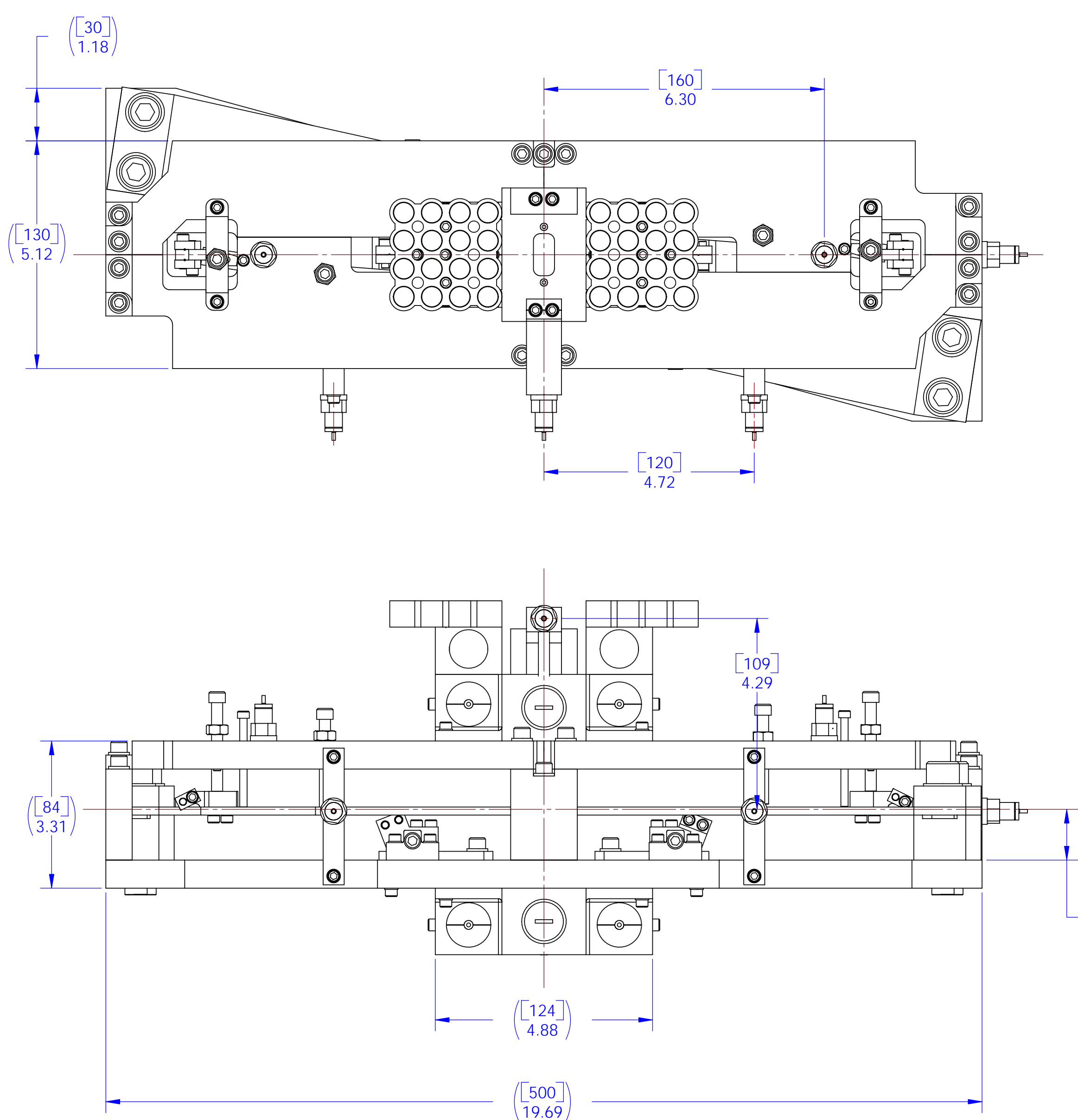


REV.	DATE	DCN #	DRAWING TREE #
A	23MAR05	E050063-00-K	E0500062-00-K



ITEM NO	REQ.	SPARE	TOT.	PART NUMBER	DESCRIPTION	MATERIAL
44	4	4	8		HEX NUT 1/4	
43	1	1	2		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.5 LONG	300 SSTL
42	7	7	14		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.5 LONG	300 SSTL
41	4	4	8		SST SOCKET SET SCREW #8-32 X 0.25 LONG	300 SSTL
40	2	2	4		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 1.5 LONG	300 SSTL
39	2	2	4		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 0.875 LONG	300 SSTL
38	4	4	8		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 1.125 LONG	300 SSTL
37	4	4	8		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 0.75 LONG	300 SSTL
36	1	1	2		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 1 LONG	300 SSTL
35	4	4	8		FLAT WASHERS NAS 620-C816 (OR EQUIV.)	300 SSTL
34	4	4	8		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.625 LONG	300 SSTL
33	4	4	8		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 1 LONG	300 SSTL
32	22	22	44		FLAT WASHERS NAS 620-C416 (OR EQUIV.)	300 SSTL
31	8	8	16		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 2.5 LONG	300 SSTL
30	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 2 LONG	300 SSTL
29	11	11	22		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.75 LONG	300 SSTL
28	36	36	72		FLAT WASHERS NAS 620-C8 (OR EQUIV.)	300 SSTL
27	8	8	16		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.875 LONG	300 SSTL
26	8	8	16		Ag-SST SOCKET HEAD CAP SCREW (Fully Threaded) 0.25-20 UNC-3A X 2 LONG	300 SSTL
25	4	4	8		Ag-SST SOCKET HEAD CAP SCREW 0.5-13 UNC-2A X 2.5 LONG	300 SSTL
24	10	10	20		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 0.75 LONG	300 SSTL
	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 1.125 LONG	300 SSTL
	1	1	2		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.25 LONG	300 SSTL
	4	2	6	D040382	TOP WIRE BREAK OFF - MOVING PLATE	303/304 SST
	1	1	2	D040532	Top Wire with Drum-End	
	4	4	8	D040533	TOP WIRE BREAK-OFF - MAIN BODY	303/304 SST
ALT	2	2	4	D040534	Top Drum-End Wire Clamp & Pitch Adjuster	--
	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.5 LONG	300 SSTL
	1	1	2	D040551	Middle Blade Wire Clamp Body	
	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.625 LONG	300 SSTL
	2	2	4	D040552	Middle & Bottom Blade Wire Clamp Plate	
22	2	2	4	D040553	Middle & Bottom Blade Wire Clamp Ass'y	
21	4	2	6	D040488	Bridge Plate for Blade Tip Stop	303/304 SST
	8	2	10	D040485	T-PIECE ADDED MASS 125g CORE	303/304 SST
20	8	2	10	D040487	Additional Mass (+500g/+1000g/+1500g)	--
19	4	2	6	D040480	T-Piece ECD Mount	6061-T6-AL
18	2	1	3	D040388	Counter Balance Mass	303/304 SST
17	8	4	12	D040376	Top Wire Clamp Pusher Block	303/304 SST
16	4	12	16	D040491	Middle Blade Clamp Lower Plate	303/304 SSTL
15	4	12	16	D040490	Middle Blade Clamp Upper Plate	303/304 SSTL
14	2	2	4	D040297	Middle Blade (Flat)	
13	2	1	3	D040494	BRIDGE FOR FLAG (LONG LEG)	6061-T6-AL
12	2	1	3	D040387	BRIDGE FOR FLAG (SHORT LEG)	6061-T6-AL
11	2	1	3	D040461	PITCH FLAG MOUNT	6061-T6-AL
	1	1	2		SST SOCKET HEAD CAP SCREW #4-40 UNC-3A X 0.3125 LONG	300 SSTL
	1	1	2	D040398	HEX MAGNET SPACER	6061-T6-AL
	1	1	2	D040398	HEX SPACER	6061-T6-AL
	1	1	2	D020466	NICKEL PLATED MAGNET	Nd:Fe:Bo
	1	0	1	D020197	FLAG (FOR MAGNET D020466)	6061-T6-AL
10	6	6	12	D040397	ASSEMBLY MAGNET FLAG & HEX SPACER	
9	2	2	4	D020476	4x4 COPPER ARRAY (STRIPPED)	COPPER (>99.9%)
	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.875 LONG	300 SSTL
	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 1.125 LONG	300 SSTL
	4	16	20	D040383	TOP WIRE BREAK-OFF PLATE	303/304 SST
	4	2	6	D040382	TOP WIRE BREAK OFF - MOVING PLATE	303/304 SST
	4	4	8	D040381	TOP WIRE BREAK-OFF - MAIN BODY	303/304 SST
8	2	2	4	D040380	Top Wire Break-Off & Pitch Adjuster	
7	2	1	3	D040389	Upper-Lower Central Block	303/304 SST
6	4	2	6	D040489	Upper-Lower Side Block	303/304 SST
5	4	2	6	D040375	UPPER-LOWER END SPACER	303/304 SST
	4	1	5	D040396	T-PIECE	6061-T6-AL
	4	1	5	D040394	T-PIECE PITCH ADJUSTMENT MASS	303/304 SST
4	4	2	6	D040395	T-PIECE PITCH ADJUSTER ASSEMBLY	---
3	4	2	6	D040373	TOP PLATE FRONT-RIGHT / BACK-LEFT	303/304 SST
2	4	2	6	D040372	TOP PLATE Front-Left/Back-Right	303/304 SST
1	2	1	3	D040374	BOTTOM PLATE	303/304 SST

**NOTES: (UNLESS OTHERWISE SPECIFIED)**

1. DO NOT SCALE FROM DRAWING.

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
XX ± 0.01  
XXX ± 0.005  
ANGULAR ± 0.5 °

MATERIAL: ---  
FINISH: N/A μ inch

**PARTS LIST**

CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
IGR, GLASGOW UNIVERSITY GEO 600 GROUP

SYSTEM: Advanced LIGO  
SUB-SYSTEM: SUS  
NEXT ASSY: C-Ptype ETM Suspension

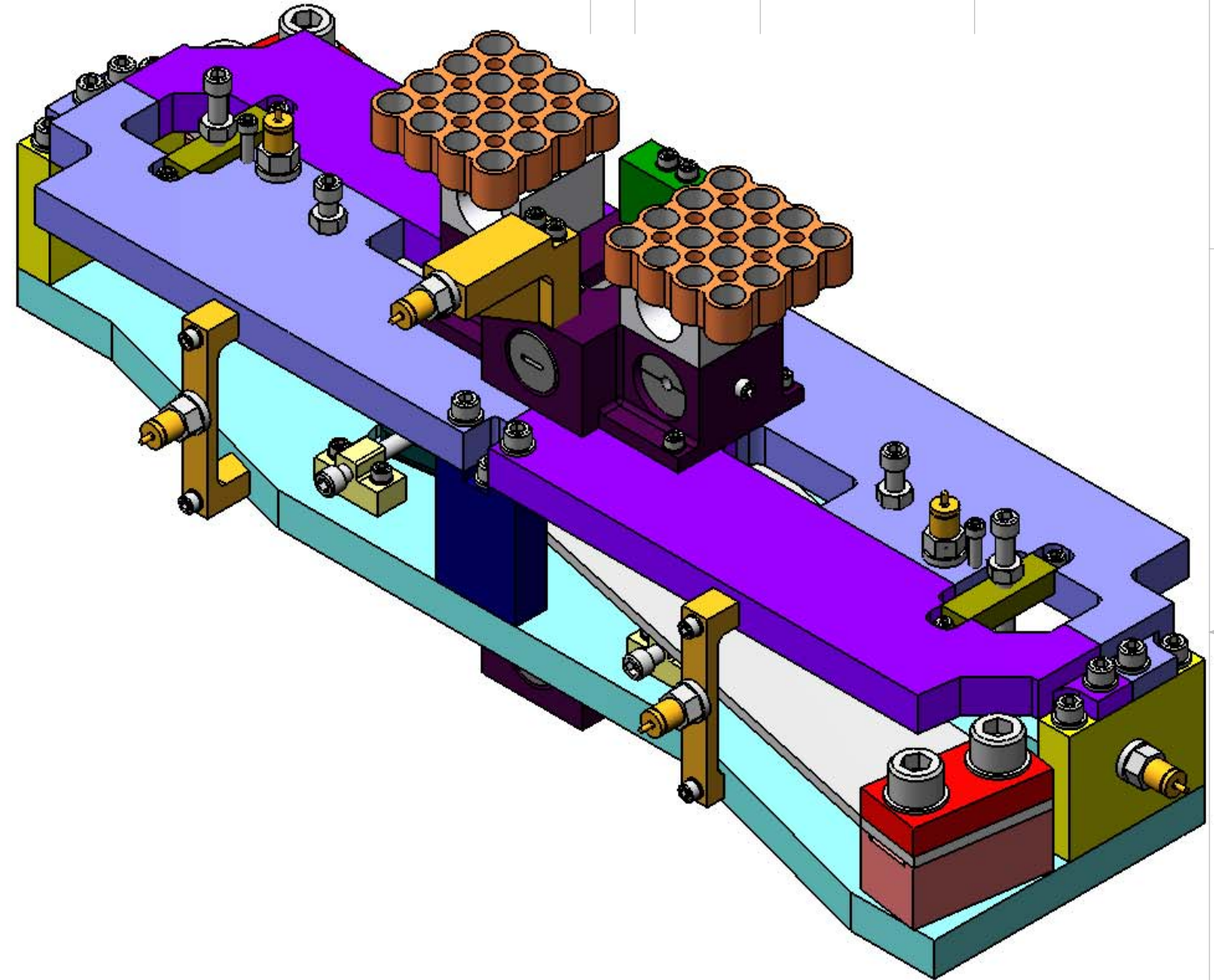
PART NAME: Top Mass Assembly

DRAWN: M.Pemrose-Lloyd 07DEC04  
CHECKED: C  
APPROVED: C

SIZE: C  
DWG. NO.: D040370  
SCALE: 1:2  
PROJECTION: 1  
SHEET 1 OF 2

ITEM NO	REQ.	SPARE	TOT.	PART NUMBER	DESCRIPTION	MATERIAL
1	2	1	3	D040374	BOTTOM PLATE	303/304 SST
2	4	2	6	D040372	TOP PLATE Front-Left/Back-Right	303/304 SST
3	4	2	6	D040373	TOP PLATE FRONT-RIGHT / BACK-LEFT	303/304 SST
4	4	2	6	D040395	T-PIECE PITCH ADJUSTER ASSEMBLY	---
5	4	2	6	D040375	UPPER-LOWER END SPACER	303/304 SST
6	4	2	6	D040489	Upper-Lower Side Block	303/304 SST
7	2	1	3	D040389	Upper-Lower Central Block	303/304 SST
8	2	2	4	D040380	Top Wire Break-Off & Pitch Adjuster	
9	2	2	4	D020476	4x4 COPPER ARRAY (STRIPPED)	COPPER (>99.9%)
10	6	6	12	D040397	ASSEMBLY MAGNET FLAG & HEX SPACER	
11	2	1	3	D040461	PITCH FLAG MOUNT	6061-T6-AL
12	2	1	3	D040387	BRIDGE FOR FLAG (SHORT LEG)	6061-T6-AL
13	2	1	3	D040494	BRIDGE FOR FLAG (LONG LEG)	6061-T6-AL
14	2	2	4	D040297	Middle Blade (Flat)	
15	4	12	16	D040490	Middle Blade Clamp Upper Plate	303/304 SSSL
16	4	12	16	D040491	Middle Blade Clamp Lower Plate	303/304 SSSL
17	8	4	12	D040376	Top Wire Clamp Pusher Block	303/304 SST
18	2	1	3	D040388	Counter Balance Mass	303/304 SST
19	4	2	6	D040480	T-Piece ECD Mount	6061-T6-AL
20	8	2	10	D040487	Additional Mass (+500g/+1000g/+1500g)	--
21	4	2	6	D040488	Bridge Plate for Blade Tip Stop	303/304 SST
22	2	2	4	D040553	Middle & Bottom Blade Wire Clamp Ass'y	
ALT	2	2	4	D040534	Top Drum-End Wire Clamp & Pitch Adjuster	--
24	10	10	20		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 0.75 LONG	300 SSSL
25	4	4	8		Ag-SST SOCKET HEAD CAP SCREW 0.5-13 UNC-2A X 2.5 LONG	300 SSSL
26	8	8	16		Ag-SST SOCKET HEAD CAP SCREW (Fully Threaded) 0.25-20 UNC-3A X 2 LONG	300 SSSL
27	8	8	16		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.875 LONG	300 SSSL
28	36	36	72		FLAT WASHERS NAS 620-C8 (OR EQUIV.)	300 SSSL
29	11	11	22		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.75 LONG	300 SSSL
30	2	2	4		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 2 LONG	300 SSSL
31	8	8	16		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 2.5 LONG	300 SSSL
32	22	22	44		FLAT WASHERS NAS 620-C416 (OR EQUIV.)	300 SSSL
33	4	4	8		Ag-SST SOCKET HEAD CAP SCREW 0.25-20 UNC-2A X 1 LONG	300 SSSL
34	4	4	8		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.625 LONG	300 SSSL
35	4	4	8		FLAT WASHERS NAS 620-C816 (OR EQUIV.)	300 SSSL
36	1	1	2		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 1 LONG	300 SSSL
37	4	4	8		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 0.75 LONG	300 SSSL
38	4	4	8		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 1.125 LONG	300 SSSL
39	2	2	4		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 0.875 LONG	300 SSSL
40	2	2	4		SST SOCKET HEAD CAP SCREW #8-32 UNC-3A X 1.5 LONG	300 SSSL
41	4	4	8		SST SOCKET SET SCREW #8-32 X 0.25 LONG	300 SSSL
42	7	7	14		Ag-SST SOCKET HEAD CAP SCREW #8-32 UNC-2A X 0.5 LONG	300 SSSL
43	1	1	2		Ag-SST SOCKET HEAD CAP SCREW #6-32 UNC-2A X 0.5 LONG	300 SSSL
44	4	4	8		HEX NUT 1/4	

REV.	DATE	DCN #	DRAWING TREE #
A	23MAR05	E050063-00-K	E0500062-00-K



PARTS LIST			
NOTES: (UNLESS OTHERWISE SPECIFIED)			
1. DO NOT SCALE FROM DRAWING.		DIMENSIONS ARE IN INCHES	
		TOLERANCES: .XX ± 0.01 .XXX ± 0.005	
		ANGULAR ± 0.5°	
		MATERIAL ---	
		FINISH N/A μ inch	
		DRAWN M.Perreur-Lloyd 07DEC04	
		CHECKED	
		APPROVED	
		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR, GLASGOW UNIVERSITY GEO 600 GROUP	
		SYSTEM Advanced LIGO	
		SUB-SYSTEM SUS	
		NEXT ASSY C-ptype ETM Suspension	
		PART NAME Top Mass Assembly	
		SIZE DWG. NO. D040370	
		REV. A	
		SCALE: 1:2 PROJECTION: SHEET 2 OF 2	