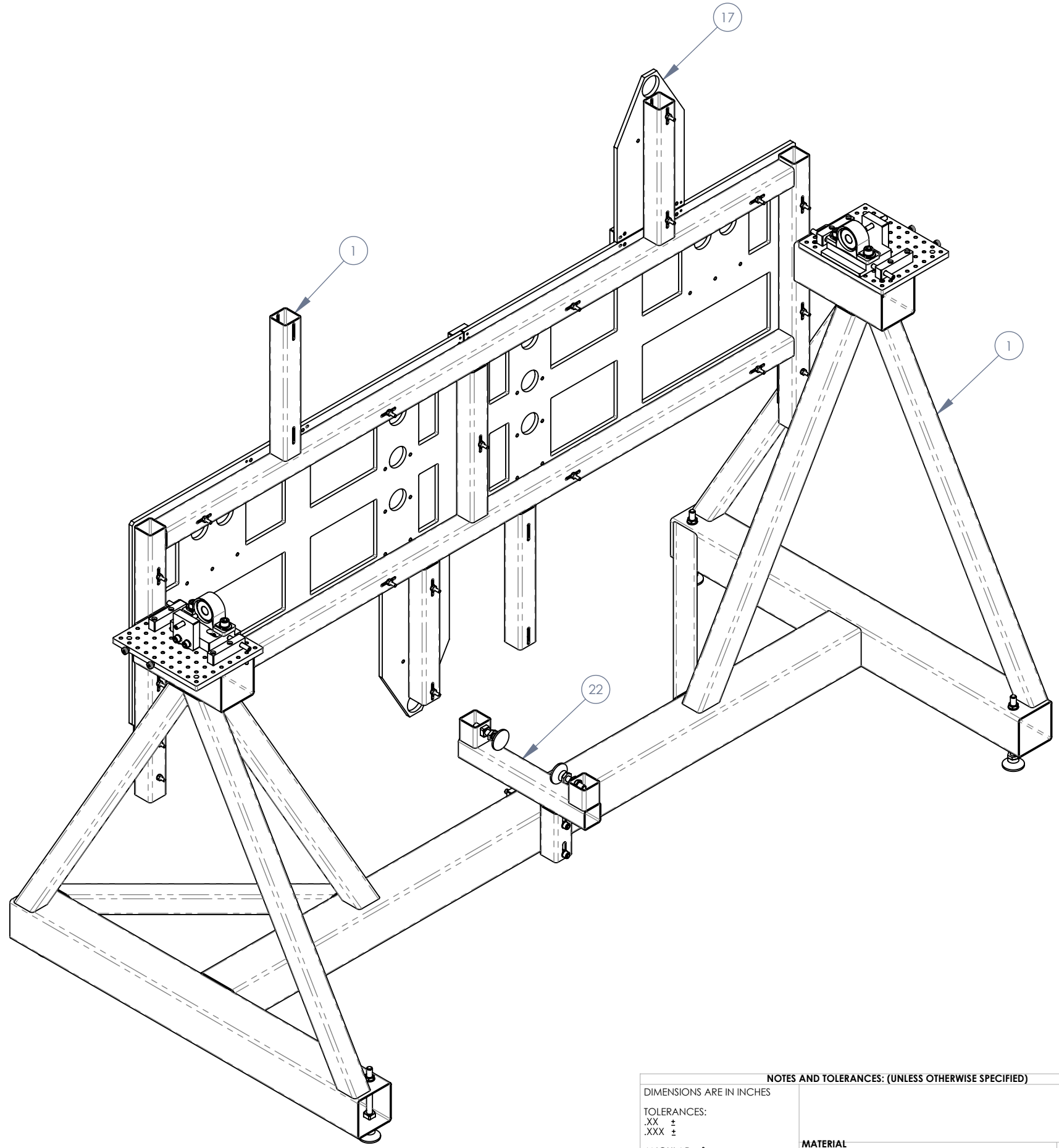


8 7 6 5 4 3 2 1

NOTES:
1. WEIGHT: 317 LB.

REV.	DATE	DCN #	DRAWING TREE #
v1	14 JAN 2014	E1400015-x0	-
-	-	-	-
-	-	-	-

D
C
B
A



25	D1201494	qLIGO PCAL TOOLING NUT PLATE	6061-T6 Al	1	1
24	6111K188 (McM-Carr) or equiv	FOOT, LEVELING, 1/2-20 X 3-1/8 LG	300 SSTL	2	2
23	92196A651 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 3/8-16 UNC-2A X 7 LONG	18-8 SSTL	2	2
22	D1201493	qLIGO PCAL TOOLING, PERISCOPE TIP ADJUST WELDMENT	PLAIN CARBON STEEL	1	1
21	92196A557 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 3.75 LONG	18-8 SSTL	1	1
20	91845A029 (McM-Carr) or equiv	HEX NUT, 1/4-20	18-8 SSTL	21	21
19	92196A555 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 3.25 LONG	18-8 SSTL	20	20
18	98017A655 (McM-Carr) or equiv per NAS 1149-C0432R	WASHER, FLAT, 1/4	300 SSTL	46	46
17	D1201543	qLIGO PCAL TOOLING, PERISCOPE TARGET PLATE ASSEMBLY	N/A	1	1
16	92196A542 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 1 LONG	18-8 SSTL	12	12
15	D1201552	qLIGO PCAL TOOLING, PERISCOPE LONGITUDINAL PUSH BRACKET	6061-T6 Al	4	4
14	92196A634 (McM-Carr) or equiv	SCREW, SOCKET SET, OVAL POINT, 3/8-16 UNC X 2.5 LONG	18-8 SSTL	6	6
13	92196A628 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 3/8-16 UNC-2A X 1.5 LONG	18-8 SSTL	4	4
12	98017A200 (McM-Carr) or equiv per NAS 1149-C0663R	WASHER, FLAT, 3/8	300 SSTL	6	6
11	D1201551	qLIGO PCAL TOOLING, PERISCOPE LATERAL PUSH BRACKET	6061-T6 Al	2	2
10	92196A714 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 1/2-13 UNC-2A X 1.25 LONG	18-8 SSTL	4	4
9	7928K53 (McM-Carr) or equiv	BEARING, GRAPHALLOY SLEVE, 3/4", 3 DEG ALIGNMENT	Gray Cast Iron	2	2
8	D1201414	qLIGO PCAL TOOLING, BEARING MOUNT	6061-T6 Al	2	2
7	92196A545 (McM-Carr) or equiv	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 1.375 LONG	18-8 SSTL	6	6
6	91944A401 (McM-Carr) or equiv	SST SPHERICAL WASHER, #10 & 1/4 SIZE, FEMALE, ID 5/16, OD 5/8	18-8 SSTL	6	6
5	91944A301 (McM-Carr) or equiv	SST SPHERICAL WASHER, #10 & 1/4 SIZE, MALE, ID 9/32, OD 5/8	18-8 SSTL	6	6
4	D1201415	qLIGO PCAL TOOLING, PRE-ALIGNMENT BREADBOARD	6061-T6 Al	2	2
3	98017A210 (McM-Carr) or equiv per NAS 1149-C0863R	WASHER, FLAT, 1/2	300 SSTL	8	8
2	6111K331 (McM-Carr) or equiv	FOOT, LEVELING, 1/2-13 X 7-1/8 LG	300 SSTL	4	4
1	D1201333	qLIGO PCAL TOOLING, PERISCOPE PRE-ALIGNMENT SUPPORT WELDMENT	PLAIN CARBON STEEL	1	1

