LCLS Linac Coherent Light Source — Stanford Synchrotron Radiation Laboratory, Stanford Linear Accelerator Center

Quality Assurance Traveler

ATTACH THIS FORM TO LCLS SYSTEMS AND COMPONENTS TO CONTROL THE SEQUENCE OF QUALITY ASSURANCE TASKS. RETURN THE COMPLETED TRAVELER TO THE LCLS QUALITY ASSURANCE COORDINATOR UPON COMPLETION.

System or Component Name: *LCLS Undulator Main Assembly*

Part/Drawing Number: *L143-112000* | Revision: 0 ~~5~~ 4 | Serial Number: 09

Manufacturer: Hi-Tech | Purchase Order Number: SA-13624

Special Instructions:

This form is to be completed prior to the acceptance of LCLS Undulator Main Assemblies

Quality Assurance Tasks (attach continuation sheets if additional steps are required)

Seq No.	Task Description *Inform the LCLS Technical Lead if a task cannot be competed or a requirement met	Completed by/Date*	Requirement Met	Requirement Not Met*
1	*Perform visual inspection of the completed assembly for workmanship and correctness.*	Not required	☑	☐
2	*Perform visual inspection of the completed assembly for correct the following markings on the Strongback:* L143-11200-05 SA-381-001-35 Serial number same as the Strongback	Not required	☑	☐
3	*Perform visual inspection of the completed assembly for correct the following markings on the Magnet Structure Assemblies:* • Upper Left Magnet Structure Assemblies: L-143-110800-assembly no. • Upper Right Magnet Structure Assemblies: L143-111200-assembly no. • Upper Middle Magnet Structure Assemblies: L143-111000-1,2,3-assembly no. • Lower Left Magnet Structure Assemblies: 143-110900-assembly serial no. • Lower Right Magnet Structure Assemblies: L143-111300-assembly serial no. • Lower Middle Magnet Structure Assemblies: L143-111100-1,2-3-assembly no.	Not req'd	☑	☐
4	*Verify correct gap size along the entire undulator length using contactor's go/no-go gages.*	[illegible] 9/1/04	☑	☐
5	*Verify correct gap size along the entire undulator length using calibrated gage blocks.*	[illegible] 9/1/04	☑	☐
6	*Check the peak field at each magnet location using a portable Hall probe.*	[illegible] 9/1/04	☑	☐
7	*Verify that the following quality assurance documentation has been completed by the contractor:* • ANL Acceptance Criteria Listings E5-026046, E5-020020, E5-069069 • LCLS Inspection/Acceptance Report for LCLS Magnets • LCLS Inspection/Acceptance Report for Supplier Inspection form for LCLS Magnet Assemblies • Magnet Sort List • Photographs showing correct magnet serial numbers and orientation • ANL Supplier Disposition Reports documenting any noncomformance to specifications drawings or other contract requirements	Not req'd	☐	☐
8	*Verify that the magnet photographs of the magnet sub assemblies are in agreement with the magnet sort list.*	Not req'd	☑	☐
9	*Review shipping container and that the contractor has Shockwatch monitoring devices available*	Not req'd	☑	☐
10	*Forward completed traveler form to LCLS QA Coordinator Tom Barsz. B401, C4243.*		☐	☐

LCLS Task Leader Pre-Approval: _____ **Date:** _____

LCLS QA Coordinator Pre-Approval: _____ **Date:** _____

Optional Approver Comments:

Distribute completed traveler to: **Responsible Engineer, Task Leader, LCLS Quality Assurance Coordinator, Chief Engineer**

Other: _____

Enter Quality Improvements Lessons-Learned resulting from this activity below.

Not Required Fields

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

1. DISTRIBUTION:

INSPECTION REQUIRED: ☑

4. ORIGINATOR'S NAME & DIVISION: Glen Lawrence/XFD 5. PHONE: 2-9298 6. DATE: 06/13/2005

9. FOR INSPECTION, DELIVER TO BLDG. NO.: DIVISION: XFD ATTN.: G. Lawrence

10. AFTER INSPECTION, DELIVER TO BLDG. NO.: SLAC DIVISION: LCLS ATTN.:

11. REFERENCES AND/OR REMARKS:

Item may be inspected by LCLS QA at Contractor site prior to shipment with follow-up inspection at receiving site. First Articles from each of the two contractors are to be shipped to ANL/APS to be magnetically shimmed and characterized in the APS Magnet Measurement room. The 38 remaining units shall be shipped directly to SLAC to be magnetically shimmed and characterized in the LCLS Magnet Measurement room.

15. ORIGINATOR OF PLAN: Glen Lawrence DATE: 06/13/2005

16. PLAN REVIEWED/APPROVED BY: DATE: 00/00/0000

17. QAR CONCURRENCE WITH PLAN: DATE: 00/00/0000

3. ACL NO.: E5-164018 LINE NBR: 1

7. PART NO. & NAME: L143-112000 LCLS Undulator Main Assy. 8. QUANTITY: 2

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
1	Inspect shipping container for evidence of damage or rough handling	eceiving / Inspectic	SLAC	
2	Inspect shipping sensors for record of temperature variations and shock/g loads in x,y and z during shipping	eceiving / Inspectic	SLAC	
3	Review all required certifications for compliance and completeness	actor Fac. or Rec.	TM	11/6/04
4	Visual inspection of Undulator Assy for shipping damage	eceiving / Inspectic	SLAC	
5	Visual inspection of Undulator Assy for completeness to print, including all loose parts	actor Fac. or Rec.	TM	11/6/04

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ACCEPTANCE CRITERIA LISTING

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
6	Verify Undulator gap using Go-NoGo gauge	Contractor Facility		9/1/06

Not Required Fields

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ACCEPTANCE CRITERIA LISTING

1. DISTRIBUTION:

INSPECTION REQUIRED: ☑

4. ORIGINATOR'S NAME & DIVISION: Glen Lawrence/XFD 5. PHONE: 2-9298 6. DATE: 01/25/2005

9. FOR INSPECTION, DELIVER TO BLDG. NO.: N/A DIVISION: ATTN.:

10. AFTER INSPECTION, DELIVER TO BLDG. NO.: NA DIVISION: ATTN.:

11. REFERENCES AND/OR REMARKS:

The Magnet Poles are to be delivered to the Undulator Assembly Contractors by the Machining Contractor. Undulator Assembly Contractor shall inspect the Magnet Poles prior to acceptance. ANL shall review all Certifications and Machining Contractor's reported measurements & optionally perform on-site inspections.

