETS-GENERAL	WHITE CIRCUIT/BTS POWER SUPPL	---
53	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	CONTROL BOARD STANDOFF	---
54	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	CURRENT TRANSDUCER	MOUNTING BRACKET
55	SA	SSRL-BOOSTER	MAGNETS-GENERAL	WHITE-CIRCUIT POWER SUPPLY	BUSS BAR CLAMP
56	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	BUSS BAR #3 SHIM PLATE
57	SA	SSRL-BOOSTER	MAGNETS-GENERAL	WHITE-CIRCUIT POWER SUPPLY	BUSS BAR
58	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	FUSE-BLOCK ENCLOSURE ASSY	PHASE-C BUSS BAR
59	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY	ENCLOSURE ASSY	ANGLE BRACKET
60	PF	SSRL- BOOSTER	MAGNETS-GENERAL	BTS POWER SUPPLY	Z SHAPE BUSS BAR
61	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	SCR BUSS BAR
62	PF	SSRL- BOOSTER	MAGNETS-GENERAL	BTS POWER SUPPLY	BUSS BAR SHIM
64	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SYSTEMS	ENCLOSURE ASSY	CALIBRATED CONDUCTOR
65	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SYSTEMS	SAFETY PROTECT	COVER
66	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	---
67	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	EXTENSION WELDMENT
68	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	TROUGH WELDMENT
69	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	FAN MOTOR COVER
70	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	FAN DUCT
71	SA	SSRL-BOOSTER	POWER SUPPLY- 480 VOLT	FAN DUCT ASSEMBLY	SCREEN FRAME WELDMENT
72	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	FAN HOOD ASSEMBLY	---
73	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	FAN HOOD ASSEMBLY	FAN HOOD
74	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	FAN HOOD ASSEMBLY	FAN MOTOR COVER
75	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	FAN HOOD ASSEMBLY	TROUGH WELDMENT
76	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	FAN HOOD ASSEMBLY	FAN VENTURI FRAME MODIFICATI
77	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSER POWER SUPPLY ASSEMBL	FAN HOOD MOUNTING PLATE
78	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	GROUNDING TERMINAL
79	SA	SSRL - BOOSTER	WHITE CIRCUIT POWER SYSTEM	POWER SUPPLIES	PULSER POWER SUPPLY ASSEMB
80	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	POWER SUPPLIES	DC-BIAS POWER SUPPLY ASSY

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 159**

81	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	CAPACITOR BANK ASSY & INSTALL
82	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	DC POWER SUPPLY	CAP. BANK SUPPORT FRAME ASS
84	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	CAPACITOR MOUNTING TRAY
85	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	DIODE HEAT SINK
86	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEM	DC POWER SUPPLY	CAP. BANK SUPPORT FRAME ASS
87	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SYSTEMS	DC POWER SUPPLY	CAP. BANK SUPPORT FRAME DETA
88	ID	SSRL-BOOSTER	WHITE CIRCUIT POWER SYSTEMS	PULSE ENCLOSURE ASSEMBLY	LCW SCHEMATIC
89	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	PULSER POWER SUPPLY	P/S BRIDGE DIODE SUBASSEMBLY
90	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	NEG. LEG FILTER CHOKE INSTALL
91	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	XFM PRIMARY BUSS BAR
92	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC AND PULSER POWER SUPPLY	FAN AIR INLET VENT OPENING LO
93	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY CONTACTOR	INSTALLATION & BUSS BAR FAB.
94	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	PULSER POWER SUPPLY	CONTACTOR INSTL. & BUSS BARS
95	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY BUSS BAR	CHOKE BUSS BARS
96	SA	SSRL-BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	BUSSBAR ASSEMBLY
97	ID	SSRL-BOOSTER	WHITE CIRCUIT PWR SUPPLY SYST	DC POWER SUPPLY MAIN XFM &	SCR BRIDGE INSTALLATION
98	ID	SSRL- BOOSTER	WHITE CIRCUIT PWR. SUPPLY SYS	PULSE ENCLOSURE ASSEMBLY	PULSE CHOKE & CABLING INSTALL
99	GP	SSRL-INJECTOR ELEC. SYSTEMS	HV PULSED MAGNET SYSTEMS	WHITE CIRCUIT PULSE	CHOKES LAYOUT OPTIONS
99	PF	SSRL- BOOSTER	WHITE CIRCUIT POWER SUPPLY SY	DC POWER SUPPLY	CABLE CLAMP

## SPEAR INJECTOR DRAWINGS - (at SSRL)

444 161

00	SA	3 GEV INJECTOR	LAYOUTS	QF/DIPOLE/QD REGION VAC. CHAM	(TOP VIEW)
01	SA	3 GEV INJECTOR	VACUUM SYSTEM/ARC MAGNET CH	QD GIRDER VACUUM CHAMBER	---
02	SA	3 GEV INJECTOR	VACUUM SYSTEM/ARC MAGNET CH	QF GIRDER VACUUM CHAMBER	---
03	SA	3 GEV INJECTOR	VACUUM SYSTEM/ARC MAGNET CH	QD GIRDER VAC. CH (QF GIRDER V	5-BLOCK DIPOLE VAC. CHAMBER
04	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	5-BLOCK DIPOLE VAC. CHAMBER	1-BLOCK DIPOLE VAC. CHAMBER
05	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	5-BLOCK DIPOLE VAC. CHAMBER	DIPOLE BPM END VAC. CHAMBER
06	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	5-BLOCK DIPOLE VAC. CHAMBER	DIPOLE SEXTUPOLE END VAC. CH
07	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	QD GIRDER VACUUM CHAMBER	QD MAGNETS VACUUM CHAMBER
08	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	QF GIRDER VACUUM CHAMBER	QF MAGNETS VACUUM CHAMBER
09	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	STIFFENING RIB	---
11	SA	3 GEV INJECTOR	VAC. SYST./ARC MAGNET CHAMBE	ARC MAGNET CHAMBER WELD FIXT	---
12	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	GIRDER VAC. CHAMBER FIXTURE	WELDING FIXTURE PLATE
13	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ARC MAGNET CHAMBER WELD FIXT	BLOCK FOR VAC. CHAMBER (SHOR
14	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ARC MAGNET CHAMBER WELD FIXT	BLOCK FOR VAC. CHAMBER (DIPO
15	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ARC MAGNET CHAMBER WELD FIXT	BLOCK FOR VAC. CHAMBER (QD O
16	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ARC MAGNET CHAMBER WELD FIXT	BLOCK FOR CLAMPS
19	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ALIGNMENT CLAMP	(FOR BENDING MAGNETS)
20	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ALIGNMENT CLAMP	(FOR QD & QF MAGNETS)
21	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ALIGNMENT CLAMP Q.C. COORDINA	---
23	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	CLAMP FLANGE (ELLIP)	---
24	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	PRE-FORMED BOOSTER VAC. CHAM	---
25	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	ARC MAGNET CHAMBER ASSY.	TUBE SEGMENT
26	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	DIPOLE MAGNET CHAMBER CLAMP	(Y-LOCATOR)
27	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	QD/QF MAGNET CHAMBER CLAMP	---
28	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	QF MAGNET CHAMBER CLAMP	---
29	PF	3 GEV INJECTOR	VAC. SYSTEM/ARC MAGNET CHAMB	DIPOLE MAGNET CHAMBER CLAMP	(X & Y) LOCATOR

## SPEAR INJECTOR DRAWINGS - (at SSRL)

444 162

01	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION ASSY	INSTRUMENT SECTION WELDMEN
02	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	CERAMIC GAP SUBASSY
03	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	CERAMIC GAP SUBASSY	CERAMIC GAP
04	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	CERAMIC GAP	CUPRONICKEL RING FLANGE
05	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	SHORT BELLOWS
06	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	CERAMIC GAP SUBASSY	CERAMIC GAP END PLATE
07	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	LONG BELLOWS
08	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	CERAMIC GAP SUBASSY	END PLATE TO CERAMIC
09	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	CLAMP FLANGE (BLANK)
10	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	SHOULDER TOOLING BALL (MODIFI	---
11	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	CLAMP FLANGE (ROUND)
12	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	BPM TUBE
13	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	OUTER BODY
14	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	ELECTRODE STRIP ALIGNMENT/AS
15	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	ELECTRODE STRIP
16	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	END PLATE TO BELLOWS
17	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	FEEDTHRU
18	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	BODY SUBASSY WELDMEN
19	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION ASSY	
20	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION ASSY	(QF)
21	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	INSTRUMENT SECTION ASSY	INSTRUMENT MODULE SUPPORT C
22	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	20 L/S ION PUMP GEOMETRY (P/E)	---
24	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BPM CALIBRATION	STRAIGHT ANTENNA (RING)
25	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BPM CALIBRATION	STRAIGHT ANTENNA (LTB, BTS)
26	PF	3 GEV INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BPM CALIBRATION	1MM OFFSET ANTENNA (RING)
27	PF	3 GEV INJECTOR	VAC. SYS/INSTRUMENTATION SECT	BPM CALIBRATION	1MM OFFSET ANTENNA (LTB, BTS)
28	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	(FOR G13)
29	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	INSTRUMENT SECTION WELDMEN	BODY SUBASSY WELDMEN. (FOR
30	PF	SSRL INJECTOR	VAC. SYSTEM/ INSTRUMENT SECTI	BODY SUBASSY WELDMEN	
31	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	AS FABRICATED	BPM CALIBRATION FIXTURE (RING)
32	SA	3 GEV INJECTOR	VACUUM SYST./INSTRUMENT SECTI	AS FABRICATED	BPM CALIBRATION FIXTURE (LTB,

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 163**

02	SA	3 GEV INJECTOR	LAYOUTS	INSTRUMENT SECTION	---
03	SA	3 GEV INJECTOR	LAYOUTS	INSTRUMENT SECTION	---
04	SA	3 GEV INJECTOR	LAYOUTS	INSTRUMENT SECTION ITERATION	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 164**

01	SA	3GEV INJECTOR	STRAIGHT SECTION	WEST SIDE	---
02	SA	3 GEV INJECTOR	WEST STRAIGHT SECTION, G29	(BEAM DIAGNOSTICS)	---
03	SA	SSRL - BOOSTER	VACUUM STRAIGHT SECTION	WEST STRAIGHT SECTION, G27	(WEST ACCESS)
04	SA	3 GEV INJECTOR	WEST STRAIGHT SECTION, G30	(RF CAVITY)	---
05	SA	3GEV INJECTOR	WEST STRAIGHT SECTION, G32	(FUTURE RF GIRDER)	---
06	SA	3GEV INJECTOR	EAST STRAIGHT SECTION, G47	(EJECTION KICKER)	---
07	SA	SSRL-BOOSTER	EAST STRAIGHT SECTION	G49, EJECTION SEPTUM	INSTALLATION AND VACUUM ASSE
08	SA	SSRL - BOOSTER	VACUUM STRAIGHT SECTION	EAST STRAIGHT SECTION, G10	(CROSSOVER)
09	SA	3GEV INJECTOR	EAST STRAIGHT SECTION, G12	(INJECTION SEPTUM & KICKER)	---
10	SA	3GEV INJECTOR	STRAIGHT SECTION	EAST SIDE	---
11	SA	3 GEV INJECTOR	STRAIGHT SECTION	QF VACUUM CHAMBER ASSY	---
12	SA	3 GEV INJECTOR	STRAIGHT SECTION	QD VACUUM CHAMBER ASSY	---
67	SA	SSRL-BTS TRANSFER LINE	VACUUM- GENERAL	BEAM PIPE 22.12 LG	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 165**

01	SA	3GEV INJECTOR	VACUUM SYSTEM	STRAIGHT SECTION	INSTRUMENT SECTION WITH ADAP
02	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	INSTRUMENT SECTION WITH ADAPT	CONFLAT ADAPTER (FOR G27, G29
03	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	WELDED BELLOWS	(FOR G29)
04	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	LONG END FLANGE BELLOWS	---
05	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	CERAMIC GAP AND LONG BELLOWS	---
06	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	CERAMIC GAP END ADAPTER	---
07	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	STRAIGHT SECTION QD VAC. CHAM	---
08	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	STRAIGHT SECTION QF VAC. CHAM	---
09	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G32)
11	PF	3GEV INJECTOR	VACUUM SYSTEM	STRAIGHT SECTION	VALVE SUPPORT (FOR G27, G32)
12	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL SUPPORT	
13	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	---
14	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	VALVE SUPPORT	(FOR G47)
15	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	MODIFIED CONFLAT GASKET
16	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	CONDUCTOR RING
17	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	MACOR RING
18	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	OUTER TUBE
19	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	Q-METER	INNER TUBE
21	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SCRAPER	SCRAPER HEAD
22	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SCRAPER	LINEAR MOTION FEEDTHROUGH
23	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G29)
24	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL SUPPORT	(FOR G47, G49)
25	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	STRIPLINE MONITOR FLANGE	(FOR G29)
26	PF	3GEV INJECTOR	VACUUM SYSTEM	STRAIGHT SECTION	VALVE SUPPORT (FOR G10)
27	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G30)
28	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G30)
29	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G47)
30	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G47)
31	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G47)
32	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G10)
33	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G10)
34	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	BELLOWS/SPOOL WELDMENT	(FOR G49)
35	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G49)
36	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	GIRDER 29 INSTRUMENT SUPPORT	---
37	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G12)
38	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G12)
39	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G12)
40	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL WELDMENT	(FOR G27)