ITEM NO.	PART NUMBER	DESCRIPTION	REV.	MATERIAL	QTY.	SPARE	TOTAL
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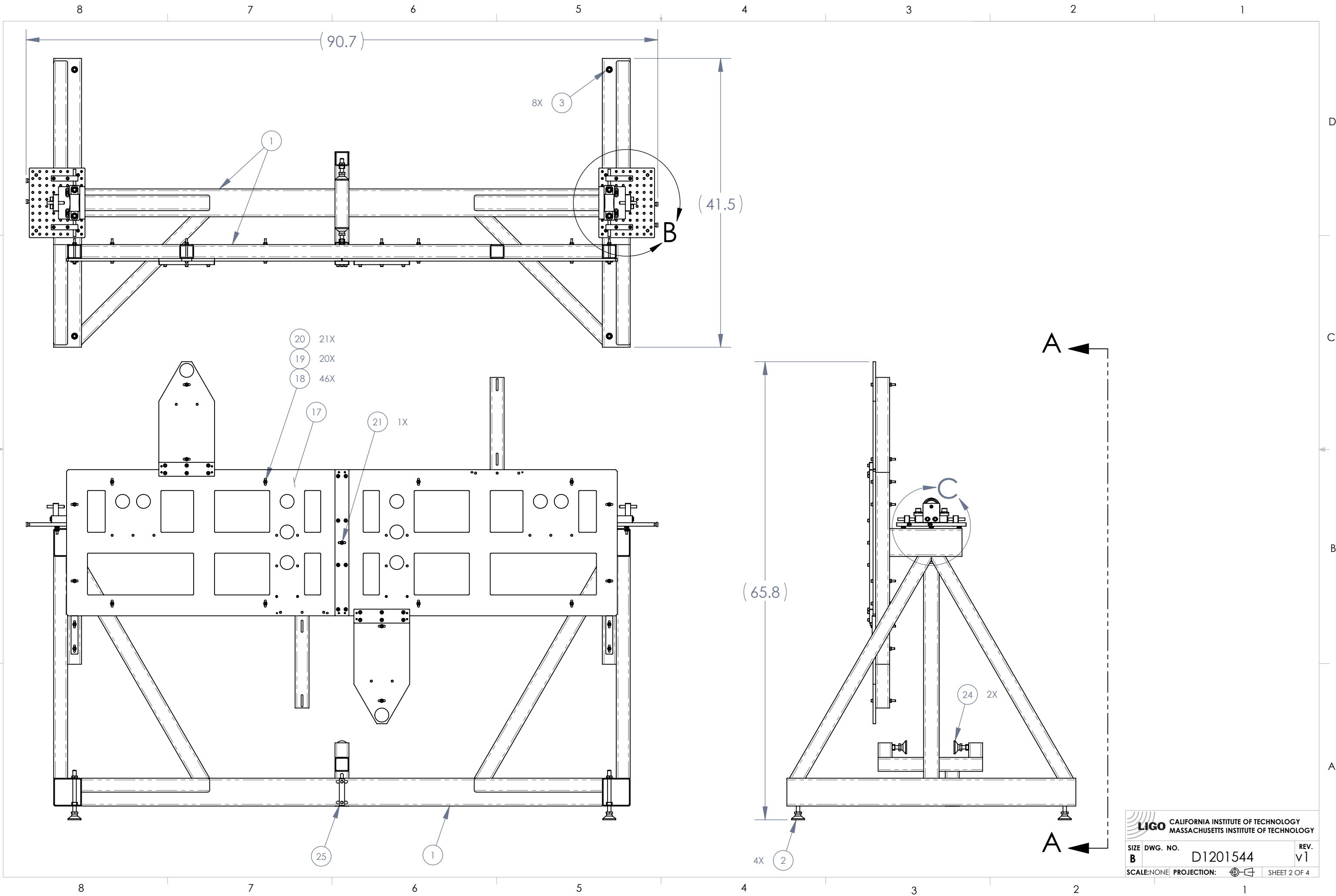
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 .XX ±
 .XXX ±
 ANGULAR ± °
 MATERIAL N/A
 FINISH N/A μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY
LIGO
 SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS
 PART NAME: qLIGO PCAL TOOLING, PERISCOPE PRE-ALIGNMENT SUPPORT ASSEMBLY
 DESIGNER: R. SAVAGE
 DRAFTER: C. CONLEY
 CHECKER: C. CONLEY
 APPROVAL: SEE DCN
 DATE: 12 DEC 2012
 DATE: 14 JAN 2014
 DATE: SEE DCN
 DATE: SEE DCN
 SIZE DWG. NO.: B
D1201544
 SCALE: NONE PROJECTION:
 SHEET 1 OF 4

D1201544 qLIGO Pcal Tooling, Periscope Pre-Alignment Support Assembly, PART PDM REV: X-058, DRAWING PDM REV: X-005

8 7 6 5 4 3 2 1

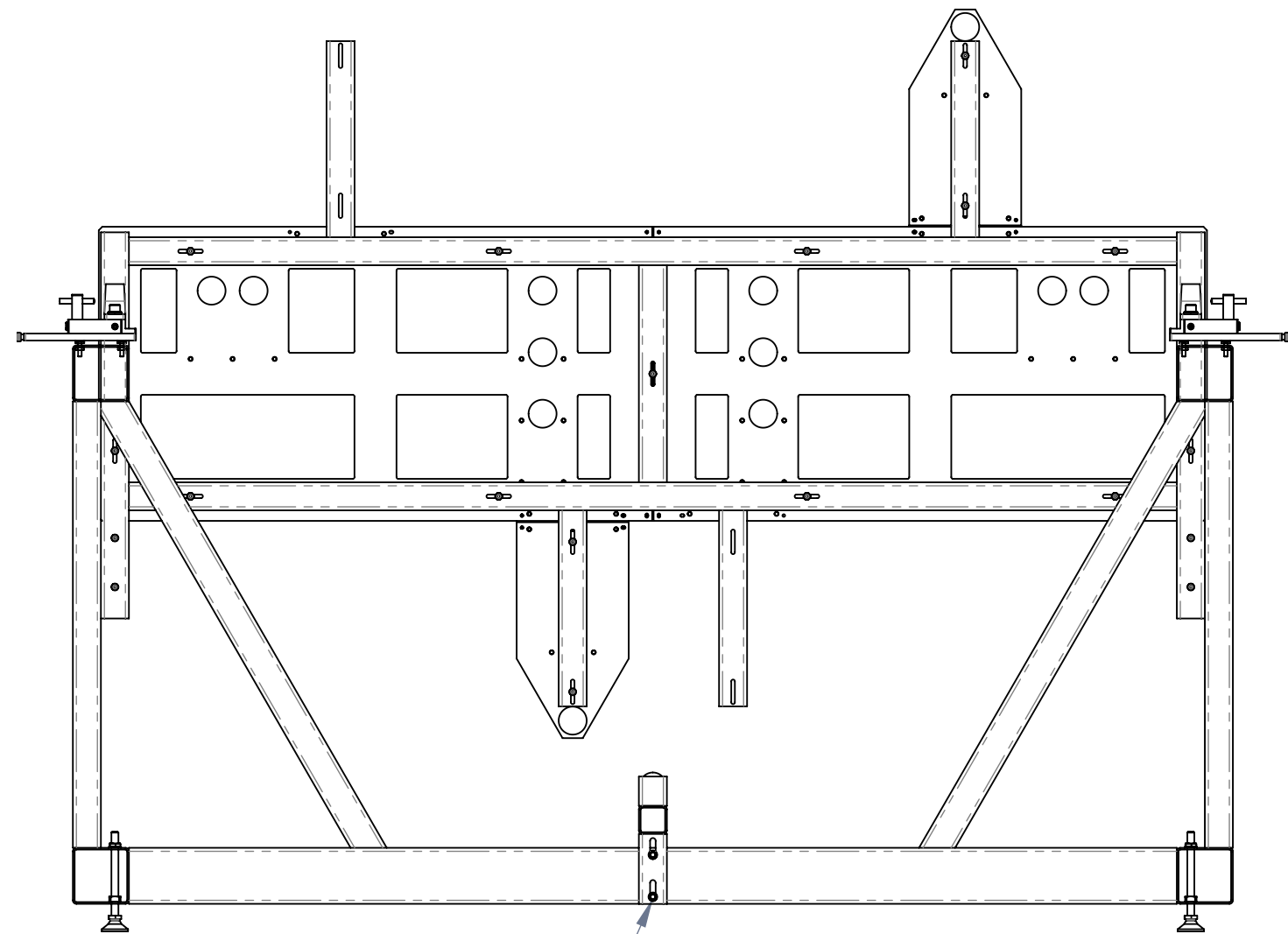
D1201544 dLIGO Pcal Tooling, Periscope Pre-Alignment Support Assembly, PART PDM REV: X-058, DRAWING PDM REV: X-005



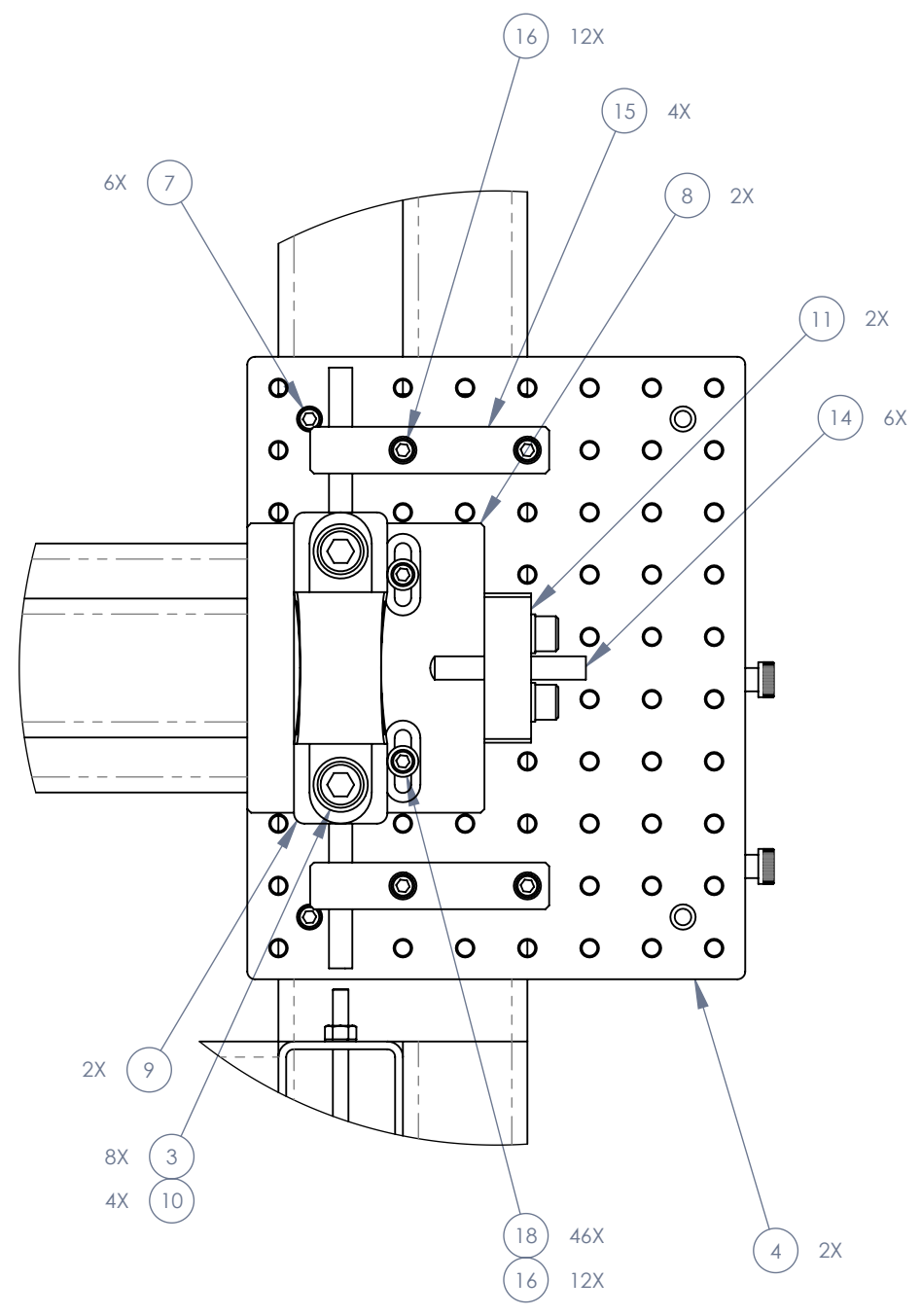
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
B	D1201544	v1
SCALE: NONE		PROJECTION:
SHEET 2 OF 4		

D1201544 dLIGO Pcal Tooling, Periscope Pre-Alignment Support Assembly, PART PDM REV: X-058, DRAWING PDM REV: X-005



6X 12
2X 23
VIEW A-A

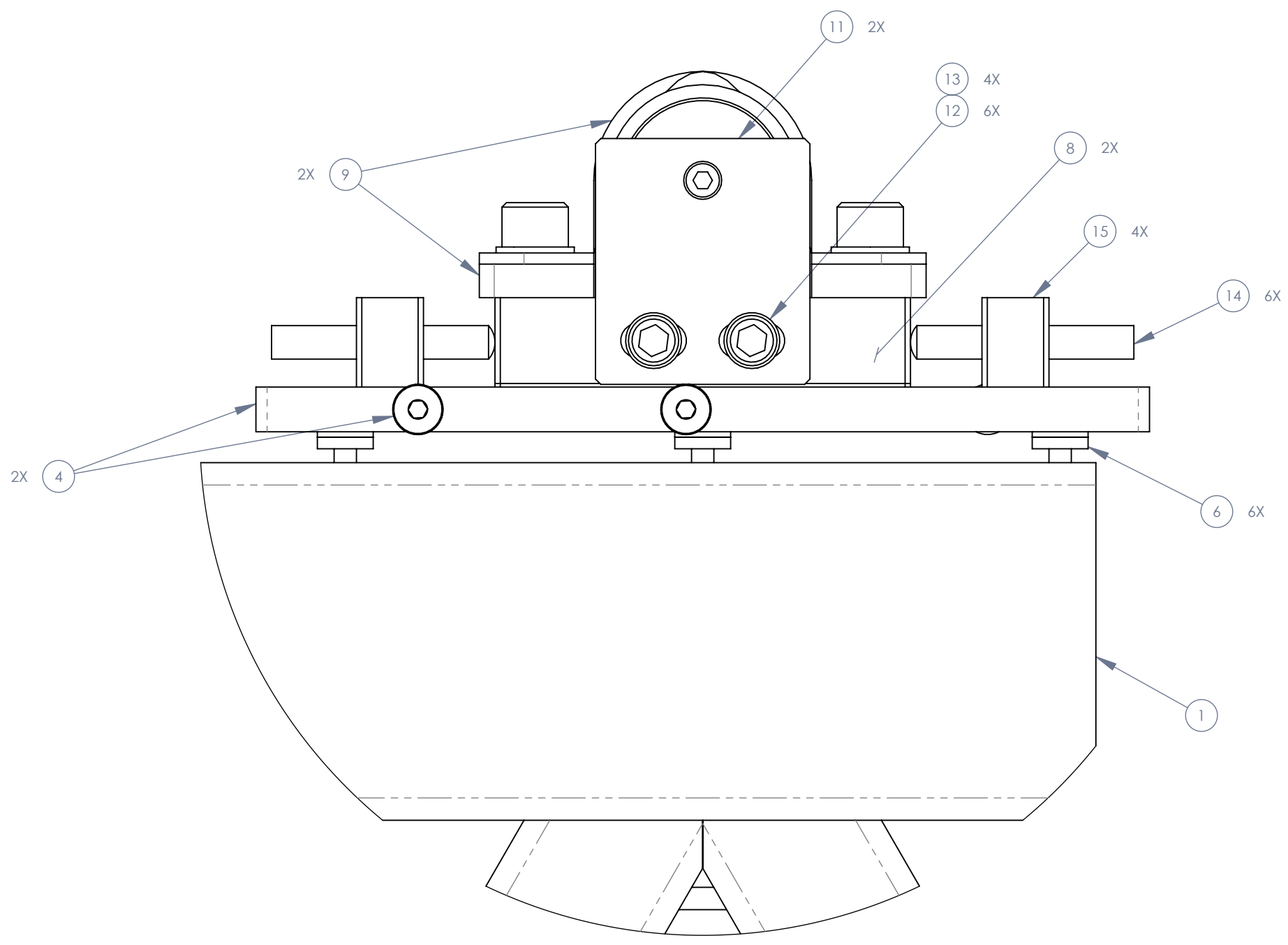


DETAIL B


LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
B	D1201544	v1
SCALE: NONE	PROJECTION:	SHEET 3 OF 4

D1201544 Pcal Tooling, Periscope Pre-Alignment Support Assembly, PART PDM REV: X-058, DRAWING PDM REV: X-005



DETAIL C

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE B	DWG. NO. D1201544
SCALE: NONE	PROJECTION: 
REV. v1	SHEET 4 OF 4