15. ORIGINATOR OF PLAN: Glen Lawrence DATE: 01/27/2005

16. PLAN REVIEWED/APPROVED BY: DATE: 00/00/0000

17. QAR CONCURRENCE WITH PLAN: DATE: 00/00/0000

3. ACL NO.: E5-026046 LINE NBR: 1

7. PART NO. & NAME: L143-110105 Upper Magnet Structure Pole 8. QUANTITY: 192

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
1	Visual inspection of parts for shipping damage	ulator Assy Contra	NA	
2	Check that parts were "bagged and tagged" with serial no.'s and part no.'s (ANL & SLAC) per SOW L143-00031, Section 4.1.3	ulator Assy Contra	NA	
3	Check that parts were marked with serial numbers per SOW section 4.1.3.	ulator Assy Contra	Hi tech	9/1/04
4	Check that accompanying certifications have correct part serial numbers	ulator Assy Contra	Hi tech	9/1/04
5	Check the material certification for compliance with ASTM A801, Type 1	tor Assy Contracto	Hi tech	9/1/04

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ACCEPTANCE CRITERIA LISTING

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
6	Check the anneal certification for compliance with AMS-A801, or a specified material supplier's annealing schedule.	tor Assy Contracto	TMz	11/16/04
7	Check that the machining Contractor's certified dimensional measurements are in compliance with the drawing	ANL	TMz	11/6/04
8	Verify the critical dimensions as listed in the SOW, Section 4.5.2 are in compliance with the drawing	ulator Assy Contra	[illegible]	9/1/04

Not Required Fields

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ACCEPTANCE CRITERIA LISTING

1. DISTRIBUTION:

INSPECTION REQUIRED: ☑

4. ORIGINATOR'S NAME & DIVISION: Glen Lawrence/XFD 5. PHONE: 2-9298 6. DATE: 03/10/2005

9. FOR INSPECTION, DELIVER TO BLDG. NO.: 401 DIVISION: XFD ATTN.: Glen Lawrence

10. AFTER INSPECTION, DELIVER TO BLDG. NO.: 401 DIVISION: XFD ATTN.: Glen Lawrence

11. REFERENCES AND/OR REMARKS:

Most of the magnets will be drop shipped directly to the Undulator Assembly Contractor, who will only perform limited physical inspection of the parts as they are highly magnetized. A sampling from each lot will be sent to ANL for verification of the magnetic field properties.

15. ORIGINATOR OF PLAN: Glen Lawrence DATE: 02/07/2005

16. PLAN REVIEWED/APPROVED BY: DATE: 00/00/0000

17. QAR CONCURRENCE WITH PLAN: DATE: 00/00/0000

3. ACL NO.: E5-069069 LINE NBR: 1

7. PART NO. & NAME: L143-110106 Upper Left Magnet Structure 8. QUANTITY: 192

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
1	Visual inspection of parts for shipping damage	ulator Ass'y Contra	H. Tech	9/1/05
2	Visual inspection of parts for surface chips and pits	ulator Ass'y Contra	↓	↓
3	Dimensional check of part for conformance to the drawing	ulator Ass'y Contra		
4	Review vendor certified test data agrees with SOW requirements	APS Bldg 401	TMZ	11/6/05
5	Review Vendor sort list for agreement with sort procedure.	APS Bldg 401	TMZ	11/6/05

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12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
6	On random sampling, inspect magnetic field with magnetic visualization film for magnetic defects.	APS Magnet Grou	[illegible]	11/17/06
7	On random sampling, confirm Magnetic Moment magnitude and vector components agree with vendor reports	APS Magnet Grou		
8	On radom sampling, verify the magnet s demagnetization and thermal stability.	APS Magnet Grou		

Not Required Fields

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ACCEPTANCE CRITERIA LISTING

1. DISTRIBUTION:

INSPECTION REQUIRED: ☑

4. ORIGINATOR'S NAME & DIVISION: Glen Lawrence/XFD 5. PHONE: 2-9298 6. DATE: 01/20/2005

9. FOR INSPECTION, DELIVER TO BLDG. NO.: N/A DIVISION: ATTN.:

10. AFTER INSPECTION, DELIVER TO BLDG. NO.: NA DIVISION: ATTN.:

11. REFERENCES AND/OR REMARKS:

Strongbacks are to be delivered to undulator assembly contractor by machining contractor. Undulator assembly contractor shall inspect strongback prior to acceptance. Argonne National Laboratory shall review all certification and machining vendor's reported measurements and optionally on-site inspections

15. ORIGINATOR OF PLAN: Glen Lawrence DATE: 01/20/2005

16. PLAN REVIEWED/APPROVED BY: DATE: 00/00/0000

17. QAR CONCURRENCE WITH PLAN: DATE: 00/00/0000

3. ACL NO.: E5-020020 LINE NBR: 1

7. PART NO. & NAME: L143-110700 LCLS Undulator Strongback 8. QUANTITY: 40

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
1	Visual inspection of part for shipping damage. A) Were critical surfaces protected per SOW L143-00030 Section 4.1.4? B) Is there any visible damage?	lulator Ass'y Contra		
2	Check Strongback is marked with serial number & part no.'s (ANL and SLAC) per SOW Section 4.1.3	lulator Ass'y Contra		
3	Check all accompanying Certifications have correct part serial number.	lulator Ass'y Contra		
4	Check Material Certiication for compliance with ASTM B381-03, Grade F	ıtor Ass'y Contract		
5	Check Forging Annealing Certification for annealing conformance to AMS-H-81200A, Table V, commercial Pure, Bars & Forgings, including Note 8	ıtor Ass'y Contract		

Not Required Fields

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

12. STEP NO.	13. INSPECTION/TEST REQUIREMENT	14. INSPECTION TEST LOCATION	18. ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19. DATE
6	Check Rough Machining Anneal Certification for annealing conformance to AMS 2801B section 3.2.9	ıtor Ass'y Contract		
7	Check the strongback contractor's reported dimensional measurements against the part drawing.	ırgonne National La	T Gurry	2/16/07 B
8	Verify the strongback critical dimensions as listed in the SOW section 4.5.2 are in compliance with the print.	lulator Ass'y Contra		

Device #9

	LOT# Device#9 Date		09/01/06		
Slot No		Slot No		Slot Number	
1		51	31	100	1.31
2		52	30	101	1.30
3	1.32	53	29	102	1.31
4	.30	54	29	103	1.31
5	.31	55	29	104	1.29
6	.31	56	28	105	1.31
7	.31	57	29	106	1.30
8	31	58	28	107	1.30
9	30	59	29	108	1.31
10	30	60	1.31	109	1.31
11	305	61	1.31	110	1.31
12	307	62	1.29	111	1.30
13	30	63	1.31	112	1.30
14	29	64	1.31	113	1.30
15	31	65	1.31	114	1.31
16	29	66	1.30	115	1.31
17	31	67	1.29	116	1.31
18	31	68	1.31	117	1.31
19	30	69	1.30	118	1.31
20	31	70	1.31	119	1.31
21	30	71	1.31	120	1.30
22	31	72	1.30	121	1.31
23	30	73	1.30	122	1.29
24	31	74	1.31	123	1.31
25	32	75	1.31	124	1.31
26	31	76	1.30	125	1.31
27	31	77	1.31	126	1.31
28	31	78	1.30	127	1.30
29	29	79	1.31	128	1.30
30	31	80	1.30	129	1.31
31	31	81	1.30	130	1.31
32	31	82	1.29	131	1.31
33	31	83	1.31	132	1.31
34	30	84	1.31	133	1.31
35	30	85	1.32	134	1.31
36	31	86	1.31	135	1.31
37	31	87	1.31	136	1.31
38	31	88	1.29	137	1.30
39	29	89	1.31	138	1.31
40	30	90	1.30	139	1.31
41	31	91	1.30	140	1.30
42	31	92	1.30	141	1.30
43	30	93	1.29	142	1.31
44	31	94	1.31	143	1.31
45	30	95	1.30	144	1.31
46	31	96	1.29	145	1.30
47	29	97	1.30	146	1.31
48	31	98	1.31	147	1.30
49	31	99	1.31	148	1.32
50	31			149	1.31

Slot Number		Slot Number	
150	1.30	200	1.31
151	1.31	201	1.30
152	1.29	202	1.31
153	1.31	203	1.30
154	1.31	204	1.31
155	1.31	205	1.30
156	1.31	206	1.30
157	1.30	207	1.31
158	1.30	208	1.31
159	1.30	209	1.30
160	1.31	210	1.30
161	1.31	211	1.30
162	1.31	212	1.30
163	1.30	213	1.29
164	1.30	214	1.30
165	1.30	215	1.31
166	1.31	216	1.31
167	1.31	217	1.31
168	1.30	218	1.31
169	1.30	219	1.31
170	1.32	220	1.30
171	1.31	221	1.30
172	1.30	222	1.32
173	1.29	223	1.26
174	1.31	224	0.75
175	1.31	225	
176	1.31		
177	1.31		
178	1.31		
179	1.31		
180	1.31		
181	1.31		
182	1.31		
183	1.31		
184	1.31		
185	1.31		
186	1.31		
187	1.30		
188	1.31		
189	1.31		
190	1.31		
191	1.31		
192	1.31		
193	1.31		
194	1.30		
195	1.30		
196	1.30		
197	1.31		
198	1.31		
199	1.31		

Vassy

Emil Trachtenberg

08/01/2006

#9

LOT15 magnets Serial # 6721-7200

Bottom Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	6949	Upstream	Right
2	6735	Downstream	Right
3	7015	Upstream	Left
4	7191	Downstream	Left
5	7096	Upstream	Left
6	7198	Downstream	Right
7	6974	Upstream	Left
8	6807	Downstream	Right
9	6922	Upstream	Left
10	6951	Downstream	Left
11	6935	Upstream	Left
12	7167	Downstream	Right
13	6957	Upstream	Left
14	7176	Downstream	Left
15	6883	Upstream	Left
16	7193	Downstream	Right
17	7077	Upstream	Left
18	7178	Downstream	Right
19	7075	Upstream	Left
20	7142	Downstream	Left
21	6968	Upstream	Left
22	6856	Downstream	Left
23	6872	Upstream	Left
24	7146	Downstream	Right
25	6893	Upstream	Right
26	6740	Downstream	Left
27	6727	Upstream	Left
28	6736	Downstream	Right
29	6936	Upstream	Left
30	6721	Downstream	Left
31	7009	Upstream	Right
32	7164	Downstream	Left
33	7006	Upstream	Left
34	6896	Downstream	Left
35	7016	Upstream	Right
36	6992	Downstream	Right
37	6788	Upstream	Right
38	7174	Downstream	Left
39	6937	Upstream	Right
40	6822	Downstream	Right
41	7035	Upstream	Right
42	7179	Downstream	Left
43	6878	Upstream	Right
44	6861	Downstream	Right
45	6783	Upstream	Left
46	6860	Downstream	Left
47	6948	Upstream	Right

Top Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	7175	Downstream	Left
2	6777	Upstream	Left
3	7199	Downstream	Right
4	6943	Upstream	Right
5	7190	Downstream	Right
6	6920	Upstream	Right
7	7195	Downstream	Left
8	6961	Upstream	Left
9	7165	Downstream	Right
10	6942	Upstream	Left
11	7184	Downstream	Left
12	7090	Upstream	Right
13	7172	Downstream	Left
14	6962	Upstream	Right
15	7114	Downstream	Right
16	6899	Upstream	Left
17	7181	Downstream	Left
18	6999	Upstream	Right
19	7200	Downstream	Left
20	7057	Upstream	Right
21	6746	Downstream	Left
22	6828	Upstream	Left
23	7166	Downstream	Right
24	6925	Upstream	Right
25	6846	Downstream	Left
26	6728	Upstream	Right
27	6782	Downstream	Right
28	7141	Upstream	Left
29	7180	Downstream	Left
30	6770	Upstream	Right
31	6798	Downstream	Left
32	6812	Upstream	Right
33	7194	Downstream	Right
34	6986	Upstream	Left
35	6759	Downstream	Left
36	7084	Upstream	Left
37	6773	Downstream	Left
38	7007	Upstream	Left
39	7127	Downstream	Left
40	6819	Upstream	Left
41	6776	Downstream	Right
42	6894	Upstream	Left
43	7124	Downstream	Right
44	6940	Upstream	Left
45	6794	Downstream	Left
46	6767	Upstream	Right
47	7157	Downstream	Left

48	6732	Downstream	Left
49	6966	Upstream	Left
50	6730	Downstream	Right
51	7037	Upstream	Left
52	6867	Downstream	Right
53	6876	Upstream	Right
54	6952	Downstream	Right
55	7105	Upstream	Left
56	6980	Downstream	Right
57	6890	Upstream	Left
58	6841	Downstream	Left
59	6842	Upstream	Right
60	6748	Downstream	Right
61	7066	Upstream	Right
62	7154	Downstream	Left
63	6975	Upstream	Left
64	6784	Downstream	Right
65	6934	Upstream	Right
66	6865	Downstream	Left
67	7018	Upstream	Left
68	7036	Downstream	Right
69	7161	Upstream	Right
70	6995	Downstream	Right
71	7033	Upstream	Right
72	6909	Downstream	Left
73	6799	Upstream	Right
74	7122	Downstream	Left
75	6977	Upstream	Right
76	6858	Downstream	Right
77	6911	Upstream	Left
78	6824	Downstream	Right
79	6929	Upstream	Right
80	7118	Downstream	Left
81	6800	Upstream	Left
82	6757	Downstream	Right
83	7024	Upstream	Right
84	6797	Downstream	Left
85	7060	Upstream	Left
86	7170	Downstream	Right
87	6924	Upstream	Right
88	7045	Downstream	Right
89	6832	Upstream	Left
90	7025	Downstream	Right
91	7080	Upstream	Right
92	6821	Downstream	Left
93	6915	Upstream	Right
94	6902	Downstream	Left
95	6886	Upstream	Right
96	6963	Downstream	Right
97	6990	Upstream	Right
98	6823	Downstream	Left
99	6953	Upstream	Left

48	7008	Upstream	Right
49	7119	Downstream	Right
50	6785	Upstream	Right
51	6834	Downstream	Right
52	7072	Upstream	Left
53	6836	Downstream	Right
54	7071	Upstream	Right
55	6879	Downstream	Left
56	7104	Upstream	Left
57	7131	Downstream	Left
58	7070	Upstream	Left
59	7042	Downstream	Left
60	6917	Upstream	Left
61	7049	Downstream	Left
62	7095	Upstream	Left
63	7019	Downstream	Right
64	6722	Upstream	Right
65	6795	Downstream	Left
66	7020	Upstream	Right
67	6775	Downstream	Right
68	6954	Upstream	Left
69	6765	Downstream	Right
70	6769	Upstream	Right
71	7140	Downstream	Left
72	6887	Upstream	Left
73	7149	Downstream	Right
74	7110	Upstream	Left
75	6756	Downstream	Left
76	6960	Upstream	Right
77	6774	Downstream	Right
78	6994	Upstream	Left
79	6752	Downstream	Right
80	6830	Upstream	Left
81	6731	Downstream	Right
82	7078	Upstream	Left
83	6863	Downstream	Right
84	7003	Upstream	Right
85	7143	Downstream	Left
86	7111	Upstream	Right
87	7128	Downstream	Right
88	7056	Upstream	Left
89	6946	Downstream	Left
90	7064	Upstream	Right
91	6764	Downstream	Right
92	6969	Upstream	Left
93	6897	Downstream	Right
94	6742	Upstream	Right
95	7138	Downstream	Right
96	6805	Upstream	Left
97	7183	Downstream	Left
98	6815	Upstream	Left
99	6744	Downstream	Right