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 165**

41	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL SUPPORT	(FOR G32, G10)
42	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	---
43	PF	SSRL- INJECTOR	SYNCHROTRON RADIATION	MONITOR	
44	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	SHAFT CLAMP
45	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	WELDED BELLOWS	(FOR G49)
46	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	TOROID ASSEMBLY	(FOR G29)
47	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	INSTRUMENT SECTION FERRITE RI	ADAPTER RING
48	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SPOOL SUPPORT	---
49	SA	SSRL INJECTOR	LINAC TO BOOSTER	LTB BPM SUPPORT (FOR G10)	---
50	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	RAY TRACE, G29	---
51	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	TEMP. DRIFT SPOOL, G29	---
52	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	TEMP. DRIFT SPOOL	(FOR G47, G49)
53	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	FORMED BELLOWS	(FOR G12)
54	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	MODIFIED 4 1/2" CONFLAT FLANGE
55	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	COPPER SUPPORT ROD
56	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	WIRE RING
57	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	SYNCHROTRON LIGHT MONITOR AS	COPPER DISK
58	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	GIRDER 29 INSTRUMENT SUPPORT	SUPPORT PLATE
59	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	GIRDER 29 INSTRUMENT SUPPORT	SUPPORT PLATE
60	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	GIRDER 29 INSTRUMENT SUPPORT	1" PLATE
61	PF	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	GIRDER 29 INSTRUMENT SUPPORT	C CHANNEL
62	SA	3 GEV INJECTOR	VACUUM SYSTEM/STRAIGHT SECTI	G29 STRIPLINE	---
63	PF	SSRL- BOOSTER	VACUUM STRAIGHT SECTION	CROSS VACUUM CHAMBER SUPPO	---



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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 170**

00	SA	SSRL BOOSTER	RWGN	358 MHZ RF CAVITY TO	KLYSTRON LAYOUT
01	SA	SSRL BOOSTER	RWGN	UNISTRUT SUPPORT #1	---
02	SA	SSRL BOOSTER	RWGN	UNISTRUT SUPPORT #2	---
03	SA	SSRL BOOSTER	RWGN	UNISTRUT SUPPORT #3	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444** *172*

13	PF	SPEAR BOOSTER SYNCHROTRON	358 MHZ RF CAVITY SECTION	MOVABLE TUNER ACTUATOR	MOTOR MOUNTING PLATE
19	PF	SPEAR BOOSTER SYNCHROTRON	358 MHZ RF CAVITY	MOVABLE TUNER ACTUATOR	MOUNTING FLANGE

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 190**

00	AD	SSRL - BTS TRANSFER LINE	GENERAL ASSEMBLY	GENERAL ASSEMBLY	---
02	GP	SSRL INJECTOR PROJECT	INJECTION SYSTEM	BEAM STAY CLEAR LINAC	TO BOOSTER (LAYOUT)

## SPEAR INJECTOR DRAWINGS - (at SSRL)

444 191

01	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET	CORE DETAIL
02	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE MAGNET	CORE ASSEMBLY
03	SA	3 GEV INJECTOR	BTS TRANSFER LINE	B2HV DIPOLE	MAGNET ASSEMBLY
05	PF	3 GEV INJECTOR	INJECTION/EJECTION SYSTEM	KICKER MAGNETS	FERRITE BLOCKS
06	SA	3 GEV BOOSTER	EJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSY.	---
07	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	---
08	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	TOP PLATE
09	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	BOTTOM PLATE
10	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	SIDE BAR
11	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COPPER STRIP, TOP
12	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COPPER STRIP, BOTTOM
13	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COIL, BRAZED
14	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	COIL PLATE
15	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	COIL WINDOW FRAME
16	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	STAND-OFF, MALE-FEMALE
17	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	SUPPORT
18	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	Z' BRACKET WELDMENT
19	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	MAGNET ASSEMBLY	Z' CLIP
20	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	MAGNET ASSEMBLY	Z' PLATE
21	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSY, E	---
22	PF	3 GEV INJECTOR	INJECTOR KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	REDUCING FLANGE, MODIFIED
23	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	GROUND SHIELD WELDMENT ASS
24	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	HIGH VOLTAGE CONDUCTOR
25	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, END, HV
26	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	INJECTION KICKER TANK ASSEMBL	---
27	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, END, GROUND
28	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, MIDDLE, HV
29	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, MIDDLE, GR
30	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSY,	---
31	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	BOSS
32	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	TUBE
33	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	RING
36	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET B6	LOWER SIDE
37	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET B6	UPPER SIDE
38	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET B6	FRONT BAR- FRONT PLATE
39	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE MAGNET B6	SUBASSEMBLY
40	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE MAGNET B6	CORE ASSEMBLY
41	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET B6	MID POLES

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 191**

42	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET B2	LOWER PLATE
43	SA	3 GEV INJECTOR	BTS TRANSFER LINE	B4H DIPOLE OVER	HEAD SUPP. ASSY.
44	SA	3 GEV INJECTOR	BTS TRANSFER LINE	B3H DIPOLE OVER	HEAD SUPP. ASSY.
46	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET CORE B3	HOLES FOR OVERHEAD SUPPORT
48	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYSTEM	DIPOLE MAGNET CORE B2	HOLES FOR OVERHEAD SUPPORT
49	SA	SSRL-BTS TRANSFER LINE	B1V MAG. MOUNTING ASSY.	B1V MAG. MOUNTING ASSY.	---
51	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	BOTTOM PLATE
52	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COPPER STRIP, TOP
53	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COPPER STRIP, BOTTOM
54	SA	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COIL, BRAZED
55	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	COIL PLATE
56	SA	3 GEV INJECTOR	EJECTION KICKER SYSTEM	EJECTION KICKER TANK ASSEMBLY	---
57	SA	3 GEV INJECTOR	EJECTION KICKER SYSTEM	MAGNET ASSEMBLY	---
58	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, HV
59	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	HIGH VOLTAGE FEED-THRU ASSEM	CONDUCTOR STRAP, GROUND
61	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	SUPPORT STRUCTURE	KICKER TANK HOLE PATTERN
62	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	SUPPORT STRUCTURE	SUPPORT CHANNEL
63	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	SUPPORT STRUCTURE	ADAPTER PLATE
64	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	SUPPORT STRUCTURE	---
65	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	SUPPORT STRUCTURE	KICKER TANK HOLE PATTERN
66	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	SUPPORT STRUCTURE	---
67	PF	3 GEV BOOSTER	INJECTION LINE	B1V MAGNET SUPPORT	---
68	PF	3 GEV BOOSTER	INJECTION LINE	B1V MAGNET	SUPPORT PLATE
69	PF	3 GEV BOOSTER	INJECTION LINE	QF5 MAGNET	SUPPORT PLATE
70	PF	3 GEV BOOSTER	INJECTION LINE	B2 MAGNET	SUPPORT PLATE
71	PF	3 GEV BOOSTER	INJECTION LINE	QF4-B2 MAGNET	SUPPORT GIRDER
72	PF	3 GEV BOOSTER	INJECTION LINE	B3 MAGNET	SUPPORT PLATE
73	PF	3 GEV BOOSTER	INJECTION LINE	B3 MAGNET	FIX SUPPORT PLATE
74	PF	3 GEV BOOSTER	INJECTION LINE	MAGNET SUPPORT	COLUMNS
75	PF	3 GEV BOOSTER	INJECTION LINE	QF4 MAGNET	SUPPORT PLATE
76	SA	3 GEV BOOSTER	B3 & QD6 MAGNETS	SUPPORT ASSY.	---
77	PF	3 GEV BOOSTER	INJECTION LINE	B3 & QD6 MAGNETS	SUPPORT BRACKET
78	PF	3 GEV BOOSTER	INJECTION LINE	B1V MAGNET	SUPPORT BRACKET
79	PF	3 GEV BOOSTER	INJECTION LINE	B2 & QF4 MAGNETS	SUPPORT BRACKET
80	SA	3 GEV INJECTOR	INJECTION LINE	QF4-QF5 MAGNETS	SUPPORT LAYOUT
86	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	LTB DIPOLE MAGNET ASSEMBLY	---
87	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	B1 POLE, LOWER	---
88	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	B1 POLE, UPPER	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 191**

89	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	B2 POLE, LOWER	---
90	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	B2 POLE, UPPER	---
91	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	B3 POLE	---
92	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	HOUSING, HORIZONTAL MEMBER	---
93	PF	3 GEV INJECTOR	LTB DIPOLE MAGNET ASSEMBLY	HOUSING, VERTICAL MEMBER	---
94	SA	3 GEV INJECTOR	BTS TRANSFER LINE	CORRECTOR ASSY.	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 192**

01	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	HIGH VOLTAGE CABLE CLAMP
02	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT: SAFETY ENCLOSURE	BASE WELDMENT
03	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	ENCLOSURE ASSEMBLY
04	PF	SSRL-BOOSTER	SEPTUM SYSTEMS	SEPTUM HELIUM CHAMBER	BOTTOM UPSTREAM MOUNT
05	SA	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	PULSER ASSEMBLY
06	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	RESISTOR PACK END CAP
07	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	PFN ANGLE
08	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	HV ANGLE
09	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	BASE PLATE
10	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	G10 BASE PLATE
11	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	ROUND STANDOFF, F-F
12	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	SQUARE STANDOFF ANGLE
13	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	SQUARE STANDOFF
14	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	MICALOX PLATE
15	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	TERMINAL BOX
16	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT: SAFETY ENCLOSURE	CHOKE SUPPORT
17	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT: SAFETY ENCLOSURE	FRONT COVER
18	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	REAR COVER
19	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT: SAFETY ENCLOSURE	SIDE COVER
20	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	BASE PLATE, MODIFIED, LEFT
21	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	TOP COVER
22	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	SPLIT COVER
23	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	BLOCK SUPPORT
24	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	WELD PAD
25	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	HV SUPPORT
26	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	MOUNTING CLAMP
27	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	ANGLE
28	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	CLAMPING PLATE
29	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	RETAINER PLATE
30	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	STANDOFF
31	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	PULSER UNIT: SAFETY ENCLOSURE	BASE WELDMENT
32	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	EJECTION PULSER UNIT	CHOKE SUPPORT
33	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	PULSER UNIT	SIDE COVER
34	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	PULSER UNIT	FRONT COVER
35	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	EJECTION PULSER UNIT	REAR COVER
36	PF	3 GEV INJECTOR	EJECTION PULSER SYSTEM	PULSER UNIT	TOP COVER
37	PF	3 GEV INJECTOR	EJECTION PULSER SYSTEM	PULSER UNIT	SPLIT COVER
38	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	EJECTION PULSER UNIT	BASE PLATE

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 192**

39	PF	3 GEV INJECTOR	EJECTION PULSER SYSTEM	PULSER UNIT	BASE PLATE, MODIFIED
40	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	EJECTION PULSER UNIT	ENCLOSURE ASSEMBLY
41	PF	3 GEV INJECTOR	INJECTION/EJECTION PULSER SYS	INNER SHROUD ASSY	INNER SHROUD
42	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	FEEDTHRU ADAPTER
43	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	RESISTOR MODULE
44	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT; INNER SHROUD ASS	FEEDTHRU PANEL
45	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT; INNER SHROUD ASS	MODULE PANEL
46	PF	3 GEV INJECTOR	INJECTION KICKER SYSTEM	PULSER UNIT	INNER SHROUD ASSEMBLY
47	PF	3 GEV INJECTOR	EJECTION KICKER SYSTEM	PULSER UNIT	PULSER ASSEMBLY
48	SA	3 GEV INJECTOR	KICKER PULSER	G10 PLATE SUBASSY	---
49	SA	3 GEV INJECTOR	KICKER PULSER	DISCHARGE RESISTOR	---
50	SA	3 GEV INJECTOR	KICKER PULSER	PULSER UNITS	SUBASSEMBLY
51	PF	3 GEV INJECTOR	KICKER PULSER	DISCHARGE RESISTOR	IBEAM SUPPORT
52	PF	3 GEV INJECTOR	KICKER PULSER	DISCHARGE RESISTOR	CONNECT PLATE
53	PF	3 GEV INJECTOR	KICKER PULSER	OCTAGON STRAP	& GASKET ASSY.
54	PF	3 GEV INJECTOR	INJECTION PULSER SYSTEM	PULSER UNIT	FLEXIBLE CABLE
55	PF	SSRL- INJECTOR	EXTRACTION CHAMBER	VACUUM CHAMBER WELDMENT	BODY CHAMBER
56	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	COVER CHAMBER
57	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	ADAPTER
58	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	END FLANGE
59	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	TUBE
60	SA	SSRL INJECTOR	EXTRACTION SEPTUM WINDOW	CHAMBER WELDMENT	---
61	SA	SSRL INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	WINDOW BRAZE ASSY
62	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	WINDOW SUPPORT
63	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	WINDOW RING
64	PF	SSRL- INJECTOR	EXTRACTION SEPTUM	VACUUM CHAMBER WELDMENT	WINDOW FOIL
65	PF	3 GEV INJECTOR	KICKER PULSER	OUTER FRAME	CROSS PLATE
66	SA	3 GEV INJECTOR	KICKER PULSER	THYRATRON ASSY	---
67	PF	3 GEV INJECTOR	KICKER PULSER	VARSITOR MOUNT	---
68	PF	3 GEV INJECTOR	KICKER PULSER	VARSITOR WASHER	---
69	PF	3 GEV INJECTOR	KICKER PULSER	CAPACITOR WIRE	---
70	PF	3 GEV INJECTOR	KICKER PULSER	COMPENSATING NETWORK	SUPPORTS
71	PF	3 GEV INJECTOR	KICKER PULSER	FORMED WIRES	---
72	PF	SSRL- INJECTOR	EJECTION/INJECTION SYS	EJECTION MAGNET	MISCELLANEOUS PARTS
73	PF	3 GEV INJECTOR	KICKER PULSER	ELECTRIC CHASSIS	---
74	PF	3 GEV INJECTOR	KICKER PULSER	PFN CABLE	---
75	SA	SSRL INJECTOR	EJECTION SYSTEM	EJECTION SEPTUM	BLOCK WELDMENT
76	SA	3 GEV INJECTOR	KICKER PULSER	CURRENT MONITOR	ASSEMBLY



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 192**

78	SA	SSRL INJECTOR	INJECTION/EJECTION SYS	EJECTION SEPTUM MAGNET	COIL CURING MOLD
79	SA	3 GEV INJECTOR	KICKER PULSER	CHARGING RESISTOR	ASSEMBLY
80	PF	3 GEV INJECTOR	KICKER PULSER	G-10 STANDOFF	---
82	PF	3 GEV INJECTOR	KICKER PULSER	TERMINAL BLOCK	SUPPORT
83	SA	SSRL INJECTOR	EJECTION SYSTEM	EJECTION SEPTUM MAGNET	SHORT LAM STACK
84	SA	SSRL INJECTOR	EJECTION SYSTEM	EJECTION SEPTUM MAGNET	LONG LAM STACK
85	PF	3 GEV INJECTOR	KICKER PULSER	CABLE CLAMP	---
86	PF	SSRL-BOOSTER	SEPTUM SYSTEMS	SEPTUM HELIUM CHAMBER	BOTTOM DOWNSTREAM MOUNT
87	PF	SSRL- BOOSTER	EAST STRAIGHT SECTION	G49 SHIELDING	LEAD CONSTRAINT
88	PF	3 GEV BOOSTER	INJECTOR/EJECTION SYS	EJECTION SEPTUM MAGNET	CLAMPING PLATES
89	SA	SSRL INJECTOR	INJECTION/EJECTION SYS	EJECTION SEPTUM MAGNET	BACKLEG
90	SA	SSRL-BOOSTER	SEPTUM SYSTEMS	EJECTION SEPTUM MAGNET	ASSEMBLY ON GIRDER
91	PF	3 GEV BOOSTER	INJECTOR/EJECTION SYS	EJECTION SEPTUM MAGNET	TOP PLATES
94	SA	SSRL-BOOSTER	G49, EJECTION SECTION	BTS SPOOL SUBASSEMBLY	UP-STREAM SUPPORT
95	SA	SSRL-BOOSTER	G49, EJECTION SECTION	BTS SPOOL SUBASSEMBLY	DOWN-STREAM SUPPORT
96	PF	SSRL-BOOSTER	SEPTUM SYSTEMS	SEPTUM HELIUM CHAMBER	CLAMP TOP
97	SA	SSRL-BOOSTER	EAST STRAIGHT SECTION	GIRDER 49	SHIELDING ASSEMBLY
98	SA	SSRL-BOOSTER	SEPTUM SYSTEMS	VACUUM AND SUPPORT ASSEMBLY	ON GIRDER
99	SA	SSRL INJECTOR	EJECTION SYSTEM	EJECTION SEPTUM MAGNET	GIRDER ASSY

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 193**

01	SA	SPEAR INJECTOR PROJECT	B.T.S. QUADRUPOLE CORE	ASSEMBLY, 60MM BORE	---
02	SA	SSRL INJECTOR	BTS QUADRUPOLE	60 MM BORE	QUADRUPOLE ASSEMBLY
05	SA	SSRL INJECTOR	BTS QUADRUPOLE CORE	60 MM BORE	QUADRANT ASSEMBLY
06	PF	3 GEV BOOSTER	SS-12 GIRDER	MODIFY HOLE PATTERN	
07	PF	3 GEV BOOSTER	INJECTION	BPM SUPPORT	---
08	PF	3 GEV BOOSTER	INJECTION	SUPPORT ANGLE	---
09	PF	3 GEV BOOSTER	INJECTION	VALVE SUPPORT	---
11	PF	3 GEV BOOSTER	LTB	CROSS SUPPORT	---
12	PF	3 GEV BOOSTER	INJECTION	BPM SUPPORT	---
13	PF	3 GEV BOOSTER	INJECTION LINE	B1V MAGNET	SUPPORT SHIM

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

444 194

03	PF	SSRL INJECTOR PROJECT	BEAM STOPPER AND	DISASTER MONITOR LINAC	ACTUATOR AND BLANK
06	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	BEAM STOPPER-DISASTER	MONITOR ASSY. LINAC
09	SA	BTS TRANSFER LINE	GENERAL	BEAM STOPPER ASSEMBLY	VACUUM CHAMBER
10	SA	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	BEAM STOPPER ASSEMBLY	---
11	PF	SSRL- BTS TRANSFER LINE	SUPPORT EQUIPMENT	BEAM STOPPER ASSY- INSTALLATI	POST WELDMENT
12	PF	SSRL- BTS TRANSFER LINE	SUPPORT EQUIPMENT	BEAM STOPPER ASSY- INSTALLATI	SUPPORT PLATE
13	PF	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	POSITION MONITOR- DETAIL	FRONT RING
14	PF	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	POSITION MONITOR- DETAIL	END RING
15	PF	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	POSITION MONITOR- DETAIL	OUTER BODY
16	SA	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	POSITION MONITOR	BODY SUBASSY WELDMENT
17	SA	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	BEAM POSITION MONITOR	ASSEMBLY
18	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	Y VACUUM CHAMBER FOR	MAGNET B6
19	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	MAGNET B2
20	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	MAGNET B3
21	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	MAGNET B4
22	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	MAGNET B5
23	SA	SSRL INJECTOR PROJECT	INJECTION SYSTEM	SEPTUM VACUUM CHAMBER	#NAME?
24	PF	SSRL INJECTOR PROJECT	BOOSTER TO SPEAR	POSITION MONITOR- DETAIL	MODIFIED OUTBODY BPM- Q5
25	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	B2 LTB MAGNET
26	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR	B3 LTB MAGNET
27	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	CLAMP FLANGE	---
28	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	Y VACUUM CHAMBER FOR B1	LTB MAGNET
29	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	VACUUM CHAMBER FOR B1V	BTS
30	SA	SSRL-BTS TRANSFER LINE	SUPPORT EQUIPMENT	BEAM STOPPER ASSY- INSTALLATI	---
31	SA	SSRL - BTS TRANSFER LINE	GENERAL VACUUM ASSY.	GENERAL VACUUM ASSY.	---
32	SA	SSRL-BTS TRANSFER LINE	VACUUM-GENERAL	BEAM PIPE 19.81 LG	---
33	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 6" C. F. (ROT) TO	4.5" C.F. (NONROT)
34	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 6" C.F. TO CLAMP FLAN	---
35	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 4.5" C.F. TO	4.5" C.F.
36	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	CROSS VACUUM CHAMBER	ASSEMBLY
37	SA	SSRL-BTS TRANSFER LINE	VACUUM-GENERAL	BEAM PIPE 5.50 LG	---
38	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 6" C.F. (NONROT)	TO 4.5 CF (NONROT)
39	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 6" C.F. (NONROT)	TO 4.5 CF (ROT)
40	SA	SSRL-LTB TRANSFER LINE	GUN TO BOOSTER ASSEMBLY	LINAC TO BOOSTER INJECTION ASS	---
48	SA	SSRL INJECTOR	INJECTION/EJECTION SYS	EJECTION LINE B3 BPM SUPPORT	---
49	PF	SSRL- INJECTOR	INJECTION/EJECTION SYST.	B3 BPM SUPPORT SHIM	---
50	SA	SSRL- GENERAL & FACILITIES	GUN TO BOOSTER ASSEMBLY	GUT TO BOOSTER ASSEMBLY	---
51	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	BEAM PIPE 4.5" C.F. TO CLAMP FLA	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 194**

52	SA	SSRL INJECTOR	INJECTION SYSTEM	B1 TO QF1 VAC. CHAMBER WELDME	---
53	SA	SSRL-LTB TRANSFER LINE	LTB B1 TO B2 ASSEMBLY	LTB B1 TO B2 ASSEMBLY	---
54	SA	SSRL-LTB TRANSFER LINE	LTB B2 TO B3 ASSEMBLY	LTB B2 TO B3 ASSEMBLY	---
55	SA	3 GEV INJECTOR	INJECTION/ EJECTION SYSTEM	BTS SYSTEM	SPOOL SUBASSEMBLY
56	SA	3 GEV INJECTOR	INJECTION/EJECTION SYS	BTS SYSTEM	WINDOW BRAZE ASSY
57	PF	3 GEV INJECTOR	INJECTION/EJECTION SYST.	BTS SYSTEM WINDOW BRAZE ASSY	WINDOW SUPPORT
58	PF	3 GEV INJECTOR	INJECTION/EJECTION SYST.	BTS SYSTEM WINDOW BRAZE ASSY	WINDOW RING
59	PF	3 GEV INJECTOR	INJECTION/EJECTION SYST.	BTS SYSTEM WINDOW BRAZE ASSY	WINDOW FOIL
60	SA	SSRL-BTS TRANSFER LINE	VACUUM PUMPING STATION	VACUUM PUMPING STATION	---
61	SA	SSRL LINAC TO BOOSTER TRANSF.	LTB SYSTEM	B1 MAGNET SUPPORT ASSY	---
62	SA	SSRL-LTB TRANSFER LINE	LINAC TO BOOSTER INJECTOR ASS	LTB STOPPER SUPPORT	---
63	SA	SSRL-LTB TRANSFER LINE	LINAC TO BOOSTER INJECTOR ASS	QF2 & QD3 SUPPORT	---
64	SA	SSRL-LTB TRANSFER LINE	LINAC TO BOOSTER INJECTOR ASS	LTB QF4 TO B2 SUPPORT	---
65	PF	SSRL- LTB TRANSFER LINE	LTB B1 TO B2 ASSEMBLY	BPM SUPPORT	---
66	PF	SSRL- LTB TRANSFER LINE	LTB B1 TO B2 ASSEMBLY	FLANGE SUPPORT	---
68	SA	SSRL-BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING	SUPPORT WELDMENT
69	SA	SSRL-BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING	TOP PLATE WELDMENT
70	SA	SSRL - BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING ASSY	---
71	SA	SSRL-BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING	TOP COVER WELDMENT
72	PF	SSRL- BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING	TOP ADJUSTMENT ANGLE
73	PF	SSRL- BTS TRANSFER LINE	SHIELDING	SUPPORT LEAD SHIELDING	BOTTOM ADJUSTMENT ANGLE
75	SA	SSRL-INJECTOR ELECTRICAL SYST	PPS	LTB & BTSM STOPPER	PNEUMATICS BOX
76	PF	SSRL - INJECTOR ELECTRICAL SYS	PPS - LIB & BTS STOPPER	PNEUMATIC BOX	MODIFIED ENCLOSURE
80	SA	SSRL-INJECTOR ELECTRICAL SYST	PPS	BTS-BURN THRU MONITOR	PNEUMATIC BOX
81	PF	SSRL - INJECTOR ELECTRICAL SYS	PPS - BTS BURN THRU MOITOR	PNEUMATIC BOX	MODIFIED ENCLOSURE

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 195**

10	SA	SSRL INJECTOR	INJECTION/EJECTION SYS	INJECTION SEPTUM	MAGNET ASSEMBLY
12	PF	SSRL- INJECTOR	INJECTION/EJECTION SYST.	INJECTION SEPTUM	MAGNET COIL
13	PF	SSRL- INJECTOR	INJECTION/EJECTION SYST.	INJECTION SEPTUM MAG.	CUTTING TEMPLATE
14	SA	SSRL INJECTOR	INJECTION/EJECTION SYS	INJECTION SEPTUM	MAGNET CORE ASSEMBLY
15	PF	SSRL- INJECTOR	INJECTION/EJECTION SYST.	INJECTION SEPTUM MAG.	MACHINING TEMPLATE
63	SA	SSRL-BOOSTER	WHITE-CIRCUIT POWER SUPPLIES	FUSE ENCLOSURE INSTALLATION	ASSEMBLY

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 196**

01	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUAD--BPM SUPPORT	SUPPORT ASSEMBLY
02	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUADRUPOLE SUPPORT	BPM SUPP. SUBASSY
03	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUADRUPOLE SUPPORT	FIXED PLATE ASSEMBLY
04	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUADRUPOLE SUPPORT	CY.--PLATES WELDMENT
05	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	BPM SUPP. TOP DETAIL
06	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	BPM SUPP. TOP DETAIL
07	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	FIXED PLATE DETAIL
08	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	ALIGNMENT EAR DETAIL
09	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	ADJUSTABLE PLATE
10	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUADRUPOLE SUPPORT	BOTTOM PLATE
11	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION	QUADRUPOLE SUPPORT	CYLINDER POST
12	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUAD SUPP. Q6, STPR17	SUPPORT ASSEMBLY
13	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	QUAD SUPP. Q6, STPR17	CY.--PLATES WELDMENT
14	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD SUPP. Q6, STPR17	ADJUSTABLE PLATE
15	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE B6 SUPPORT	ASSEMBLY
16	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE B6 SUPPORT	PLATE WELDMENT ONE
17	SA	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYS	DIPOLE B6 SUPPORT	PLATE WELDMENT TWO
18	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	BASE COVER ONE
19	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	BASE COVER TWO
20	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	I BEAM ONE
21	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	IBEAMS TWO-THREE
22	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	LOWER PLATE- DETAIL
23	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	SUPPORT PLATE ONE
24	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B6 SUPPORT	SUPPORT PLATE TWO
26	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE B4/B5 SUPPORT	SUPPORT PLATE
27	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	DIPOLE B4/B5 SUPPORT	ASSEMBLY
28	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	CLAMP ASSEMBLY DRAWING	FOR BTS MAGNETS
29	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	SUPERIOR CLAMP FOR BTS	MAGNETS
30	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	INTERIOR CLAMP FOR BTS	MAGNETS
31	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUARUPOLE SUPPORT	MOD. ADJ. PLATE FOR Q7
32	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	CLEVIS
33	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	THREADED HEXAGON BAR
34	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	THREADED ROD
35	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	DIPOLE OVERHEAD SUPP.	SUBASSEMBLY
36	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	WIDE FLANGE BEAM
39	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	IBEAM- PADS WELDMENT
41	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	DIPOLE OVERHEAD SUPP.	IBEAM PAD
42	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	OVERHEAD SUPPORT, B3, B2	I-BEAM ASSEMBLY

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 196**

43	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	OVERHEAD SUPPORT, B3, B2	LONG I-BEAM
44	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	OVERHEAD SUPPORT, B3, B2	SHORT I-BEAM
45	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	OVERHEAD SUPPORT, B3, B2	L- ANGLE
46	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	L- ANGLE
47	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	FIXED PLATE
48	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	FIXED PLATE WELDMENT
49	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	ADJUSTABLE PLATE
50	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ASSYBLY Q1F-BPM
51	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ADJ. PL-CYL. WELDM. Q1F
52	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	QUAD- BPM BASE
53	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	CYLINDER Q1F
54	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ADJ. PL-CYL. WELDM. Q2Q3
55	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ASSEMBLY Q2D-Q3F
56	PF	SSRL INJECTOR PROJECT	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	QUAD BASE
57	PF	SSRL- INJECTOR	INJECTION/EJECTION SYST.	QUAD OVERHEAD SUPPORT	CYLINDER Q2 Q3 Q4
58	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ADJ. PL-CYL. WELDM. Q4D
60	SA	SSRL INJECTOR PROJECT	INJECTION /EJECTION SYST	QUAD OVERHEAD SUPP.	ASSEMBLY Q4D-BPM
63	SA	3 GEV INJECTOR	S. SECTION 12	IS SUPPORT	---
64	SA	3 GEV INJECTOR	BTS TRANSFER LINE	B2HV MAGNET OVER	HEAD SUPP. ASSY.

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 197**

03	SA	SSRL INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	ASSEMBLY
04	SA	SSRL INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	WELDMENT
05	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	BULKHEAD 'A'
06	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	BULKHEAD 'B'
07	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	TANK TUBE
08	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	CAPTURE TUBE
09	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	TUBE CAP
10	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	WELD LUG
11	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	INSULATOR
12	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	GROUND LUG
13	SA	SSRL-LINAC TO DIAGNOSTIC SYSTE	DIGNOSTIC SYSTEM	DIAGNOSTIC ASSEMBLY	---
14	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	LEAD SLUG
15	PF	SSRL- INJECTOR	DIAGNOSTIC LINE	FARADAY CUP	CARBON DISK
16	PF	3 GEV INJECTOR	DIAGNOSTIC LINE	5 WAY CROSS	---
17	SA	SSRL INJECTOR	DIAGNOSTIC LINE	DIAGNOSTIC VAC. CHAMBER ASSY	FARADAY CUP AND TANK ASSY
18	SA	SSRL INJECTOR	DIAGNOSTIC LINE	FARADAY CUP AND TANK ASSY	FARADAY CUP SUPPORT
20	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC SYSTEM	LTD B1 MAGNET SUPPORT ASSY	---
21	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC SYSTEM	BPM SUPPORT ASSY	---
22	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC SYSTEM	SPOOL SUPPORT ASSY	---
23	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC SYSTEM	LTD QF1, LTD QD1 SUPPORT ASSY	---
24	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC VACUUM SYSTEM	DIAGNOSTIC SCREEN ASSEMBLY	---
25	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	FRADAY CUP LINE	DUMP SHIELD	---
26	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	ENERGY DIAGNOSTIC LINE	DUMP SHIELD	---
27	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC VACUUM SYSTEM	VACUUM CHAMBER SPOOL #1	---
28	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC VACUUM SYSTEM	VACUUM CHAMBER SPOOL #2	---
29	SA	SSRL LINAC TO DIAGNOSTIC SYSTE	DIAGNOSTIC VACUUM SYSTEM	ADAPTER	---



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# ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 236**

03 SD SSRL INJECTOR ELECTRICAL SYST PLM AND R10T MULTIPLEXER SCHEMATIC DIAGRAM ---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 250**

00	EI	SSRL INJECTOR ELECTRICAL SYST	LOW POWER DC MAGNET SYSTEME	CEBAF POWER SUPPLY SYSTEM C	ELECTRICAL INTERCONNECT
02	EI	3 GEV INJECTOR	MODULATOR AND POWER	SUPPLY OVERALL GROUNDING	EQUIPMENT AND SAFETY
04	EI	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT NET WORK SYSTE	ELECTRICALL INTERCONNECTION D	---
05	EI	SSRL INJECTOR ELECTRICAL SYST	MAIN MAGNET SYSTEMS	WHITE CIRCUIT PULSER ENCLOSUR	ELECTRICAL INTERCONNECTION
07	EI	SSRL INJECTOR ELECTRICAL SYST	MAIN MAGNET SYSTEMS	WHITE CIRCUIT CONTROL SYSTEM	ELECTRICAL INTERCONNECTION
10	EI	SSRL INJECTOR ELECTRICAL SYST	EJECTION SEPTUM POWER SUPPLY	ELECTRICAL INTERCONNECTION	---
11	EI	SSRL INJECTOR ELECTRICAL SYST	GTL/LTB	MEDIUM POWER SUPPLY SYSTEM	ELECTRICAL INTERCONNECTION
12	EI	SSRL INJECTOR ELECTRICAL SYST	BTS MEDIUM SUPPLY I & C	ELECTRICAL INTERCONNECTION	---
13	EI	SSRL INJECTOR ELECTRICAL SYST	BTS MEDIUM SUPPLY SYSTEM	ELECTRICAL HAZARD INTERFACE	ELECTRICAL INTERCONNECTIONS
14	EI	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT SYSTEM	NETWORK	INTERCONNECTION DIAGRAM
15	PR	SSRL INJECTOR ELECTRICAL SYST	LOW POWER DC MAGNET SYSTEM	CEBAF CRATE PROFILE	RACK PROFILE
17	EI	3 GEV INJECTOR	B2-B6 POWER SUPPLY	ELETRICAL INTERCONNECT	---
19	EI	3 GEV INJECTOR	EJECTION SEPTUM POWER SUPPLY	ELECTRICAL HAZARD INTERFACES	ELECTRICAL INTERCONNECTIONS
20	ML	3 GEV INJECTOR	MATERIAL LIST	LOW LEVEL CABLE BOX	---
21	ML	3 GEV INJECTOR	MATERIAL LIST	PRINTED CIRCUIT BOARD	LOW LEVEL CABLE INTERFACE BO
21	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	MOUNTING PLATE	LOW LEVEL CABLE INTERFACE UN
21	SD	SSRL 3 GEV INJECTOR	LOW LEVEL CABLE	INTERFACE PCB	SCHEMATIC DIAGRAM
40	WD	INJECTOR ELECTRICAL SYSTEMS	MAGNET SYSTEM	LOW LEVEL CABLE INTERFACE	WIRING DIAGRAM
41	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	FRONT PANEL AND DOOR	LOW LEVEL CABLE INTERFACE JU
41	SI	3 GEV INJECTOR	SILKSCREEN INFO	FRONT PANEL AND DOOR	LOW LEVEL CABLE INTERFACE JU
42	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	LOW LEVEL CABLE INTERFACE	TOP AND BOTTOM MOUNTING PLA
43	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	MOUNTING PLATE	LOW LEVEL CABLE INTERFACE JU
44	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	L BRACKET	LOW LEVEL CABLE INTERFACE
50	SA	3 GEV INJECTOR	WHITE CIRCUIT	CAPACITOR BANK WIRING HARNES	SUB-ASSEMBLY
63	SD	SSRL INJECTOR ELECTRICAL SYST	POWER SUPPLY SYSTEM	VVT VOLTAGE REGULATOR	SCHEMATIC DIAGRAM
71	PF	3 GEV INJECTOR	DETAIL FRONT PANEL	COPLEY INTERFACE CHASSIS	---
71	SI	3 GEV INJECTOR	SILKSCREEN FRONT PANEL	COPLEY INTERFACE CHASSIS	---
72	SD	3 GEV INJECTOR	SILKSCREEN BACK PANEL	COPLEY INTERFACE CHASSIS	---
72	PF	3 GEV INJECTOR	DETAIL BACK PANEL	COPLEY INTERFACE CHASSIS	---
73	SD	3 GEV INJECTOR	COPLEY INTERFACE	P.C.B.	SCHEMATIC DIAGRAM
80	SA	SSRL INJECTOR ELECTRICAL SYST	CEBAF	POWER SUPPLY BACK PLANE	ASSEMBLY
83	PC	SSRL INJECTOR ELECT. SYS.	CEBAF	POWER SUPPLY BACK PLANE	ASSEMBLY
91	SI	3 GEV INJECTOR	SILKSCREEN FRONT PANEL	SMALL SUPPLY INTERFACE	208 POLY - PHASE INPUT
91	PF	3 GEV INJECTOR	DETAIL FRONT PANEL	SMALL SUPPLY INTERFACE	208 POLY-PHASE INPUT
92	SI	3 GEV INJECTOR	SILKSCREEN REAR PANEL	SMALL SUPPLY INTERFACE	208 POLY - PHASE INPUT
92	PF	3 GEV INJECTOR	DETAIL REAR PANEL	SMALL SUPPLY INTERFACE	208 POLY-PHASE INPUT
93	SD	3 GEV INJECTOR	SMALL SUPPLY INTERFACE	208 POLY-PHASE INPUT	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 251**

00	SD	3 GEV INJECTOR	POWER SUPPLY INTERFACE	208 3-PHASE INPUT	---
01	PF	3 GEV INJECTOR	FAB. PART DETAIL: EJECTION SEPT	POWER SUPPLY INTERFACE	208 3-PHASE INPUT FRONT PANEL
02	PF	3 GEV INJECTOR	FAB. PART DETAIL: EJECTION SEPT	POWER SUPPLY INTERFACE	208 3-PHASE INPUT REAR PANEL
03	SD	SSRL INJECTOR ELECTRICAL SYST	LOW POWER DC MAGNET SYSTEM	LTB-B1 MAGNET INTERFACE	SCHEMATIC DIAGRAM
20	SD	CEBAF	BIPOLAR REGULATOR MODULE	SCHEMATIC DIAGRAM	---
20	PC	SSRL INJECTOR ELECT. SYS.	CEBAF	BIPOLAR REGULATOR MODULE	PC BOARD ASSEMBLY
30	ML	INJECTOR GUN FILAMENT	POWER SUPPLY	POWER SUPPLY	---
30	EI	SSRL INJECTOR ELECTRICAL SYST	AC POWER DISTRIBUTION SYSTEM	INJECTOR GUN FILAMENT POWER	ELECTRICAL INTERCONNECTION
31	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	INJECTOR GUN HEATER POWER SU	FRONT PANEL
31	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INJECTOR GUN FILAMENT POWER	FRONT PANEL
32	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INJECTOR GUN FILAMENT POWER	REAR PANEL
32	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	INJECTOR GUN FILAMENT POWER	REAR PANEL
33	SD	SSRL INJECTOR ELECTRICAL SYST	AC POWER DISTRIBUTION SYSTEM	INJECTOR GUN HEATER POWER SU	SCHEMATIC DIAGRAM
33	ML	INJECTOR GUN FILAMENT	POWER SUPPLY	POWER SUPPLY	---
41	SI	3 GEV INJECTOR	VOLTAGE PROTECTION CHASSIS	SILKSCREEN FRONT PANEL	---
41	PF	3 GEV INJECTOR	VOLTAGE PROTECTION CHASSIS	FABRICATED PART DETAIL	FRONT PANEL
42	SI	3 GEV INJECTOR	VOLTAGE PROTECTION CHASSIS	SILKSCREEN REAR PANEL	---
42	PF	3 GEV INJECTOR	VOLTAGE PROTECTION CHASSIS	DETAIL REAR PANEL	---
43	PF	3 GEV INJECTOR	VOLTAGE PROTECTION CHASSIS	FABRICATED PART DETAIL	BUS BAR
43	SD	3 GEV INJECTOR	HIGH VOLTAGE PROTECTION CHAS	SCHEMATIC DIAGRAM	---
53	SD	SSRL INJECTOR ELECTRICAL SYST	ISOLATION AMPLIFIER MODULE	SCHEMATIC DIAGRAM	---
60	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	PEDESTAL JUNCTION BOX	---
60	WD	3 GEV INJECTOR	WIRING DIAGRAM	GIRDER JUNCTION BOX	---
60	ML	3 GEV INJECTOR	MATERIAL LIST	PEDESTAL JUNCTION BOX	---
73	PC	3 GEV INJECTOR	S.C.R. FIRING CIRCUIT BOARD	S.C.R. FIRING CIRCUIT BOARD	---
73	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	S.C.R. FIRING CIRCUIT	---
83	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	COPLEY BULK SUPPLY INTERFACE	---
93	SD	SSRL INJECTOR ELECTRICAL SYST	MODULATOR #1	SCHEMATIC DIAGRAM	---
94	SD	SSRL INJECTOR ELECTRICAL SYST	MODULATOR #3	SCHEMATIC DIAGRAM	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 252**

40	ML	3 GEV INJECTOR	KLYSTRON FOCUS MAGNET MONIT	MATERIAL LIST	---
41	SI	3 GEV INJECTOR	KLYSTRON FOCUS MAGNET MONIT	FRONT PANEL	SILKSCREEN INFORMATION
42	SI	3 GEV INJECTOR	KLYSTRON FOCUS MAGNET MONIT	REAR PANEL	SILKSCREEN INFORMATION
43	SD	3 GEV INJECTOR	KLYSTRON FOCUS MAGNET MONIT	SCHEMATIC DIAGRAM	---
51	SI	SSRL INJECTOR ELECTRICAL	SYSTEMS	LINAC EMERGENCY OFF AND ACM T	SILKSCREEN INFO: FRONT PANEL
53	SD	SSRL INJECTOR ELECTRICAL	SYSTEMS	LINAC EMERGENCY OFF AND	ACM TRIP MONITOR
63	SD	SSRL INJECTOR ELECTRICAL	SYSTEMS	CELL 17 CO CAPACITOR BANK	SCHEMATIC DIAGRAM
73	SD	SSRL INJECTOR ELECTRICAL	SYSTEMS	PULSER CAPACITOR BANK	SCHEMATIC DIAGRAM
83	SD	SSRL INJECTOR ELECTRICAL	SYSTEMS	CELL 17 CX, CY CAPACITOR BANK	SCHEMATIC DIAGRAM

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 253**

03	SD	SSRL-INJECTOR ELECTRICAL	SYSTEMS	BOOSTER CELL 1-16	STANDARD CAPACITOR BANK
30	WD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	TD-341ANP	THYRATRON DRIVER
53	SD	SSRL INJECTOR ELECTRICAL SYST	B2-B6 UPGRADE	SCHEMATIC DIAGRAM	---
73	SD	SSRL INJECTOR ELECTRICAL SYST	CEBAF PWR SUPPLY CALIBRATION	+5.000/+10.000 PRECISION VOLTAG	SCHEMATIC DIAGRAM
93	SD	SSRL - INJECTOR ELECTRICAL SYS	MODULATOR #21	SCHEMATIC DIAGRAM	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 254**

10	SD	SSRL INJECTOR ELECTRICAL SYST	HV PULSED MAGNET SYSTEMS	110VAC CONTROL FOR BB/ REGULA	SCHEMATIC DIAGRAM
21	SD	SSRL BOOSTER	B2-B6 POWER SUPPLY	PLC OUTPUT INTERFACE	FOR LED DISPLAY BOARD
22	SD	SSRL BOOSTER	B2-B6 POWER SUPPLY	PLC INPUT INTERFACE	FOR SYSTEM INTERLOCKS
23	SD	SSRL BOOSTER	B2-B6 POWER SUPPLY	ANALOG CIRCUIT AND	METER INTERFACE BOARD

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 255**

00	SD	SSRL-INJECTOR ELECTRICAL SYST	WHITE CIRCUIT	BIAS POWER SUPPLY	SCHEMATIC DIAGRAM
20	BD	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT	PULSER POWER SUPPLY	BLOCK DIAGRAM
20	SD	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT	PULSER POWER SUPPLY	SCHEMATIC DIAGRAM
40	BD	SSRL - INJECTOR ELECTRICAL SYS	SYSTEMS	POWER SUPPLY	BTS B2-B6 240KW
41	WD	SSRL-INJECTOR ELECTRICAL SYST	POWER SUPPLY	BTS B2-B6 240 KW RELAY CIRCUIT	WIRING DIAGRAM
83	SD	SSRL INJECTOR ELECTRICAL SYST	480 KW POWER SUPPLY	SIGNAL PROCESSING CARD	SCHEMATIC DIAGRAM

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***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 256**

03 SD SSRL INJECTOR ELECTRICAL SYST MAGNET AND CORRECTOR CONTR AUDIO MICROPHONE SCHEMATIC DIAGRAM



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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 259**

82	EI	3 GEV INJECTOR	QD & QF	ELECTRICAL HAZARD INTERFACE	ELECTRICAL INTERCONNECTIONS
83	EI	SSRL INJECTOR ELECTRICAL SYST	LOW POWER MAGNETS\ SYSTEMS	INJECTION SEPTUM MAGNET POWE	ELECTRICAL INTERCONNECTION

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 260**

00	EI	SSRL INJECTOR ELECTRICAL SYST	PPS	LINAC/DIAGNOSTIC ROOM	INTERCONNECT DIAGRAM
02	EI	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS	ELECTRICAL INTERCONNECT	---
05	BD	3 GEV INJECTOR	SSRL LINAC MODULATOR	CHOPPER AND RF AMPLIFIER	TRIGGER CONTROL AND INTERRU
06	EI	SSRL INJECTOR ELECTRICAL SYST	CONTROL RM REMOTE SHUTOFF P	LINAC RF TRIGGER / MODULATOR T	MODULATOR HV OFF AND ACM ST
07	EI	3 GEV INJECTOR	ENABLE/DISABLE CHASSIS	BETWEEN BOOSTER PPS & LINAC P	ELECTRICAL INTERCONNECT
11	BD	3 GEV INJECTOR	IDIM & IDOM	(COMPUTER) INTERFACE	BLOCK DIAGRAM
12	EI	3 GEV INJECTOR	PPS IDIM (COMPUTER)	INTERFACE WIRING	---
15	EI	3 GEV INJECTOR	LTB B2 & B3 TEMPERATURE	SENSOR (KLIXON)	ELECTRICAL INTERCONNECT
16	EI	3 GEV INJECTOR	MPS ISOLATION VALVE	ELECTRICAL INTERCONNECT	---
17	BD	3 GEV INJECTOR	MACHINE PROTECTION	SYSTEM (MPS)	BLOCK DIAGRAM
18	LD	3 GEV INJECTOR	MPS	LOGIC DIAGRAM	---
19	PR	SSRL INJECTOR ELECTRICAL SYST	GENERAL	RACK PROFILES	---
20	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS SPEAKER MOUNTING PLATE	---
33	SD	SSRL-INJECTOR ELECTRICAL SYST	LINAC	PERSONNEL PROTECTION SYSTEM	---
40	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM:	POWER DISTRIBUTION	---
41	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	REAR PANEL	PPS POWER DISTRIBUTION
41	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	REAR PANEL	PPS POWER DISTRIBUTION
42	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	FRONT PANEL	PPS POWER DISTRIBUTION
42	SA	3 GEV INJECTOR	SUB-ASSEMBLY DRAWING	FRONT PANEL	PPS POWER DISTRIBUTION
42	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	FRONT PANEL	PPS POWER DISTRIBUTION
43	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM:	PPS POWER DISTRIBUTION	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 261**

01	PF	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS CONTROL PANEL	FRONT PANEL	FABRICATED PART DETAIL
01	SI	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS CONTROL PANEL	FRONT PANEL	SILK SCREEN INFORMATION
02	PF	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS CONTROL PANEL	FABRICATED PART DETAIL	REAR PANEL
02	SI	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS CONTROL PANEL	REAR PANEL	SILK SCREEN INFORMATION
03	SD	SSRL BOOSTER	PPS	CONTROL PANEL	---
11	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS HAZARD CONTROL PANEL	FRONT PANEL
11	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	PPS HAZARD CONTROL PANEL	FRONT PANEL
12	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS HAZARD CONTROL PANEL	REAR PANEL
12	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	PPS HAZARD CONTROL PANEL	REAR PANEL
13	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM:	PPS HAZARD CONTROL PANEL	---
14	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS HAZARD CONTROL PANEL	SWITCH MOUNTING PLATE
14	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	PPS HAZARD CONTROL PANEL	SWITCH MOUNTING PLATE
15	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS HAZARD CONTROL PANEL	PLEXIGLASS WINDOW
16	PF	3 GEV INJECTOR	FABRICATION PART DETAIL:	PPS HAZARD CONTROL PANEL	LOCKING BAR
20	SD	SSRL-INJECTOR ELECTRICAL SYST	BOOSTER PPS	LOGIC	---
31	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS TIMER & TAPE	WARNING/ +24VDC
31	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	PPS TIMER & TAPE	WARNING/ +24 VDC
31	LD	SSRL INJECTOR ELECT. SYS.	PPS	TIMER/TAPE WARNING LDDER LOGI	(FOR SLAC SD 123-861-00-R5)
32	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS TIMER & TAPE	WARNING/ +24VDC REAR PANEL
33	SD	SSRL	INJECTOR ELECTRICAL SYSTEMS	PPS TIMER AND TAPE WARNING	SCHEMATIC DIAGRAM
41	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	ACCESS INTERCOM PANEL	FRONT PANEL
41	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	ACCESS INTERCOM PANEL	FRONT PANEL
51	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BEAM CONTAINMENT	FRONT PANEL
51	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	BEAM CONTAINMENT	FRONT PANEL
52	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BEAM CONTAINMENT	REAR PANEL
52	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	BEAM CONTAINMENT	REAR PANEL
53	SD	SSRL INJECTOR ELECTRICAL SYST	LINAC BCS	TRIGGER INTERRUPT CHASSIS	SCHEMATIC DIAGRAM
63	SD	3 GEV INJECTOR	BEAM CONTAINMENT	SYSTEM TRIGGERS	SCHEMATIC DIAGRAM
71	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS-MPS INTERFACE	240KW P.S. FRONT PANEL
72	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS-MPS INTERFACE	240KW P.S. REAR PANEL
73	SD	3 GEV INJECTOR	240KW POWER SUPPLY	MPS-PPS INTERFACE	SCHEMATIC DIAGRAM
80	PF	3 GEV INJECTOR	BOX MODIFICATION	VALVE SLAVER	---
80	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION	VALVE SLAVER BOX	---
83	SD	3 GEV INJECTOR	VALVE SLAVER BOX	SCHEMATIC DIAGRAM	---
93	SD	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT HAZARD INTERLOC	SCHEMATIC DIAGRAM	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 262**

03	SD	3 GEV INJECTOR	WARNING LIGHT	INDICATOR CONTROL	SCHEMATIC DIAGRAM
30	ML	3 GEV INJECTOR	MATERIAL LIST	PPS-MPS INTERFACE	480KW P.S.
31	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS-MPS INTERFACE	480KW P.S. FRONT PANEL
32	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	PPS-MPS INTERFACE	480KW P.S. REAR PANEL
33	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	480 KW POWER SUPPLY	MPS-PPS INTERFACE
40	ML	INJECTOR PPS POWER DISTRIBUTI	INJECTOR PPS POWER DISTRIBUTI	INJECTOR PPS POWER DISTRIBUTI	---
43	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	81 POWER SUPPLY	208 3-PHASE INPUT
50	ML	SSRL- INJECTOR ELEC SYST	STOPPER PPS/MPS INTERFACE	CHASSIS	MATERIAL LIST
50	DL	SSRL-INJECTOR ELEC. SYS.	STOPPERS PPS/MPS INTERFACE	DRAWING LIST	---
50	WD	SSRL INJECTOR ELECTRICAL SYST	PPS	MPS/PPS STOPPERS INTERFACE	---
51	PF	SSRL INJECTOR ELECTRICAL SYST	STOPPERS PPS/MPS INTERFACE	FRONT PANEL	FABRICATED PART DETAIL
51	SI	SSRL INJECTOR ELECTRICAL SYST	STOPPERS PPS/MPS INTERFACE	FRONT PANEL	SILKSCREEN INFORMATION
52	SI	SSRL INJECTOR ELECTRICAL SYST	STOPPERS PPS/MPS INTERFACE	REAR PANEL	SILKSCREEN INFORMATION
52	PF	SSRL INJECTOR ELECTRICAL SYST	STOPPERS PPS/MPS INTERFACE	REAR PANEL	FABRICATED PART DETAIL
53	ML	SSRL- INJECTOR ELEC SYST	STOPPER PPS/MPS INTERFACE	CHASSIS, CIRCUIT BOARD	MATERIAL LIST
53	SD	SSRL- INJECTOR ELECTRICAL SYST	PPS	PPS/MPS STOPPERS INTERFACE	---
63	SD	SSRL- INJECTOR	ELECTRICAL SYSTEMS	BCS	ACM POWER SUPPLY
73	SD	3 GEV INJECTOR	CHOPPER INTERLOCK	SCHEMATIC DIAGRAM	---
74	SD	3 GEV INJECTOR	CHOPPER INTERLOCK	SCHEMATIC DIAGRAM	---
83	SD	SSRL INJECTOR ELECTRICAL SYST	MPS	BTS PUMP STATION CONTROL	SCHEMATIC DIAGRAM
94	ML	INJECTOR ION GAUGES ADAPTER B	INJECTOR ION GAUGES ADAPTER	INJECTOR ION GAUGES ADAPTER B	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 263**

00	LD	SSRL INJECTOR ELECT. SYS.	MPS	MPS PLC LADDER LOGIC	LOGIC DIAGRAM
20	WD	3 GEV INJECTOR	CONVECTRON GAUGE	WIRING DIAGRAM	---
31	PF	SSRL INJECTOR ELECTRICAL	SYSTEMS	FABRICATED PART DETAIL: FRONT	BOOSTER PPS INTERCOM PANEL
31	SI	SSRL INJECTOR ELECTRICAL SYST	BOOSTER PPS INTERCOM	SILKSCREEN INFORMATION	FRONT PANEL
41	PF	SSRL INJECTOR ELECTRICAL	SYSTEMS	FABRICATED PART DETAIL: FRONT	SPEAR/BOOSTER PPS INTERCOM
41	SI	SSRL INJECTOR ELECTRICAL SYST	SPEAR/BOOSTER PPS INTERCOM	SILKSCREEN INFORMATION	FRONT PANEL
51	PF	SSRL ELECTRICAL SYSTEMS	MPS ANNUNCIATOR	PRESSURE SWITCH INTERFACE	PANEL CUT-OUT
53	SD	MPS-	ANNUNCIATION:	PRESSUR SWITCH INTERFACE	---
60	EI	SSRL INJECTOR ELECTRICAL SYST	MPS	INJECTOR ION PUMP DISTRIBUTION	ELECTRICAL INTERCONNECT
73	SD	SSRL INJECTOR ELECTRICAL SYST	SN-3 ENTRY STATION	KEY RELEASE AND STATUS	SCHEMATIC DIAGRAM
83	SD	SSRL INJECTOR ELECTRICAL SYST	VARIAC@ 5A/O-140VAC	SCHEMATIC DIAGRAM	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 264**

13	SD	3 GEV INJECTOR	LINAC DIAGNOSTIC ROOM	AND BOOSTER PPS INTERFACE	TO SPEAR CONTROL ROOM SCHE
23	SD	3 GEV INJECTOR	ENABLE/DISABLE FOR LINAC DIAG.	PPS CONTROL PANEL: ENABLE/DIS	---
33	SD	SSRL INJECTOR ELECTRICAL SYST	PPS	SPEAR PPS INTERCOM SYSTEM	SCHEMATIC DIAGRAM
53	SD	3 GEV INJECTOR	240/480 KW POWER SUPPLY	HAZARD/PPS INTERFACE PANEL	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 265**

00	WD	3 GEV INJECTOR	BOOSTER TEMP. SWITCHES KLIXO	SECTOR #55 THRU #57	WIRING DIAGRAM
00	DL	3 GEV INJECTOR	DRAWING LIST:	BOOSTER SWITCH ALARM:	---
13	SD	SSRL INJECTOR ELECTRICAL SYST	PPS	HAZARD SIMULATOR TEST BOX	SCHEMATIC DIAGRAM
30	EI	SSRL INJECTOR ELECTRICAL SYST	MPS	VACUUM MONITORING GAUGES	ELECTRICAL INTERCONNECTION
40	EI	SSRL INJECTOR ELECTRICAL SYST	PPS / ELECTRICAL INTERCONNECTI	INTERFACE TO THE REMOTE BOOO	KEY AND GATE RELEASE PANEL
41	PF	SSRL INJECTOR ELECTRICAL SYST	PPS	FAB. PART DETAIL, FRONT PANEL	BOOSTER KEY AND GATE RELEAS
41	SI	SSRL-INJECTOR ELECTRICAL SYST	PPS	SILKSCREEN INFO., FRONT PANEL	BOOSTER KEY AND GATE RELEAS
42	PF	SSRL INJECTOR ELECTRICAL SYST	PPS	FAB. PART DETAIL, REAR PANEL	BOOSTER KEY AND GATE RELEAS
42	SI	SSRL-INJECTOR ELECTRICAL SYST	PPS	SILKSCREEN INFO., REAR PANEL	BOOSTER KEY AND GATE RELEAS
50	WD	SSRL INJECTOR ELECTRICAL SYST	VACUUM	AC HYPOT JR	WIRING DIAGRAM

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***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 266**

03 SD SSRL INJECTOR ELECTRICAL SYST VACUUM HIGH VOLTAGE LOAD BOX SCHEMATIC DIAGRAM



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 269**

21	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INJECTOR ONLINE CONTROL PANEL	FRONT PANEL
21	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	INJECTOR ONLINE CONTROL PANEL	FRONT PANEL
22	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INJECTOR ONLINE CONTROL PANEL	REAR PANEL
22	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	INJECTOR ONLINE CONTROL PANEL	REAR PANEL
23	SD	3 GEV INJECTOR	INJECTOR ONLINE	CONTROL PANEL	---
43	SD	3 GEV INJECTOR	STATUS PANEL DRIVER	STATUS PANEL DRIVER	---
52	PF	3 GEV INJECTOR	FABRICATED PART DETAIL	REAR PANEL	ION PUMP DISTRIBUTION PANEL
52	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	REAR PANEL	ION PUMP DISTRIBUTION PANEL
52	SA	3 GEV INJECTOR	SUB-ASSEMBLY DRAWING	REAR PANEL	ION PUMP DISTRIBUTION PANEL
53	SD	3 GEV INJECTOR	ION PUMP DIST. PANEL	SCHEMATIC	---
61	SI	SSRL INJECTOR ELECTRICAL SYST	MPS VALVES CONTROLLER	SILKSCREEN INFO. FRONT PANEL	---
61	PF	SSRL INJECTOR ELECTRICAL SYST	MPS VALVES CONTROLLER	FAB. PART DETAIL FRONT PANEL	---
62	SI	SSRL INJECTOR ELECTRICAL SYST	MPS VALVES CONTROLLER	SILKSCREEN INFO. REAR PANEL	---
62	PF	SSRL INJECTOR ELECTRICAL SYST	MPS VALVES CONTROLLER	FAB. PART DETAIL REAR PANEL	---
63	SD	SSRL 3 GEV INJECTOR	MPS VALVES CONTROLLER	MPS VALVES CONTROLLER	---
74	SD	3 GEV INJECTOR	16 CHANNEL INTERLOCK	16 CHANNEL INTERLOCK	---
80	EI	SSRL INJECTOR ELECTRICAL SYST	BEAM CONTAINMENT SYSTEM	INTERCONNECTION DIAGRAM	---
81	EI	SSRL INJECTOR ELECTRICAL SYST	BEAM CONTAINMENT SYSTEM	ELECTRICAL INTERCONNECT	---
82	EI	SSRL INJECTOR ELECTRICAL SYST	BEAM CONTAINMENT SYSTEM	MODULATOR TRIGGER	ELECTRICAL INTERCONNECT
83	EI	SSRL INJECTOR ELECTRICAL SYST	BEAM CONTAINMENT SYSTEM	LINAC CHOPPER	ELECTRICAL INTERCONNECT
84	EI	SSRL INJECTOR ELECTRICAL SYST	LINAC CONTROL	RF CONTROL	ELECTRICAL INTERCONNECT

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 270**

00	BD	3 GEV INJECTOR	MODULATOR SAFETY	KIRKLOCK KEYED	INTERLOCK SYSTEM BLOCK DIAG
01	BD	3 GEV INJECTOR	RF BOOSTER KIRK LOCKS	BLOCK DIAGRAM	---
03	BD	SSRL INJECTOR ELECTRICAL SYST	LINAC	RF SYSTEM	BLOCK DIAGRAM
06	EI	SSRL INJECTOR ELECTRICAL SYST	LINAC	VVT/HPS/MODULATOR/KLYSTRON	ELECTRICAL INTERCONNECTION D
07	FS	SSRL INJECTOR	ELECTRICAL SYSTEMS	RF STATION	FUNCTIONAL SCHEMATIC
08	BD	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	LINAC MODULATOR HIGH VOLTAGE	BLOCK DIAGRAM
15	EI	SSRL INJECTOR ELECTRICAL SYST	LINAC MODULATOR	HV POWER SUPPLY	ELECTRICAL INTERCONNECT
30	WD	SSRL INJECTOR ELECTRICAL SYST	RF STATION MODE SELECTOR	WIRING DIAGRAM	---
31	SI	SSRL INJECTOR	ELECTRICAL SYSTEMS	RF STATION MODE SELECTOR	FRONT PANEL SILKSCREEN INFO
31	PF	SSRL- INJECTOR	ELECTRICAL SYSTEMS	RF MODE SELECTOR	FRONT PANEL DETAIL
32	SI	SSRL INJECTOR	ELECTRICAL SYSTEMS	RF STATION MODE SELECTOR	REAR PANEL SILKSCREEN INFO
32	PF	SSRL- INJECTOR	ELECTRICAL SYSTEMS	RF STATION MODE SELECTOR	REAR PANEL DETAIL
43	SD	SSRL INJECTOR ELECTRICAL SYST	POWER SUPPLIES	MODULATOR	SCHEMATIC DIAGRAM
50	WD	SSRL INJECTOR ELECTRICAL SYST	KLYSTRON HI VSWR/ATTENUATOR	CHASSIS	WIRING DIAGRAM
51	SI	3 GEV INJECTOR	SILKSCREEN INFO. FRONT PANEL	KLYSTRON HIGH VSWR	INTERLOCK CHASSIS
51	PF	3 GEV INJECTOR	FABRICATED PART DETAIL FRONT	KLYSTRON HIGH VSWR	INTERLOCK CHASSIS
52	SI	3 GEV INJECTOR	SILKSCREEN INFO. REAR PANEL	KLYSTRON HIGH VSWR	INTERLOCK CHASSIS
52	PF	3 GEV INJECTOR	FABRICATED PART DETAIL REAR P	KLYSTRON HIGH VSWR	INTERLOCK CHASSIS
53	SD	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	KLYSTRON HIGH VSWR INTERLOCK	SCHEMATIC DIAGRAM
90	SD	3 GEV INJECTOR	RF SYSTEM	KLYSTRON HV AND CONTROL	SCHEMATIC DIAGRAM

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 271**

23	SD	3 GEV INJECTOR	THERMOCOUPLE MONITOR	SCHEMATIC DIAGRAM	---
40	SD	3 GEV INJECTOR	LINAC DIAGNOSTIC MULTIPLEXER	SCHEMATIC DIAGRAM	---
73	SD	3 GEV INJECTOR	PEAK HOLD CIRCUIT	358 MHZ RF CONTROL SYSTEM	SCHEMATIC DIAGRAM
80	WD	3 GEV INJECTOR	MODULATOR	FIBER OPTICS INTERFACE	WIRING DIAGRAM

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 272**

01	PF	SSRL INJECTOR ELECTRICAL SYST	LINAC HIGH VOLTAGE POWER SUP	CURRENT LIMIT	FAB. PART DETAIL: FRONT PANEL
01	SI	SSRL INJECTOR ELECTRICAL SYST	LINAC HIGH VOLTAGE POWER SUP	CURRENT LIMIT	SILKSCREEN INFO; FRONT PANEL
02	SI	SSRL INJECTOR ELECTRICAL SYST	LINAC HIGH VOLTAGE POWER SUP	CURRENT LIMIT	SILKSCREEN INFO: REAR PANEL
02	PF	SSRL INJECTOR ELECTRICAL SYST	LINAC HIGH VOLTAGE POWER SUP	CURRENT LIMIT	FAB. PART DEATAIL: REAR PANEL
03	SD	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	LINAC HVPS CURRENT LIMIT	SCHEMATIC DIAGRAM
03	ML	LINAC HVPS CURRENT LIMIT	LINAC HVPS CURRENT LIMIT	LINAC HVPS CURRENT LIMIT	---
10	SD	SSRL INJECTOR ELECTRICAL SYST	COPMPUTER CONTROL SYSTEM	ALPHA MAGNET SCRAPER CONTRO	SCHEMATIC DIAGRAM
30	DL	SSRL INJECTOR ELECTRICAL SYST	DRAWING LIST FOR:	206-402 TUNER DRIVER	8284 REPLACEMENT BOARD
33	SD	3 GEV INJECTOR	206-402 TUNER DRIVER	8284 REPLACEMENT BOARD	SCHEMATIC DIAGRAM
50	GP	SSRL INJECTOR ELECT. SUB.	VVT REGULATOR	ENERPRO CONTROL	CHASSIS
53	SD	SSRL INJECTOR ELECT. SUB.	POWER SUPPLY SYSTEM	VVT REGULATOR	ENEPRO CONTROL BOARD
63	SD	SSRL INJECTOR ELECTRICAL SYST	MPS	MODULATOR ENCLOSURE SMOKE A	DETECTION INTERLOCK CHASSIS
73	SD	SSRL INJECTOR ELECTRICAL SYST	MPS	SMOKE AND HEAT DETECTOR MAS	SCHEMATIC DIAGRAM
93	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	CHOPPER PULER ACE MODEL #402	FUNCTIONAL SCHEMATIC

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 273**

03	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	MICON/MPD MODEL S1328 S-BAND	FUNCTIONAL SCHEMATIC
04	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	MODULATOR, S-BAND RF AMP	FUNCTIONAL SCHEMATIC
05	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	CATHODE PULSE TUBE BIAS	FUNCTIONAL SCHEMATIC
06	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	+28 REG, S-BAND RF AMP	FUNCTIONAL SCHEMATIC
07	FS	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	FILAMENT REG, S-BAND RF AMP	FUNCTIONAL SCHEMATIC
08	BD	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	S-BAND RF AMPLIFIER	BLOCK DIAGRAM
10	EI	SSRL INJECTOR ELECTRICAL SYST	MPS	LINAC N2 CIRCULATING SYSTEM S	ELECTRICAL INTERCONNECTION
23	SD	SSRL INJECTOR ELECTRICAL	ELECTRICAL SYSTEMS	VVT/HV POWER SUPPLY	SCHEMATIC DIAGRAM
33	SD	SSRL INJECTOR ELECTRICAL SYST	LINAC	LINEAR ENCODER VOLTAGE REFER	SCHEMATIC DIAGRAM
73	SD	SSRL INJECTOR ELECTRICAL SYST	IMPULSE ENGINEERING TEST BOX	10HZ CLOCK AND FIBER OPTIC DRI	SCHEMATIC DIAGRAM
93	SD	3 GEV INJECTOR	SAMPLE AND HOLD	SCHEMATIC DIAGRAM	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 274**

11	PF	SSRL- SPEAR ELECTRICAL SYSTEM	LINAC MODULATOR	HV POWER SUPPLY INTERLOCK CH	PART DETAIL: FRONT PANEL
11	SI	SSRL-SPEAR ELECTRICAL SYSTEM	LINAC MODULATOR	HV POWER SUPPLY INTERLOCK CH	SILKSCREEN INFO; FRONT PANEL
12	SI	SSRL-SPEAR ELECTRICAL SYSTEM	LINAC MODULATOR	HV POWER SUPPLY INTERLOCK CH	SILKSCREEN INFO; BACK PANEL
12	PF	SSRL- SPEAR ELECTRICAL SYSTEM	LINAC MODULATOR	HV POWER SUPPLY INTERLOCK CH	PART DETAIL: BACK PANEL
13	SD	SSRL - INJECTOR ELECTRICAL SYS	LINAC MODULATOR	HV POWER SUPPLY INTERLOCKS	SCHEMATIC DIAGRAM
20	SD	SSRL-INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	LINAC MASTER OSCILLATOR	---
53	WD	MODULATOR	INTERLOCK	CHASSIS	WIRING DIAGRAM
53	SD	MODULATOR	INTERLOCK	CHASSIS	P.C. BOARD

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 275**

03	SD	SSRL INJECTOR ELECTRICAL SYST	VVT CONTROL CHASSIS	SCHEMATIC DIAGRAM	---
13	SD	SSRL INJECTOR ELECTRICAL SYST	VVT MOTOR CHASSIS	SCHEMATIC DIAGRAM	---
23	SD	SSRL INJECTOR ELECTRICAL SYST	VVT RELAY CHASSIS	SCHEMATIC DIAGRAM	---
43	SD	SSRL INJECTOR ELECTRICAL SYST	MODULATOR POWER SUPPLY	UNDER VOLTAGE RELAY CIRCUIT	SCHEMATIC DIAGRAM
63	SD	SSRL-INJECTOR ELECTRICAL SYST	THYRATRON RESEVOIR AND	FILAMENT CONTROL CHASSIS	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 280**

01	BD	3 GEV INJECTOR	BOOSTER RING BPM SYSTEM	BLOCK DIAGRAM	---
06	EI	SSRL INJECTOR ELECTRICAL SYST	CAMAC SERIAL HIWAY	ELECTRICAL INTERCONNECT	---
06	DL	SSRL INJECTOR ELEC. SUBSYSTEM	DRAWING LIST FOR:	CAMAC SERIAL HIWAY	---
07	EI	3 GEV INJECTOR	ELECTRICAL INTERCONNECTION:	RING BPM SYSTEM	---
09	PR	SSRL INJECTOR	ELECTRICAL SYSTEMS	CAMAC CRATE PROFILE	---
20	WD	SSRL INJECTOR ELECTRICAL SYST	WIRE DIAGRAM;	ANALOG OUTPUT DISTRIBUTION	UNIT (16 CHANNEL)
24	SD	3 GEV INJECTOR	WIRE DIAGRAM	ANALOG INPUT DISTRIBUTION	UNIT (16 CHANNEL)
30	WD	SSRL INJECTOR ELECTRICAL SYST	WIRE DIAGRAM;	ANALOG OUTPUT DISTRIBUTION	UNIT (16 CHANNEL)
43	SD	3 GEV INJECTOR	FOUR-POLE, FOUR-THROW	FAST MULTIPLEXER	SCHEMATIC DIAGRAM
53	SD	SSRL INJECTOR ELECTRICAL SYST	TIMING SYSTEM	SYNC/DIVIDE	SCHEMATIC DIAGRAM
63	SD	SSRL INJECTOR ELECTRICAL SYST	BPM	FOUR CHANNEL HI-PASS FILTER	SCHEMATIC DIAGRAM
73	SD	SSRL INJECTOR ELECTRICAL SYST	DIAGNOSTIC INSTRUMENTATION	ANALOG RING BPM PROCESSOR	SCHEMATIC DIAGRAM



## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 281**

03	SD	SSRL INJECTOR ELECTRICAL SYST	LINAC RF SYSTEM	TRIGGER INTERFACE	SCHEMATIC DIAGRAM
23	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	INJECTOR TRIGGERS CONTROLLER	---
30	ML	3 GEV INJECTOR	MATERIAL LIST	INSERTION DEVICE CONTROL	---
31	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	INSERTION DEVICE CONTROL	FRONT PANEL
31	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INSERTION DEVICE CONTROL	FRONT PANEL
32	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	INSERTION DEVICE CONTROL	REAR PANEL
32	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	INSERTION DEVICE CONTROL	REAR PANEL
33	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	INSERTION DEVICE (SCREEN CONT	---
63	SD	SSRL INJECTOR ELECTRICAL SYST	WHITE CIRCUIT PULSER	FIBER OPTICS INTERFACE	SCHEMATIC DIAGRAM
81	SI	SSRL INJECTOR ELECTRICAL SYST	PEAKING STRIP PROCESSOR	SILKSCREEN INFO. FRONT PANEL	---
81	PF	SSRL INJECTOR ELECTRICAL SYST	PEAKING STRIP PROCESSOR	FABRICATION DETAIL FRONT PANE	---
82	SI	SSRL INJECTOR ELECTRICAL SYST	PEAKING STRIP PROCESSOR	FABRICATION DETAIL FRONT PANE	---
82	PF	SSRL INJECTOR ELECTRICAL SYST	PEAKING STRIP PROCESSOR	FABRICATION DETAIL REAR PANEL	---
83	SD	SSRL INJECTOR ELECTRICAL SYST	TIMING SYSTEM	PEAKING STRIP PROCESSOR	SCHEMATIC DIAGRAM
93	SD	3 GEV INJECTOR	ENERGY TMNG GENERTR PROCES	ANALOG SECTION	SCHEMATIC DIAGRAM

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 282**

03	SD	SSRL INJECTOR ELECTRICAL SYST	KICKER	FIBER OPTICS INTERFACE	SCHEMATIC DIAGRAM
10	WD	3 GEV INJECTOR	WIRING DIAGRAM	8 CHANNEL FILTER/DRIVER CHASSI	---
11	SI	3 GEV INJECTOR	8 CHANNEL LOW PASS FILTER/DRIV	FRONT PANEL	SILKSCREEN INFORMATION
11	PF	3 GEV INJECTOR	8 CHANNEL LOW PASS FILTER/DRIV	FRONT PANEL	FABRICATED PART DETAIL
12	PF	3 GEV INJECTOR	8 CHANNEL LOW PASS FILTER/DRIV	REAR PANEL	FABRICATED PART DETAIL
12	SI	3 GEV INJECTOR	8 CHANNEL LOW PASS FILTER/DRIV	REAR PANEL	SILKSCREEN INFORMATION
13	SD	3 GEV INJECTOR	SCHEMATIC DIAGRAM	8 CHANNEL LOW PASS FILTER	---
13	PC	SSRL	8 CHANNEL FILTER BOARD	FAB DRAWING	---
23	SD	3 GEV INJECTOR	BOOSTER BPM CAMAC	DATAWAY INTERFACE	SCHEMATIC DIAGRAM
40	EI	SSRL INJECTOR ELECTRICAL SYST	DIAGNOSTIC INSTRUMENTATION	LINAC/BOOSTER TV SCREEN INSE	CONTROL SYSTEM ELECTRICAL IN
53	SD	SSRL INJECTOR ELECTRICAL SYST	DIAGNOSTIC INSTRUMENTATION	REMOTE TV SCREEN INSERTION C	UNIT
63	SD	SSRL INJECTOR ELECTRICAL SYST	DIAGNOSTIC INSTRUMENTATION	REMOTE TV SCREEN INSERTION	CONTROL UNIT
83	SD	SSRL INJECTOR ELECTRICAL SYST	AVERAGE CURRENT MONITOR NIM	ASSEMBLY SCHEMATIC DIAGRAM	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 283**

21	SI	SSRL INJECTOR ELECTRICAL	SYSTEMS	16 CHANNEL SAMPLING INTERLOCK	SILKSCREEN INFO.: FRONT PANEL
21	PF	SSRL INJECTOR ELECTRICAL	SYSTEMS	16 CHANNEL SAMPLING INTERLOCK	FAB. DETAIL: FRONT PANEL
22	PF	SSRL INJECTOR ELECTRICAL	SYSTEMS	16 CHANNEL SAMPLING INTERLOCK	FAB. DETAIL: REAR PANEL
22	SI	SSRL INJECTOR ELECTRICAL	SYSTEMS	16 CHANNEL SAMPLING INTERLOCK	SILKSCREEN INFO.: REAR PANEL

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 290**

03	EI	3 GEV INJECTOR	INJECTION KICKER SYSTEM	ELECTRICAL INTERCONNECT	---
04	EI	3 GEV INJECTOR	MPS	HEAT & SMOKE DETECTION INTERL	ELECTRICAL INTERCONNECTION
05	EI	3 GEV INJECTOR	EJECTION KICKER SYSTEM	ELECTRICAL INTERCONNECT	---
21	SI	SSRL INJECTOR ELECT SUBSYSTE	INJECTION KICKER SYSTEM	SILKSCREEN INFO:	CONNECTOR MNTG PANEL
21	PF	SSRL INJECTOR	ELECTRICAL SUBSYSTEMS	INJECTION KICKER SYSTEM	FAB. PART DETAIL: CONNECTOR M
23	SD	SSRL-SPEAR ELECTRICAL SYSTEM	ELECTRICAL SUBSYSTEMS	INJECTION KICKER SYSTEM	SCHEMATIC DIAGRAM
30	SD	3 GEV INJECTOR	EJECTION KICKER	SYSTEM DIAGRAM	---
40	ML	3 GEV INJECTOR	MATERIAL LIST	KICKER CONTROL CHASSIS	---
41	SI	3 GEV INJECTOR	SILKSCREEN FRONT PANEL	KICKER CONTROL CHASSIS	---
41	PF	3 GEV INJECTOR	DETAIL FRONT PANEL	KICKER CONTROL CHASSIS	---
42	PF	3 GEV INJECTOR	DETAIL REAR PANEL	KICKER CONTROL CHASSIS	---
42	SI	3 GEV INJECTOR	SILKSCREEN REAR PANEL	KICKER CONTROL CHASSIS	---
43	SD	SSRL-INJECTOR ELECT. SUBSYSTE	PULSED SUPPLY SYSTEMS	KICKER CONTROL CHASSIS	SCHEMATIC DIAGRAM
54	SD	EJECTION SEPTUM	INTERLOCK & INTERFACE	CHASSIS	---
60	LD	SSRL INJECTOR ELECT. SYS.	TIMING SYSTEM	TRIGGER PATTERN COINCIDENCE	AND VERNIER DELAY UNIT
61	GP	SSRL INJECTOR ELECT. SUB.	TIMING SYSTEM	TRIGGER PATTERN COINCIDENCE	& VERNIER DELAY UNIT
61	PF	SSRL INJECTOR ELECT. SYS.	TIMING SYSTEM	TRIGGER PATTERN COINCIDENCE	& VERNIER DISPLAY UNIT- FRONT
62	PF	SSRL INJECTOR ELECT. SYS.	TIMING SYSTEM	TRIGGER PATTERN COINCIDENCE	& VERNIER DISPLAY UNIT- REAR P
70	DL	SSRL INJECTOR ELEC. SUBSYSTEM	DRAWING LIST FOR:	KICKER HIGH VOLTAGE	CHARGING CURRENT INTERLOCK
73	SD	SSRL INJECTOR ELECTRICAL	SYSTEMS	KICKER HIGH VOLTAGE SUPPLY CH	CURRENT INTERLOCK SCHEMATIC
93	SD	WHITE CIRCUIT	COMPARATOR MODULE	SCHEMATIC DIAGRAM	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 291**

00	AD	3 GEV INJECTOR	ASSEMBLY DRAWING:	BPM RF HEAD MODULE	---
00	CA	SSRL INJECTOR ELECTRICAL SYST	DIAGNOSTIC INSTRUMENTATION	RF HEAD CHASSY, SMA PLUG	
01	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BPM RF HEAD MODULE	FRONT PANEL
01	SI	3 GEV INJECTOR	SILKSCREEN INFORMATION:	BPM RF HEAD MODULE	FRONT PANEL
02	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BPM RF HEAD MODULE	REAR PANEL
02	SA	3 GEV INJECTOR	SUB-ASSEMBLY DETAIL	BPM RF HEAD MODULE	VOLTAGE REGULATOR +15V & REA
03	ML	MATERIAL LIST	BPM PROCESSING	HEAD PC BOARD	---
03	SD	SSRL INJECTOR ELECT. SYS.	DIAGNOSTIC INSTRUMENTATION	BPM PROCESSING RF HEAD	SCHEMATIC DIAGRAM
03	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BPM RF HEAD MODULE	UPPER BRACKET
04	SA	3 GEV INJECTOR	SUB-ASSEMBLY DRAWING	VOLTAGE REGULATOR +15V	---
04	PF	3 GEV INJECTOR	FABRICATED PART DETAIL:	BPM RF HEAD MODULE	LOWER BRACKET
04	SD	SSRL INJECTOR ELECTRICAL SYST	BPM RF HEAD MODULE	VOLTAGE REGULATOR +15V	---
05	PF	SSRL INJECTOR ELECT. SYS.	DIAGNOSTIC INSTRUMENTATION	RF HEAD, BOTTOM SECTION	FAB. PART DETAIL
06	PF	SSRL INJECTOR ELECT. SYS.	DIAGNOSTIC INSTRUMENTATION	RF HEAD, TOP SECTION	FAB. PART DETAIL- MILLING
07	PF	SSRL INJECTOR ELECT. SYS.	DIAGNOSTIC INSTRUMENTATION	SMA CONNECTOR MODIFIED	FAB. PART DETAIL
20	ML	MATERIAL LIST	SPEAR BUCKET DDU	(MODULE ASSY)	---
21	PF	BUCKET DDU	FRONT PANEL	FRONT PANEL	---
21	SI	BUCKET DDU	SCREEN	SCREEN	---
23	SD	SSRL INJECTOR ELECT. SUB.	SPEAR BUCKET DDU	SCHEMATIC DIAGRAM	---
23	ML	MATERIAL LIST	SPEAR BUCKET DDU	PC BOARD	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 295**

01	PF	SSRL INJECTOR ELECTRICAL SYST	COAXIAL PATCH PANEL, BNC	PART FABRICATION	---
11	PF	SSRL INJECTOR ELECTRICAL SYST	COAXIAL PATCH PANEL, TYPE "N"	PART FABRICATION	---

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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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**444 298**

00	DL	SSRL INJECTOR ELECTRICAL	SYSTEMS	DRAWING LIST:	VOLTAGE DEMAGNIFIER
02	PF	SSRL INJECTOR ELECTRICAL SYST	VOLTAGE DEMAGNIFIER	FAB. PART DETAIL	---
03	SD	SSRL INJECTOR ELECTRICAL SYST	VOLTAGE DEMAGNIFIER	SCHEMATIC DIAGRAM	---

## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

**444 300**

03	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN AND SUPPORT ASSEMBLY	---
08	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN AND SUPPORT ASSEMBLY	GUN MOUNTING FRAME
12	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET	FRONT PLATE CHAMBER INSERT	---
13	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET	COIL CLAMPING BAR	---
14	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET	PORT TUBE	---
15	SA	CAMPUS END STATION III LINAC	ALPHA MAGNET	VACUUM CHAMBER IN/OUT BEAM P	---
16	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET CORE	FRONT PLATE	---
18	SA	CAMPUS END STATION III LINAC	ALPHA MAGNET	CORE ASSEMBLY	---
19	SA	CAMPUS END STATION III LINAC	MAGNET SYSTEM	ALPHA MAGNET ASSEMBLY	---
20	SA	CAMPUS END STATION III LINAC	GUN TO LINAC SYSTEM	ALPHA MAGNET/CHAMBER ASSY	---
21	SA	CAMPUS END STATION III LINAC	ALPHA MAGNET	VACUUM CHAMBER ASSY	---
22	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CH.	RIGHT END PLATE	---
23	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CHAMBER	BACK PLATE	---
24	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CHAMBER	BACK TUBE	---
25	SA	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CH.	COOLING TUBE ASSY	---
27	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CHAMBER	THREAD BLOCK	---
28	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CHAMBER	TUBE RETENTION BLOCK	---
29	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CH. ASSY	SCRAPER SUPPORT TUBE	---
30	PF	CAMPUS END STATION III LINAC	ALPHA MAGNET VAC. CH. ASSY	FRONT PLATE	---
32	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	---
33	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	ALPHA MAGNET TO LINAC ASSEMBL	---
34	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	SUPPORT SHELF
35	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	SUPPORT RAIL ASSEMBLY AND DE
37	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	CHAMBER GV1 ASSEMBLY
38	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	CHAMBER GV2 ASSEMBLY
39	SA	PHOTON BEAMLINES	BEAMLINE 6	DIFFERENTIAL PUMPING STATION	Be WINDOW AND SUPPORT ASSE
40	SA	CAMPUS END STATION III LINAC	ALPHA MAGNET/CHAMBER ASSEMB	ENERGY SELECTOR ASSEMBLY	---
41	PF	STANFORD CAMPUS ES-III LINAC	GUN EXIT TO LINAC ENTRANCE	VACUUM SYSTEM	CERAMIC GAP SHIELD FOR GV2
42	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	GUN TO ALPHA MAGNET ASSEMBLY	VALVE SUPPORT BRACKET
44	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	ALPHA MAGNET TO LINAC	SUPPORT RAIL ASSEMBLY AND DE
45	SA	STANFORD CAMPUS ES-III LINAC	GUN TO ALPHA AND	ALPHA TO LINAC	TOROID CURRENT MONITOR ASSE
46	SA	STANFORD CAMPUS ES-III LINAC	GUN TO LINAC SYSTEM	ALPHA TO LINAC ASSEMBLY	CROSS SUPPORT BRACKET
72	PF	STANFORD CAMPUS ES-III LINAC	RF SYSTEM	PHASE SHIFTER ASSEMBLY	DC MOTOR MOUNTING BRACKET
81	SA	STANFORD CAMPUS ES-III LINAC	LINAC GENERAL ASSEMBLY	LINAC TO BEAM DUMP ASSEMBLY	VAC SPOOL 2 ASSEMBLY
82	SA	STANFORD CAMPUS ES-III LINAC	LINAC GENERAL ASSEMBLY	LINAC TO BEAM DUMP ASSEMBLY	VAC SPOOL ASSEMBLY
84	SA	STANFORD CAMPUS ES-III LINAC	LINAC TO BEAM DUMP ASSEMBLY	DUMP MAGNET CHAMBER ASSY.	---
85	SA	STANFORD CAMPUS ES-III LINAC	LINAC TO BEAM DUMP ASSEMBLY	DUMP MAGNET CHAMBER ASSY.	BOX CHAMBER PARTS
86	SA	STANFORD CAMPUS ES-III LINAC	LINAC TO BEAM DUMP ASSEMBLY	MAGNET, CHBR. & SUPT. ASSY.	DUMP MAGNET SUPPORT FRAME



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## ***SPEAR INJECTOR DRAWINGS - (at SSRL)***

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### **444 300**

89	SA	STANFORD CAMPUS ES-3 LINAC	LINAC TO BEAM DUMP ASSEMBLY	QUADRUPOLE DOUBLET ASSEMBLY	AND SUPPORT PARTS
90	SA	STANFORD CAMPUS ES-III LINAC	LINAC TO BEAM DUMP ASSEMBLY	FARADAY CUP ASSEMBLY	---
91	SA	STANFORD CAMPUS ES-III LINAC	BEAM DUMP ASSEMBLY	FARADAY CUP CERAMIC BREAK AS	---
92	SA	STANFORD CAMPUS ES-III LINAC	LINAC TO BEAM DUMP ASSEMBLY	FARADAY CUP PARTS &	WELDMENT
95	PF	STANFORD CAMPUS ES-III LINAC	EXPERIMENTAL AREA	LIGHT CHAMBER	BASE PLATE