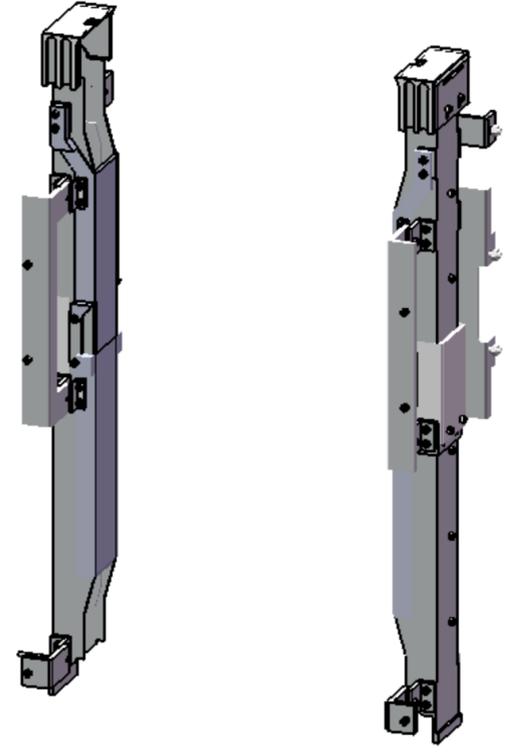
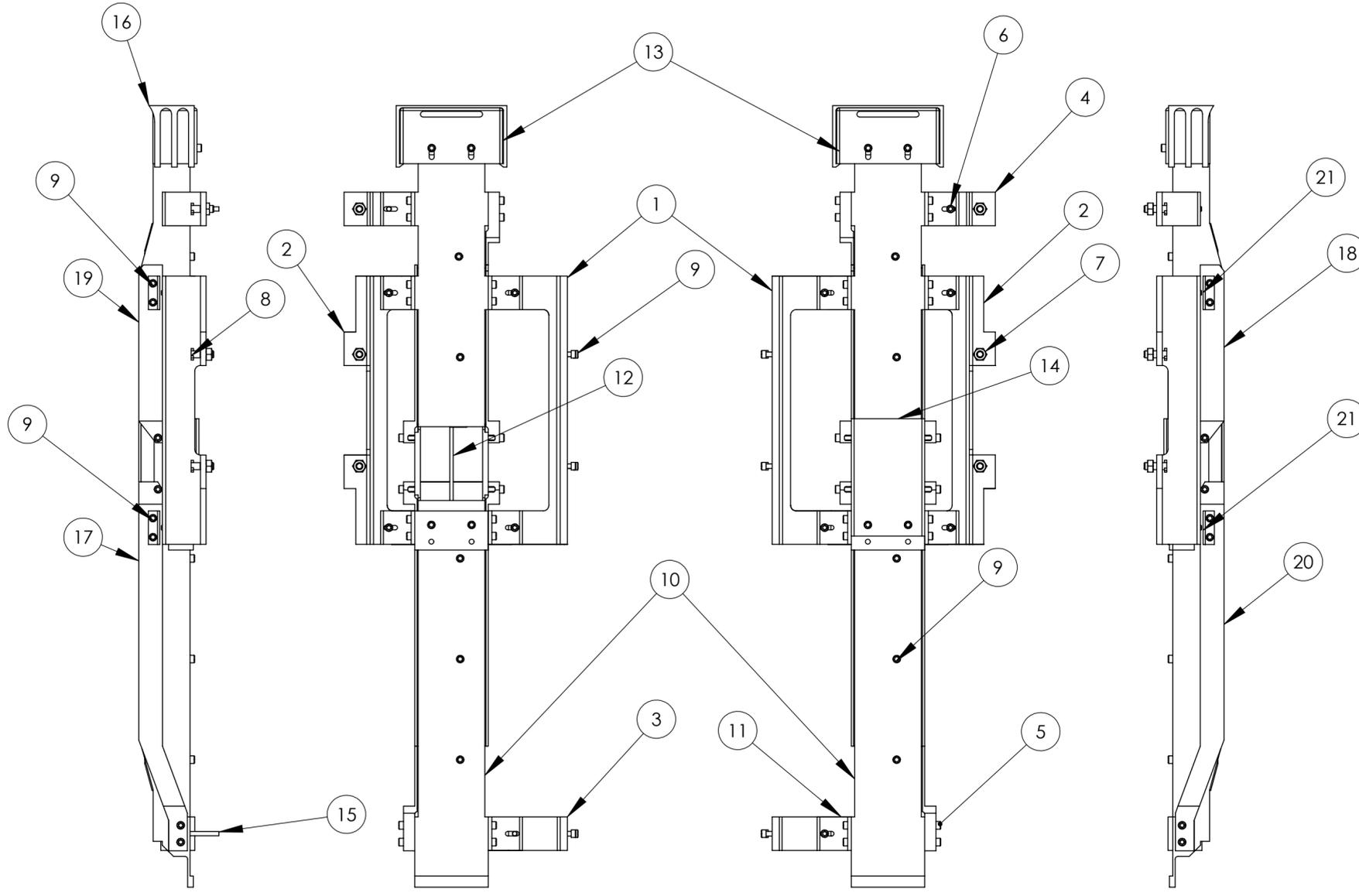


NOTES CONTINUED:
 ⑤ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.

⑥ MACHINE ALL SURFACES.

⑦ ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY. USE NITRONIC 60 THREAD INSERTS.

REV.	DATE	DCN #	DRAWING TREE #



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	TOTAL
22		#8-32 HELICOIL THREAD INSERTS 1*Ø	NITRONIC 60	96	96
21	D1102276	fibre guard internal fin	6061-T6 Al	8	8
20	D1102148	fibre guard internal section right side	6061-T6 Al	1	1
19	D1102151	FIBRE GUARD INTERNAL SECTION TOP LEFT SIDE	6061-T6 Al	1	1
18	D1102150	FIBRE GUARD INTERNAL SECTION TOP RIGHT SIDE	6061-T6 Al	1	1
17	D1102149	fibre guard internal section left side	6061-T6 Al	1	1
16	D1102152	FIBRE GUARD PTFE AWNING	PTFE (general)	2	2
15	D1001830	FIBRE GUARD GUIDE ROD	AISI 316 Stainless Steel (SS)	4	4
14	D1102271	fibre guard window cover	6061-T6 Al	2	2
13	D1001660	FIBRE GUARD TOP CAP	6061-T6 (SS)	2	2
12	D0902508	FIBRE GUARD SEPERATOR	6061-T6 (SS)	2	2
11	D1102285	REPLACEMENT Angle Section 4	6061-T6 (SS)	12	12
10	D0902507	FIBRE GUARD MAIN BODY	6061-T6 (SS)	2	2
9	-	SCREW, SOCKET HEAD CAP, #8-32 UNC-2A X 0.3125 LONG	STAINLESS STEEL	64	64
8	D1000199	TEE BOLT 1/4-20 UNC	AISI 316 Stainless Steel (SS)	6	6
7		1/4-20 UNC HEX NUT (U-C COMPONENTS N-2520-A)	STAINLESS STEEL	6	6
6	D1102270	captive 8-32 for fibre guard	STAINLESS STEEL	12	12
5	eg Accurate Screw part no. 114118	0.59" 8-32 captive screw	STAINLESS STEEL	16	16
4	D0902519	ANGLE SECTION 11	6061-T6 (SS)	2	2
3	D0902518	ANGLE SECTION 10	6061-T6 (SS)	2	2
2	D0902517	ANGLE SECTION 9	6061-T6 (SS)	2	2
1	D0902516	ANGLE SECTION 8	6061-T6 (SS)	2	2

LEFT SIDE OF MONOLITHIC
LOOKING AT THE HR FACE

RIGHT SIDE OF MONOLITHIC
LOOKING AT THE HR FACE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. REMOVE ALL SHARP EDGES, R.02 MIN.
3. DO NOT SCALE FROM DRAWING.
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL	N/A	FINISH	N/A µm
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LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **SUS**

NEXT ASSY

PART NAME: **FIBRE GUARD INSTALL INSTRUCTIONS**

DESIGNER: L.CUNNINGHAM SIZE: **c** DWG. NO.: **D0902505** REV.: **v9**

DRAFTER: L.CUNNINGHAM 01/07/10

CHECKER: SCALE: 1:4 PROJECTION: SHEET 1 OF 4

APPROVAL: SHEET 1 OF 4

NOTES CONTINUED:

⑤ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.

⑥ MACHINE ALL SURFACES.

BRACKETS D0902516, D0902517, D0902518, D0902519 FASTENED TO STRUCTURE. GUIDE RAILS LOCATED IN OPPOSITE CORNERS

GUIDE ROD D1001830 LOCATED IN TOP AND BOTTOM BRACKET

SLOT IN D0902512 SLIDES ALONG D1001830

4 X D1102270 ATTACH GUARD TO STRUCTURE

D1102270 ARE USED TO FASTEN GUARD IN PLACE

DETAIL A
SCALE 1:2

GUIDE RAILS REMOVED THROUGH THREADED PARTS OF THE SLOT
FINAL 2X D1102270 SCREWS IN PLACE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

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4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL	N/A	FINISH	N/A μm
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LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS

NEXT ASSY

PART NAME: FIBRE GUARD INSTALL INSTRUCTIONS

DESIGNER	L.CUNNINGHAM	SIZE	DWG. NO.	REV.
DRAFTER	L.CUNNINGHAM	c	D0902505	v9
CHECKER		SCALE: 1:5	PROJECTION:	SHEET 2 OF 4
APPROVAL				

DIMENSIONS ARE IN MILLIMETERS

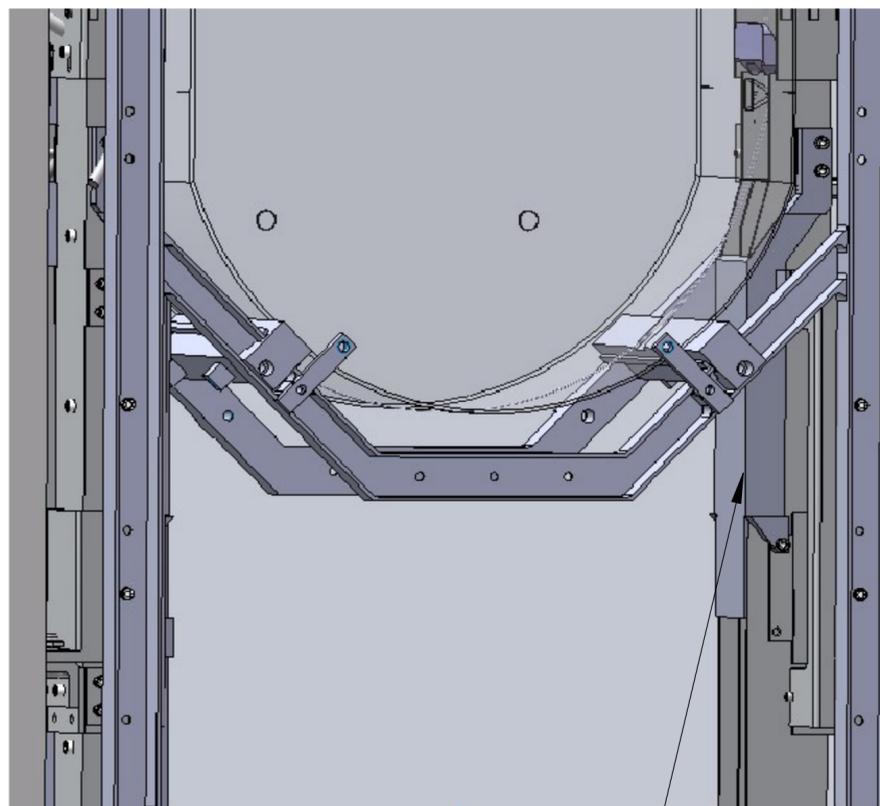
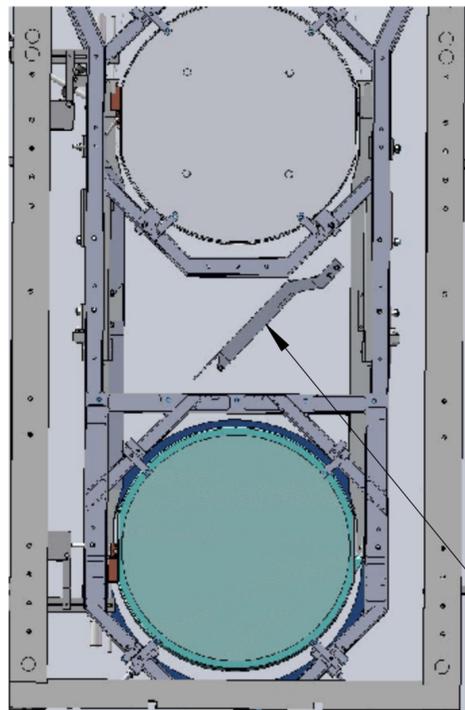
TOLERANCES:
.XX $\pm .10$
.XXX $\pm .010$

ANGULAR $\pm 0.2^\circ$

NOTES CONTINUED:

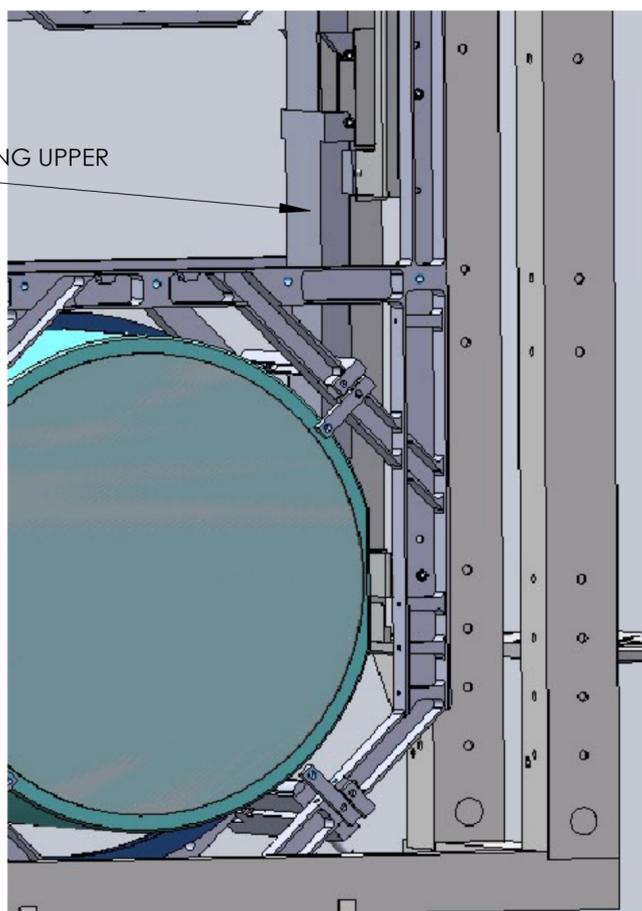
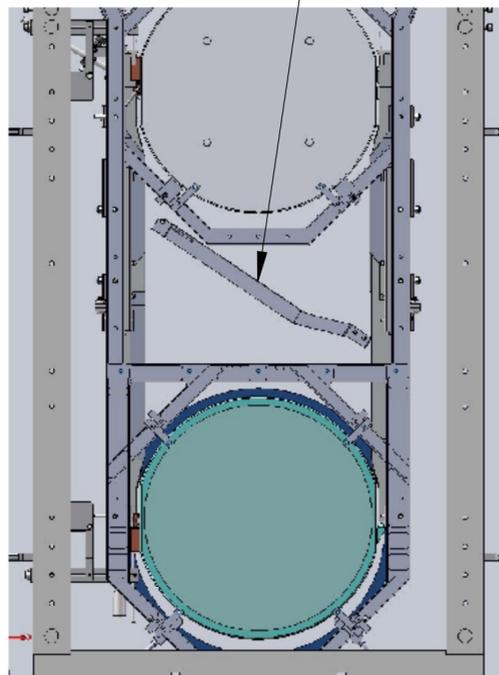
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⑥ MACHINE ALL SURFACES.

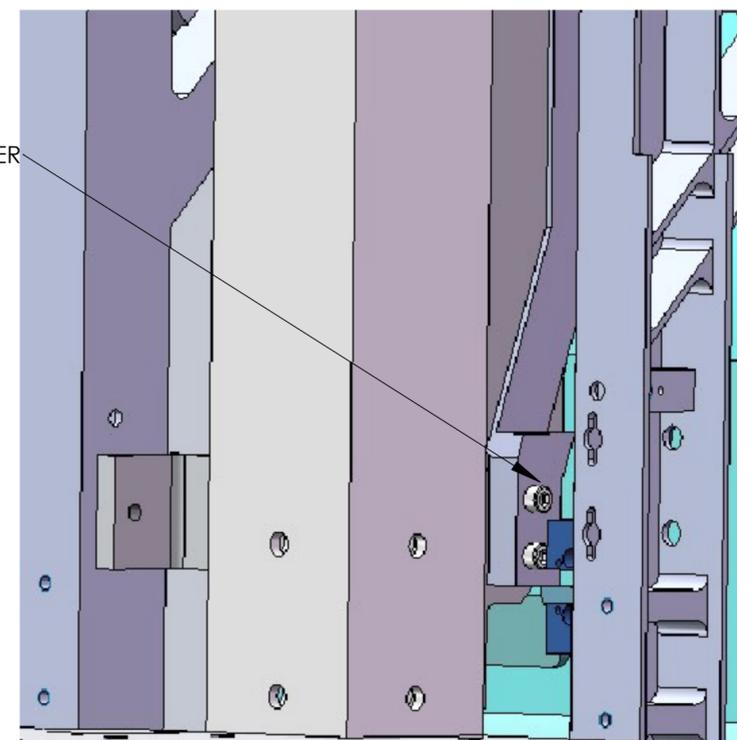
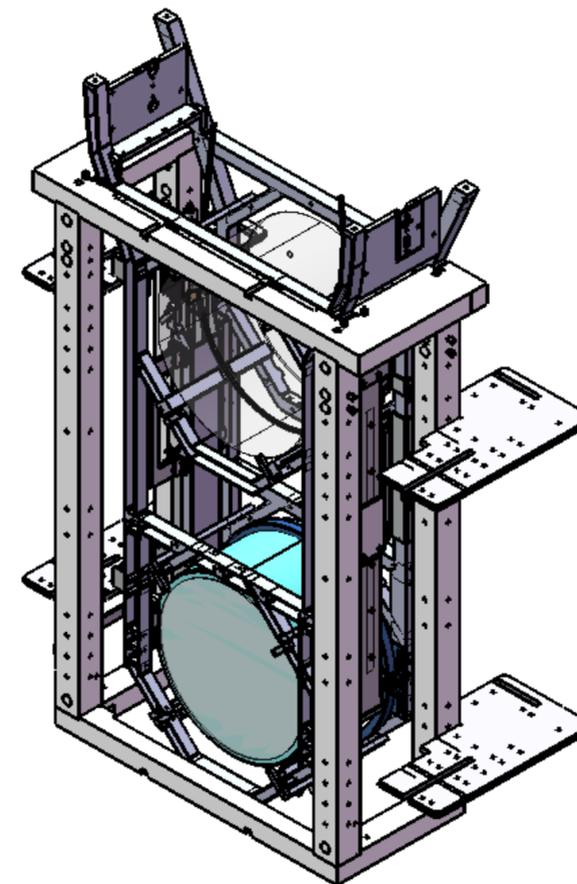


INSERT UPPER GUARD ANGLE AND THEN ROTATE INTO PLACE FASTEN TOP AND BOTTOM

INSERT LOWER GUARD AFTER SECURING UPPER ROTATE INTO POSITION AND FASTEN



FASTENERS NEXT TO RING HEATER



REV.	DATE	DCN #	DRAWING TREE #

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

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4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL	N/A	FINISH	N/A μm
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LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS

NEXT ASSY

PART NAME		Fibre Guard Assembly all parts		
DESIGNER	L.CUNNINGHAM	SIZE	DWG. NO.	REV.
DRAFTER	L.CUNNINGHAM	c	D0902505	v9
CHECKER		SCALE: 1:5	PROJECTION:	SHEET 3 OF 4
APPROVAL				

DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
.XX $\pm .10$
.XXX $\pm .010$

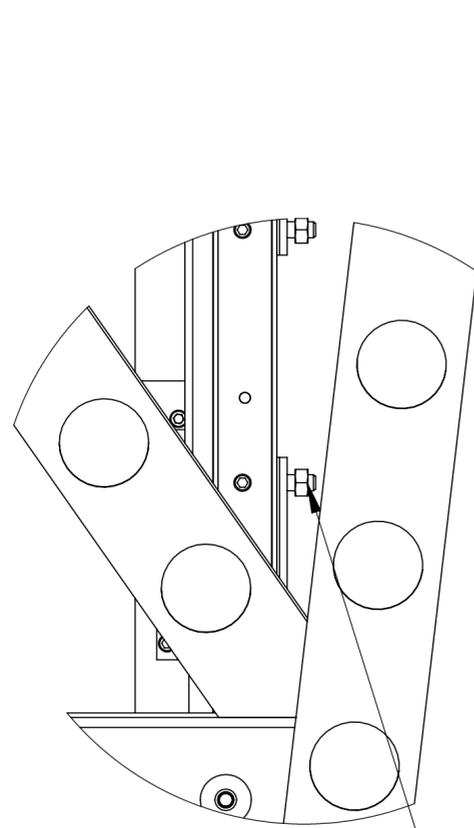
ANGULAR $\pm 0.2^\circ$

NOTES CONTINUED:

⑤ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXXX-VY, S/N 001. A VIBRATORY TOOL MAY BE USED.

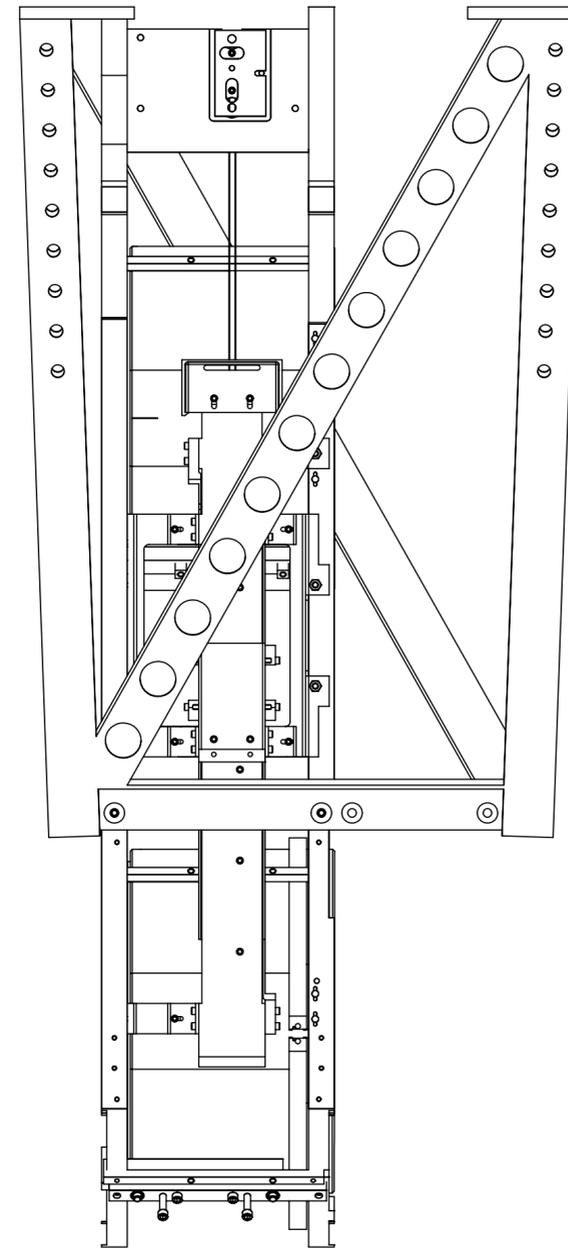
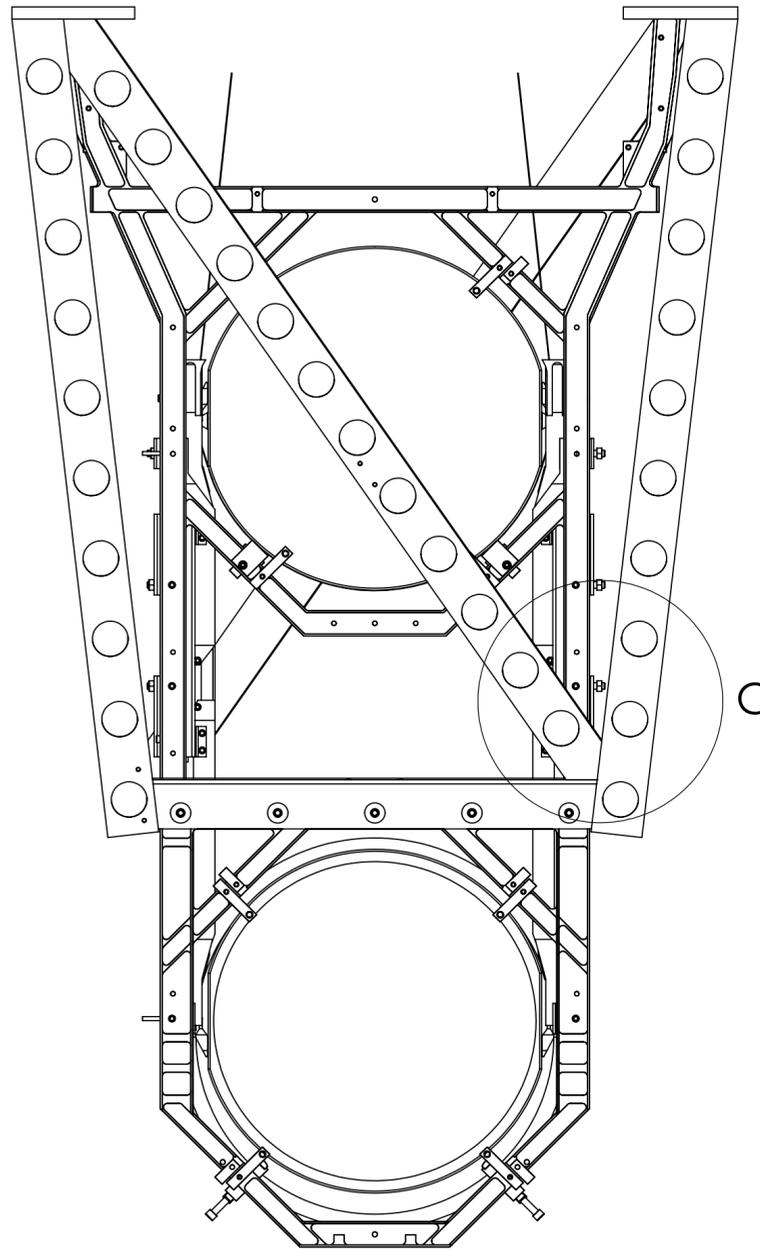
⑥ MACHINE ALL SURFACES.

REV.	DATE	DCN #	DRAWING TREE #



CLEARANCE BETWEEN GUARD AND SLEEVE

DETAIL C
SCALE 1 : 2



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

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3. DO NOT SCALE FROM DRAWING.
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL	N/A	FINISH	N/A μm
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LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SUS
NEXT ASSY			

PART NAME
FIBRE GUARD INSTALL INSTRUCTIONS

DESIGNER	L.CUNNINGHAM	SIZE	DWG. NO.	REV.
DRAFTER	L.CUNNINGHAM	01/07/10	D0902505	v9
CHECKER				
APPROVAL			SCALE: 1:5	PROJECTION: