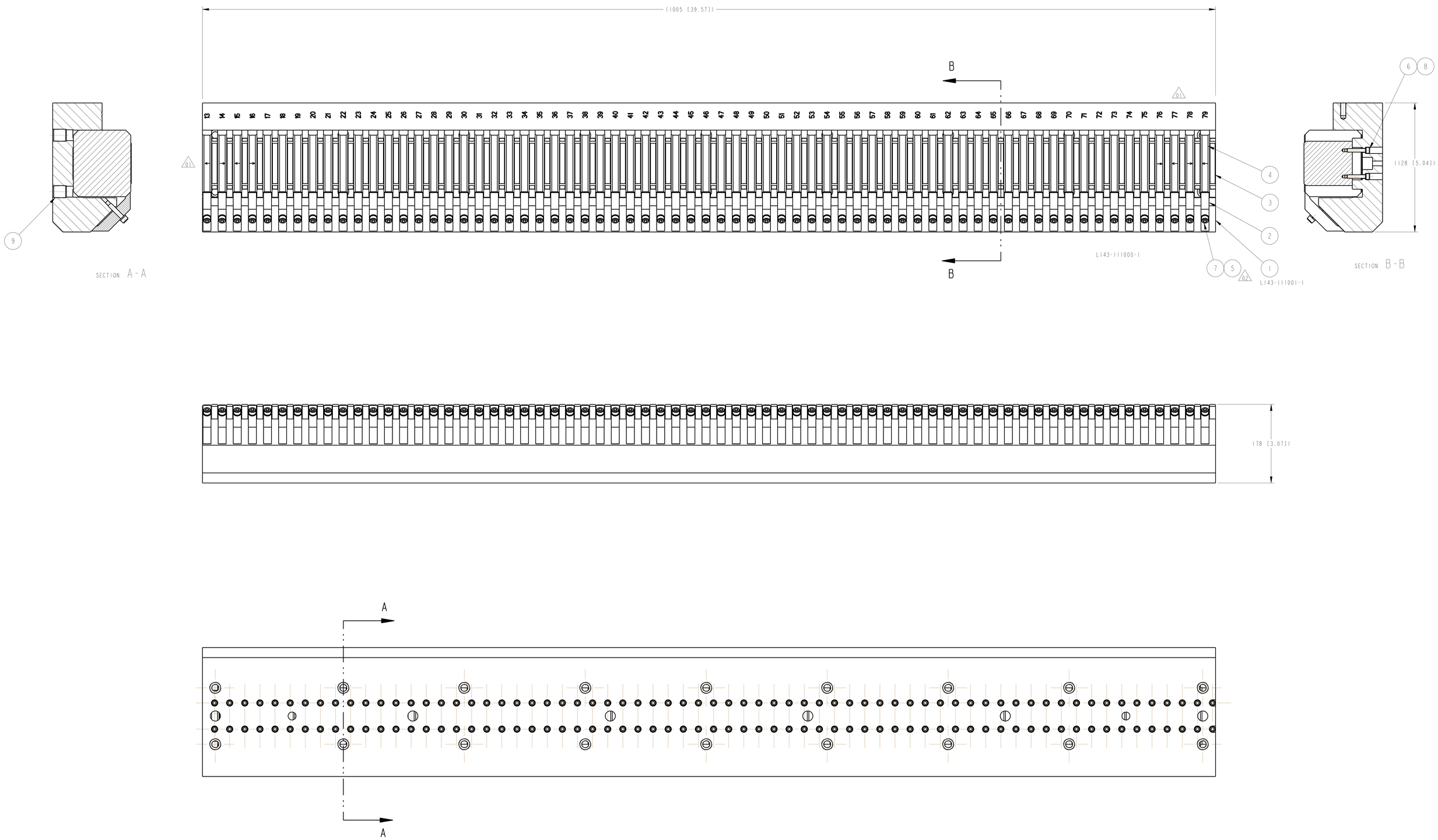
REVISIONS					
ZONE	REV	DESCRIPTION	BY	APPROVED	DATE
	01	SEE DCN #050517-03	RTK		
	02	SEE DCN NO. 060228-03	DC		
	03	SEE DCN NO. 060517-05	DC		