100	7171	Downstream	Left
101	6809	Upstream	Left
102	7117	Downstream	Left
103	7022	Upstream	Right
104	7156	Downstream	Right
105	7062	Upstream	Left
106	7130	Downstream	Left
107	7101	Upstream	Left
108	7159	Downstream	Left
109	7048	Upstream	Left
110	7135	Downstream	Right
111	6837	Upstream	Right
112	7147	Downstream	Left
113	6869	Upstream	Left
114	7065	Downstream	Right
115	6734	Upstream	Left
116	6817	Downstream	Right
117	7029	Upstream	Left
118	6851	Downstream	Right
119	6989	Upstream	Left
120	6885	Downstream	Right
121	6913	Upstream	Right
122	6923	Downstream	Left
123	7011	Upstream	Left
124	6793	Downstream	Right
125	6847	Upstream	Right
126	7116	Downstream	Right
127	7074	Upstream	Right
128	6827	Downstream	Left
129	7189	Upstream	Left
130	6816	Downstream	Right
131	7123	Upstream	Right
132	6802	Downstream	Right
133	7001	Upstream	Right
134	7139	Downstream	Right
135	6751	Upstream	Right
136	6762	Downstream	Left
137	6932	Upstream	Right
138	6726	Downstream	Right
139	6843	Upstream	Right
140	7012	Downstream	Right
141	6979	Upstream	Left
142	6866	Downstream	Left
143	6877	Upstream	Right
144	6820	Downstream	Right
145	6987	Upstream	Left
146	7160	Downstream	Right
147	6808	Upstream	Left
148	7102	Downstream	Left
149	6972	Upstream	Left
150	6857	Downstream	Left
151	6918	Upstream	Right

100	6996	Upstream	Left
101	6831	Downstream	Left
102	6723	Upstream	Left
103	7005	Downstream	Left
104	7133	Upstream	Right
105	7153	Downstream	Left
106	7158	Upstream	Right
107	7026	Downstream	Right
108	7017	Upstream	Left
109	7083	Downstream	Left
110	7030	Upstream	Left
111	6835	Downstream	Right
112	6758	Upstream	Right
113	6814	Downstream	Right
114	6853	Upstream	Left
115	7068	Downstream	Right
116	7032	Upstream	Left
117	6983	Downstream	Left
118	7177	Upstream	Left
119	7052	Downstream	Left
120	7055	Upstream	Left
121	7112	Downstream	Right
122	6780	Upstream	Left
123	7002	Downstream	Right
124	7038	Upstream	Right
125	7004	Downstream	Right
126	7034	Upstream	Right
127	7151	Downstream	Right
128	6978	Upstream	Left
129	6895	Downstream	Right
130	6801	Upstream	Left
131	7173	Downstream	Left
132	6945	Upstream	Right
133	6826	Downstream	Right
134	7093	Upstream	Right
135	6763	Downstream	Left
136	6880	Upstream	Left
137	6875	Downstream	Right
138	6884	Upstream	Right
139	7023	Downstream	Right
140	7058	Upstream	Right
141	7148	Downstream	Right
142	6779	Upstream	Right
143	6854	Downstream	Right
144	7120	Upstream	Right
145	7092	Downstream	Left
146	7136	Upstream	Left
147	7132	Downstream	Right
148	7073	Upstream	Left
149	6862	Downstream	Left
150	6910	Upstream	Left
151	6855	Downstream	Left

152	6754	Downstream	Right
153	6874	Upstream	Right
154	7050	Downstream	Left
155	6947	Upstream	Right
156	6804	Downstream	Right
157	6745	Upstream	Right
158	7031	Downstream	Left
159	7013	Upstream	Right
160	7014	Downstream	Left
161	6725	Upstream	Left
162	6741	Downstream	Right
163	6849	Upstream	Right
164	7155	Downstream	Left
165	6900	Upstream	Left
166	7000	Downstream	Left
167	6984	Upstream	Right
168	6882	Downstream	Left
169	6881	Upstream	Left
170	6888	Downstream	Right
171	6907	Upstream	Right
172	7106	Downstream	Right
173	6958	Upstream	Right
174	6772	Downstream	Left
175	6806	Upstream	Left
176	6833	Downstream	Left
177	6998	Upstream	Left
178	7126	Downstream	Right
179	6997	Upstream	Right
180	7054	Downstream	Right
181	7079	Upstream	Left
182	7162	Downstream	Right
183	6982	Upstream	Right
184	7125	Downstream	Left
185	7027	Upstream	Right
186	6864	Downstream	Right
187	6991	Upstream	Right
188	7121	Downstream	Right
189	6959	Upstream	Left
190	6803	Downstream	Right
191	7107	Upstream	Right
192	6781	Downstream	Left
193	6912	Upstream	Right
194	7134	Downstream	Right
195	7087	Upstream	Right
196	7091	Downstream	Right
197	7099	Upstream	Right
198	7053	Downstream	Right
199	6916	Upstream	Right
200	7039	Downstream	Left
201	7081	Upstream	Left
202	7144	Downstream	Right
203	6938	Upstream	Right

152	6724	Upstream	Right
153	7108	Downstream	Right
154	7137	Upstream	Right
155	7044	Downstream	Left
156	7129	Upstream	Left
157	6760	Downstream	Left
158	7041	Upstream	Left
159	6981	Downstream	Left
160	6761	Upstream	Right
161	6796	Downstream	Right
162	7010	Upstream	Left
163	7100	Downstream	Left
164	6921	Upstream	Left
165	7046	Downstream	Right
166	6914	Upstream	Left
167	7150	Downstream	Left
168	7082	Upstream	Right
169	6848	Downstream	Right
170	7145	Upstream	Left
171	6850	Downstream	Right
172	6904	Upstream	Right
173	6743	Downstream	Left
174	6930	Upstream	Right
175	6810	Downstream	Left
176	6993	Upstream	Right
177	6845	Downstream	Left
178	6790	Upstream	Left
179	6791	Downstream	Left
180	6933	Upstream	Right
181	6738	Downstream	Left
182	6939	Upstream	Right
183	6840	Downstream	Right
184	6871	Upstream	Left
185	7197	Downstream	Left
186	6985	Upstream	Right
187	7115	Downstream	Left
188	6970	Upstream	Left
189	6789	Downstream	Left
190	7051	Upstream	Left
191	6903	Downstream	Left
192	6859	Upstream	Right
193	7186	Downstream	Left
194	7098	Upstream	Left
195	6844	Downstream	Right
196	6976	Upstream	Right
197	6892	Downstream	Right
198	7088	Upstream	Left
199	6813	Downstream	Left
200	6891	Upstream	Left
201	6737	Downstream	Left
202	6906	Upstream	Left
203	6755	Downstream	Right

204	7188	Downstream	Left
205	6965	Upstream	Left
206	6778	Downstream	Right
207	6811	Upstream	Right
208	6749	Downstream	Left
209	7094	Upstream	Right
210	6747	Downstream	Right
211	7043	Upstream	Left
212	6873	Downstream	Left
213	6955	Upstream	Right
214	6825	Downstream	Left
215	6964	Upstream	Right
216	7061	Downstream	Left
217	6926	Upstream	Left
218	7152	Downstream	Left
219	6787	Upstream	Left
220	6818	Downstream	Right
221	7076	Upstream	Right
222	7187	Downstream	Left
223	6971	Upstream	Right
224	7182	Downstream	Right
225	7067	Upstream	Left

204	6889	Upstream	Left
205	7040	Downstream	Right
206	6973	Upstream	Left
207	6944	Downstream	Right
208	6733	Upstream	Left
209	7059	Downstream	Left
210	6908	Upstream	Left
211	6870	Downstream	Right
212	6901	Upstream	Right
213	7168	Downstream	Left
214	7085	Upstream	Left
215	6750	Downstream	Left
216	6898	Upstream	Right
217	6838	Downstream	Left
218	6928	Upstream	Left
219	7185	Downstream	Right
220	6919	Upstream	Left
221	6941	Downstream	Right
222	7103	Upstream	Left
223	6852	Downstream	Right
224	7063	Upstream	Right
225	7113	Downstream	Left

For "X-Axis Orientation" column
"Right" stands for right-numbered surface should face to the undulator axis.
"Left" stands for left-numbered surface should face to the undulator axis.
This "Right", "Left" procedure applies for both Right and Left Jaw

For "Main-Field Orientation" column **(see Assembly Procedure Document)**
"Downstream" side corresponts to the direction of lower-numbered slot.
Arrow should point toward the lower numbered slots.
"Upstream" side corresponds to the direction of higher-numbered slot.
Arrow should point toward the higher numbered slots.

Spare magnets

serial No.	Reduced Magnetization
7169	33%
6931	80%
7196	
6988	
7163	
7069	
7089	
6753	
6792	
6956	
6771	
6839	

Sample magnets

serial No.	
6739	
6868	
6967	
7097	
7192	

7109
7028
6768
6950
7047
6905
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6786
6766
7086
7021
6829
6927

#9 9/1/06

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06981
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06796
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07010
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07100
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06921
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06914
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07150
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06848
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07145
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06850
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06904
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06743
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06993
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06791
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06884
07023
07058
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MAR 31 '92 PM 3:12

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07005
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07110
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06756
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09690
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06994
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06752
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06890
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07078
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06869
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07008
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07143
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07111
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WPOLE 3:10PM 30

06940 ⇧	44
06794 ⇧	45
06967 ⇧	46
07157 ⇧	47
07008 ⇧	48
07119	49
06785 ⇧	50
⇧ 06834	51
⇧ 07072	52
⇧ 06836	53
07071 ⇧	54
06879 ⇧	55
⇧ 07104	56
07131 ⇧	57
⇧ 07070	58
07042 ⇧	59
⇧ 06917	60
07049 ⇧	61
⇧ 07095	62
⇧ 07019	63
06722 ⇧	64
06795 ⇧	65
07020 ⇧	66
⇧ 06775	67
06964 ⇧	68

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69012
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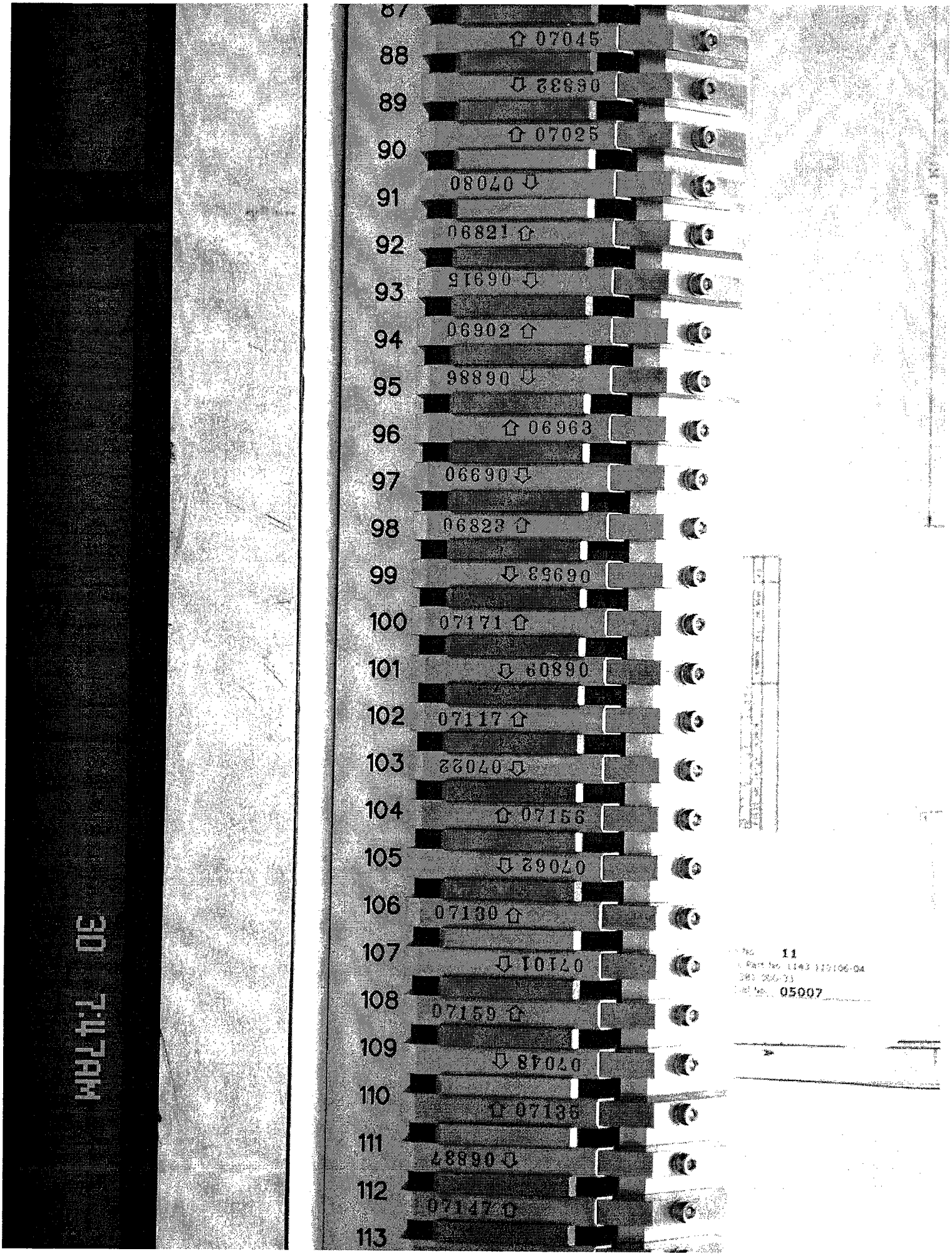

No. 11
Part No. 1143 110196-04
Del No. 05007

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6 07198
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INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: **Dial Machine, Inc.**

PART NAME: **LCLS Strongback**

DRAWING #: **L143-110700**

SERIAL #: 09

P.O.#: **5A-13624**

DATE: 08-28-06

#	Inspection/Test Requirement	Inspection Test Location	Accepted by or Nonconformance Report No.	Date
1	Visual inspection of part for shipping damage. A) Were critical surfaces protected per SOW L143-00030 Section 4.1.4? B) Is there any visible damage?	H.T.	SIMON	08/28/06
2	Check Strongback is marked with serial number & part no.'s (ANL & SLAC) per SOW Section 4.1.3?	H.T	SIMON	08/28/06
3	Check all accompanying Certifications have correct part serial number	H.T	SIMON	08/28/06
4	Check Material Certification for compliance with ASTM B381-03, Grade F2	H.T.	SIMON	08/28/06
5	Check Forging Annealing Certification for annealing conformance to AMS-H-81200A, Table V, commercial Pure, Bars & Forgings, including Note 8	H.T.	SIMON	08/28/06
6	Check Rough Machining Anneal Certification for annealing conformance to AMS-2801B section 3.2.9	H.T.	SIMON	08/28/06
7	Check the Strongback contractor's reported dimensional measurements against the part drawing	H.T.	SIMON	08/28/06
8	Verify the Strongback critical dimensions as listed in the SOW section 4.5.2 are in compliance with the print	H.T.	SIMON	08/28/06

INSPECTOR: SIMON.

QA Supervisor: Murtaza

TEST EQUIPMENT USED: VISUAL

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR:

PART NAME: LCLS Strongback

DRAWING #: L143-110700

SERIAL #: 09

P.O. #:

DATE: 08/28/06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Overall length	3400.00	+0 / -.2	3399.8	Accept/Reject
Gap height	167.00	+0.05 / -.0	167.03	Accept/Reject
Gap flatness (top and bottom)	<= .05	N/A	<= .03	Accept/Reject
Gap depth	130.00	+/- .08	130.01	Accept/Reject
Flatness of front face	<= .05	N/A	<= .03	Accept/Reject
Perpendicularity of front face to A	<= .1	N/A	<= .03	Accept/Reject
End face perpendicularity to A and B	<= .05	N/A	<= .03 <= .03	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaze

TEST EQUIPMENT USED: DROP INDICATOR
SQUAR PRECISION

COMMENTS: DIAL CALIPER

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: Dial Machine, Inc.

PART NAME: LCLS Strongback

DRAWING #: L143-110700

SERIAL #: 09

P.O.#: 5A-13624

DATE: 08-28-06

FEATURE: Gap Flatness

#	Distance (mm)	Measured A	Measured B	Comments
1	50	.0005	.0002	OK
2	350	.0004	.0001	OK
3	650	.0002	.0001	OK
4	950	.0004	.0001	OK
5	1250	.0003	.0002	OK
6	1550	.0003	.0000	OK
7	1850	.0002	.0000	OK
8	2150	.0002	.0002	OK
9	2450	.0001	.0003	OK
10	2750	.0003	.0001	OK
11	3050	.0003	.0003	OK
12	3350	.0003	.0005	OK

INSPECTOR: Simon

QA Supervisor: [illegible]

TEST EQUIPMENT USED: CUBIC PRECISION MODEL: 711010 Jig TRANSIT S/N: 231067

COMMENTS:

#1 - #11

CORROSION MATERIALS TEST REPORT

2262 Groom Rd.
Baker, LA 70714
(225) 775 - 3675 (Main Office)
(225) 778 - 6436 (Quality Control)
(225) 778 - 6489 (Fax)

Date: 11/9/2005

Customer: DIAL MACHINE
PO No: 102437
Alloy: Ti GR2
Heat No: 063-1
CMI No: C71263
Quantity:
Item Description: 12" DIA RD BAR X R/L

Specifications DIN 50049 3.1B ASTM B348, ASTM B381
EN 10204 3.1B

Chemical Components

C	CO	CR	CU	FE	MN	MO	NI	P	S
0.01	—	—	—	0.05	—	—	—	—	—
SI	TI	V	W	CB+TA	SN	AL	ZN	PB	N
—	—	—	—	—	—	—	—	—	0.013

Mechanical Properties

Tensile Strength:
Yield Strength:
Hardness:
Elongation in 2":
Reduction in Area:

Remarks: O=0.04, H=0.002, Ti=BAL

HEAT# PBA1063778 ANNEAI FCC 5 SOAK TIME 4HR SOAK TEMP 1250

The information stated in this document is true and accurate based upon information acquired by and maintained on file at Corrosion Materials.

Certified by: Tom Holstein
Title: Quality Control Coordinator

According to records provided by mill sources, all material has been manufactured free from mercury.
Corrosion Materials is an ISO 9001-2000 certified company, registered with RWTUV USA.

Argonne National Lab
Strongback -L143-110700
Inspection and Test Results

Serial Number	# 9		Inspector	Floyd
Date	7/26/06			

CMM Critical Feature Results	Req	Tolr	Actual	
flatness - plane -A-		.050	.021	
side opposite -A- flatness		.050	.018	
surface finish -A-	1.6		0.5	
surface finish side opposite -A-	1.6		0.6	
-B- surface flatness		.050	.030	
-B- surface perp to -A-		.100	.033	
Pads				
RH Mounting Pad parallel to -A-		.050	.010	
LH Mounting Pad parallel to -A-		.050	.010	
Overall Length	3400.00	+.000/-.200	-.017	
LH end to 1700mm holes right	1700.00	+.000/-.100	-.009	
LH end to 1700mm holes left	1700.00	+.000/-.100	-.008	
side opposite -A- 167.00 dim	167.00	+.050/-.000	167.004	plane to plane
Individual Gaps	167.00		167.005	direct gaps
side -A- to Centerline 83.5	83.50	+/- .080	-.002	

Other Dimensions		Date	Reviewer	
		7/25	SKL	no deviations

Material and Certifications		Date	Reviewer	
Material Certs		7/25	SKL	
Heat Treat Certs		7/25	SKL	
Visual inspection of Material		7/25	SKL	

Approvals	
.	
.	

Temps	
22.2	Start
22.6	Finish

#1 -- #11

CORROSION MATERIALS TEST REPORT

2262 Groom Rd.
Baker, LA 70714
(225) 775 - 3675 (Main Office)
(225) 778 - 6435 (Quality Control)
(225) 778 - 6489 (Fax)

Date: 11/9/2005

Customer: DIAL MACHINE
PO No: 102437
Alloy: Ti GR2
Heat No: 063-1
CMI No: C7 263
Item Description: 12" DIA RD BAR X R/L
Quantity:

Specifications DIN 50049 3.1B ASTM B348, ASTM B381
EN 10204 3.1B

Chemical Components

C	CO	CR	CU	FE	MN	MO	NI	P	S
0.01	—	—	—	0.05	—	—	—	—	—
SI	TI	V	W	CB+TA	SN	AL	ZN	PB	N
—	—	—	—	—	—	—	—	—	0.013

Mechanical Properties

Tensile Strength:
Yield Strength:
Hardness:
Elongation in 2":
Reduction in Area:

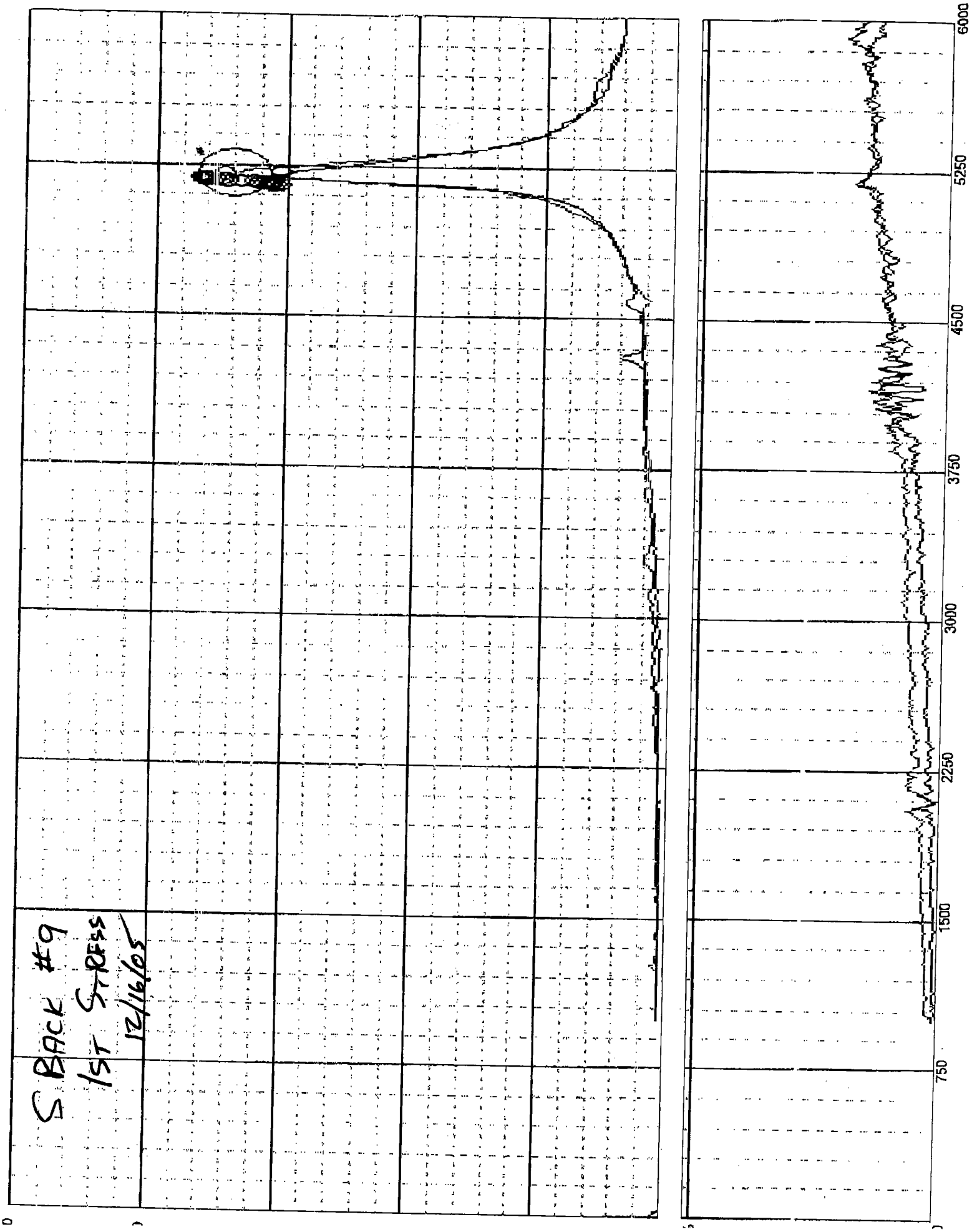
Remarks: O=0.04, H=0.002, Ti=BAL

HEAT# PBA1063778 ANNEAL FCC 5 SOAK TIME 4HR SOAK TEMP 1250

The information stated in this document is true and accurate based upon information acquired by and maintained on file at Corrosion Materials.

Certified by: Tom Holstein
Title: Quality Control Coordinator

According to records provided by mill sources, all material has been manufactured free from mercury.
Corrosion Materials is an ISO 9001-2000 certified company, registered with RWTUV USA.


S BACK #9
1ST SQUEEZE
12/14/05
750
1500
2250
3000
3750
4500
5250
6000

DIAL MACHINE, INC.

2902 Eastrock Drive – Eastrock Industrial Park – P.O. Box 5246
Rockford, Illinois 61125
Phone 815/397-6660 – Fax 815/397-0562

July 26, 2006

Strongback #9

2nd Stress Relieve performed. Data lost in transition to computer storage.

SUPPLIER DISPOSITION REQUEST (SDR)

(Form ANL-311 includes instructions and continuation sheet.)

Page ___ of ___

(CHECK ONE)

☑ 1A. **Deviation Request**

☐ 1B. **Nonconformance Action Request**

2. **SDR No.** 9-7-28

3. **SDR Date** 06/16/2006

4. Supplier Name, Address, Telephone, Fax

Dial Machine, Inc
2902 Eastrock Dr.
Rockford, IL 61125

5. Purchase Order No. 51-0488

6. Related Documents

6.1 _____ **Date** _____

7. Qty.	8. Describe Nonconforming Condition	9. Identify Requirement	10. Cause & Corrective Action
1	Vibratory Stress operation performed 3/14/2006. Documentation file lost during transfer between computers and is not available. Strongback S/N 09 L143-110700	VSR operation performed after rough machining	Operator error - closing file prior to storing data. Instruct operator to photograph in-process screen as backup recording of results

SUPPLIER'S COMMENTS
(IF YES, EXPLAIN):

11. Affects Form, Fit or Function

☐ Yes ☑ No

12. Affects Price

☐ Yes ☑ No

13. Affects Delivery

☐ Yes ☑ No

14. Recommended Disposition and Comments:

Dial to certify VSR was properly done on S/N 09.

15. SUPPLIER REPRESENTATIVE – TITLE – DATE

08/03/06

16. ANL REPRESENTATIVE – DATE

17. ANL Disposition and Remarks: This unit only, VSR chart for 2nd stress relief waived. Dial to certify VSR was properly done.

18. Approved

Emil Trachtenberg 08/03/06 — TECHNICAL REPRESENTATIVE – DATE

8/3/06 — QUALITY ASSURANCE REPRESENTATIVE – DATE

8/4/06 — PROCUREMENT REPRESENTATIVE – DATE

ANL-311 (4-94)

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06949

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Muelaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06935

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.02	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Smod

QA Supervisor: Mullaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06968

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.03	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07009

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Muelaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07035

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07037

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07066

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.98	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Murlage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07033

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simod

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06800

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Mullaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07080

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06809

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	(Accept)/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	(Accept)/Reject
Magnet Width	66.00	+/- .25	66.05	(Accept)/Reject
Magnet thickness	9.00	+0 / -.10	8.96	(Accept)/Reject

INSPECTOR: Simon

QA Supervisor: Mulaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06837

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06913

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Mulaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07123

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.03	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.98	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murtaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06979

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Nurlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06918

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06725

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.98	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Muelaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06907

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaga

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07079

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07107

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	(Accept)/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	(Accept)/Reject
Magnet Width	66.00	+/- .25	66.02	(Accept)/Reject
Magnet thickness	9.00	+0 / -.10	8.96	(Accept)/Reject

INSPECTOR: Simon

QA Supervisor: Murlage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07081

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Muelaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07043

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Muelaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07076

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.98	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07175

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.03	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Smon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07184

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.03	Accept/Reject
Magnet Width	66.00	+/- .25	66.01	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Smow

QA Supervisor: Mulaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06746

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.01	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06798

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06776

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06834

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Smow

QA Supervisor: Muelaga

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07049

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.02	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07140

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Muelaga

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06731

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06764

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06831

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simod

QA Supervisor: Mulaga

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06835

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.06	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07112

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.98	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: SIMON

QA Supervisor: Mulaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07173

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.04	Accept/Reject
Magnet Width	66.00	+/- .25	66.02	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mullaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 07148

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.97	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Murlage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06855

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.07	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaga

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06796

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	66.06	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaze

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06850

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.05	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06738

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.04	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulcahy

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06903

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.98	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Smow

QA Supervisor: Mualaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06737

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	(Accept)/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	(Accept)/Reject
Magnet Width	66.00	+/- .25	66.05	(Accept)/Reject
Magnet thickness	9.00	+0 / -.10	8.96	(Accept)/Reject

INSPECTOR: Simow

QA Supervisor: Mullage

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06870

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.03	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mustafa

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: **Shin-Etsu**

PART NAME: **LCLS Magnet**

DRAWING #: **L143-110106-04**

SERIAL #: 06941

P.O. #: **5A13624**

DATE: 08-08-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.01	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Simow

QA Supervisor: Mwlaza

TEST EQUIPMENT USED: **Drop Indicators**

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Upper Middle Magnet Structure Base

DRAWING #: L143-111001-01 SERIAL #: L143-111000-1-09

P.O. #: 5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.985/29.970	Accept/Reject
Bottom surface flatness	</= .04	N/A	.035	Accept/Reject
Overall length	1005.0	+0 / -.1	1004.95	Accept/Reject
Overall width	128	+0 / -.1	127.94	Accept/Reject

INSPECTOR: Murtaza QA Supervisor: Murtaza

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Upper Middle Magnet Structure Base

DRAWING #: L143-111001-01 SERIAL #: L143-111000-2-09

P.O. #: 5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.985/29.975	Accept/Reject
Bottom surface flatness	</= .04	N/A	.040	Accept/Reject
Overall length	1005.0	+0 / -.1	1004.90	Accept/Reject
Overall width	128	+0 / -.1	127.94	Accept/Reject

INSPECTOR: Mulaza QA Supervisor: Mulaza

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Upper Middle Magnet Structure Base

DRAWING #: L143-111001-01 SERIAL #: L143-111000-3-09

P.O. #: 5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.995/29.970	Accept/Reject
Bottom surface flatness	<= .04	N/A	.040	Accept/Reject
Overall length	1005.0	+0 / -.1	1004.94	Accept/Reject
Overall width	128	+0 / -.1	127.945	Accept/Reject

INSPECTOR: Muelage QA Supervisor: Muelage

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Lower Middle Magnet Structure Base

DRAWING #: L143-111101-01 SERIAL #: L143-111100-1-09

P.O. #:5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.985/29.970	Accept/Reject
Bottom surface flatness	</= .04	N/A	.04	Accept/Reject
Overall length	1005	+0 / -.1	1004.93	Accept/Reject
Overall width	128	+0 / -.1	127.94	Accept/Reject

INSPECTOR: Mullaze QA Supervisor: Mullaze

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Lower Middle Magnet Structure Base

DRAWING #: L143-111101-01 SERIAL #: L143-111100-2-09

P.O. #:5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.990/29.975	Accept/Reject
Bottom surface flatness	<= .04	N/A	.04	Accept/Reject
Overall length	1005	+0 / -.1	1004.91	Accept/Reject
Overall width	128	+0 / -.1	127.94	Accept/Reject

INSPECTOR: Murtaza QA Supervisor: Murtaza

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Lower Middle Magnet Structure Base

DRAWING #: L143-111101-01 SERIAL #: L143-111100-3-09

P.O. #:5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.985/29.975	Accept/Reject
Bottom surface flatness	</= .04	N/A	.04	Accept/Reject
Overall length	1005	+0 / -.1	1004.93	Accept/Reject
Overall width	128	+0 / -.1	127.93	Accept/Reject

INSPECTOR: Muelaze QA Supervisor: Muelaze

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

LCLS
Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory
Stanford Linear Accelerator Center

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc.

PART NAME: Upper Right Magnet Structure Base

DRAWING #: L143-111201

SERIAL #: Ll43-111200-09

P.O. #: 5A13624

DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.995/29.980	Accept/Reject
Bottom surface flatness	</= .04	N/A	0.02	Accept/Reject
Overall length	189	+0 / -.1	188.98	Accept/Reject
Overall width	128	+0 / -.1	127.98	Accept/Reject

INSPECTOR: Muelaze

QA Supervisor: Muelaze

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc. PART NAME: Lower Left Magnet Structure Base

DRAWING #: L143-110901 SERIAL #: L143-110900-09

P.O. #: 5A13624 DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.995/29.975	Accept/Reject
Bottom surface flatness	<= .04	N/A	.025	Accept/Reject
Overall length	195	+0 / -.1	194.980	Accept/Reject
Overall width	128	+0 / -.1	127.975	Accept/Reject

INSPECTOR: Murlaze QA Supervisor: Murlaze

TEST EQUIPMENT USED: CMM & Micrometer .

COMMENTS: .

LCLS
Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory Stanford Linear Accelerator Center

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc.

PART NAME: Lower Right Magnet Structure Base

DRAWING #: L143-111301

SERIAL #: L143-111300-09

P.O. #: 5A13624

DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.985/29.980	Accept/Reject
Bottom surface flatness	<= .04	N/A	0.025	Accept/Reject
Overall length	189	+0 / -.1	188.995	Accept/Reject
Overall width	128	+0 / -.1	127.985	Accept/Reject

INSPECTOR: Mulaze

QA Supervisor: Mulaze

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS:

LCLS
Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory
Stanford Linear Accelerator Center

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Hi-Tech Manufacturing, Inc.

PART NAME: Upper Left Magnet Structure Base

DRAWING #: L143-110801

SERIAL #: L143-110800-09

P.O. #: 5A13624

DATE: 08-19-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE(S)	
Bottom surface to pole base surface (all surfaces)	30	+0 / -.03	Max / Min 29.98/29.975	Accept/Reject
Bottom surface flatness	<= .04	N/A	0.012	Accept/Reject
Overall length	195	+0 / -.1	194.97	Accept/Reject
Overall width	128	+0 / -.1	127.97	Accept/Reject

INSPECTOR: Murtaza

QA Supervisor: Murtaza

TEST EQUIPMENT USED: CMM & Micrometer.

COMMENTS: