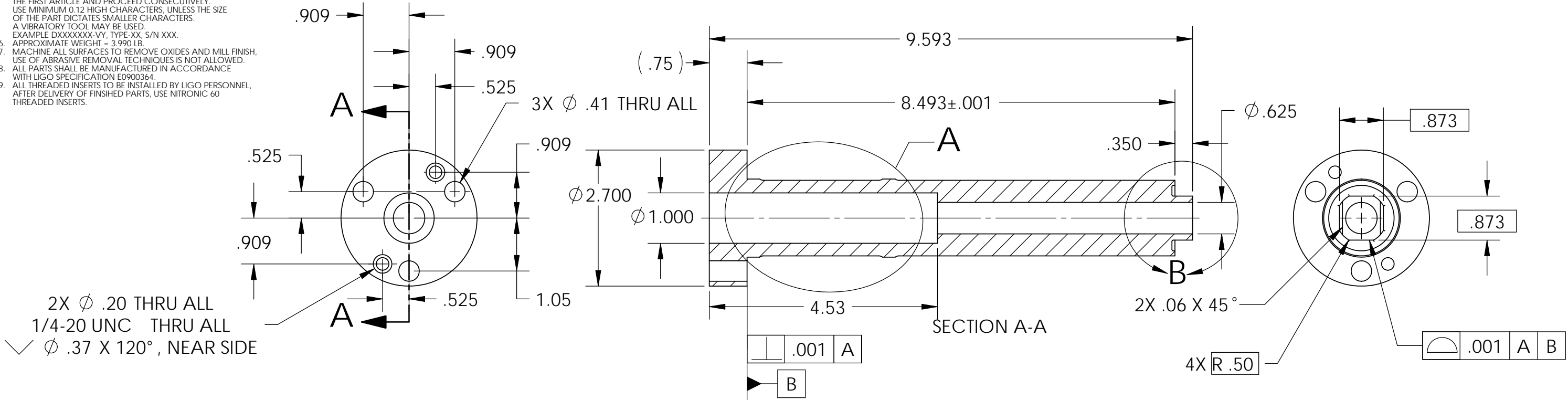


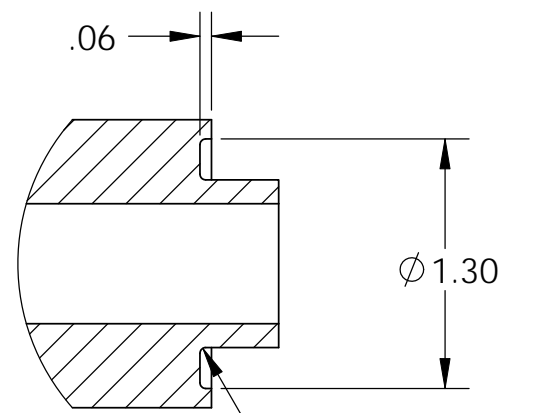
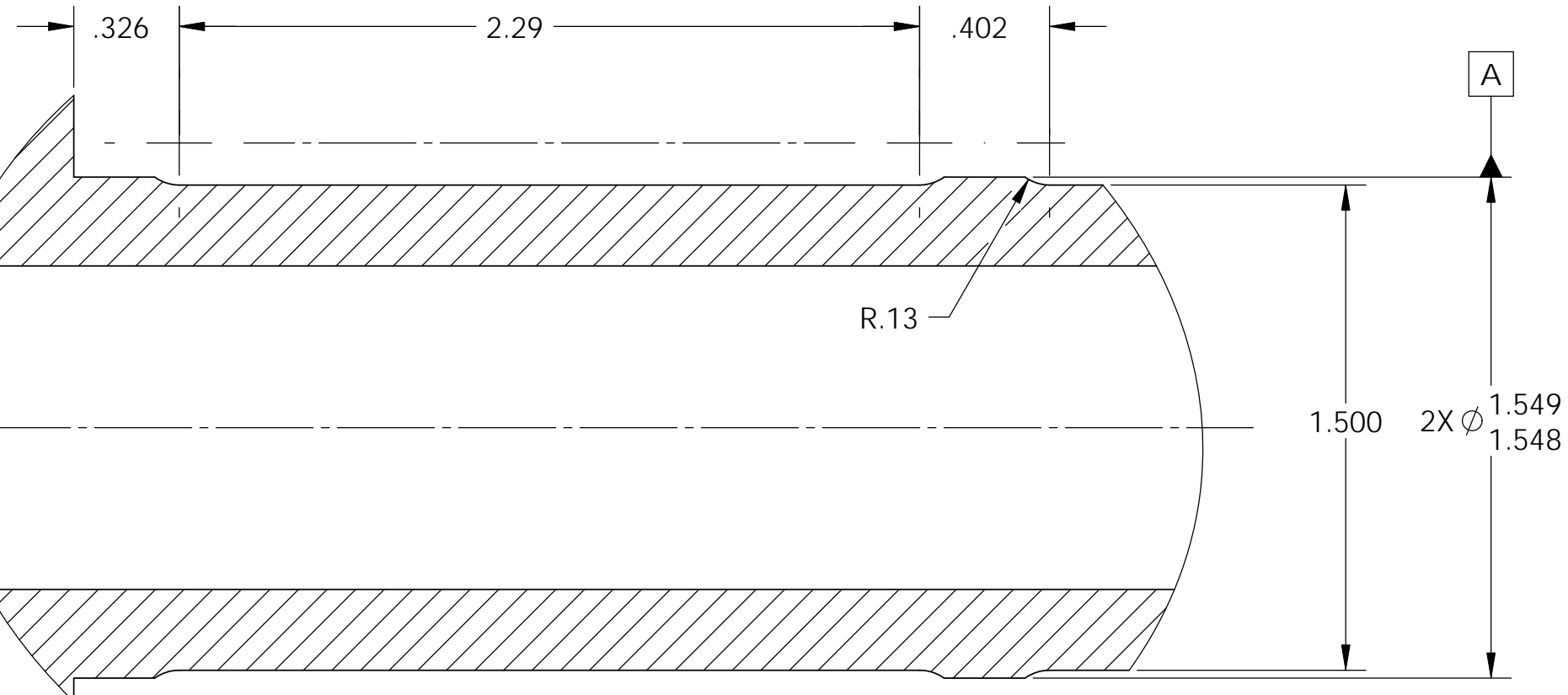
8 7 6 5 4 3 2 1

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 3.990 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 9. ALL THREADED INSERTS TO BE INSTALLED BY LIGO PERSONNEL. AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Dec. 2005		
v2	10 May 2010	E1000155	E1000025



2X Ø .20 THRU ALL
 1/4-20 UNC THRU ALL
 ✓ Ø .37 X 120°, NEAR SIDE



DETAIL A
 SCALE 2 : 1

DETAIL B
 SCALE 1 : 1

D050452 Stage0-2 Alignment Pin, PART PDM REV: X-005, DRAWING PDM REV: X-004

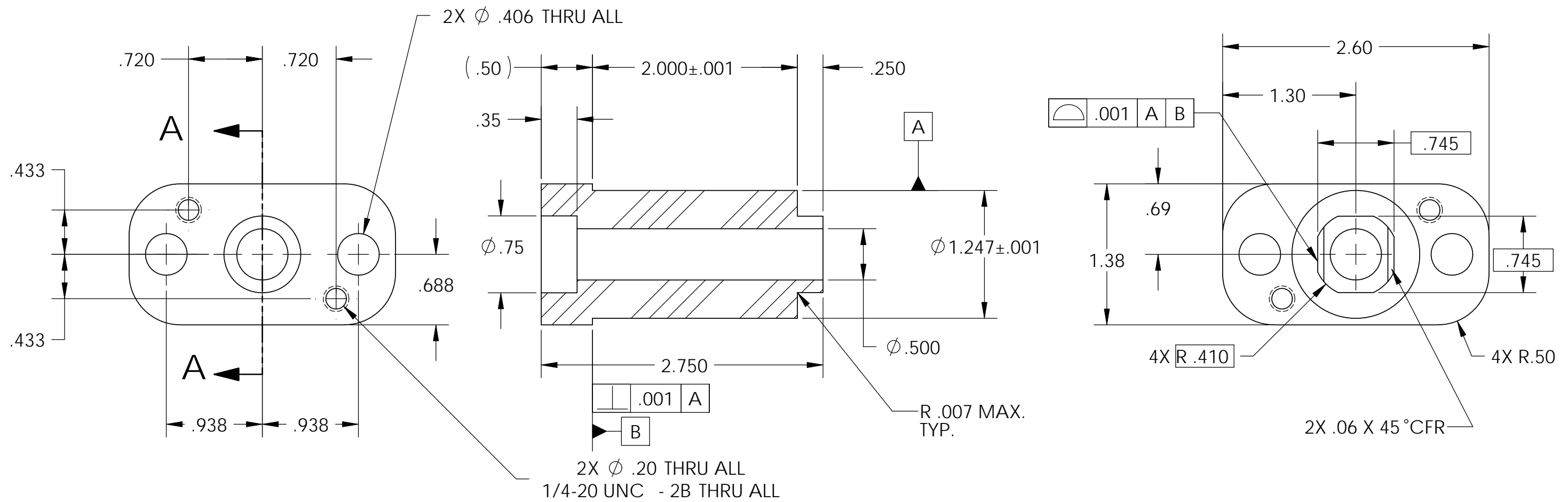
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		STAGE 0-2 ALIGNMENT PIN					
TOLERANCES: .XX ± .015 .XXX ± .005				SEI		DESIGNER	ASI	12 Dec. 2005	SIZE	DWG. NO.	REV.
ANGULAR ± .5°				MATERIAL		DRAFTER	M.HILLARD	06 May. 2010	B	D050452	v2
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				FINISH		CHECKER	F.MATICHARD	06 May 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 1
17-4 PH SSSL, H 1150				63 μinch		APPROVAL	K.MASON	06 May 2010			
				NEXT ASSY		D1001110					

8 7 6 5 4 3 2 1

REV.	DATE	DCN #	DRAWING TREE #
v1	12 Dec. 2005		
v2	10 May 2010	E1000155	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.978 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

SECTION A-A



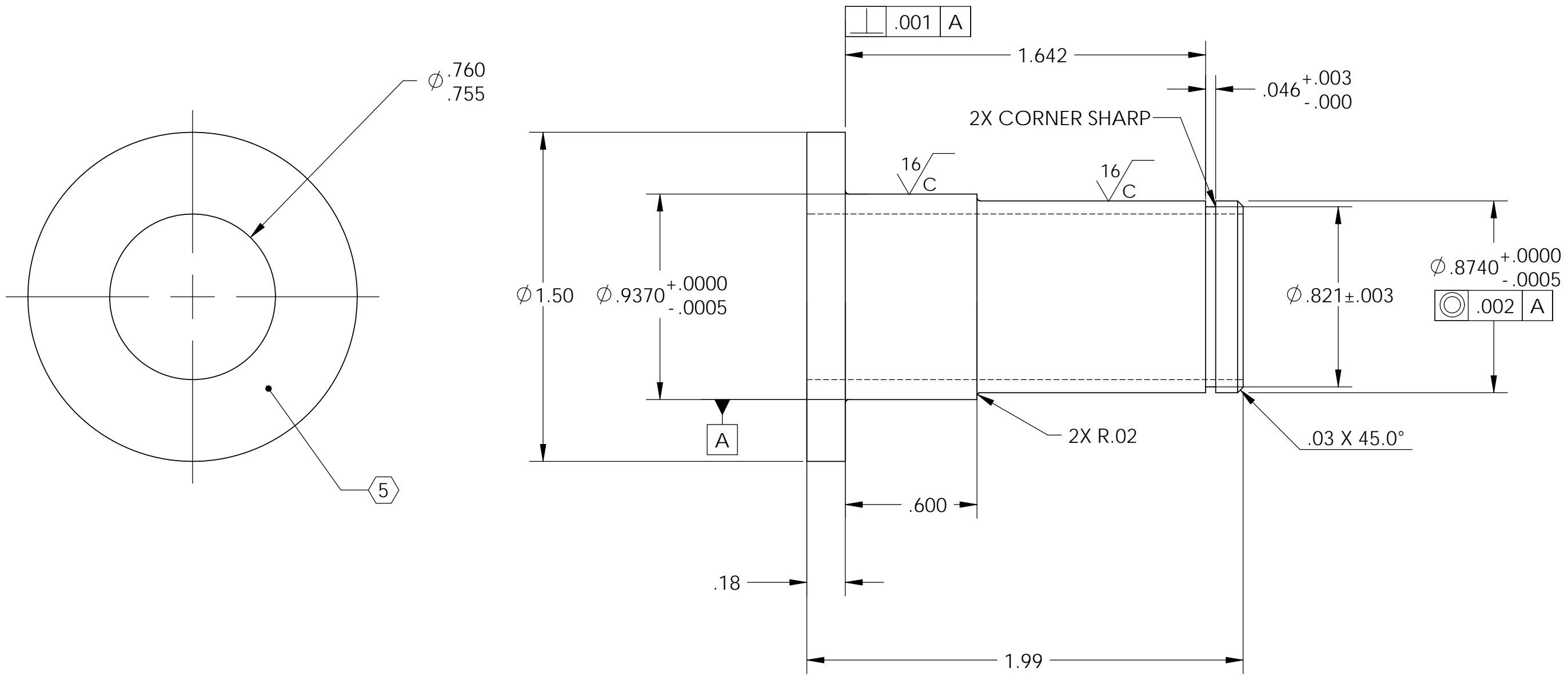
D050453 Stage1-2 Tooling Standoff Pin, PART PDM REV: X-005, DRAWING PDM REV: X-005

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		STAGE 1-2 TOOLING STANDOFF PIN					
TOLERANCES: .XX ± .015 .XXX ± .005				SEI		DESIGNER	ASI	12 Dec. 2005	SIZE	DWG. NO.	REV.
ANGULAR ± .5°				MATERIAL		DRAFTER	M.HILLARD	7 May 2010	B	D050453	v2
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				FINISH		CHECKER	F.MATICHARD	7 May 2010	SCALE	PROJECTION:	SHEET 1 OF 1
17-4 PH SSTL, H 1150				63 μinch		APPROVAL	K.MASON	7 May 2010	1:1		
				NEXT ASSY		D1001112					

D0902186 Centering Washer, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-007, DRAWING PDM REV: X-004

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-YY, TYPE-XX, S/N XXX
 6. APPROXIMATE WEIGHT = 0.054 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025

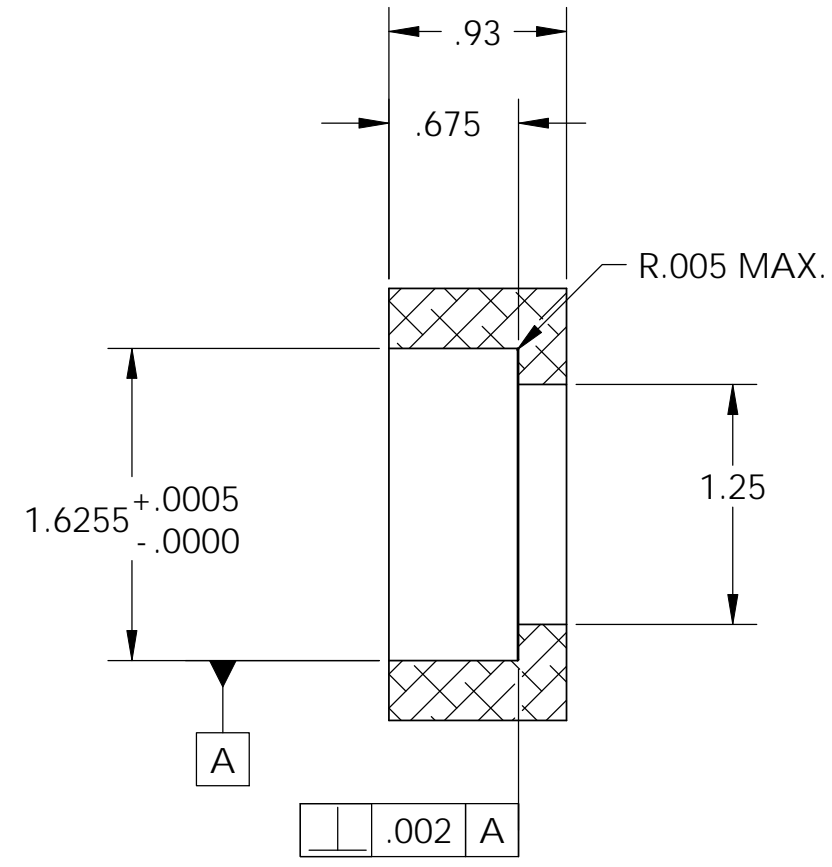
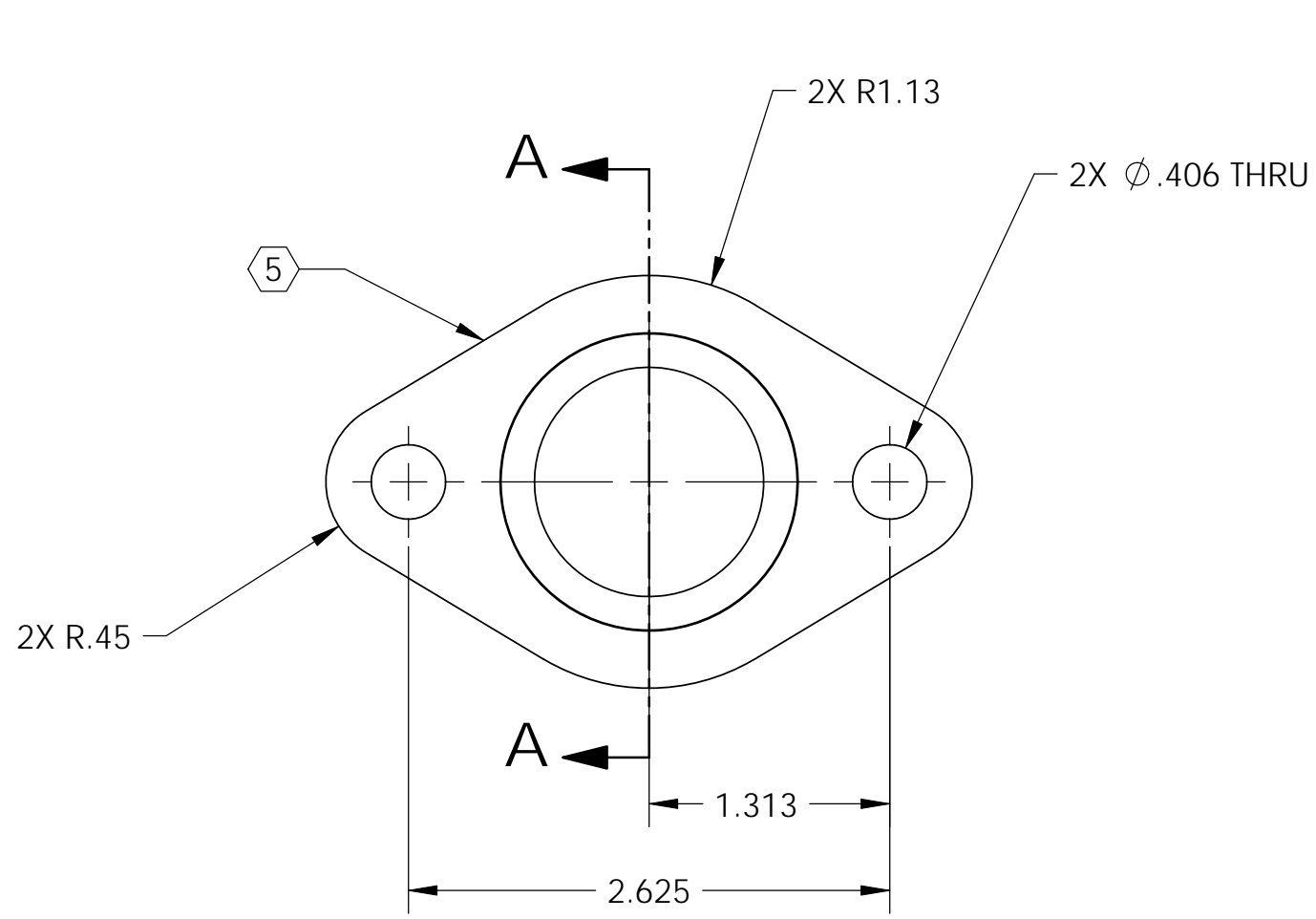


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME CENTERING WASHER, BLADE PULLER ASSY, STAGE 1-2, aLIGO BSC ISI							
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, 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.		SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SEI	DESIGNER	C.Ramet	19 Feb. 2010	SIZE	DWG. NO.	REV.
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL		6061-T6 Al		FINISH		63 μinch		D0902186		v1	
ANGULAR ± 0.5°		NEXT ASSY		D0902454		CHECKER		M.HILLARD		19 Feb. 2010		SCALE: 2:1	
						APPROVAL		K.MASON		19 Feb. 2010		PROJECTION:	
											SHEET 1 OF 1		

D0902187 Spring Preload Connection Block, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-010, DRAWING PDM REV: X-005

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VV, TYPE-XX
 6. APPROXIMATE WEIGHT = 0.86 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025



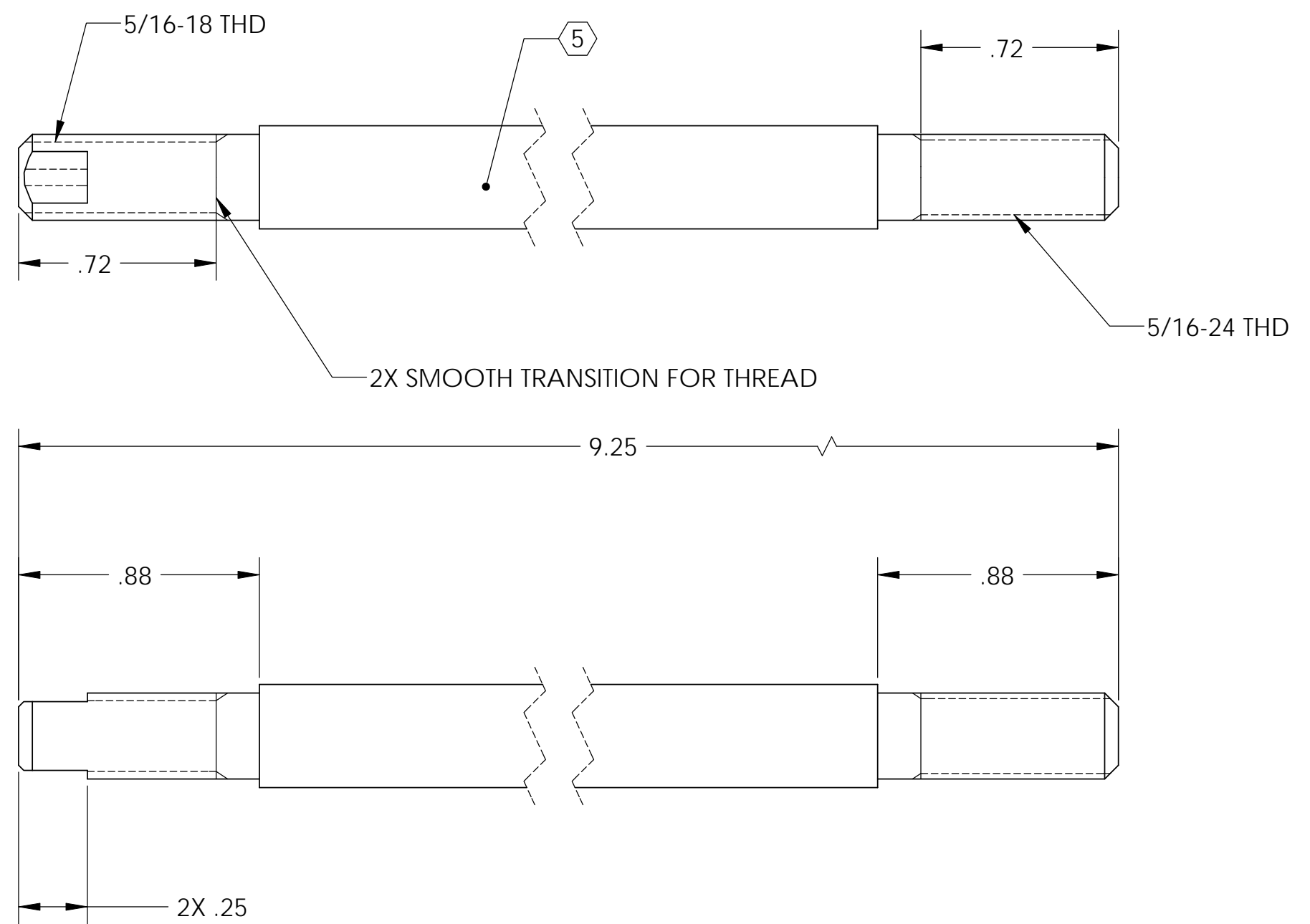
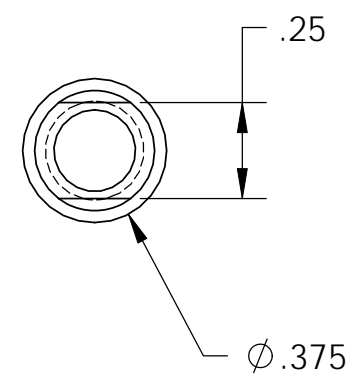
SECTION A-A

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SPRING PRELOAD CONNECTION BLOCK, BLADE PULLER ASSY, STAGE 1-2, aLIGO BSC ISI							
DIMENSIONS ARE IN INCHES		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.		SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SEI	DESIGNER	C. RAMET	19 Feb. 2010	SIZE	DWG. NO.	REV.
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL	304 SSSL	FINISH	63 μinch	NEXT ASSY	D0902454	DRAFTER	M.HILLARD	19 Feb. 2010	B	D0902187	v1
ANGULAR ± .5°						CHECKER		F.MATICHARD	19 Feb. 2010	SCALE: 1:1		PROJECTION:	SHEET 1 OF 1
						APPROVAL		K.MASON	19 Feb. 2010				

D0902188 Spring Preload Tool Rod, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-009, DRAWING PDM REV: X-007

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 6. APPROXIMATE WEIGHT = 0.277 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025



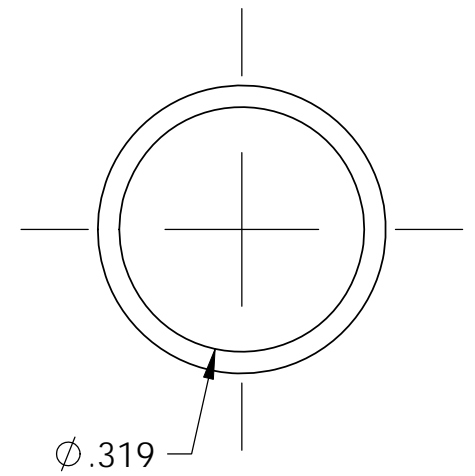
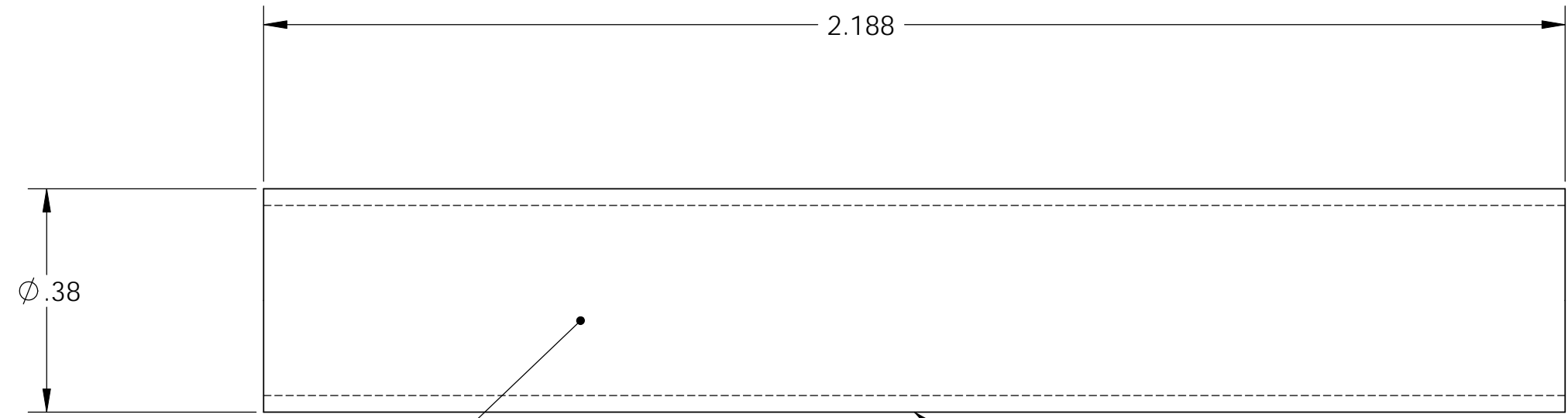
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SPRING PRELOAD TOOL ROD, BLADE PULLER ASSY, STAGE 1-2, aLIGO BSC ISI								
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN.		SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SEI	DESIGNER	C. RAMET	19 Feb. 2010	SIZE	DWG. NO.	REV.	
TOLERANCES: .XX ± .015 .XXX ± .005		3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		NEXT ASSY		D0902454		DRAFTER	M.HILLARD	19 Feb. 2010	B	D0902188	v1	
ANGULAR ± 0.5°		MATERIAL	304 SSSL	FINISH	32 μinch	CHECKER	F.MATICHARD	19 Feb. 2010	APPROVAL	K.MASON				19 Feb. 2010

D0902189 Spring Preload End Spacer, Blader Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-006, DRAWING PDM REV: X-002

8 7 6 5 4 3 2 1

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.007 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025



MAY BE MADE FROM
McMASTER P/N 9924K13 OR EQUIV.

5

8 7 6 5 4 3 2 1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SPRING PRELOAD SPACER, BLADER PULLER ASSY, aLIGO BSC ISI				
DIMENSIONS ARE IN INCHES		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.		SYSTEM ADVANCED LIGO	SUB-SYSTEM SEI	DESIGNER C. RAMET	19 Feb. 2010	SIZE B	DWG. NO. D0902189	REV. v1
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL 6061 Alloy	FINISH 63 μinch	NEXT ASSY D0902454		CHECKER M.HILLARD	19 Feb. 2010	SCALE: 4:1 PROJECTION:		
ANGULAR ± 0.5°				APPROVAL K.MASON	19 Feb. 2010	SHEET 1 OF 1				

D0902190 Spring Preload Threaded Pivot, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-008, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025

NOTES CONTINUED:

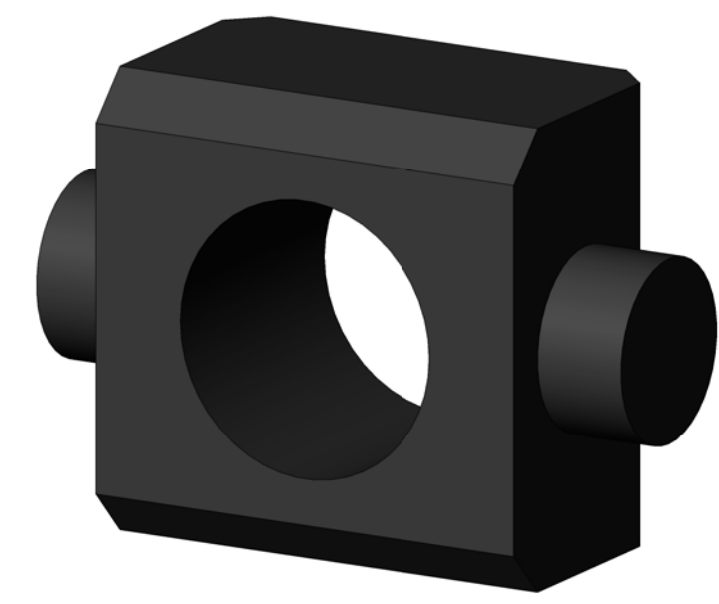
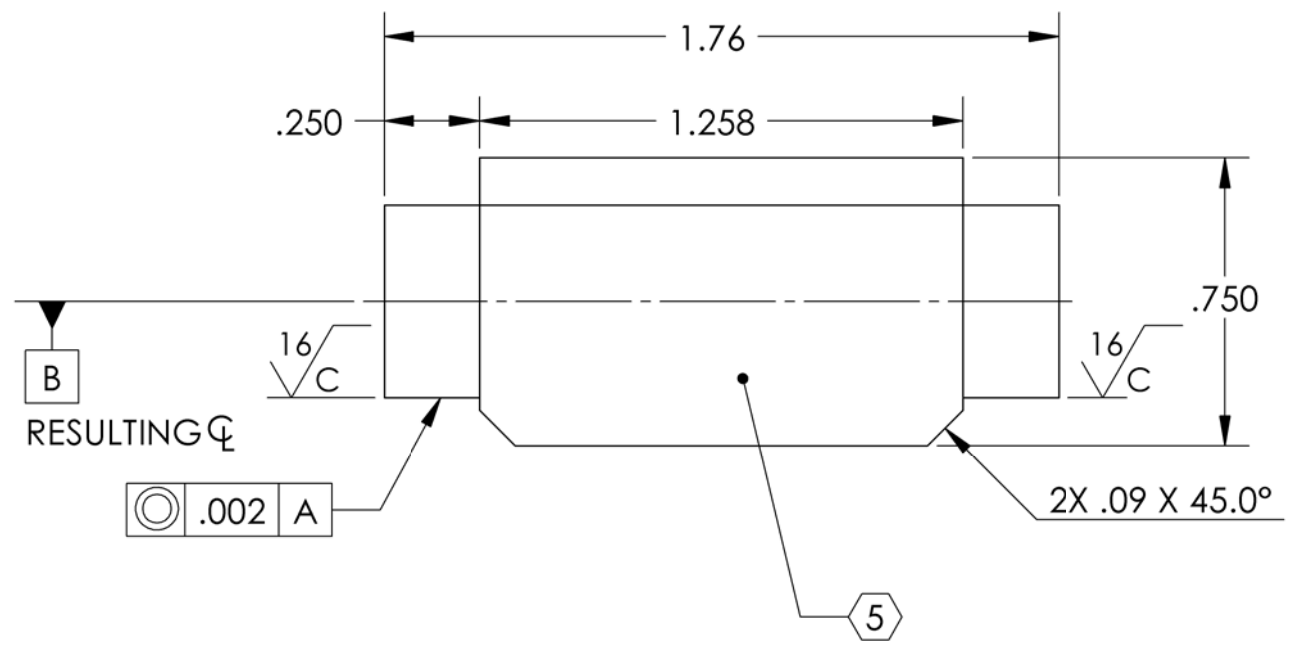
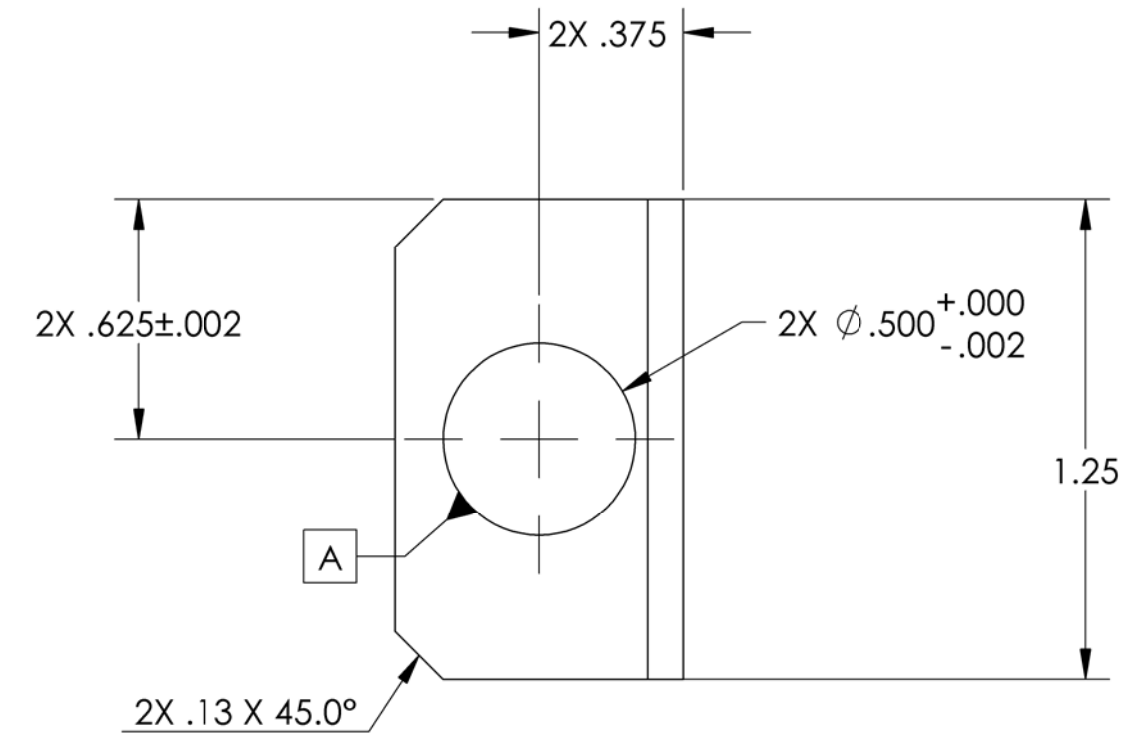
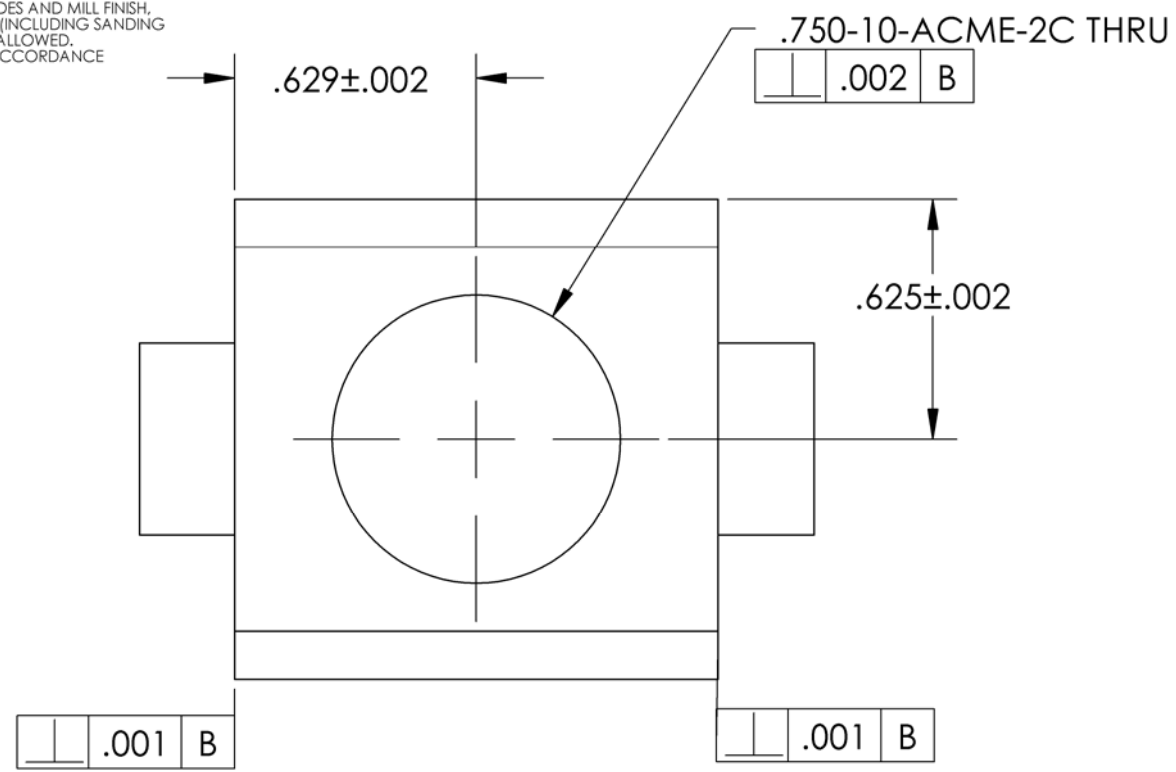
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER, SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.

6. APPROXIMATE WEIGHT = 0.252 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

9. TAPP .004-.006 in. OVERSIZED.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm .015$.XXX $\pm .005$ ANGULAR $\pm .5^\circ$				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.		SPRING PRELOAD PIVOT, BLADE PULLER ASSY, aLIGO BSC ISI	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
NITRONIC 60		32 μ inch		ADVANCED LIGO		SEI	
NEXT ASSY				DESIGNER		DATE	
D0902454				C. RAMET		19 Feb. 2010	
DRAWING NO.				DRAFTER		DATE	
D0902190				M.HILLARD		19 Feb. 2010	
SCALE				CHECKER		DATE	
2:1				F.MATICHARD		19 Feb. 2010	
PROJECTION				APPROVAL		DATE	
FIRST ANGLE				K.MASON		19 Feb. 2010	
SHEET 1 OF 1				REV.		DWG. NO.	
				v1		B D0902190	

D0902191 Spring Preload Saddle, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-006, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025

NOTES CONTINUED:

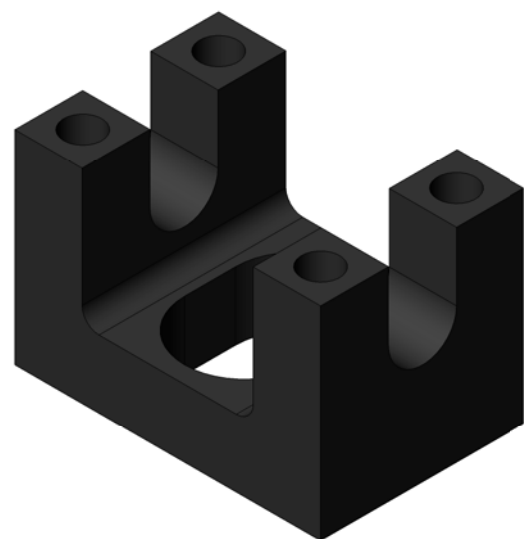
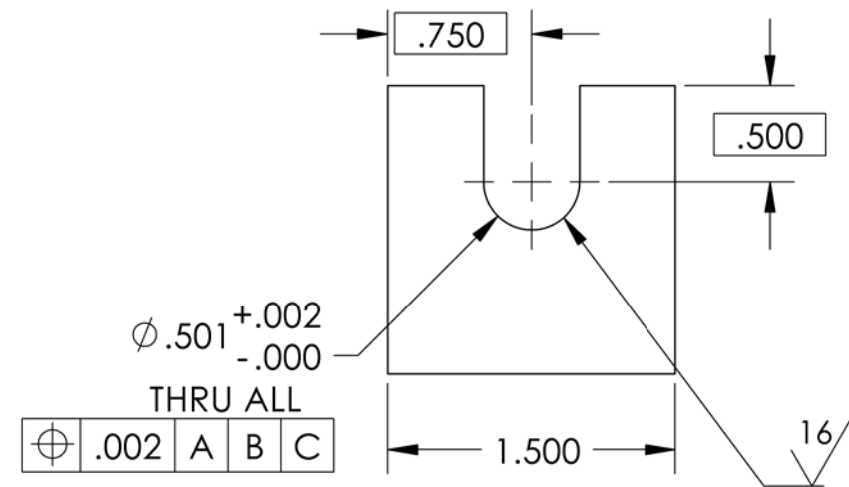
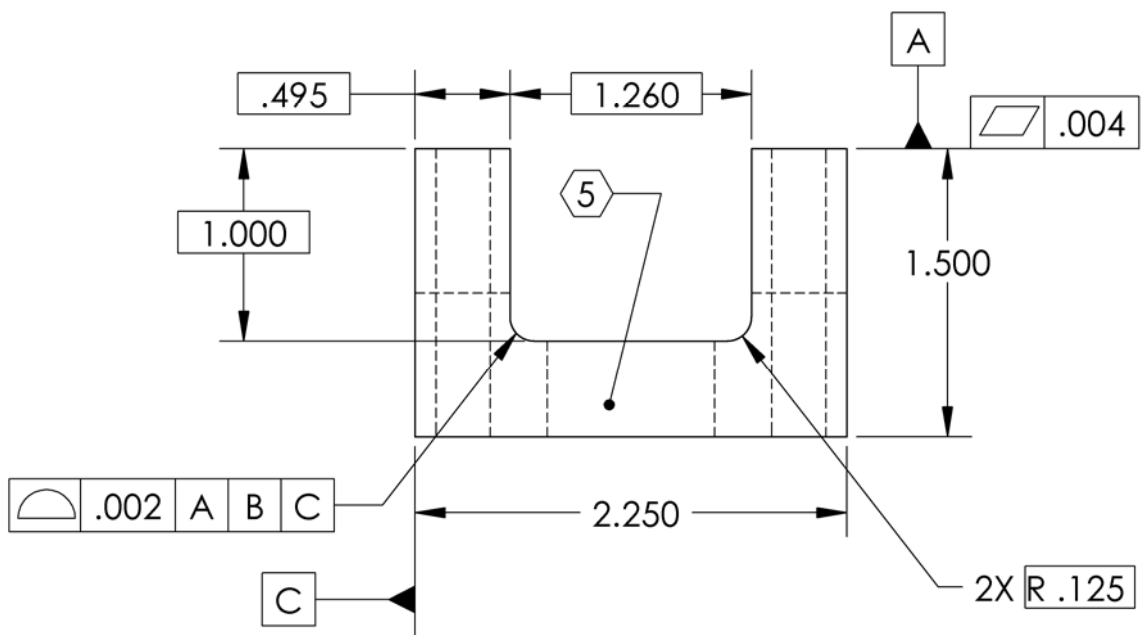
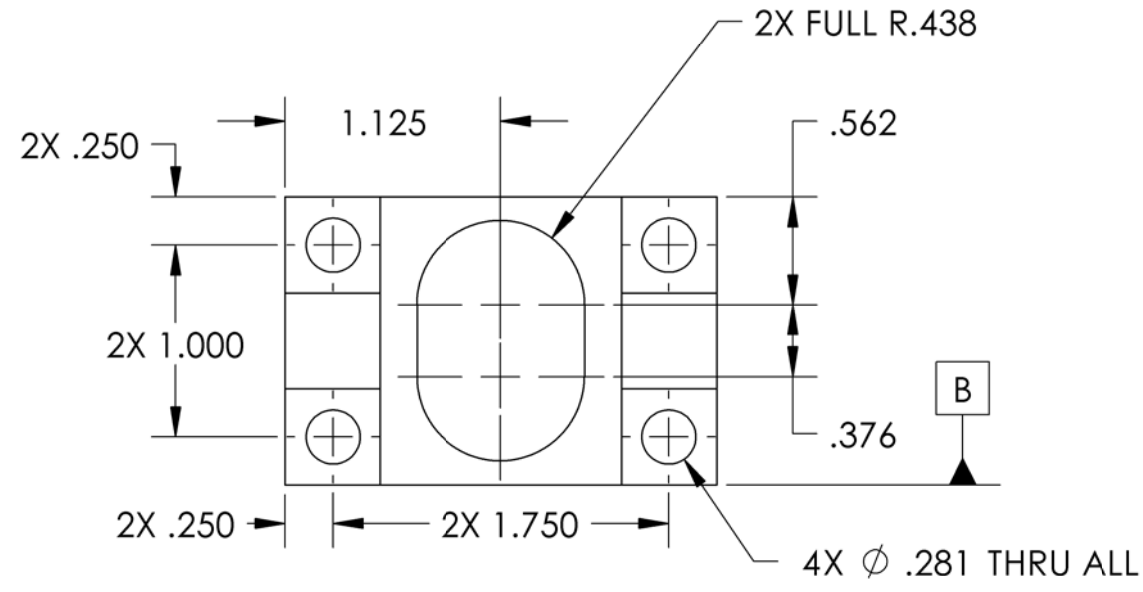
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS. UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.

6. APPROXIMATE WEIGHT = 0.550 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

9. A TRUE POSITION TOLERANCE OF ± 0.010 IS - THE SAME AS A CONVENTIONAL TOLERANCE OF ± 0.005 .

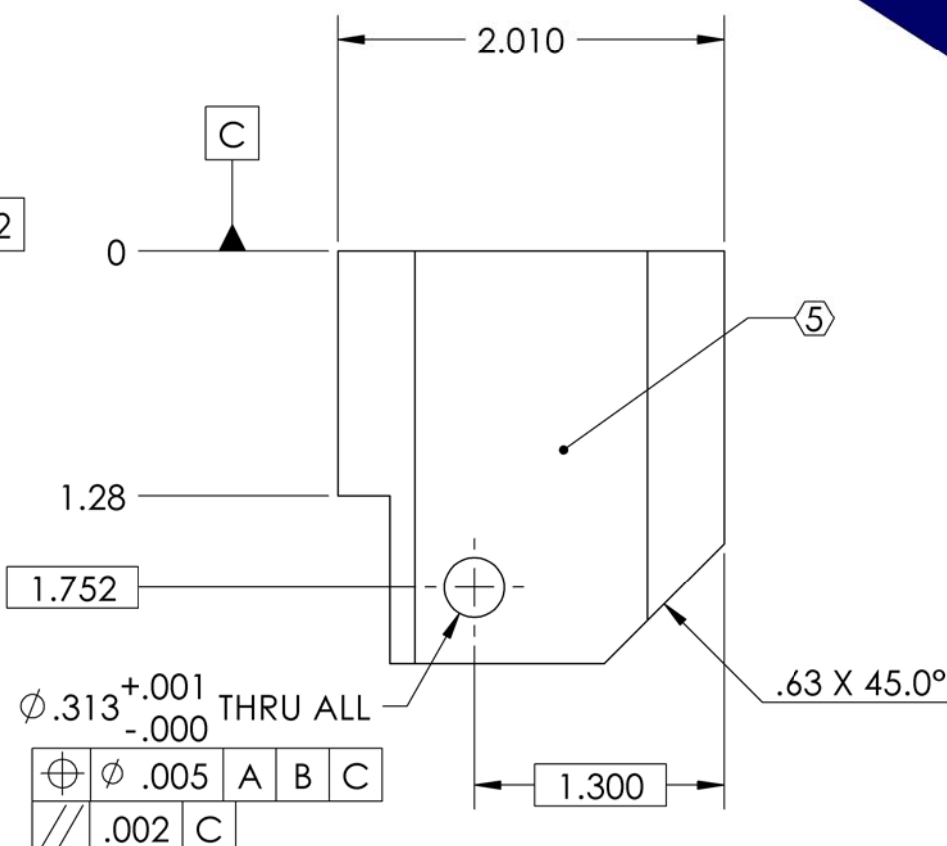
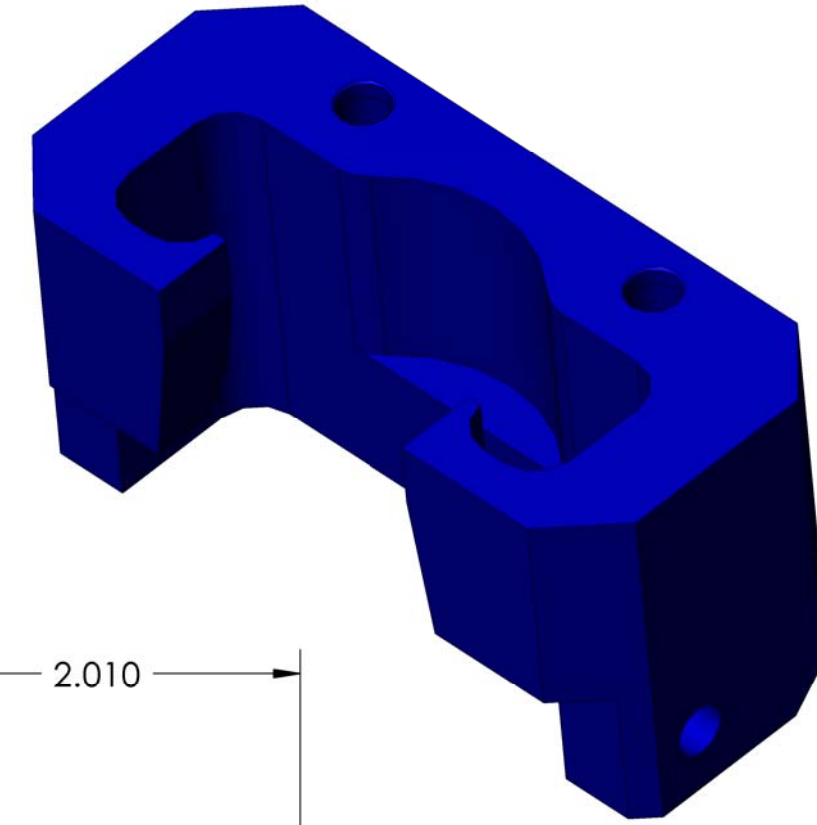
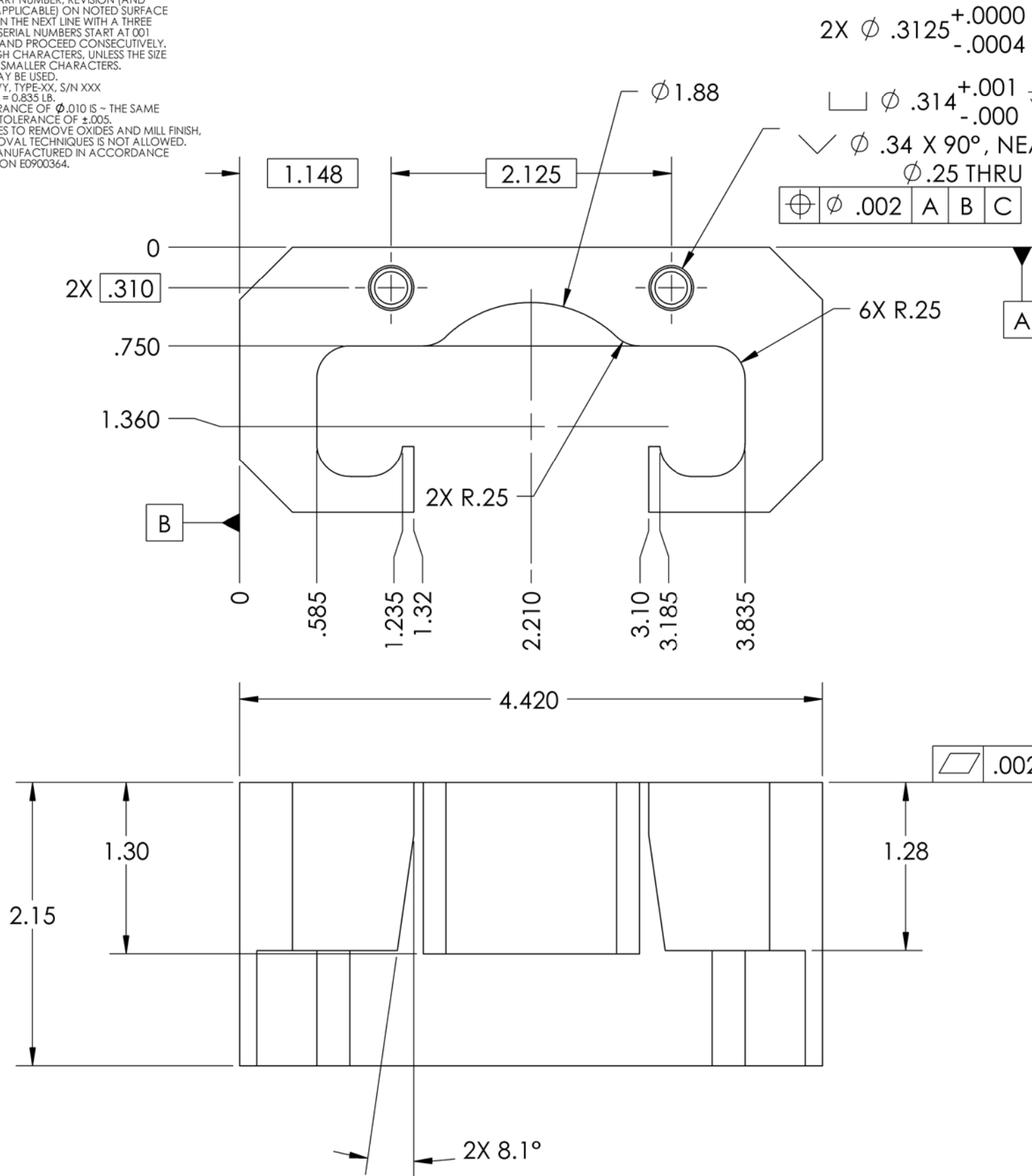


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				1. INTERPRET DRAWING PER ASME Y14.5-1994.		SPRING PRELOAD SADDLE, BLADE PULLER ASSY, aLIGO BSC ISI	
TOLERANCES: .XX ± .015 .XXX ± .005				2. REMOVE ALL SHARP EDGES, R.02 MIN.		DESIGNER C. RAMET 19 Feb. 2010	
ANGULAR ± 0.5°				3. DO NOT SCALE FROM DRAWING.		DRAFTER M.HILLARD 19 Feb. 2010	
				4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		CHECKER F.MATICHARD 19 Feb. 2010	
MATERIAL NITRONIC 60		FINISH 32 μinch		NEXT ASSY D0902454		APPROVAL K.MASON 19 Feb. 2010	
				SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI	
				PART NAME		SIZE DWG. NO.	
				SCALE: 1:1		B D0902191	
				PROJECTION:		REV. v1	
				SHEET 1 OF 1			

D0902192 Spring Preload End Bracket, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-013, DRAWING PDM REV: X-006

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 6. APPROXIMATE WEIGHT = 0.835 LB.
 7. A TRUE POSITION TOLERANCE OF $\phi .010$ IS THE SAME AS A CONVENTIONAL TOLERANCE OF $\pm .005$.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 9. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025

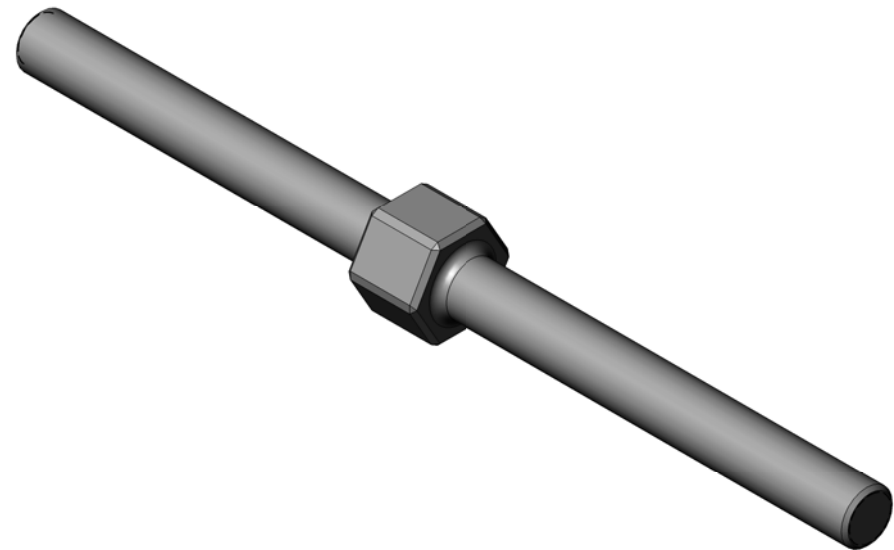
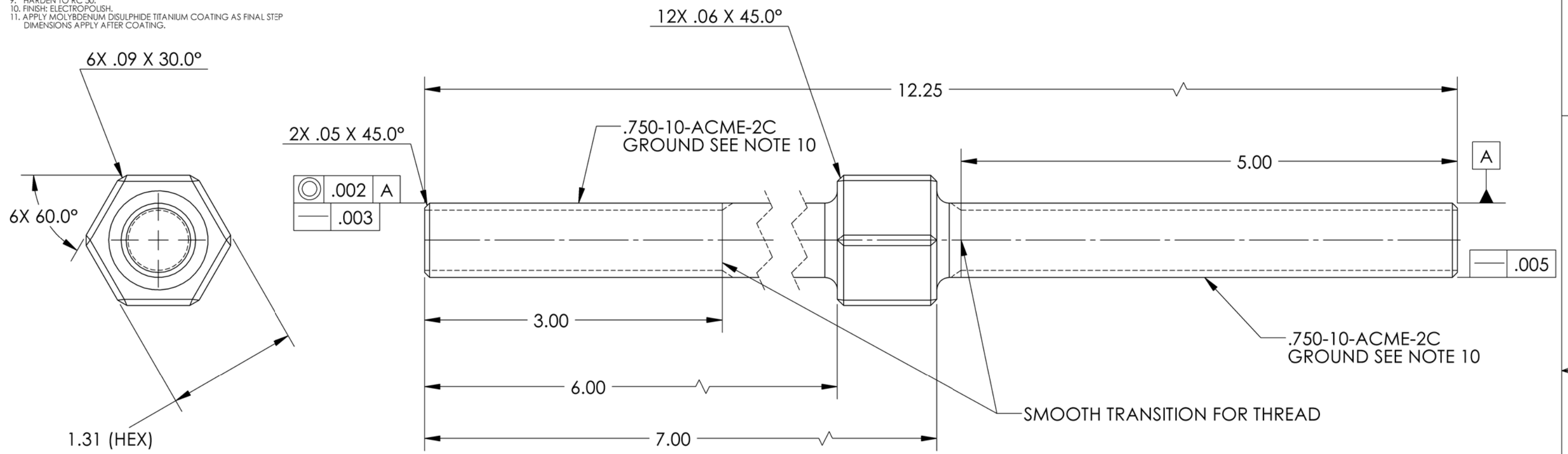


DIMENSIONS ARE IN INCHES		TOLERANCES: .XX $\pm .015$.XXX $\pm .005$		ANGULAR $\pm 0.5^\circ$		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SPRING PRELOAD END BRACKET, BLADE PULLER ASSY, STAGE 1-2, aLIGO BSC ISI						
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.						SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SEI	DESIGNER	C. RAMET	19 Feb. 2010	SIZE	DWG. NO.	REV.	
MATERIAL						6061-T6 Al	FINISH	63 μ inch	NEXT ASSY	D0902454	CHECKER	F.MATICHARD	19 Feb. 2010	B	D0902192	v1
										APPROVAL	K.MASON	19 Feb. 2010	SCALE:	1:1	PROJECTION:	SHEET 1 OF 1

D0902193 Spring Preload Puller Bolt, Blade Puller Assy, Stage 1-2, aLIGO BSC ISI, PART PDM REV: X-009, DRAWING PDM REV: X-005

- NOTES CONTINUED:**
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 1.82 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 9. HARDEN TO RC 50.
 10. FINISH: ELECTROPOLISH.
 11. APPLY MOLYBDENUM DISULPHIDE TITANIUM COATING AS FINAL STEP DIMENSIONS APPLY AFTER COATING.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 Feb. 2010	E0900391	E1000025

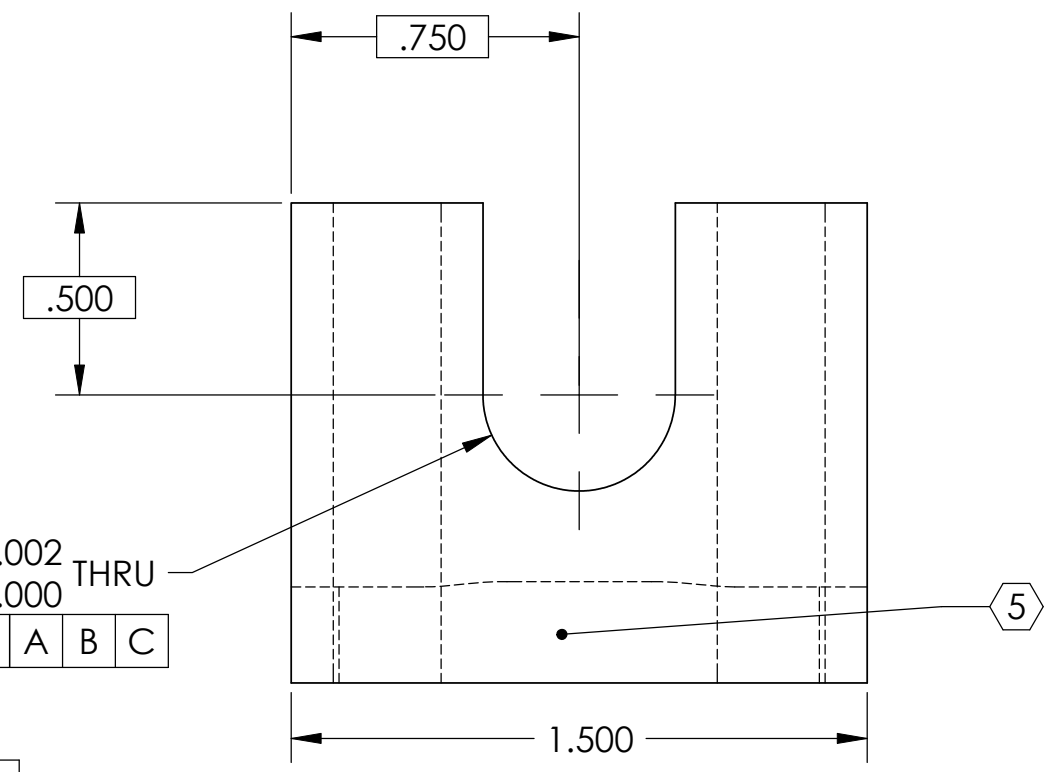
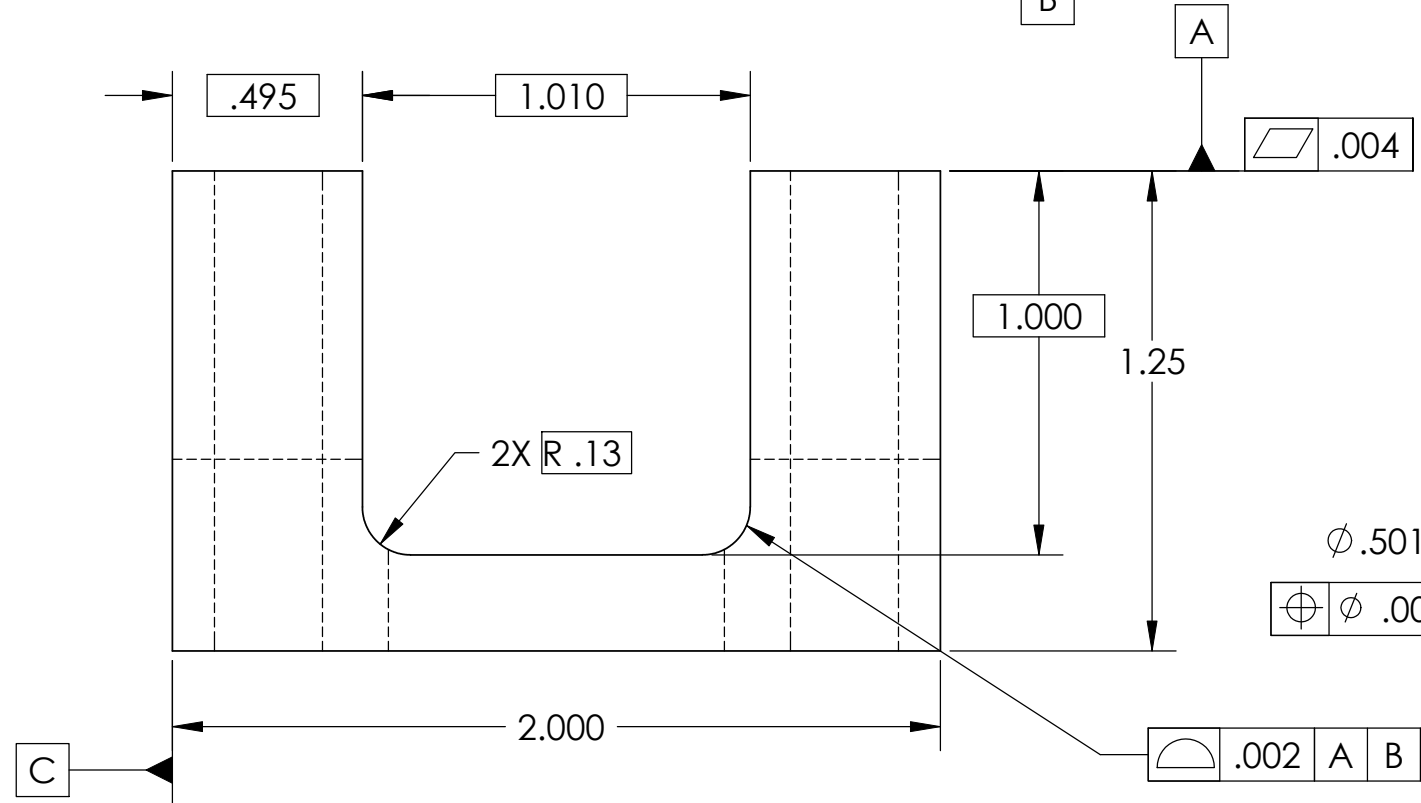
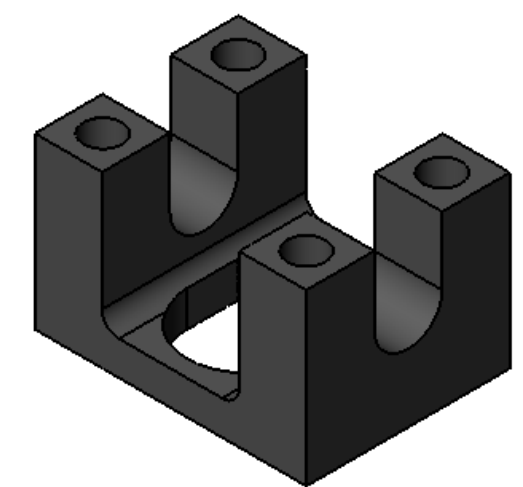
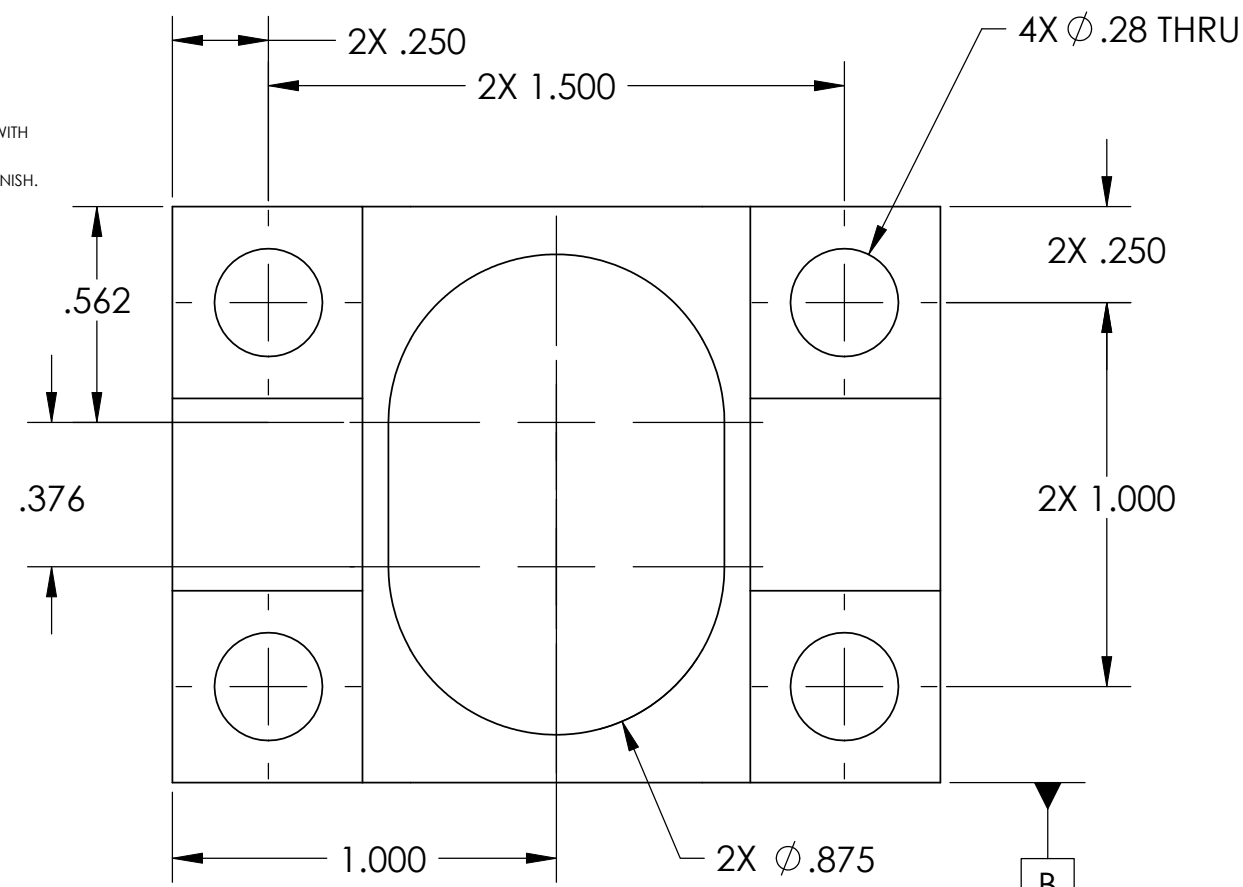


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SPRING BLADE PULLER BOLT, BLADE PULLER ASSY, STAGE 1-2, aLIGO BSC ISI						
DIMENSIONS ARE IN INCHES				1. INTERPRET DRAWING PER ASME Y14.5-1994.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI		DESIGNER S.BARNUM 09 Feb. 2010	SIZE DWG. NO. B D0902193	REV. v1
TOLERANCES: .XX ± .015 .XXX ± .005				2. REMOVE ALL SHARP EDGES, R.02 MIN.		MATERIAL 420 SSSL SEE NOTE 11		FINISH 63 μinch		DRAFTER M.HILLARD 19 Feb. 2010		SCALE: 1:1
ANGULAR ± 0.5°				3. DO NOT SCALE FROM DRAWING.		NEXT ASSY D0902454		CHECKER F.MATICHARD 19 Feb. 2010		PROJECTION:		SHEET 1 OF 1
				4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				APPROVAL K.MASON 19 Feb. 2010				

D0902200 Top Saddle on Bracket, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-003, DRAWING PDM REV: X-007

REV.	DATE	DCN #	DRAWING TREE #
v1	14 FEB 2010	E1000028	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 7. APPROXIMATE WEIGHT: 0.4LB.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.

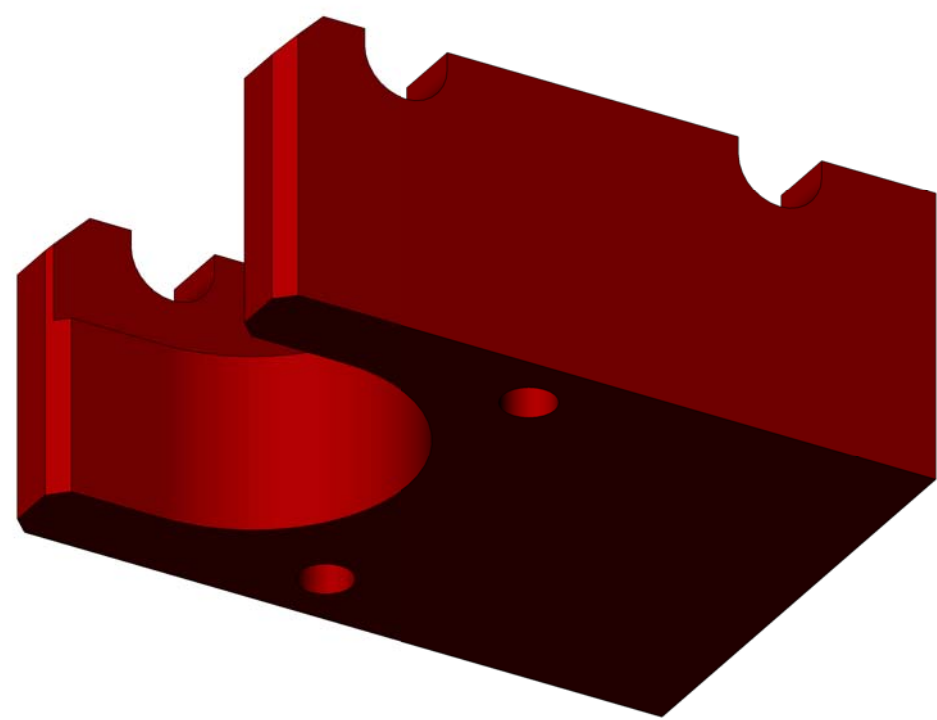
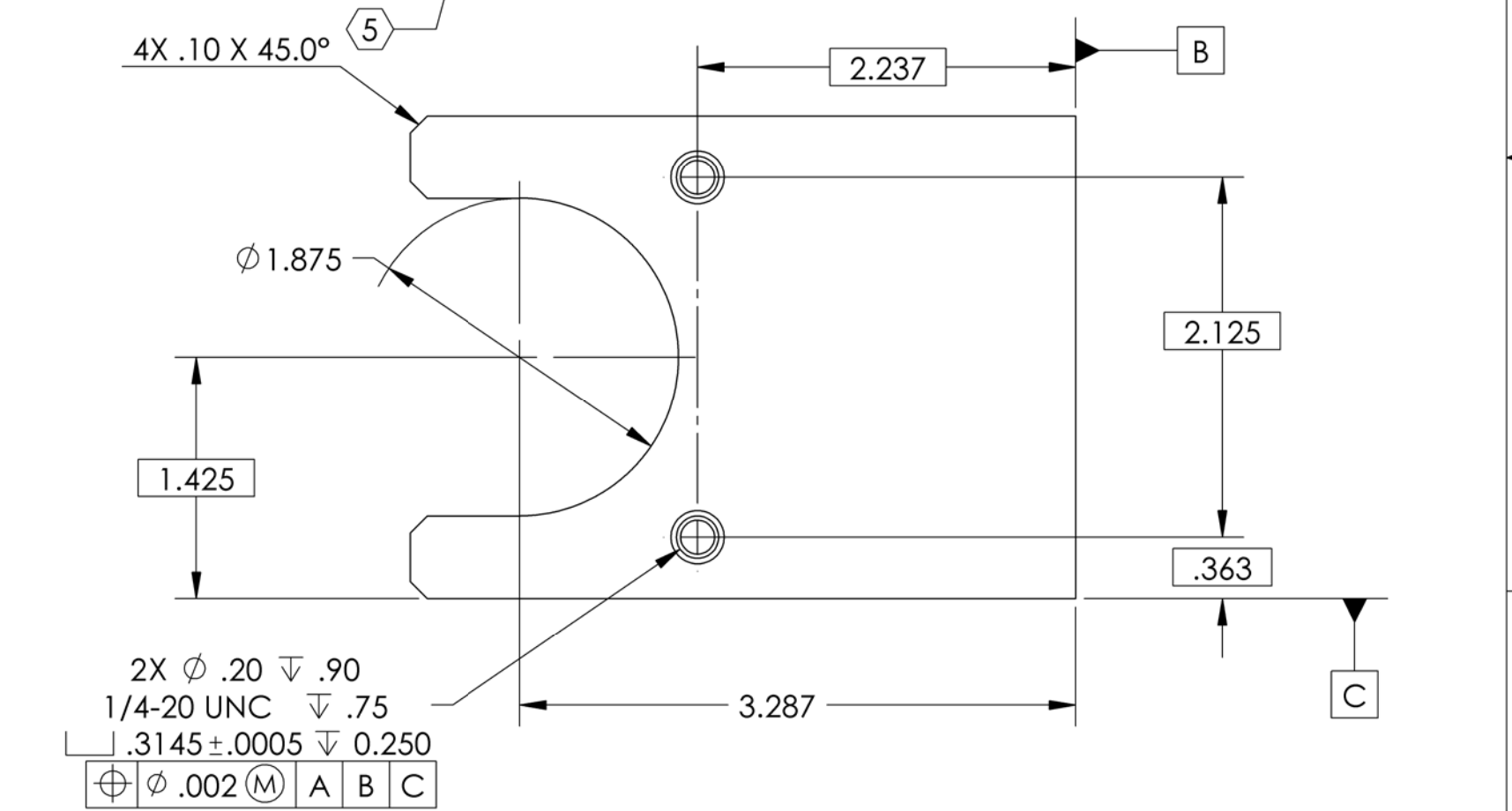
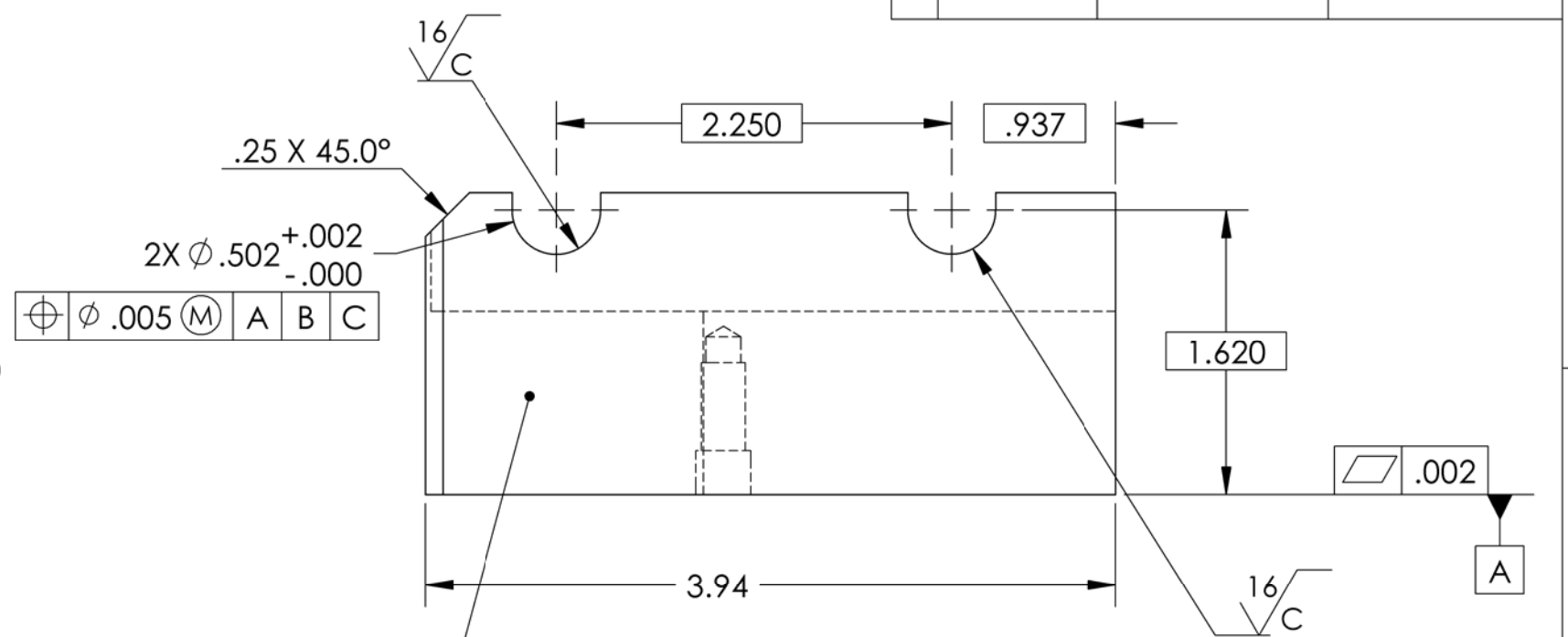
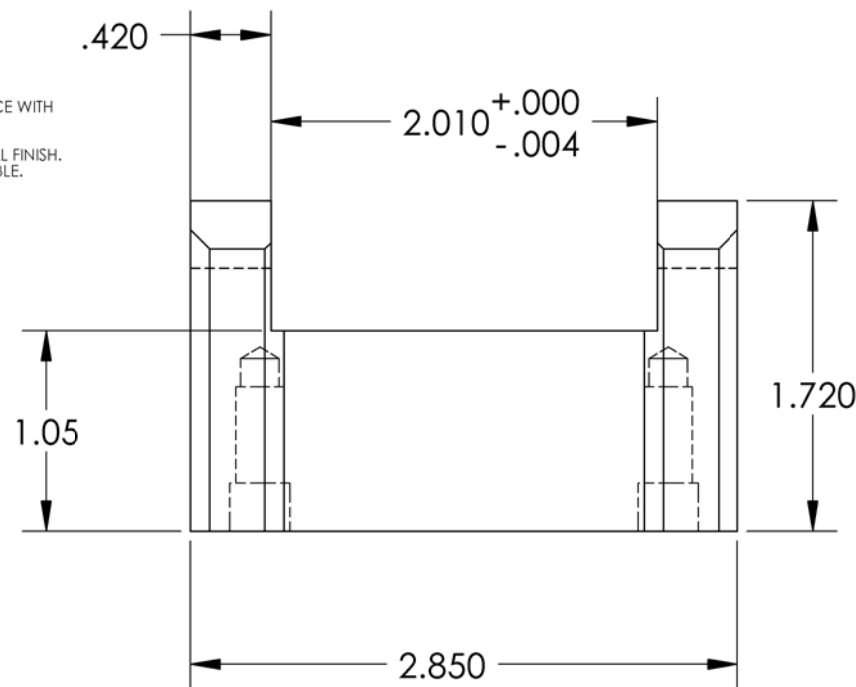


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		Top Saddle on Bracket, Stage 0-1 Blade Pusher, aLIGO BSC-ISI	
MATERIAL		FINISH		NEXT ASSY		DESIGNER	
NITRONIC 60		32 μinch		D0902464		S.BARNUM 09 Feb. 2010	
						DRFTR	
						M.HILLARD 14 FEB 2010	
						CHECKER	
						F.MATICHARD 14 FEB 2010	
						APPROVAL	
						K.MASON 14 FEB 2010	
						SIZE DWG. NO.	
						B D0902200	
						REV.	
						v1	
						SCALE: 2:1 PROJECTION: SHEET 1 OF 1	

D0902483 Saddle on Large Blades, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-013, DRAWING PDM REV: X-008

REV.	DATE	DCN #	DRAWING TREE #
v1	14 Feb. 2010	E1000028	E1000025
v2	20 May, 2010	E1000174	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXXX-VY, TYPE-XX, S/N XXX
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 7. APPROXIMATE WEIGHT: 3.2LB.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SADDLE ON LARGE BLADES, STAGE 0-1 BLADE PUSHER, aLIGO BSC ISI					
DIMENSIONS ARE IN INCHES				1. INTERPRET DRAWING PER ASME Y14.5-1994.		DESIGNER C.RAMET		9 Feb. 2010		SIZE DWG. NO.	
TOLERANCES: .XX ± .015 .XXX ± .005				2. REMOVE ALL SHARP EDGES, R.02 MIN.		DRAFTER M.HILLARD		14 FEB 2010		B D0902483	
ANGULAR ± 0.5°				3. DO NOT SCALE FROM DRAWING.		CHECKER F.MATICHARD		14 FEB 2010		REV. v2	
				4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		APPROVAL K.MASON		14 FEB 2010		SCALE: 1:1 PROJECTION:	
				MATERIAL 304 SSTL		FINISH 32 μinch		NEXT ASSY D0902464		SHEET 1 OF 1	

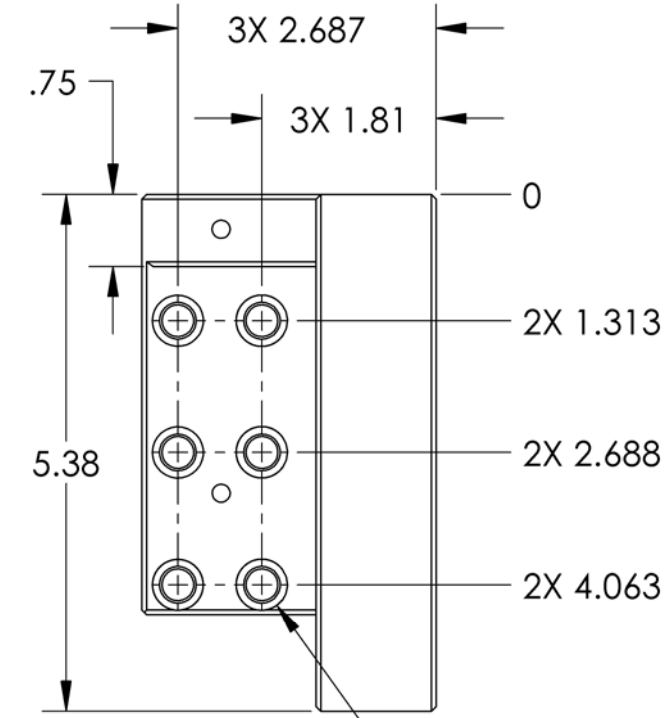
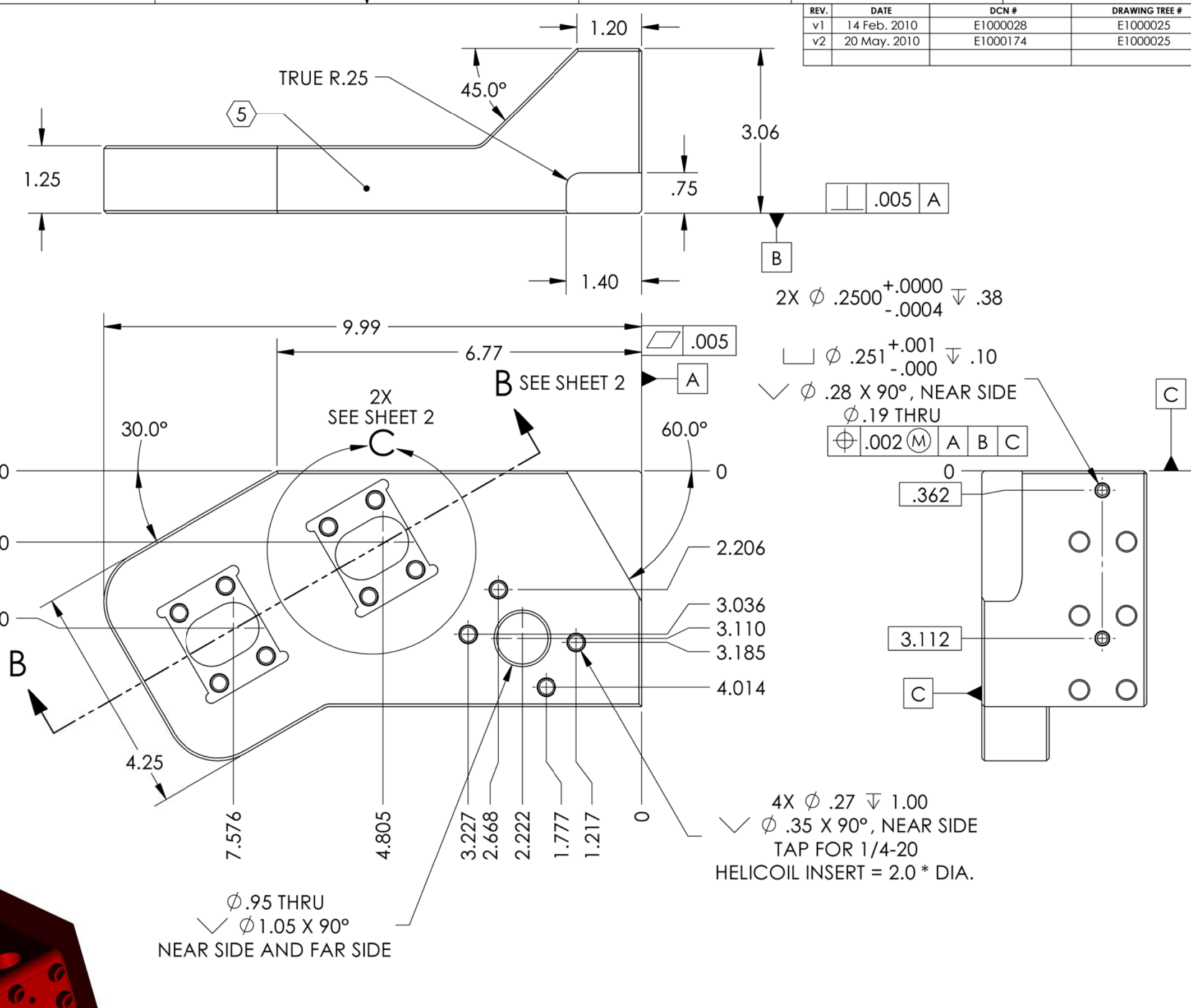
D0902488 Tooling Bracket, Blades Pusher Stg 0-1 & Blades Puller Stg 1-2, aLIGO BSC-ISI, PART PDM REV: X-015, DRAWING PDM REV: X-007

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 7. APPROXIMATE WEIGHT: 15.5LB.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.

REV.	DATE	DCN #	DRAWING TREE #
v1	14 Feb. 2010	E1000028	E1000025
v2	20 May. 2010	E1000174	E1000025

D
C
B
A

D
C
B
A

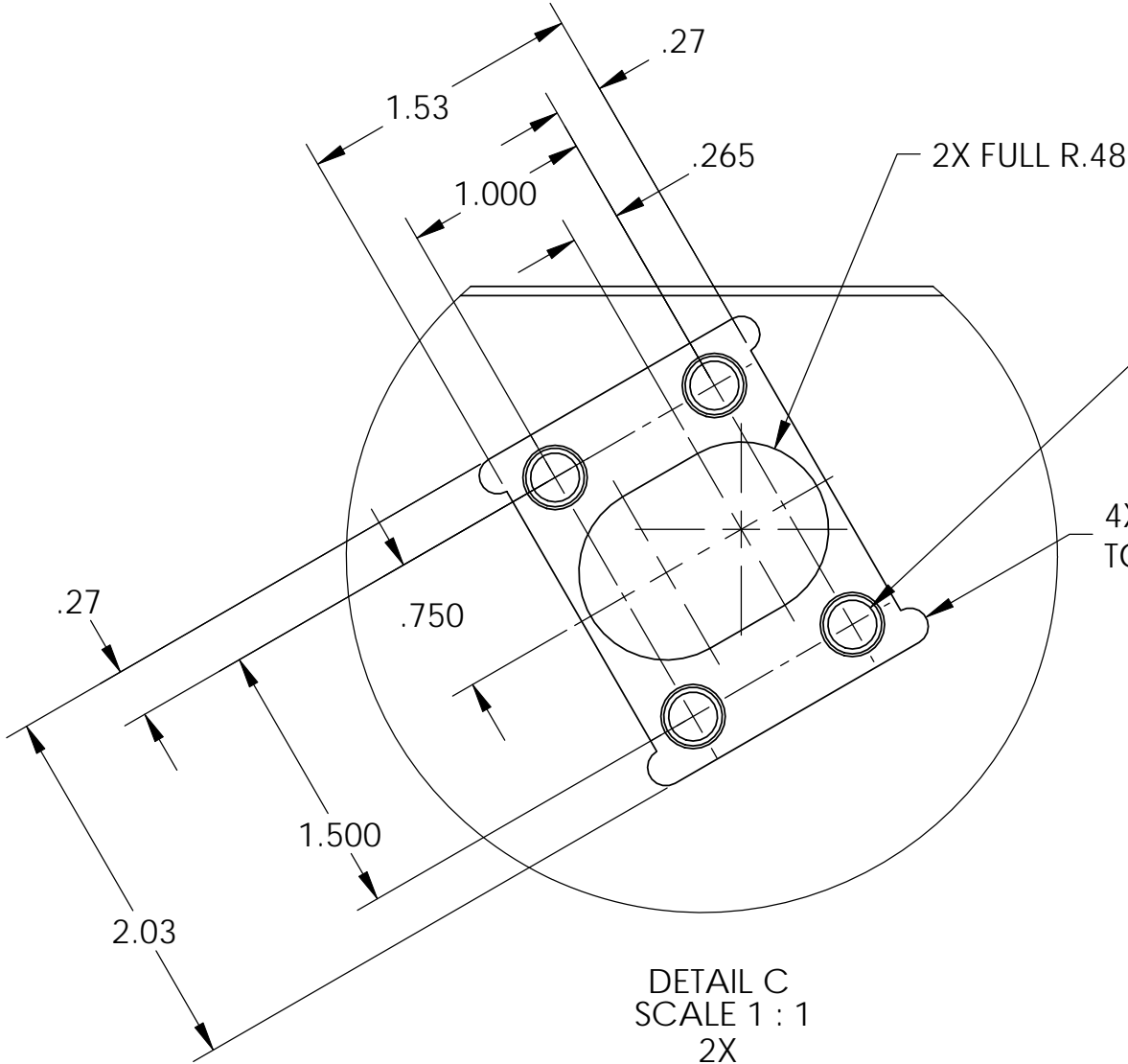
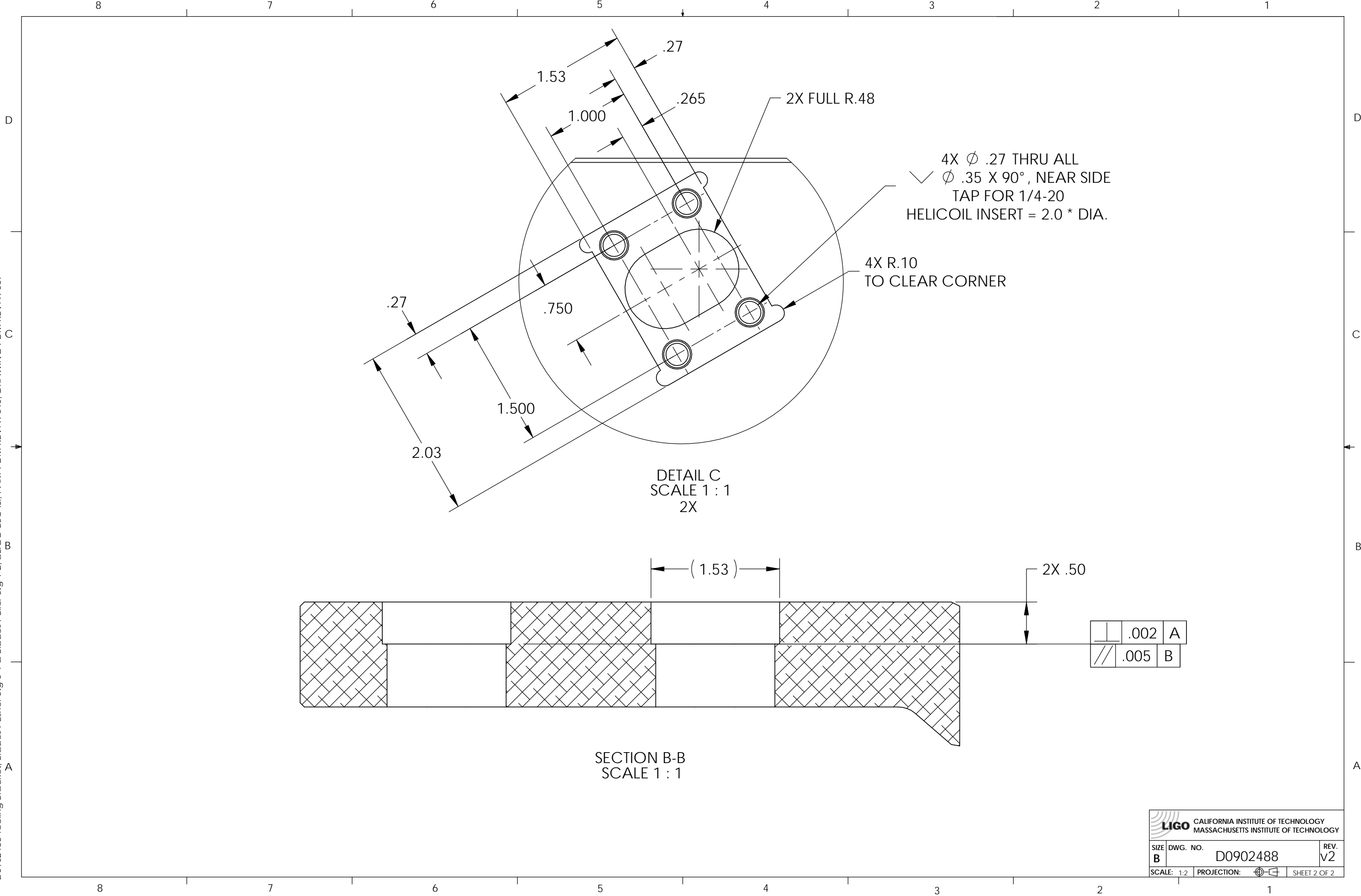


6X $\phi .33$ THRU ALL
 $\nabla \phi .53 \nabla .31$
 $\nabla \phi .38 \times 90^\circ$, MID SIDE
 $\nabla \phi .38 \times 90^\circ$, FAR SIDE



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME TOOLING BRACKET, BLADES PUSHER STG 0-1 & BLADES PULLER STG 1-2, aLIGO BSC ISI					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°				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.		DESIGNER	S.BARNUM	09 Feb. 2010	SIZE	DWG. NO.	REV.
				MATERIAL	304 SSSL	FINISH	32 μ inch	CHECKER	F.MATICHARD	14 FEB 2010	B
				SYSTEM	ADVANCED LIGO	SUB-SYSTEM		SEI			
				NEXT ASSY	D0902464	APPROVAL	K.MASON	14 FEB 2010	SCALE: 1:2	PROJECTION:	SHEET 1 OF 2

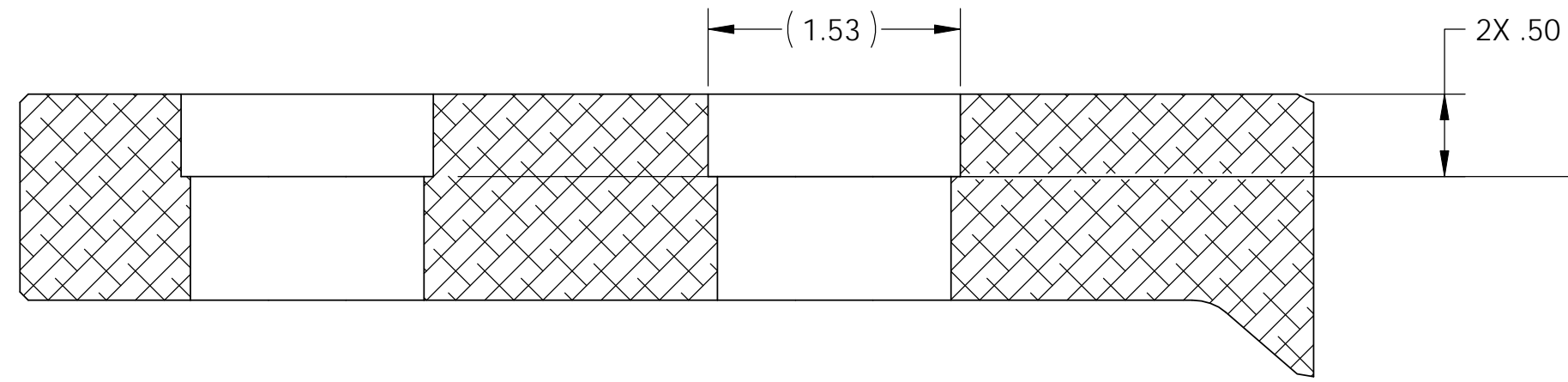
D0902488 Tooling Bracket, Blades Pusher Stg 0-1 & Blades Puller Stg 1-2, allIGO BSC-ISI, PART PDM REV: X-015, DRAWING PDM REV: X-007



4X ϕ .27 THRU ALL
 ϕ .35 X 90°, NEAR SIDE
TAP FOR 1/4-20
HELICOIL INSERT = 2.0 * DIA.

4X R.10
TO CLEAR CORNER

DETAIL C
SCALE 1 : 1
2X



SECTION B-B
SCALE 1 : 1

	.002	A
	.005	B

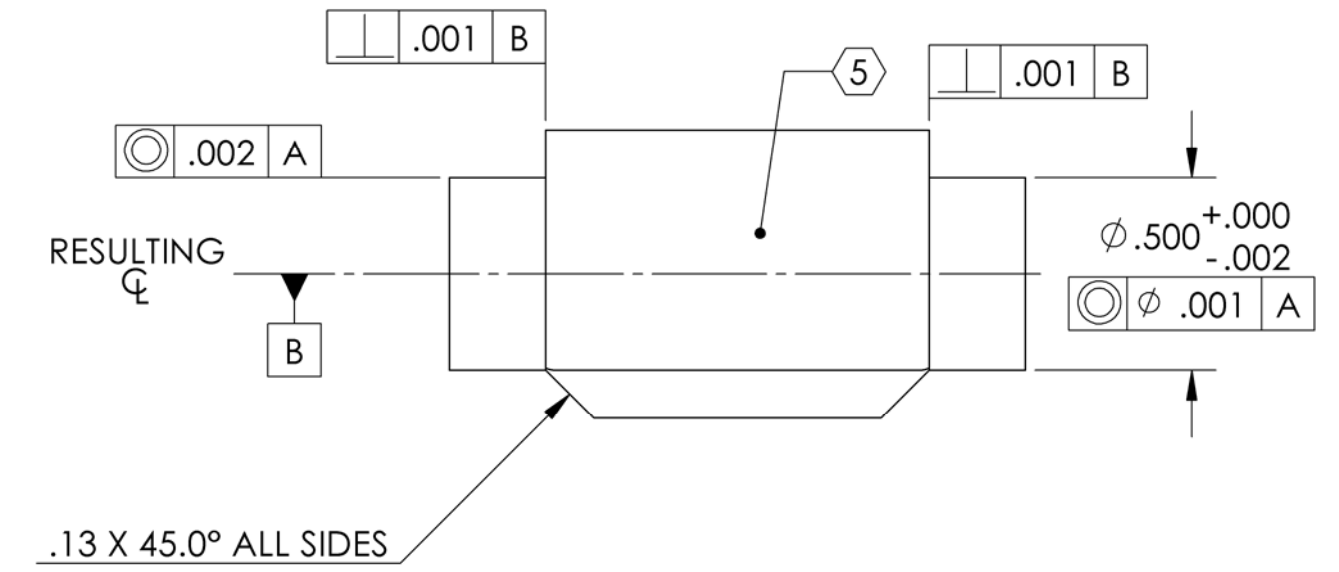
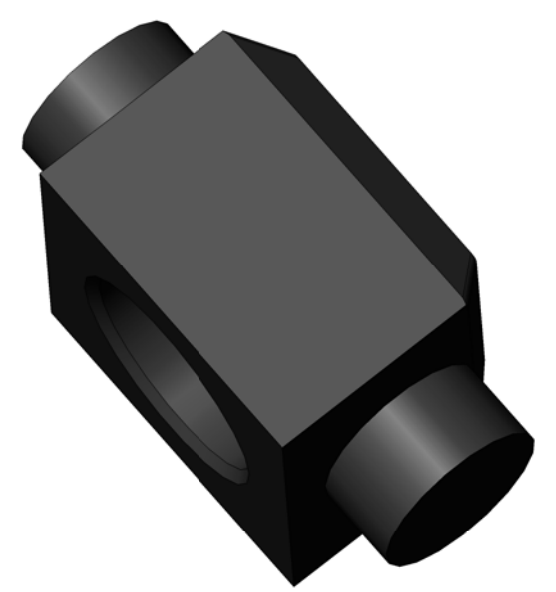
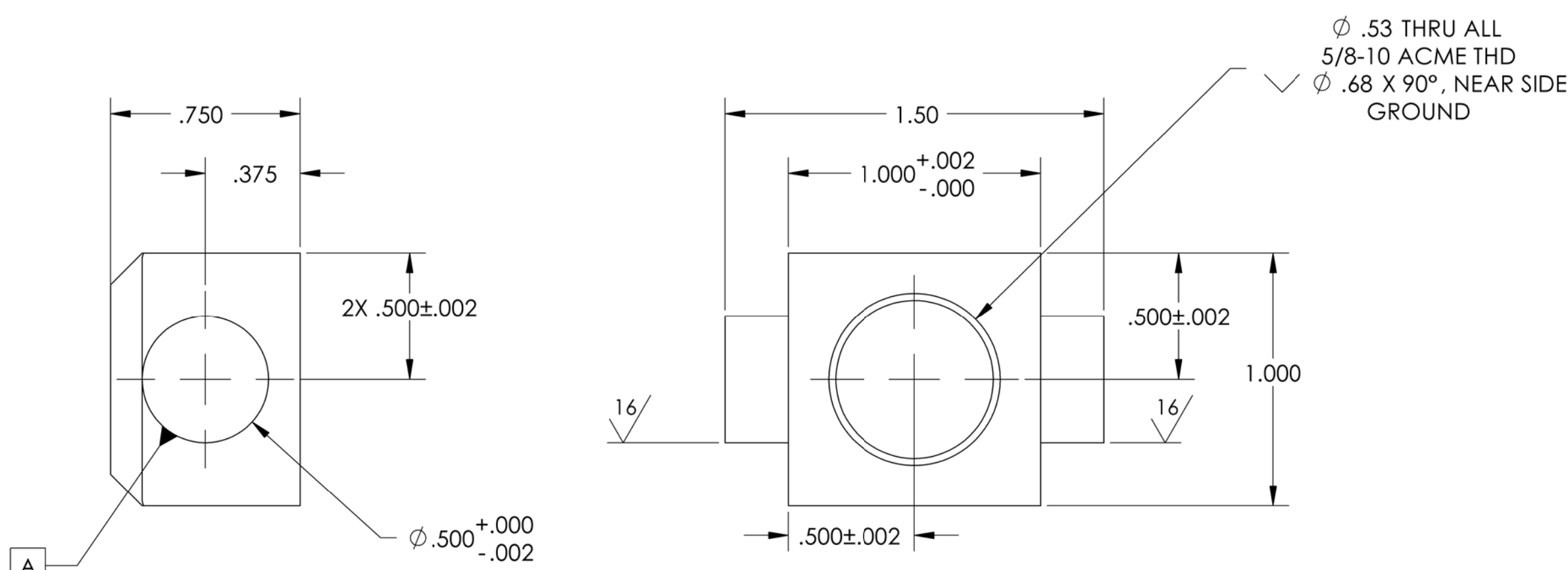
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE B	DWG. NO. D0902488	REV. v2
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2

D0902594 Threaded Pivot, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-007, DRAWING PDM REV: X-005

REV.	DATE	DCN #	DRAWING TREE #
v1	14 Feb. 2010	E1000028	E1000025
v2	20 May. 2010	E1000174	E1000025

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 - 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 - 7. APPROXIMATE WEIGHT: 0.2LB.
 - 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 - 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.
 - 10. TAP .004 - .006 OVERSIZE

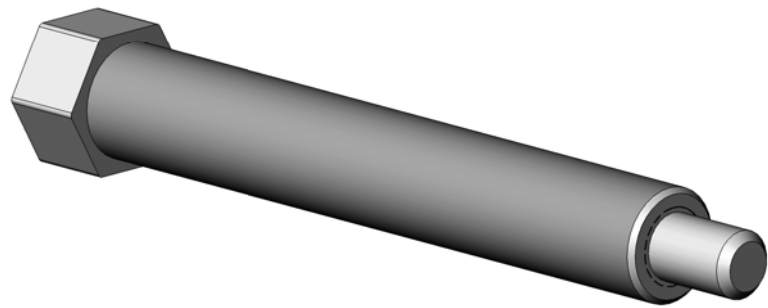
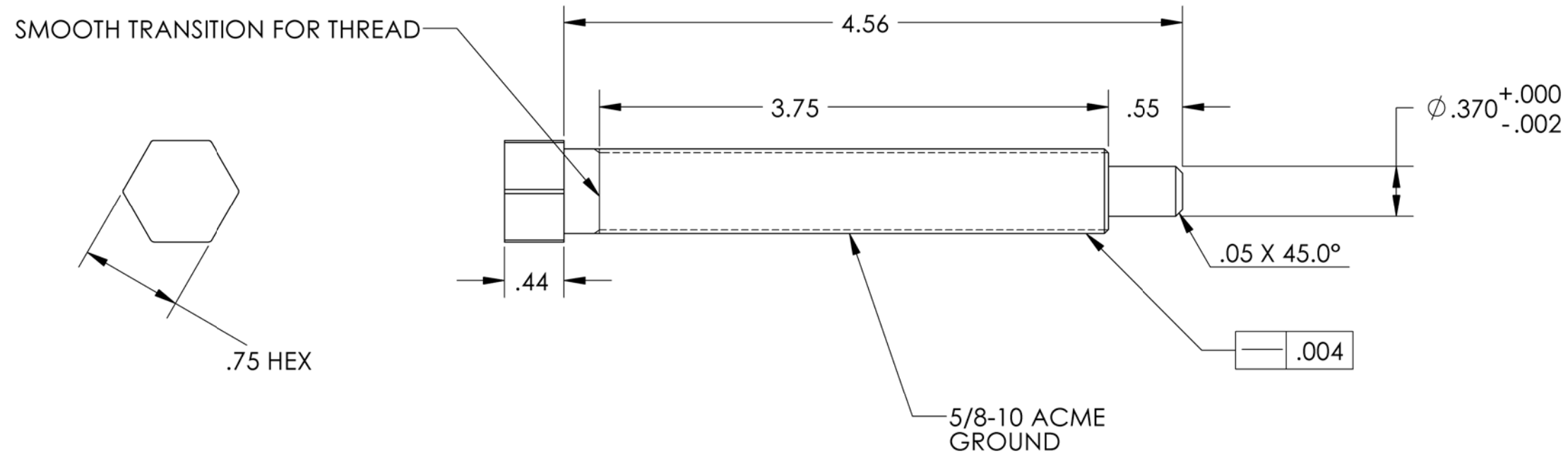


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		THREADED PIVOT, STAGE 0-1 BLADE PUSHER, aLIGO BSC-ISI	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
NITRONIC 60		32 μinch		ADVANCED LIGO		SEI	
NEXT ASSY				DESIGNER		DATE	
D0902464				S.BARNUM		09 Feb. 2010	
				DRAFTER		DATE	
				M.HILLARD		14 FEB 2010	
				CHECKER		DATE	
				F.MATICHARD		14 FEB 2010	
				APPROVAL		DATE	
				K.MASON		14 FEB 2010	
SCALE: 2:1		PROJECTION:		SIZE		DWG. NO.	
				B		D0902594	
						REV.	
						v2	
						SHEET 1 OF 1	

D0902599 Step 1 Bolt, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-008, DRAWING PDM REV: X-008

REV.	DATE	DCN #	DRAWING TREE #
v1	14 Feb. 2010	E1000028	E1000025
v2	20 May, 2010	E1000174	E1000025

- NOTES CONTINUED:**
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER, SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.423 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 9. HARDEN TO RC 50.
 10. FINISH: ELECTROPOLISH.
 11. APPLY MOLYBDENUM DISULPHIDE TITANIUM COATING AS FINAL STEP DIMENSIONS APPLY AFTER COATING.

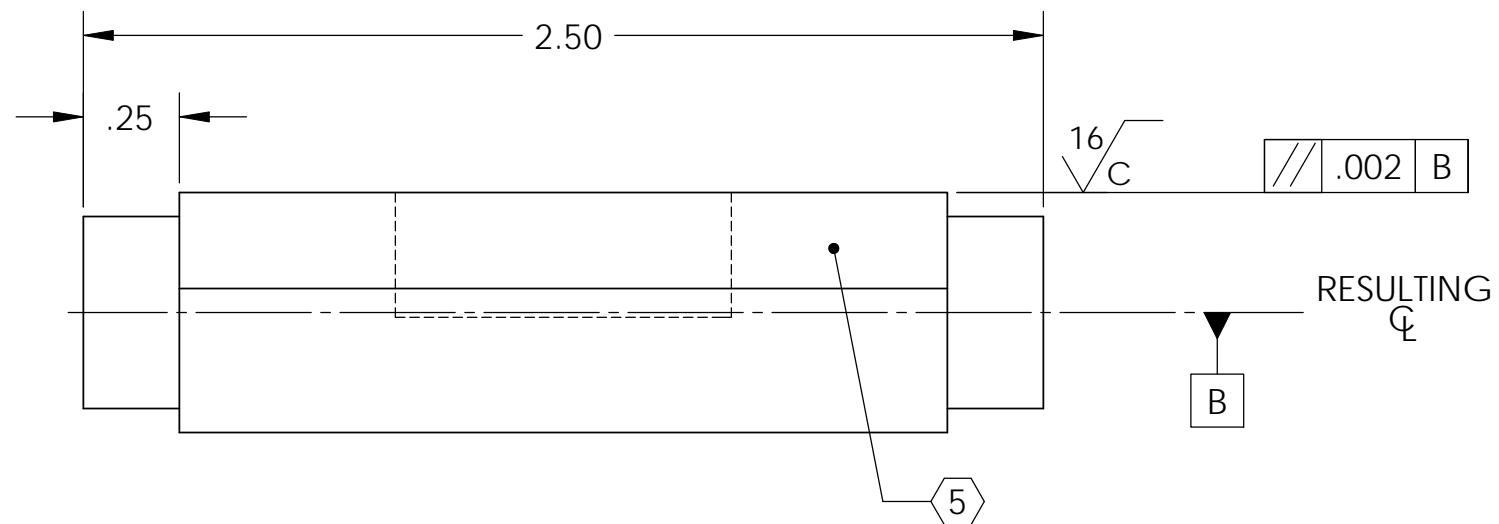
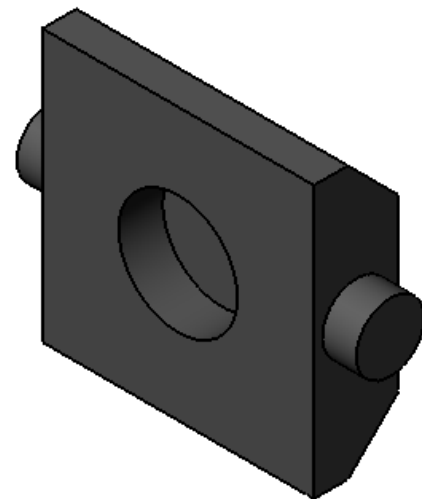
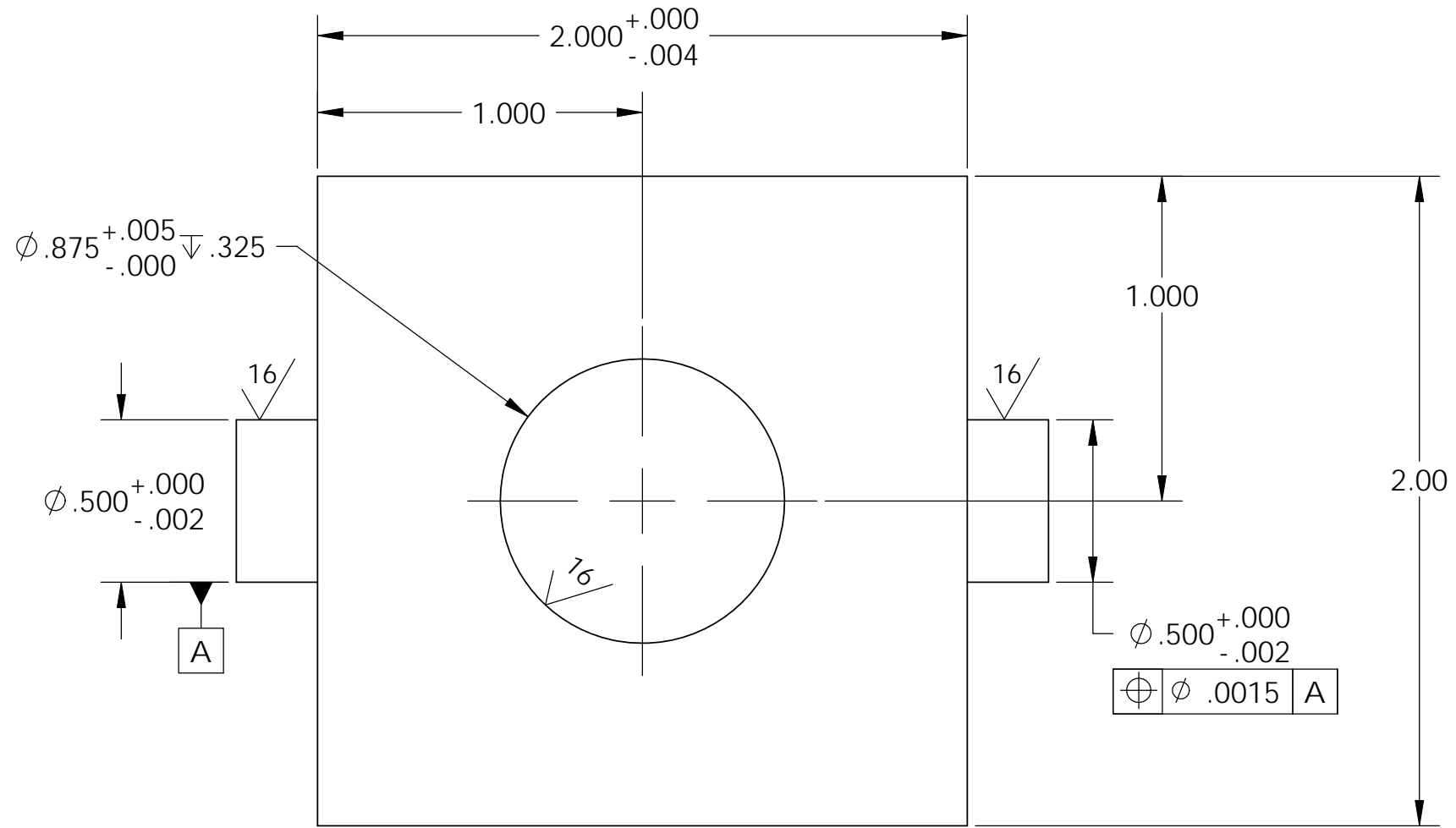
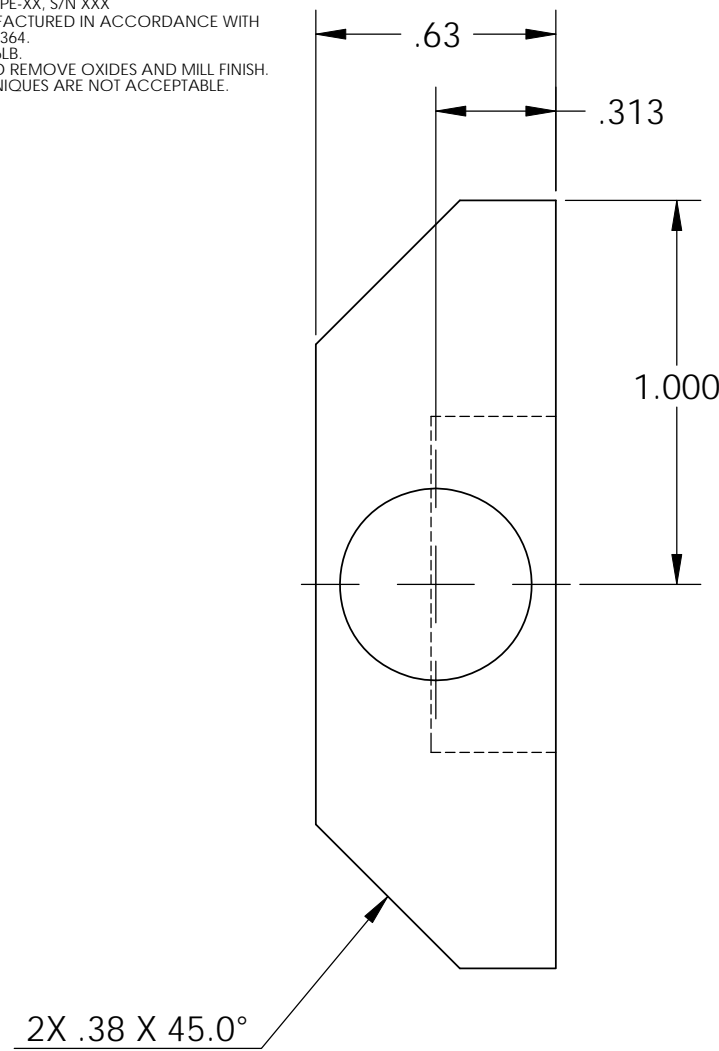


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		STEP 1 BOLT, STAGE 0-1 BLADE PUSHER, aLIGO BSC-ISI					
MATERIAL 420 SSSL SEE NOTE 11		FINISH 32 μinch		SYSTEM ADVANCED LIGO NEXT ASSY D0902464		SUB-SYSTEM SEI		DESIGNER S.BARNUM 09 Feb. 2010 DRAFTER M.HILLARD 14 FEB 2010 CHECKER F.MATICHARD 14 FEB 2010 APPROVAL K.MASON 14 FEB 2010		SIZE DWG. NO. B D0902599 REV. v2	
				SCALE: 1:1		PROJECTION:		SHEET 1 OF 1			

D0902602 Bottom Pivot, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-004, DRAWING PDM REV: X-005

REV.	DATE	DCN #	DRAWING TREE #
v1	14 FEB 2010	E1000028	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR 'TYPE' IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 7. APPROXIMATE WEIGHT: 0.6LB.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.

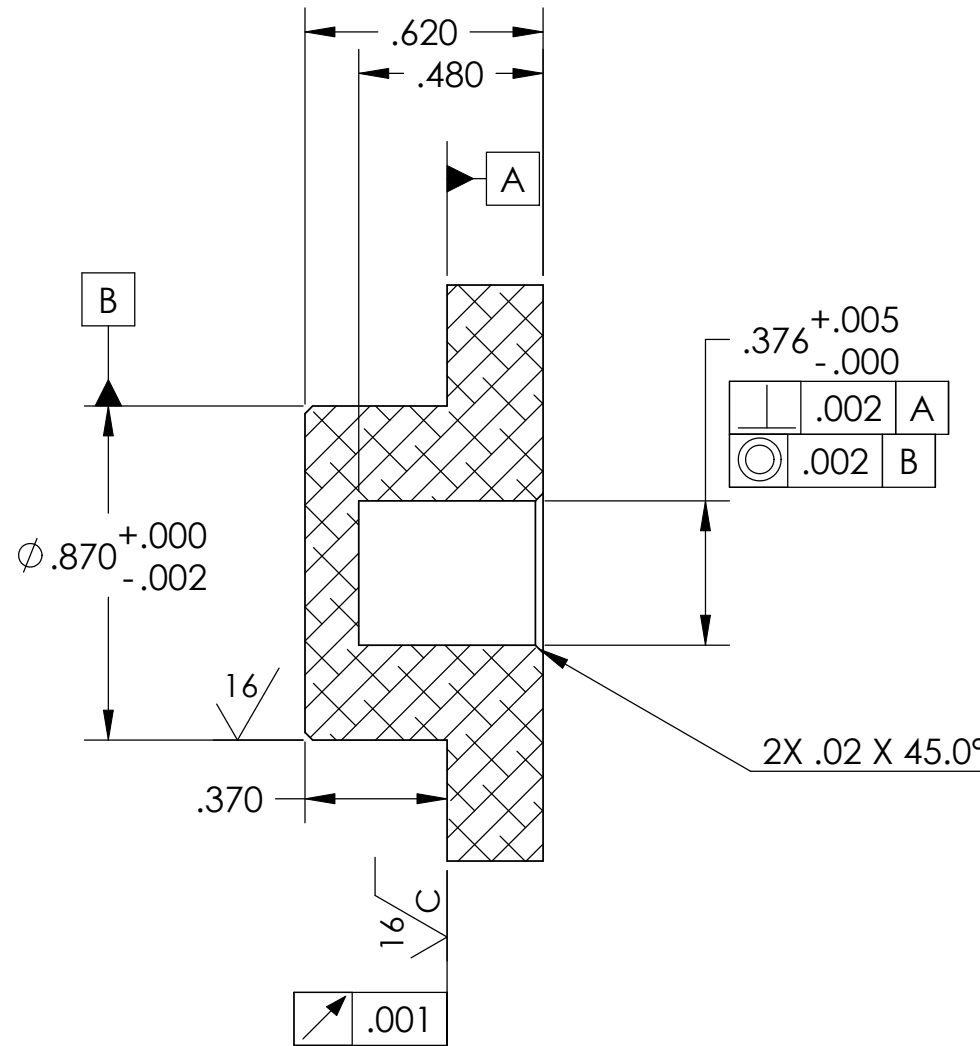
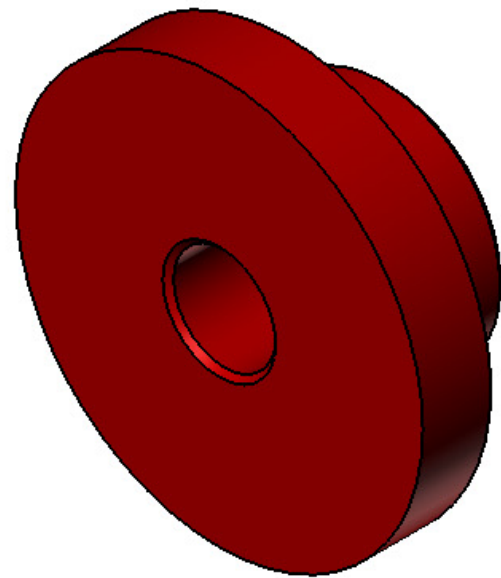
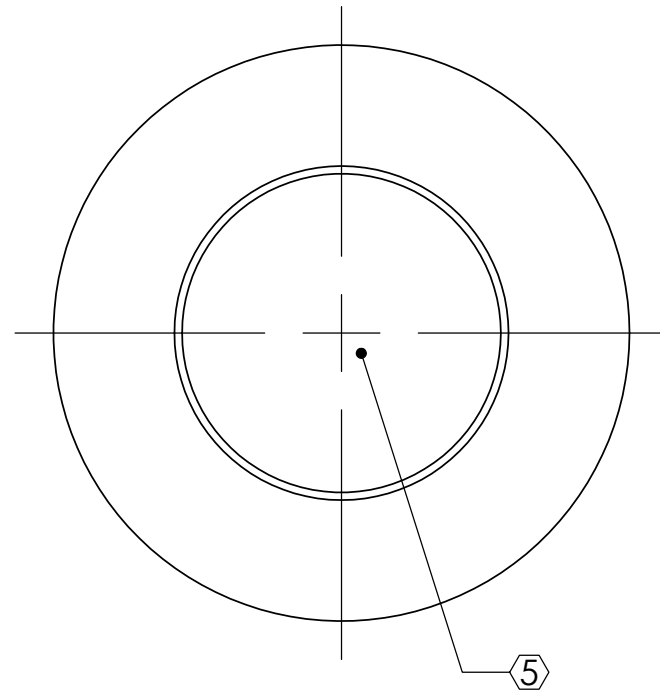


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES				1. INTERPRET DRAWING PER ASME Y14.5-1994.		2. REMOVE ALL SHARP EDGES, R.02 MIN.		Bottom Pivot, Stage 0-1 Blade Pusher, aLIGO BSC-ISI					
TOLERANCES: .XX ± .015 .XXX ± .005				3. DO NOT SCALE FROM DRAWING.		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM		SUB-SYSTEM		DESIGNER	
ANGULAR ± .5°				MATERIAL		FINISH		NEXT ASSY		DRAFTER		CHECKER	
NITRONIC 60				32 μinch		D0902593		ADVANCED LIGO		SEI		S.BARNUM	
										14 FEB 2010		SIZE	
										14 FEB 2010		DWG. NO.	
										14 FEB 2010		B	
										14 FEB 2010		D0902602	
										14 FEB 2010		REV.	
										14 FEB 2010		v1	
										14 FEB 2010		SCALE: 2:1	
										14 FEB 2010		PROJECTION:	
										14 FEB 2010		SHEET 1 OF 1	

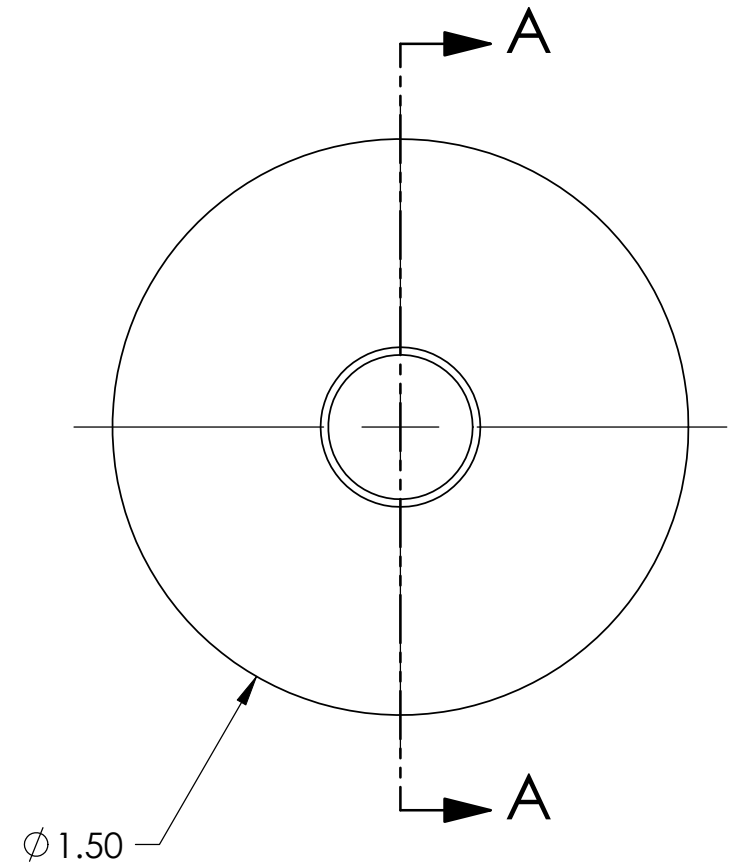
D0902603 Bolt Cap, Stage 0-1 Blade Pusher, aLIGO BSC-ISI, PART PDM REV: X-005, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	14 FEB 2010	E1000028	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY, IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.
 EXAMPLE (PART): 001-v1
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 7. APPROXIMATE WEIGHT: 0.2LB.
 8. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH.
 9. ABRASIVE REMOVAL TECHNIQUES ARE NOT ACCEPTABLE.



SECTION A-A



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME																													
DIMENSIONS ARE IN INCHES				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.		Bolt Cap, Stage 0-1 Blade Pusher, aLIGO BSC-ISI																													
TOLERANCES: .XX ± .015 .XXX ± .005				MATERIAL 304 SSSL		FINISH 32 μinch		NEXT ASSY D0902593		<table border="1"> <tr> <td>DESIGNER</td> <td>S.BARNUM</td> <td>09 Feb. 2010</td> <td>SIZE</td> <td>DWG. NO.</td> <td>REV.</td> </tr> <tr> <td>DRAFTER</td> <td>M.HILLARD</td> <td>14 FEB 2010</td> <td>B</td> <td>D0902603</td> <td>v1</td> </tr> <tr> <td>CHECKER</td> <td>F.MATICHARD</td> <td>14 FEB 2010</td> <td colspan="3">SCALE: 2:1 PROJECTION: </td> </tr> <tr> <td>APPROVAL</td> <td>K.MASON</td> <td>14 FEB 2010</td> <td colspan="3">SHEET 1 OF 1</td> </tr> </table>		DESIGNER	S.BARNUM	09 Feb. 2010	SIZE	DWG. NO.	REV.	DRAFTER	M.HILLARD	14 FEB 2010	B	D0902603	v1	CHECKER	F.MATICHARD	14 FEB 2010	SCALE: 2:1 PROJECTION:			APPROVAL	K.MASON	14 FEB 2010	SHEET 1 OF 1		
DESIGNER	S.BARNUM	09 Feb. 2010	SIZE	DWG. NO.	REV.																														
DRAFTER	M.HILLARD	14 FEB 2010	B	D0902603	v1																														
CHECKER	F.MATICHARD	14 FEB 2010	SCALE: 2:1 PROJECTION:																																
APPROVAL	K.MASON	14 FEB 2010	SHEET 1 OF 1																																
ANGULAR ± .5°				SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI																													

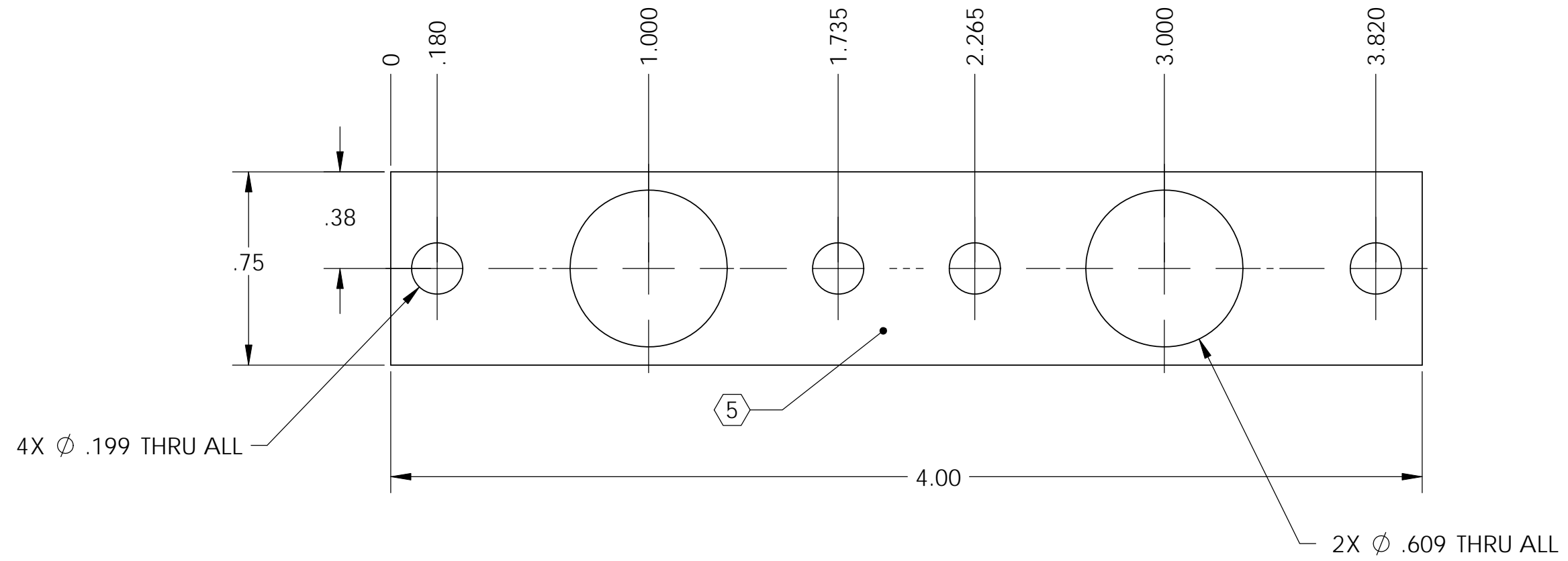
8 7 6 5 4 3 2 1

A B C D

D0902671 Top Cable Tie, aLIGO BSC-ISI, PART PDM REV: X-004, DRAWING PDM REV: X-003

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.04 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTIE FINISH) IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 May 2010	E1000157	E1000025



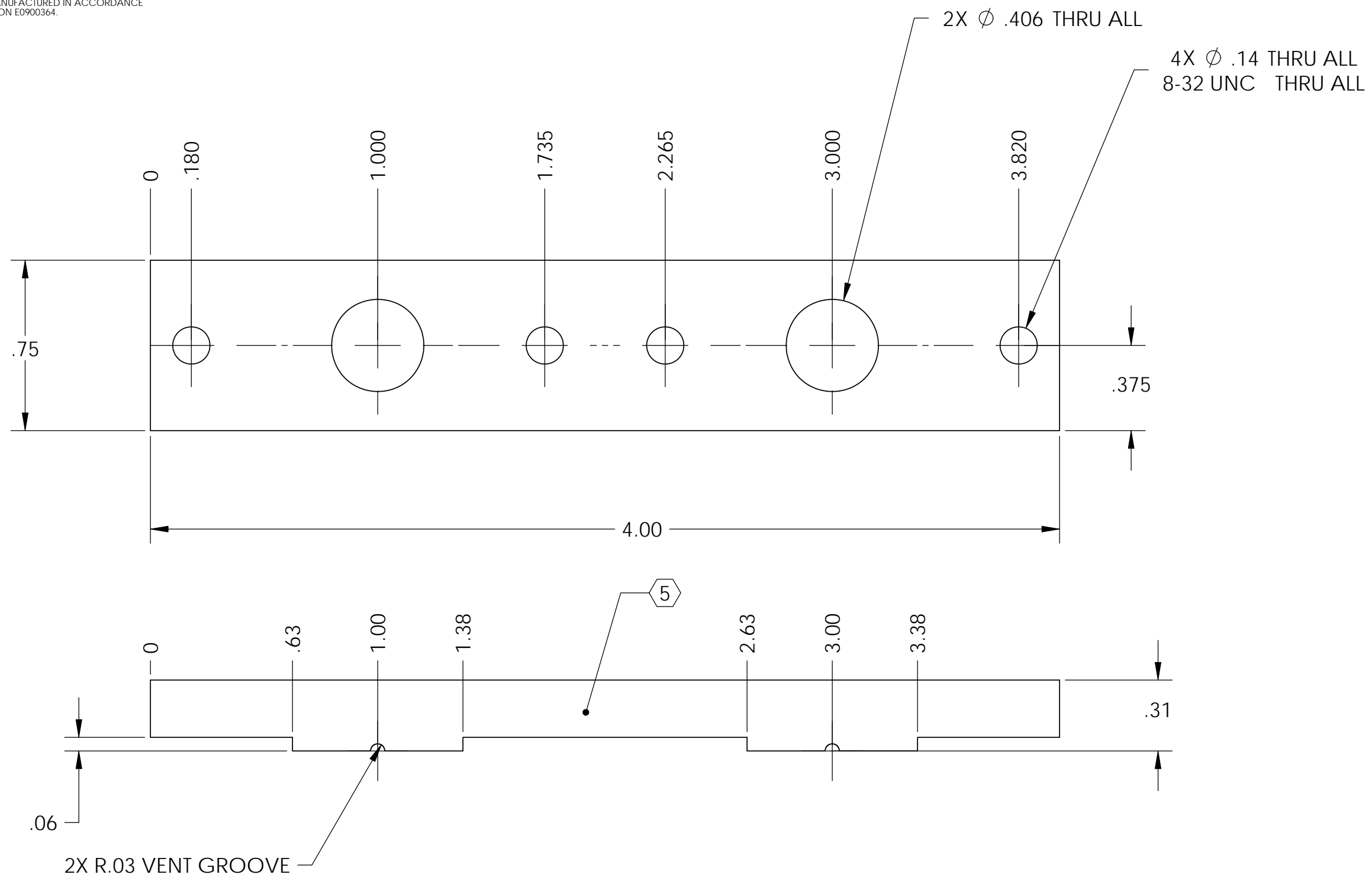
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN.		SYSTEM		SUB-SYSTEM		DESIGNER		SIZE	
TOLERANCES: .XX ± .015 .XXX ± .005		3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		ADVANCED LIGO		SEI		M.HILLARD		01 Mar.2010	
ANGULAR ± .5°		MATERIAL		FINISH		NEXT ASSY		CHECKER		DWG. NO.	
		6061-T6 Al		63 μinch		D0902670		F.MATICHARD		B D0902671	
								APPROVAL		SCALE: 2:1	
								K.MASON		PROJECTION: SHEET 1 OF 1	

8 7 6 5 4 3 2 1

D0902672 Bottom Cable Tie, aLIGO BSC-ISI, PART PDM REV: X-005, DRAWING PDM REV: X-004

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 APPROXIMATE WEIGHT = 0.07 LB.
 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 May 2010	E1000157	E1000025

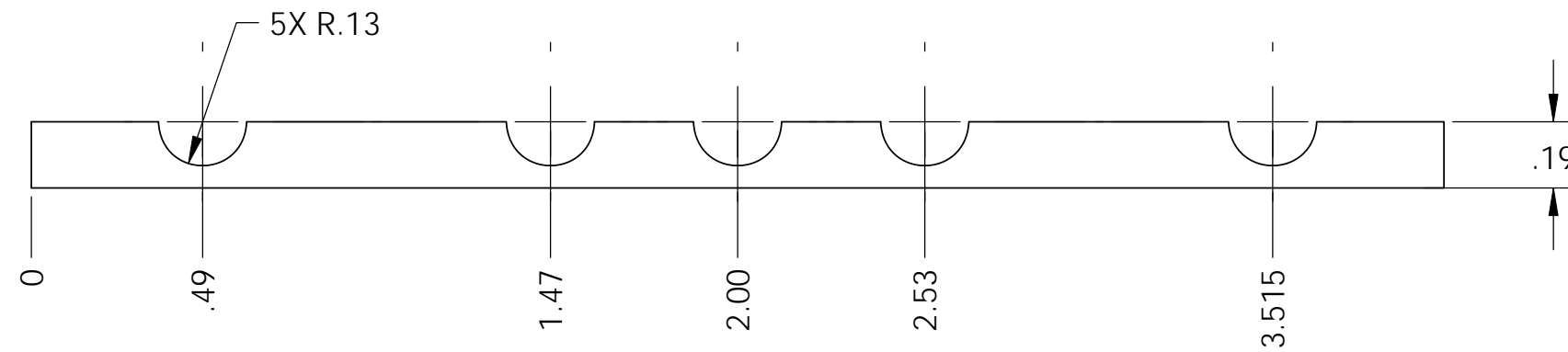
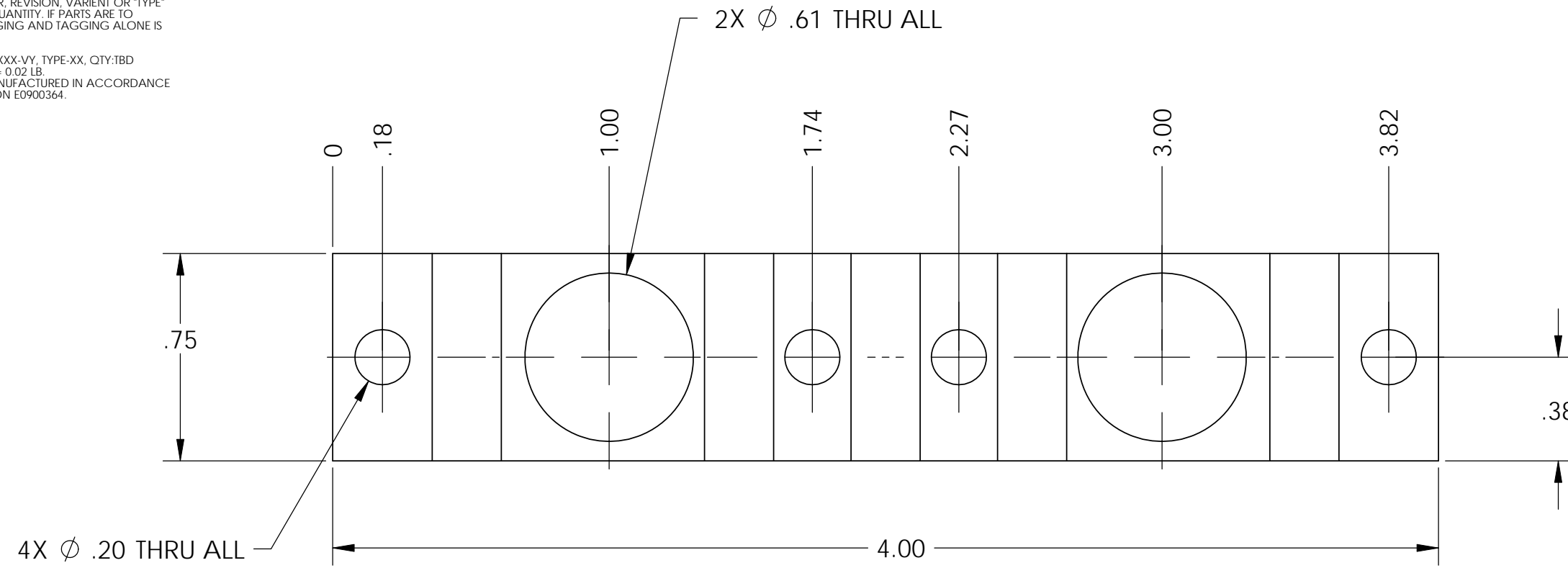


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI	
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL 6061-T6 Al		FINISH 32 μ inch		NEXT ASSY D0902670	
ANGULAR ± .5°							
				DESIGNER A.LEROUX 01 Mar. 2010		SIZE DWG. NO. B D0902672	
				DRAFTER M.HILLARD 01 Mar. 2010		REV. v1	
				CHECKER F.MATICHARD 01 Mar. 2010		SCALE: 2:1	
				APPROVAL K.MASON 01 Mar. 2010		PROJECTION: SHEET 1 OF 1	

D0902673 Joint Cable Tie, aLIGO BSC-ISI, PART PDM REV: X-006, DRAWING PDM REV: X-009

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.
 EXAMPLE (PART): 001-V1
 EXAMPLE (TAG): DXXXXXXX-VY, TYPE-XX, QTY:TBD
 6. APPROXIMATE WEIGHT = 0.02 LB.
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 May 2010	E1000157	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN.		SYSTEM		ADVANCED LIGO	
TOLERANCES: .XX ± .015 .XXX ± .005		3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SUB-SYSTEM		SEI	
ANGULAR ± .5°		MATERIAL		NEXT ASSY		D0902670	
FLUOROELASTOMER		FINISH		DESIGNER		A.LEROUX 01 Mar. 2010	
32 μinch		D0902670		DRAFTER		M.HILLARD 01 Mar. 2010	
				CHECKER		F.MATICHARD 01 Mar. 2010	
				APPROVAL		K.MASON 01 Mar. 2010	
				SCALE: 2:1		PROJECTION:	
				SIZE		DWG. NO.	
				B		D0902673	
				REV.		v1	
				SHEET 1 OF 1			

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D

D

C

C

B

B

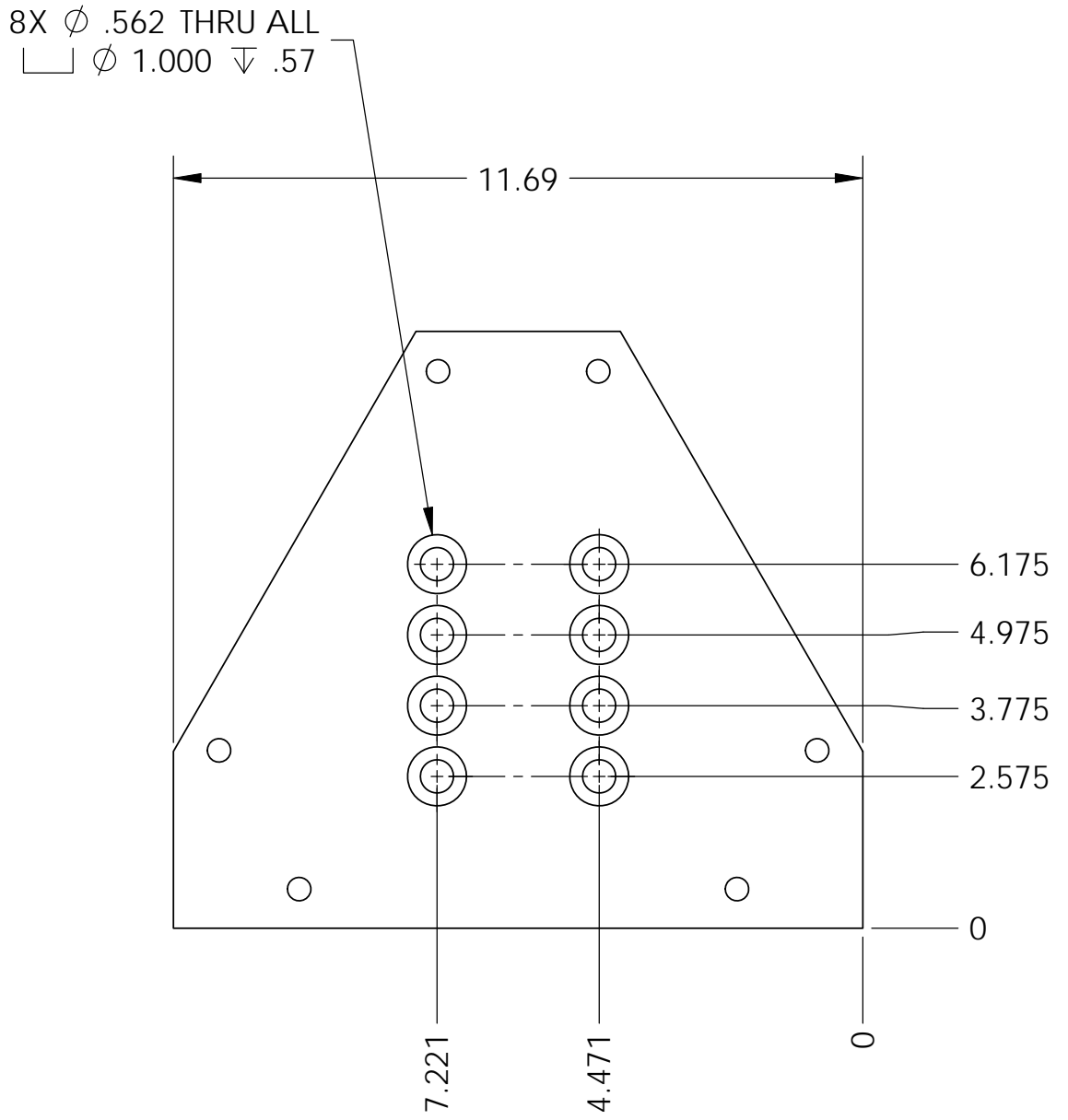
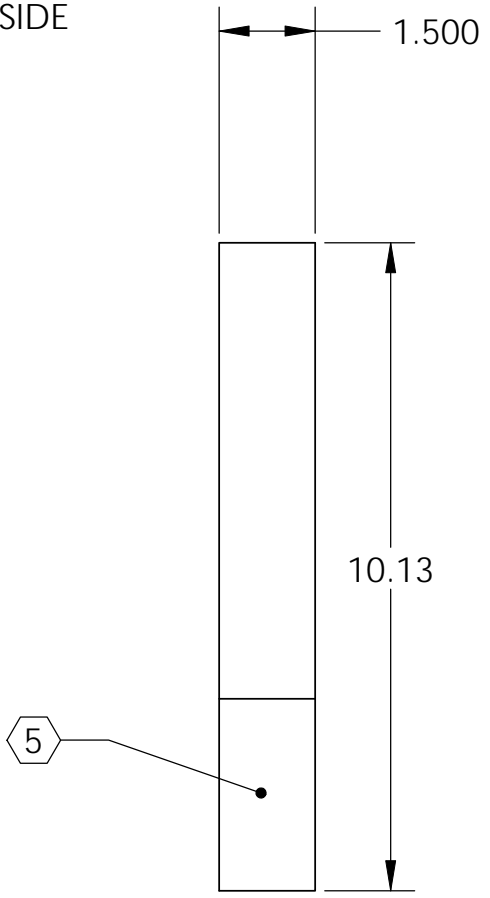
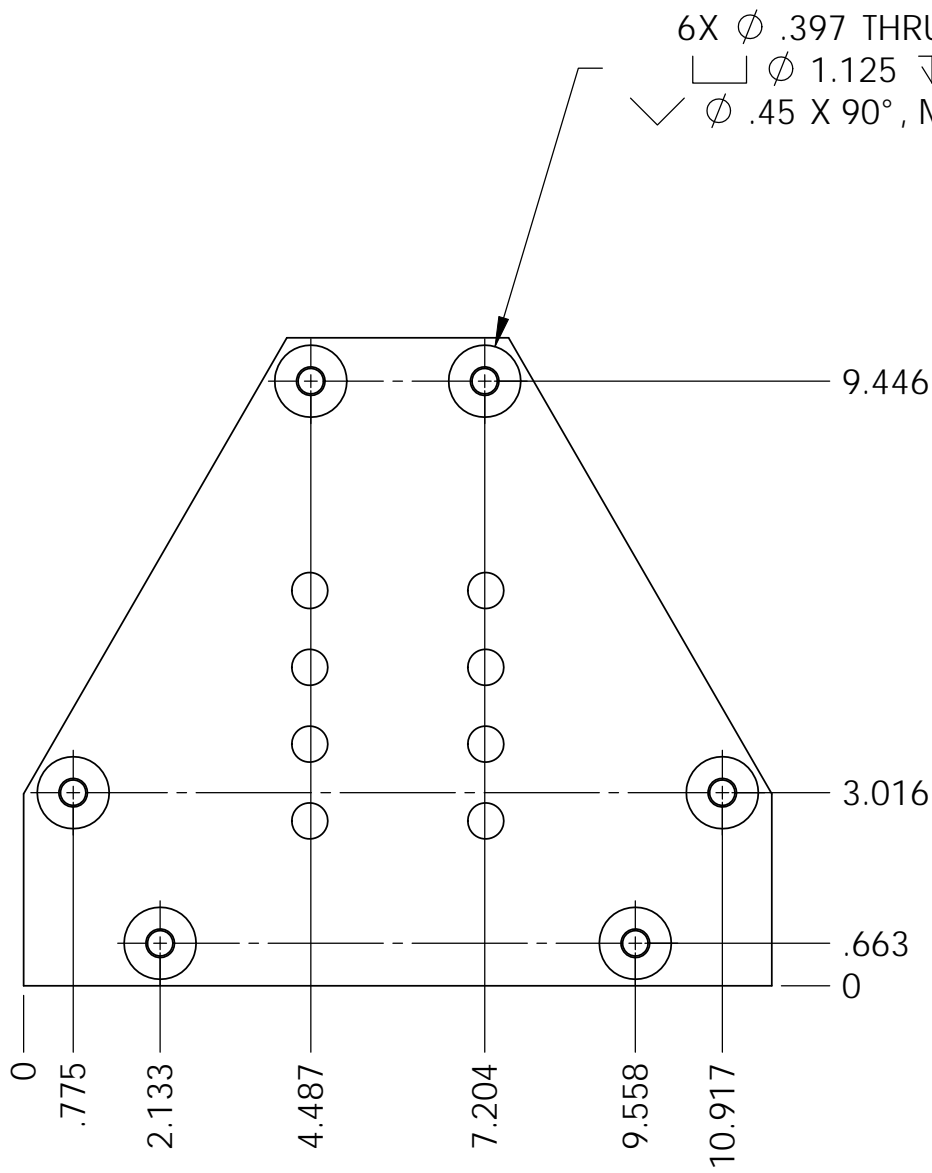
A

A

D1000745 Base, Lift Hook Receiver, BSC-ISI aLIGO, PART PDM REV: X-008, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	20 Apr. 2010	E1000152	E1000025

NOTES CONTINUED:
 (5) SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 36.5678 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME								
DIMENSIONS ARE IN INCHES TOLERANCES: .XX \pm .015 .XXX \pm .005 ANGULAR \pm 0.5°				1. INTERPRET DRAWING PER ASME Y14.5-1994, 2. BREAK ALL EDGES AND CORNERS .03 X 45°, 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI		DESIGNER S.BARNUM 20 Apr. 2010 DRAFTER M.HILLARD 20 Apr. 2010 CHECKER F.MATICHARD 20 Apr. 2010 APPROVAL K.MASON 20 Apr. 2010		SIZE B	DWG. NO. D1000745	REV. v1
				MATERIAL 304 SSSL		FINISH 63 μ inch		NEXT ASSY D1000744		SCALE: 1:3		PROJECTION:		SHEET 1 OF 1

8 7 6 5 4 3 2 1

D1000746 Vertical, Lift Hook Receiver, BSC-ISI aLIGO, PART PDM REV: X-005, DRAWING PDM REV: X-004

NOTES CONTINUED:

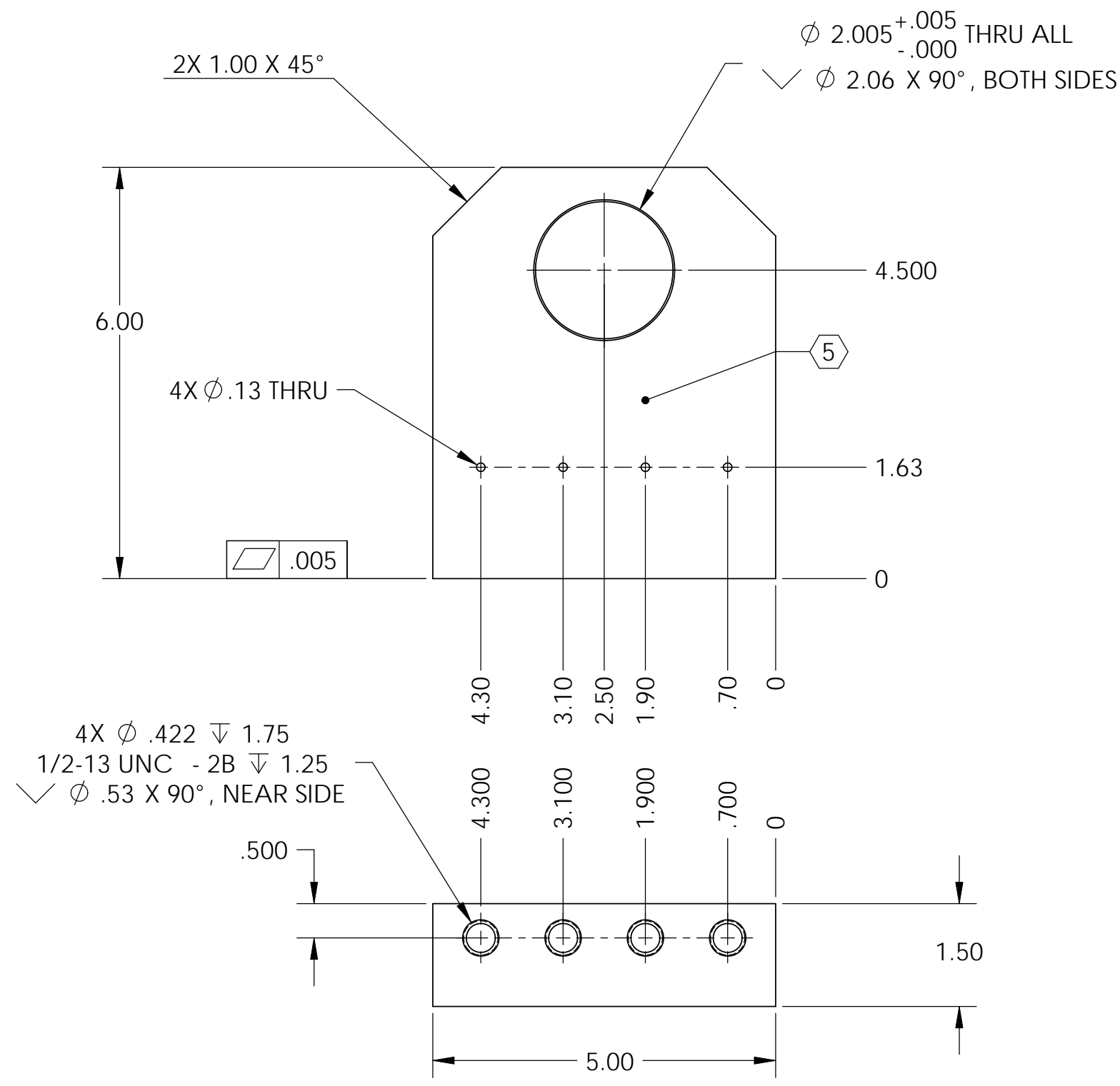
(5) SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.

6. APPROXIMATE WEIGHT = 10.894 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	20 Apr. 2010	E1000152	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°				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.		VERTICAL, LIFT HOOK RECIEVER, aLIGO BSC ISI			
						MATERIAL 304 SSSL FINISH 63 μinch		SYSTEM ADVANCED LIGO SUB-SYSTEM SEI	
				NEXT ASSY D1000744		CHECKER F.MATICHARD 20 Apr. 2010 APPROVAL K.MASON 20 Apr. 2010		REV. v1	
						SCALE: 1:2 PROJECTION:		SHEET 1 OF 1	

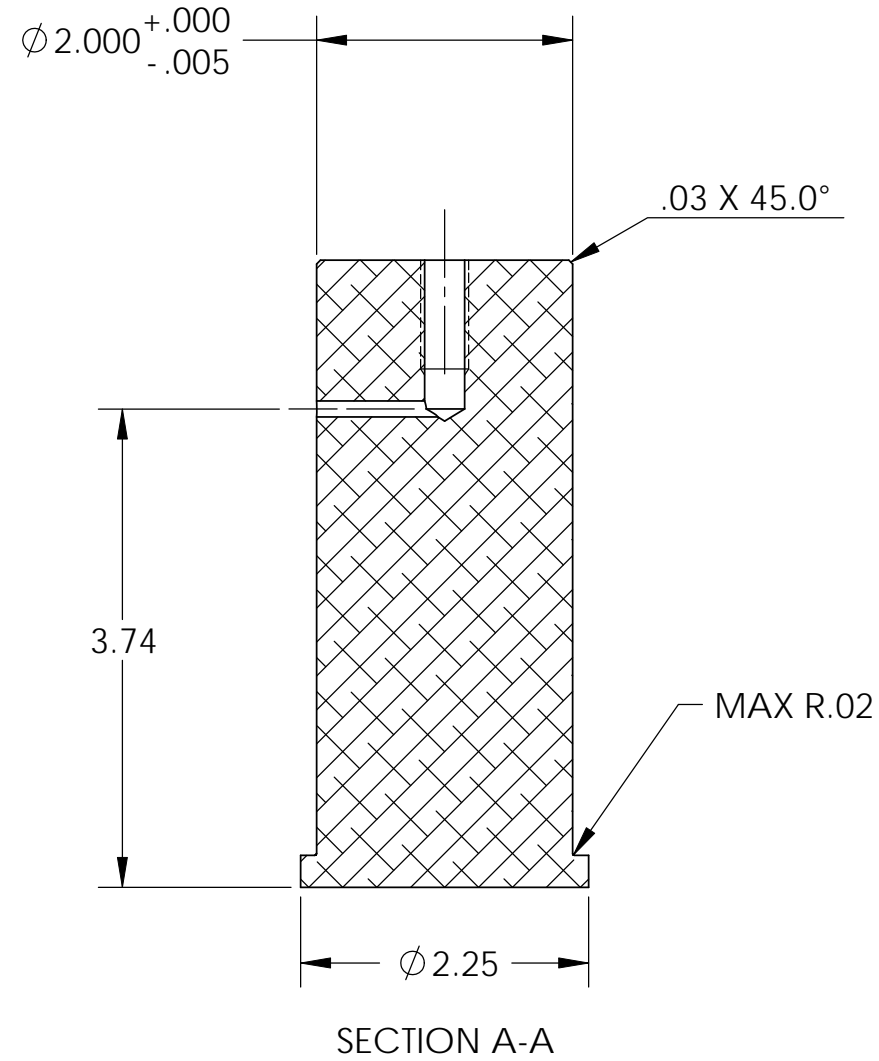
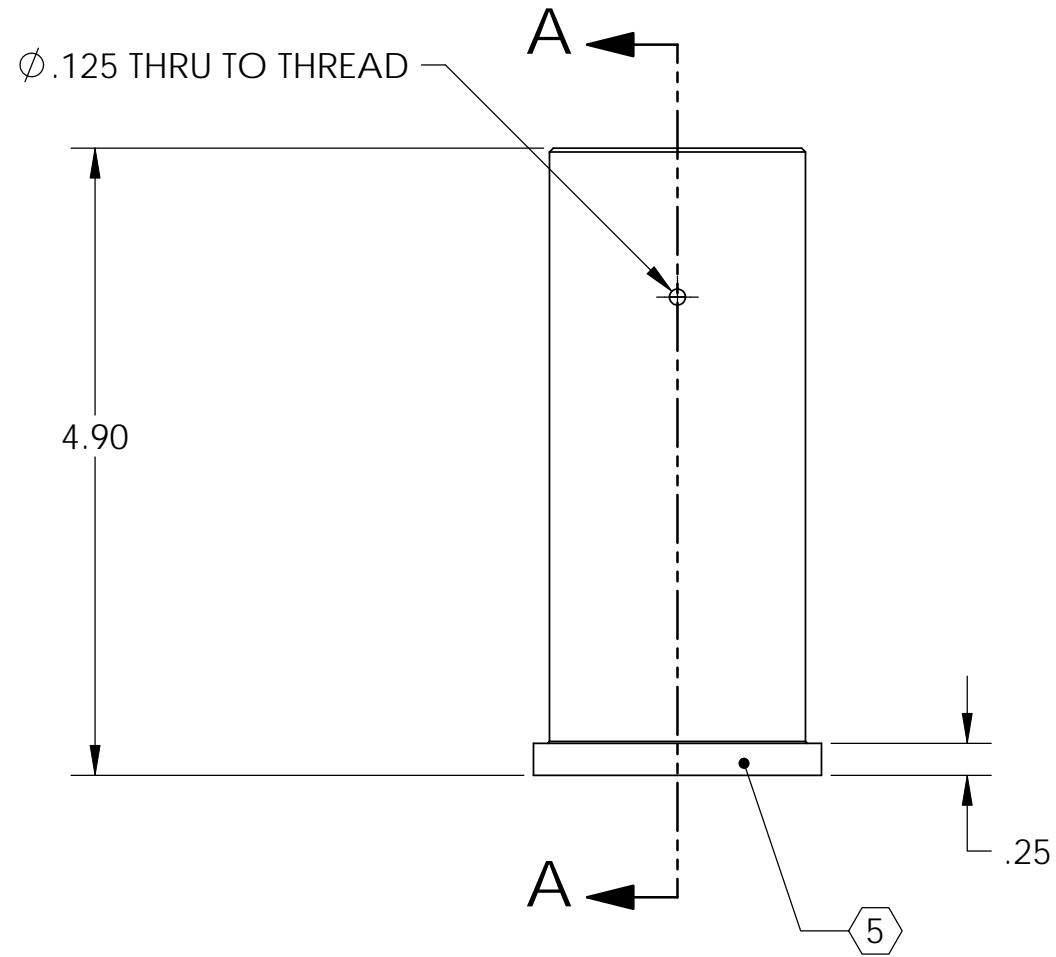
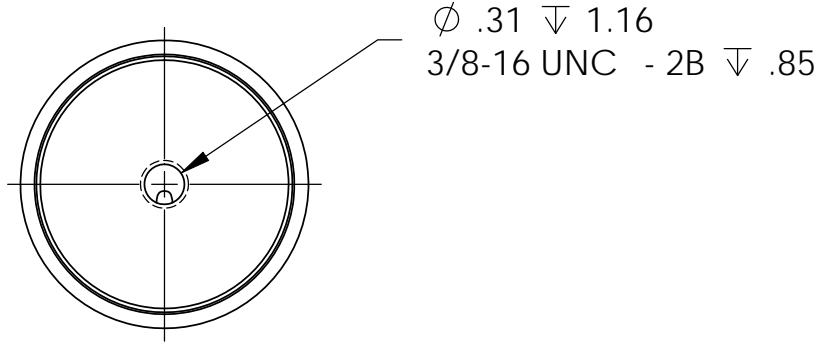
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D1000747 Pin, Lift Hook Receiver, BSC-ISI aLIGO, PART PDM REV: X-002, DRAWING PDM REV: X-003

REV.	DATE	DCN #	DRAWING TREE #
v1	20 Apr. 2010	E1000152	E1000025

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR 'TYPE' IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 4.479 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES		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.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI	
TOLERANCES: .XX ± .01 .XXX ± .005		MATERIAL 304 SSSL		FINISH 63 μ inch		NEXT ASSY D1000744	
ANGULAR ± 0.5°		DESIGNER S.BARNUM		20 Apr. 2010		SIZE DWG. NO. B D1000747	
		DRAFTER M.HILLARD		20 Apr. 2010		REV. v1	
		CHECKER F.MATICHARD		20 Apr. 2010		SCALE: 2:3	
		APPROVAL K.MASON		20 Apr. 2010		PROJECTION: SHEET 1 OF 1	

D1000748 Pin Keeper, Lift Hook Receiver, BSC-ISI aLIGO, PART PDM REV: X-003, DRAWING PDM REV: X-002

REV.	DATE	DCN #	DRAWING TREE #
v1	20 Apr. 2010	E1000152	E1000025

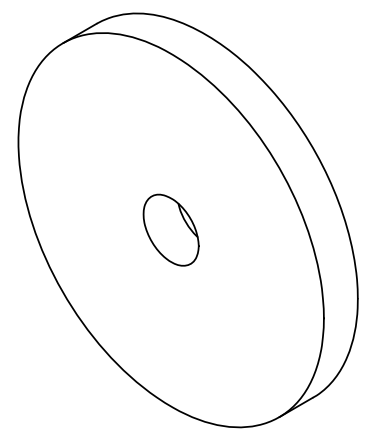
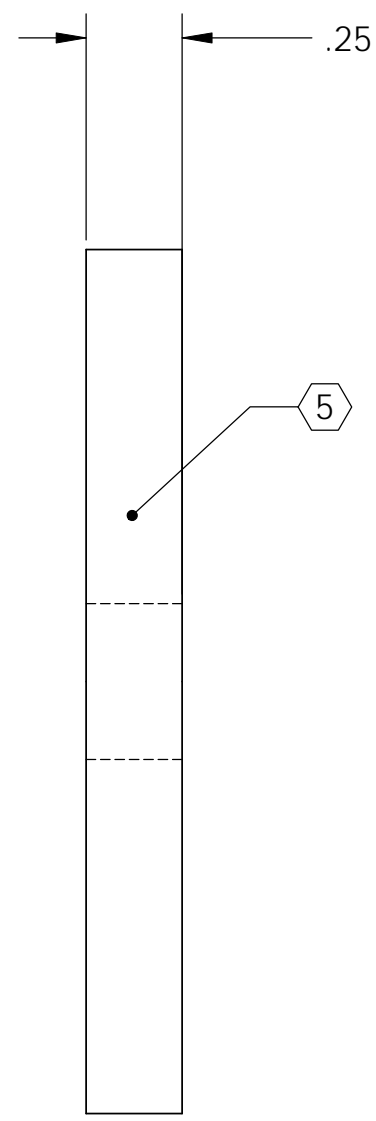
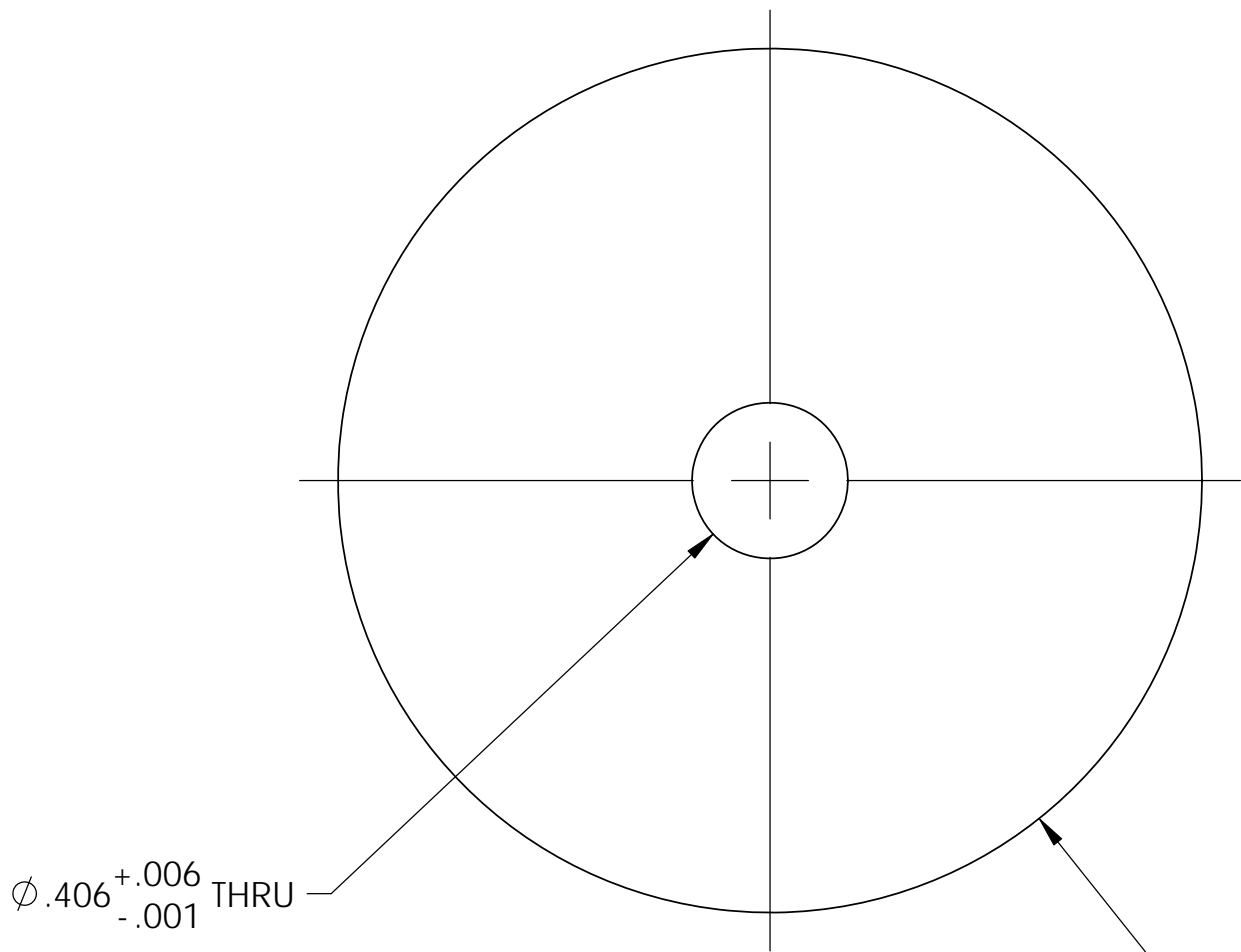
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.

6. APPROXIMATE WEIGHT = 0.278 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME						
DIMENSIONS ARE IN INCHES		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.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI		PIN KEEPER, LIFT HOOK RECIEVER, aLIGO BSC ISI				
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL 304 SSSL		FINISH 63 μinch		NEXT ASSY D1000744		DESIGNER S.BARNUM 20 Apr. 2010	SIZE B	DWG. NO. D1000748	REV. v1	
ANGULAR ± 0.5°						CHECKER M.MATICHARD 20 Apr. 2010		APPROVAL K.MASON 20 Apr. 2010		SCALE: 2:1	PROJECTION:	SHEET 1 OF 1

8 7 6 5 4 3 2 1

D1000753 Base, Safety, Lift Hook Receiver, BSC-ISI, aLIGO, PART PDM REV: X-003, DRAWING PDM REV: X-004

REV.	DATE	DCN #	DRAWING TREE #
v1	20 Apr. 2010	E1000152	E1000025

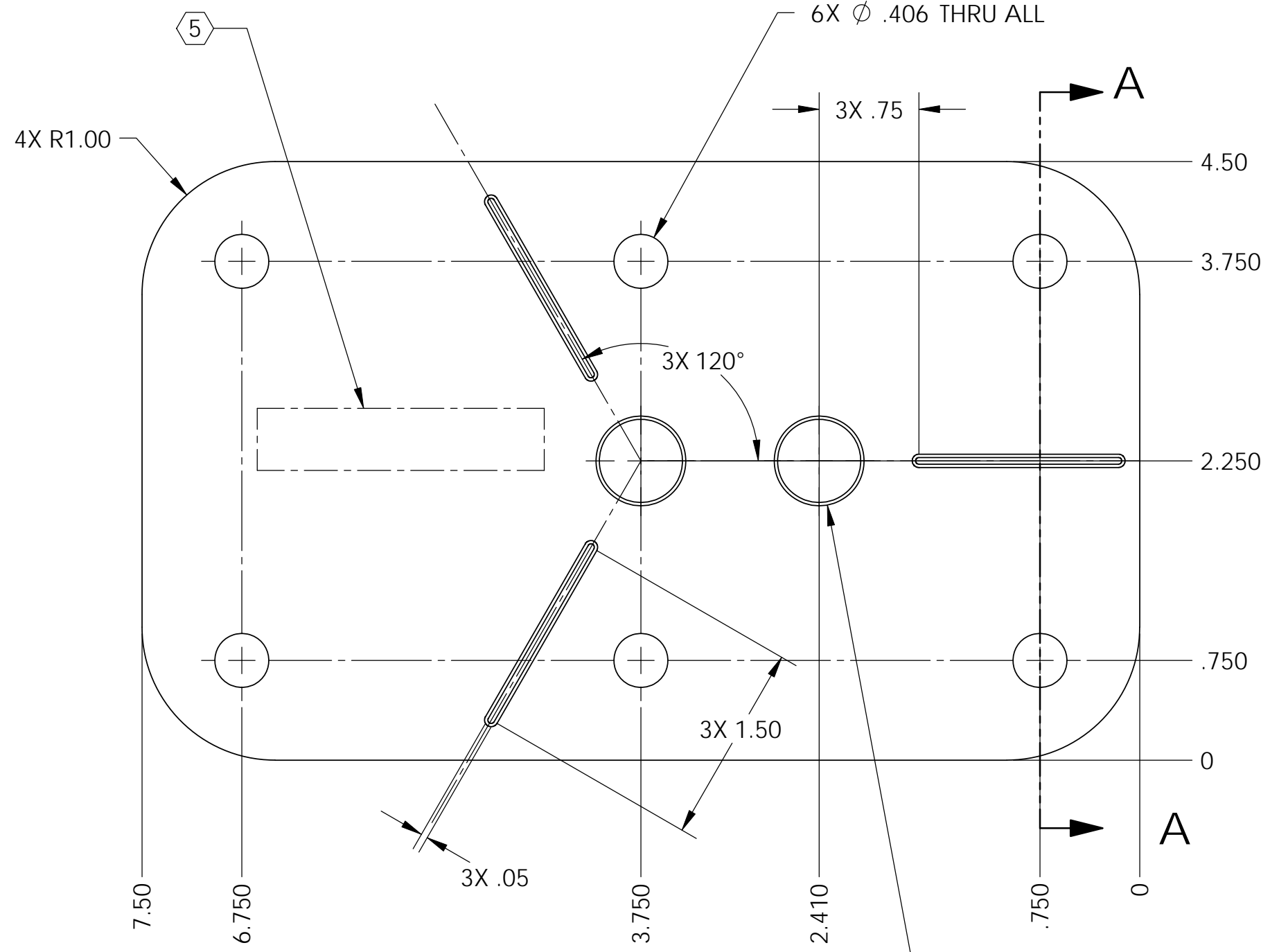
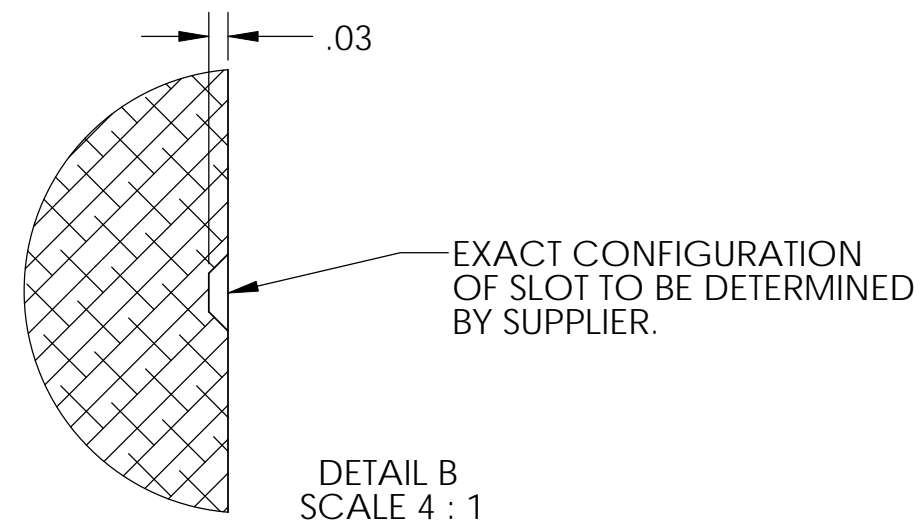
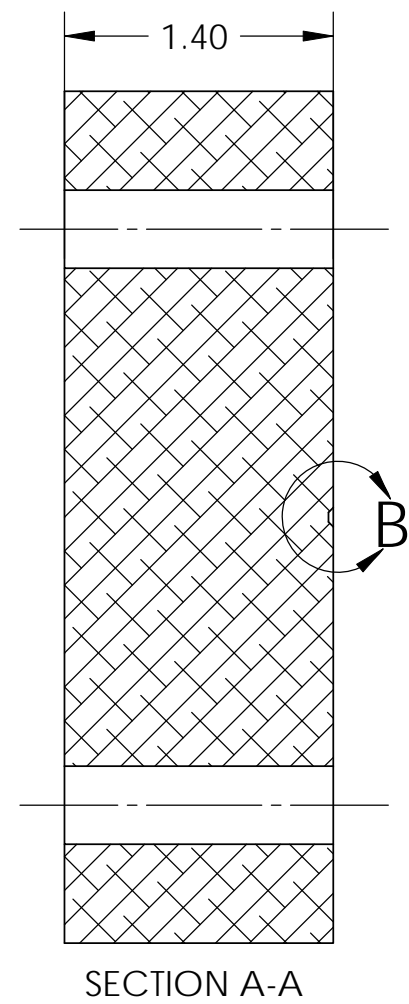
NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.

6. APPROXIMATE WEIGHT = 5.780 LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES (INCLUDING SANDING OR SCOURING FOR MATTE FINISH) IS NOT ALLOWED.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



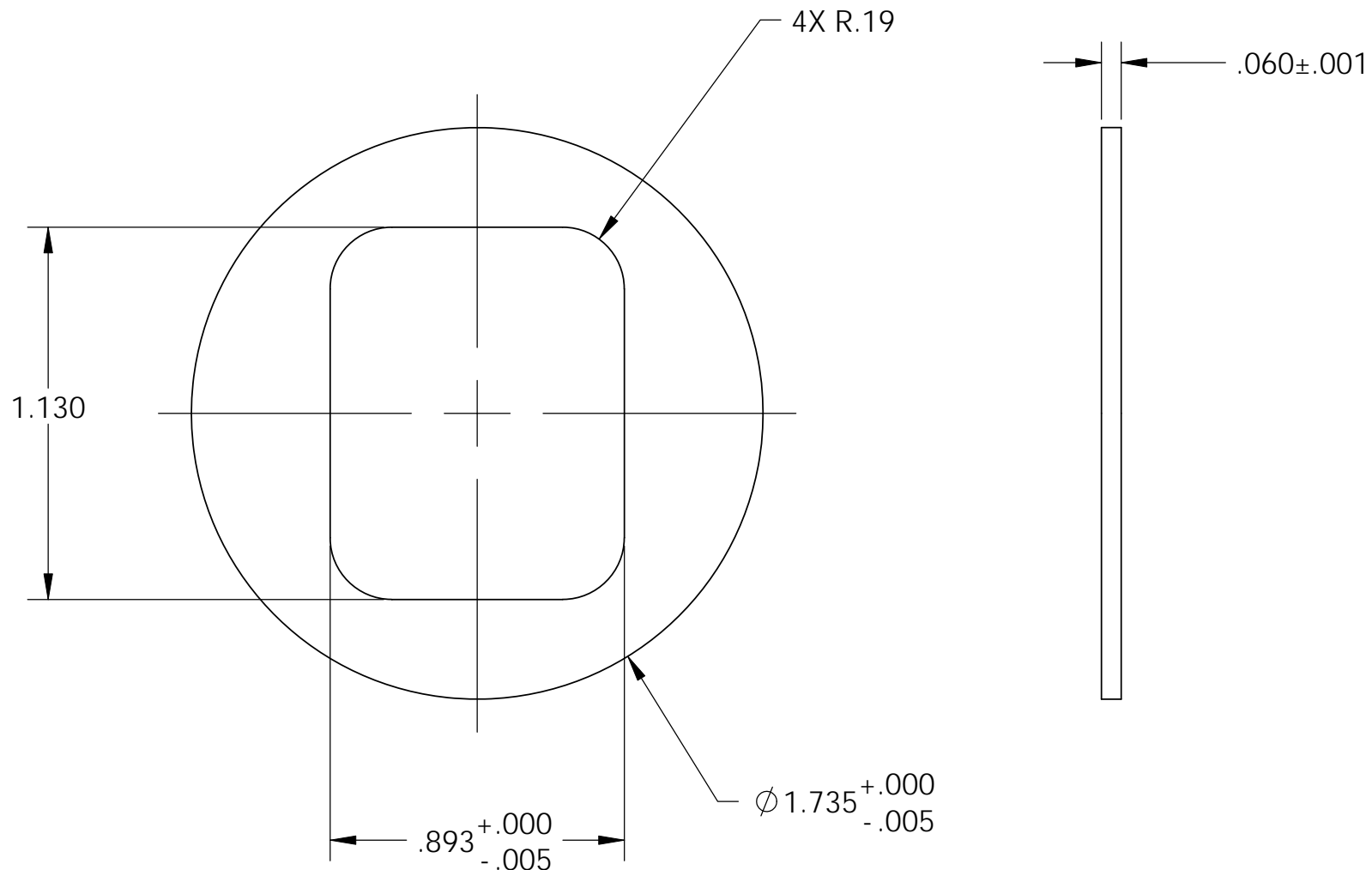
2X ϕ .53 THRU ALL
 5/8-11 UNC - 2B THRU ALL
 \checkmark ϕ .68 X 120°, NEAR SIDE

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .015 .XXX ± .005 ANGULAR ± 0.5°				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.		BASE, SAFETY, LIFT HOOK RECIEVER, aLIGO BSC ISI	
MATERIAL		FINISH		NEXT ASSY		DESIGNER	
304 SSSL		63 μ inch		D1000756		S.BARNUM 20 Apr. 2010	
						DRFTR	
						M.HILLARD 20 Apr. 2010	
						CHECKER	
						F.MATICHARD 20 Apr. 2010	
						APPROVAL	
						K.MASON 20 Apr. 2010	
						SIZE DWG. NO.	
						B D1000753	
						REV.	
						v1	
						SCALE: 1:1 PROJECTION: SHEET 1 OF 1	

D1001111 STAGE 0-2 ALIGNMENT WASHER, aLIGO BSC ISI, PART PDM REV: X-003, DRAWING PDM REV: X-002

NOTES CONTINUED:
 (5) SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.024 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 May. 2010	E1000155	E1000025

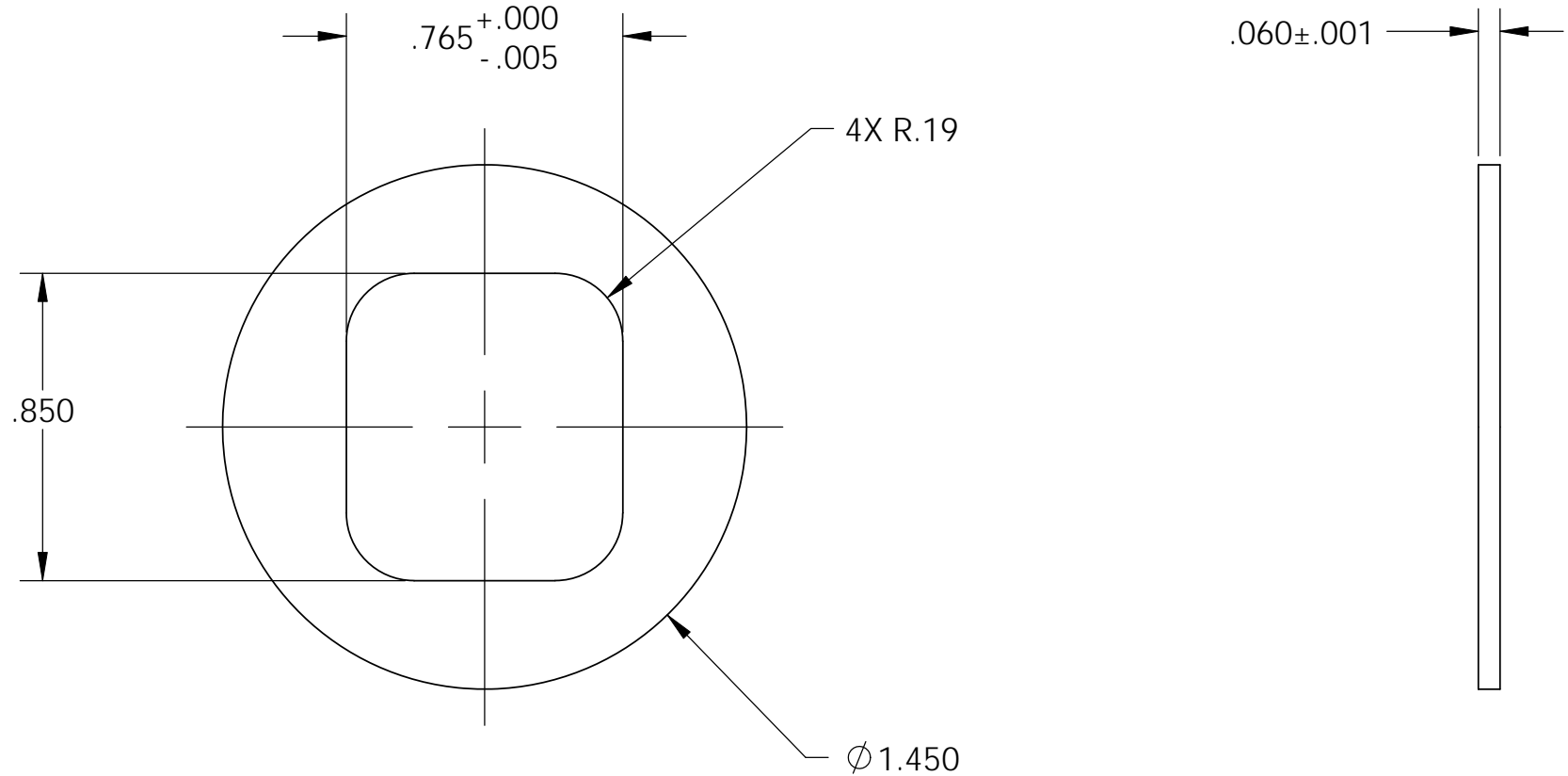


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME						
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI		STAGE 0-2 ALIGNMENT WASHER, aLIGO BSC ISI				
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL 304, 316 OR 302 SSSL		FINISH 63 μinch		NEXT ASSY D1001110		DESIGNER ASI	12 Dec. 2005	SIZE B	DWG. NO. D1001111	REV. v1
ANGULAR ± .5°						APPROVAL K.MASON		10 May. 2010	10 May. 2010	SCALE: 2:1	PROJECTION:	SHEET 1 OF 1

D1001113 STAGE 1-2 TOOLING STANDOFF WASHER, aLIGO BSC ISI, PART PDM REV: X-003, DRAWING PDM REV: X-002

NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12 HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
 EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
 6. APPROXIMATE WEIGHT = 0.018 LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 May. 2010	E1000155	E1000025



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME						
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. BREAK ALL EDGES AND CORNERS .03 X 45°. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM ADVANCED LIGO		SUB-SYSTEM SEI		STAGE 1-2 TOOLING STANDOFF WASHER, aLIGO BSC ISI				
TOLERANCES: .XX ± .015 .XXX ± .005		MATERIAL 304, 316 OR 302 SSSL		FINISH 63 μinch		NEXT ASSY D1001112		DESIGNER ASI	12 Dec. 2005	SIZE B	DWG. NO. D1001113	REV. v1
ANGULAR ± .5°		APPROVAL K.MASON		10 May. 2010		10 May. 2010		SCALE: 2:1		PROJECTION:		SHEET 1 OF 1