ITEM	DRAWING / PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
9	KLI-66353	INSERT M8 X 1.25 X M12 X 1.25	303 SST	18
8	98437A104	WASH LOCK NO. 6(.138) NOM X .216 OD X .03 THK	18-8 SST	134
7	92196A197	SHCS NO. 8(.1641)-32 UNC-2A X .75 LG	STN. STL.	67
6	92185A151	SHCS NO. 6(.138)-32 UNC-3A X.75 LG	316 SST	134
5	92146A545	WASHER LOCK .293 OD X .174 ID X .040 THK	18-8 SST	67
4	L143-110106	MAGNET	NdFeB TYPE MATERIAL (SEE NOTE 7)	67
3	L143-110105	POLE	VACOFLUX 50	67
2	L143-110104	MAGNET CLAMP	5/16" AMPCO 8 ALUMINUM BRONZE PLATE	67
1	L143-111001	BASE	AL CAST TOOL & JIG PLATE-2.5"PLATE	1

NOTE 3 (▷ 7)
NOTE 2 (▷ 6)
(▷ 5) (△02)
(▷ 9) (▷ 8)

PARTS LIST / BILL OF MATERIALS

NOTES:

1. FOR ASSEMBLY PROCEDURE AND MAGNET INSTALLATION SEE DOCUMENT L143-00076.
2. POSITION 6 SCREWS SHOULD BE TIGHTENED TO 20 INCH LBS. EACH SCREW SHOULD BE TIGHTENED TO 1/2 TORQUE AND THEN TO FULL TORQUE. (△03)
3. POSITION 7 SCREWS SHOULD BE TIGHTENED TO 25 INCH LBS.

▷ SOURCE OR EQUIVALENT
McMASTER-CARR
P.O. BOX 4355
CHICAGO, IL 60680-4355
630-883-0300

▷ SOURCE OR EQUIVALENT
REID TOOL SUPPLY
2265 BLACK CREEK ROAD
MUSKEGON, MI 49444
800-253-0421

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN mm. INCHES ARE REFERENCE ONLY. TOLERANCES:
DECIMALS X ± .5 mm, X.X ± .25 mm, X.XX ± .05 mm
ANGULAR ± .5°
SURFACE FINISH IN MICRONS
REMOVE ALL BURRS AND BREAK SHARP EDGES .76 MAX.
SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002
DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-1994

DRAWN BY: D. CAPATINA — DATE: 04-Nov-04
APD GROUP LEADER: P. DEN HARTOG — DATE:
DESIGNED BY: D. CAPATINA — DATE: 04-Nov-04
RESPONSIBLE ENGINEER: E. TRAKHTENBERG — DATE:
CAM: M. WHITE — DATE:
LCLS MANAGER: S. V. MILTON — DATE:

THIS DRAWING IS THE PROPERTY OF
ARGONNE NATIONAL LABORATORY
ADVANCED PHOTON SOURCE
LINAC COHERENT LIGHT SOURCE
UNDULATOR SYSTEM

UNDULATOR UNIT ASSEMBLY
MAGNET STRUCTURE
UPPER MIDDLE MAGNET STRUCTURE
UPPER MIDDLE MAG. STRUCTURE ASSEMBLY

MODEL NAME: L143-111000 — RELEASE LEVEL: PENDING — MODEL VER.: 0 — DRWG VER.: 0
ELECTRONIC FILE NAME: A3740903 — MATERIAL SPECIFICATION: SEE PARTS LIST
SCALE DATABASE TITLE: LCLS UND MAG UP M MAG ASSY
SIZE: E — ENG. DRAWING NUMBER: L143-111000 — CAD DRAWING NUMBER: SA-381-000-58 — REV: 03
SCALE: 3:4 — DO NOT SCALE DRAWING — SHEET 1 OF 2