

NOTES CONTINUED:

1. SEE PAGE 2 PARTS FOR BALANCE D1102250 / D1102252 /D1200098 VIEW UPPER RIGHT

2. RESTRAINT CHAINS ON EARTHQUAKE RESTRAINT (2)

3. ADDITIONAL OPTICAL ALIGNMENT TOOLING NOT SHOWN

4. LIGO-E1200811 - additional tooling for alignment of the telescope

5. D1100807 - is a 'Bosch Frame' used for initial setup

REV	DATE	DCN #	BOM #	DRAWING TREE #
v1	02 SEP 2011	E1100351	E1100706	E1100735
V2	8-10-12	TO FOLLOW	TO FOLLOW	E1200793
v3	11-28-12	to follow	-	-

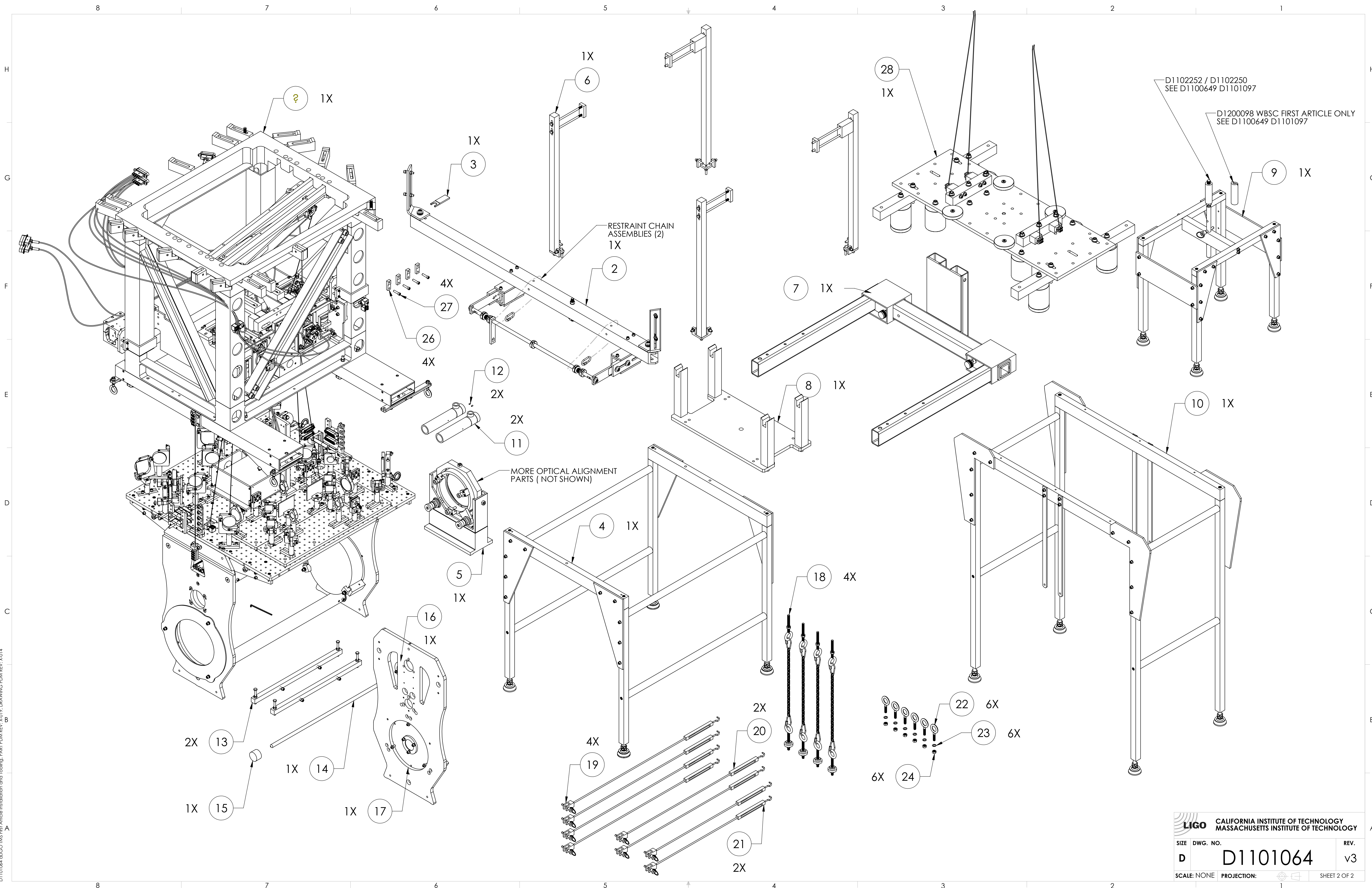
ITEM NO	PART NUMBER	REV	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
28	D0901880		αLIGO_TMS_TEST_MASS_ASEM	--	1		1
27	92200A542 (McM-Carr) or equiv per MS16995-52		SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 1 LONG	300 SSTL	4	2	6
26	D1101757	v1	αLIGO TMS UPPER SUS WIRE ADJUSTER	6061-T6 Al	4	-	4
25	D1101575	v1	αLIGO ALLEN WRENCH, FOR TMS VERT.-HOR. SCREW	Alloy Steel	1	-	1
24	D1100989	v1	NICKEL-COPPER ALLOY 400 .312-18 HEX NUT, MODIFIED	NICKEL-COPPER ALLOY 400	6	4	10
23	96861A700 (McM-Carr) or equiv		VENTED FLAT WASHER .328 ID, .562 OD, .032 TH	18-8 SSTL	6	4	10
22	33045T72 (McM-Carr) or equiv		EYEBOLT, NON-SHOULDERED, 780# 5/16-18 X 1.88" THREAD	304 SSTL	6	-	6
21	D1101506	v1	αLIGO TMS TELE SAFETY SUPPORT TURNBUCKLE ASSY, SIDE, SHORT	N/A	2	-	2
20	D1101559	v1	αLIGO TMS TELE SAFETY SUPPORT TURNBUCKLE ASSY, SIDE, LONG	N/A	2	-	2
19	D1101565	v1	αLIGO TMS TELE SAFETY SUPPORT TURNBUCKLE ASSY, FRONT	N/A	4	-	4
18	D1001891	v1	αLIGO TMS VERTICLE SEISMIC SAFETY STOP ASSEMBLY	N/A	4	1	5
17	D1101361	v1	TMS TOOLING TELESCOPE I-P ALIGNMENT MIRROR ASSEMBLY	N/A	1	1	2
16	D1101487	v1	TMS TOOLING TELESCOPE O-P ALIGNMENT MIRROR ASSEMBLY	N/A	1	1	2
15	D1100728	v1	TMS TELESCOPE DUMMY SECONDARY MIRROR	6061-T6 Al	1	1	2
14	D1100729	v1	TMS TELESCOPE MIRROR GAUGE ROD	6061-T6 Al	1	1	2
13	D1100933	v1	TMS TELESCOPE BENCH SUPPORT ASSEMBLY	N/A	2	1	3
12	92778A071 (McM-Carr) or equiv		SCREW, SOCKET SET, OVAL POINT, #6-32 UNC-2A X 0.25 LONG	300 SSTL	2	2	4
11	D-271 (Davidson Optronics)		AUTOCOLLIMATOR	N/A	2	-	2
10	D1100531	v1	αLIGO TMS OPTICAL TABLE SUPPORT BRIDGE ASSY	N/A	1	-	1
9	D1100649	v1	αLIGO TMS TELE-OPT TABLE BALANCE BRIDGE ASSY	N/A	1	-	1
8	D1100841	v1	αLIGO TMS TELE-OPT TABLE INSTALL TOOL ASSY	N/A	1	-	1
7	D1100886	v1	MODIFIED GENIE LIFT FORKS	N/A	1	-	1
6	D1100613	v1	αLIGO TMS TELESCOPE ASSEMBLY ALIGNMENT STABILAZATION TOOL	N/A	1	-	1
5	D1101510	v1	αLIGO TMS TELE ALIGNMENT 6in MIRROR MOUNT ASSY	N/A	1	-	1
4	D1100460	v1	αLIGO TMS TELE ALIGNMENT SUPPORT BRIDGE ASSY	N/A	1	-	1
3	D1101486	v1	αLIGO TMS EARTHQUAKE STOP TOOLING GAUGE	6061-T6 Al	1	-	1
2	D1001781	v2	αLIGO TMS SEISMIC SAFETY STOP STRUCTURE	N/A	1	-	1
1	D0900419	v1	AdvLIGO SUS BSC6-H2, XYZ Local CSm for ETM Tel Assy	N/A	1	-	1

ITEM NO	PART NUMBER	REV	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
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PARTS LIST

DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .XXX ± ANGULAR ± °		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES-.005-.015. FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER-SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME αLIGO TMS FIRST ARTICAL INSTALLATION AND TOOLING	
MATERIAL N/A		FINISH N/A μinch		NEXT ASSY N/A		DESIGNER K. MAILAND 09 JUN 2011 DRAFTER C. CONLEY 02 SEP 2011 CHECKER SEE DCN 8-10-12 APPROVAL SEE DCN	
SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS		SIZE D		DWG. NO. D1101064	
				SCALE: NONE		PROJECTION:	

D:\1064 αLIGO TMS First Article Installation and Tooling - PART PDM REV: X.019, DRAWING PDM REV: X.014



D1102252 / D1102250
SEE D1100649 D1101097

D1200098 WBSO FIRST ARTICLE ONLY
SEE D1100649 D1101097

RESTRAINT CHAIN ASSEMBLIES (2)
1X

MORE OPTICAL ALIGNMENT PARTS (NOT SHOWN)

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE DWG. NO.	D1101064	v3
SCALE: NONE	PROJECTION:	SHEET 2 OF 2

D1101064.dwg This First Article Installation and Tooling, PART FDM REV. X.019, DRAWING FDM REV. X.014