

D1000070 TRANSMON_TLE_END_PLATE_PRIMARY_3_TUBE, PART PDM REV: X-114, DRAWING PDM REV: X-045

NOTES CONTINUED:

5. SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LASER MARK 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. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = 12.16 LB [5.52 kg]

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. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE. THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.

10. ALL TAPPED HOLES- USE .005 OVERSIZE BOTH DRILL & TAP.

MANUFACTURING PROCESS (DOES NOT PERTAIN TO .0003 T.I.R. COPLANAR REGIONS, SHEET 5):
PURCHASE 3/4" ALUM. ALLOY 6061-T651 PLATE.

ROUGH BLANCHARD GRIND, EQUAL AMOUNTS FROM STOCK FROM EACH SIDE OF ALUM. PLATES.

COLD STABILIZE PLATES.

FINISH GRIND BOTH SIDES TO: .535 THICKNESS WITH A FLATNESS OF .002 ACROSS ENTIRE FACE.

RE-CLAMP, MACHINE & ENGRAVE BALANCE OF PART IN THE FLAT.

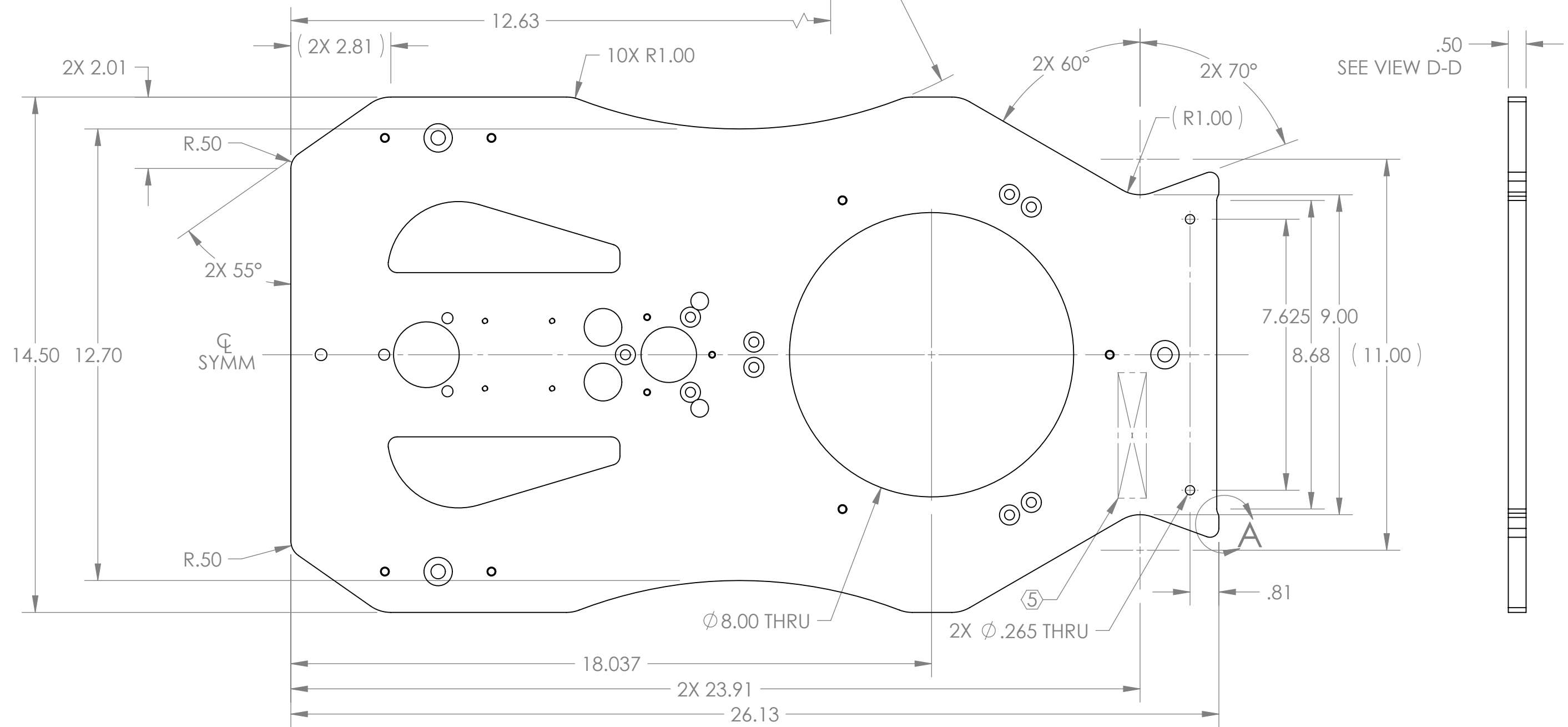
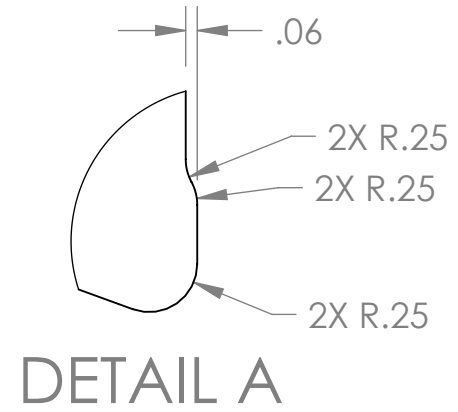
ON TOOLROOM VERTICAL MILL MACHINE, CLAMP PART TO ANGLE PLATE. MACHINE HOLE FOR 5/16-18 OVERSIZE THREAD PER 10 ON (1) END OF EACH PART.

HAND DEBURR PARTS WITH BURR KNIVES & ROTARY CARBIDE BURRS.

HAND TAP ALL REQUIRED HOLES, .005 OVERSIZE PER 10.

INSPECT PARTS. ASSURE A FLATNESS OF .003 OR BETTER OVER FACE 'A' (SEE SHEET 5). SEND MATERIAL CERTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	08 NOV 2010	E1000365-v1	-
v2	08 MAR 2011	E1100080-v1	-
-	-	-	-

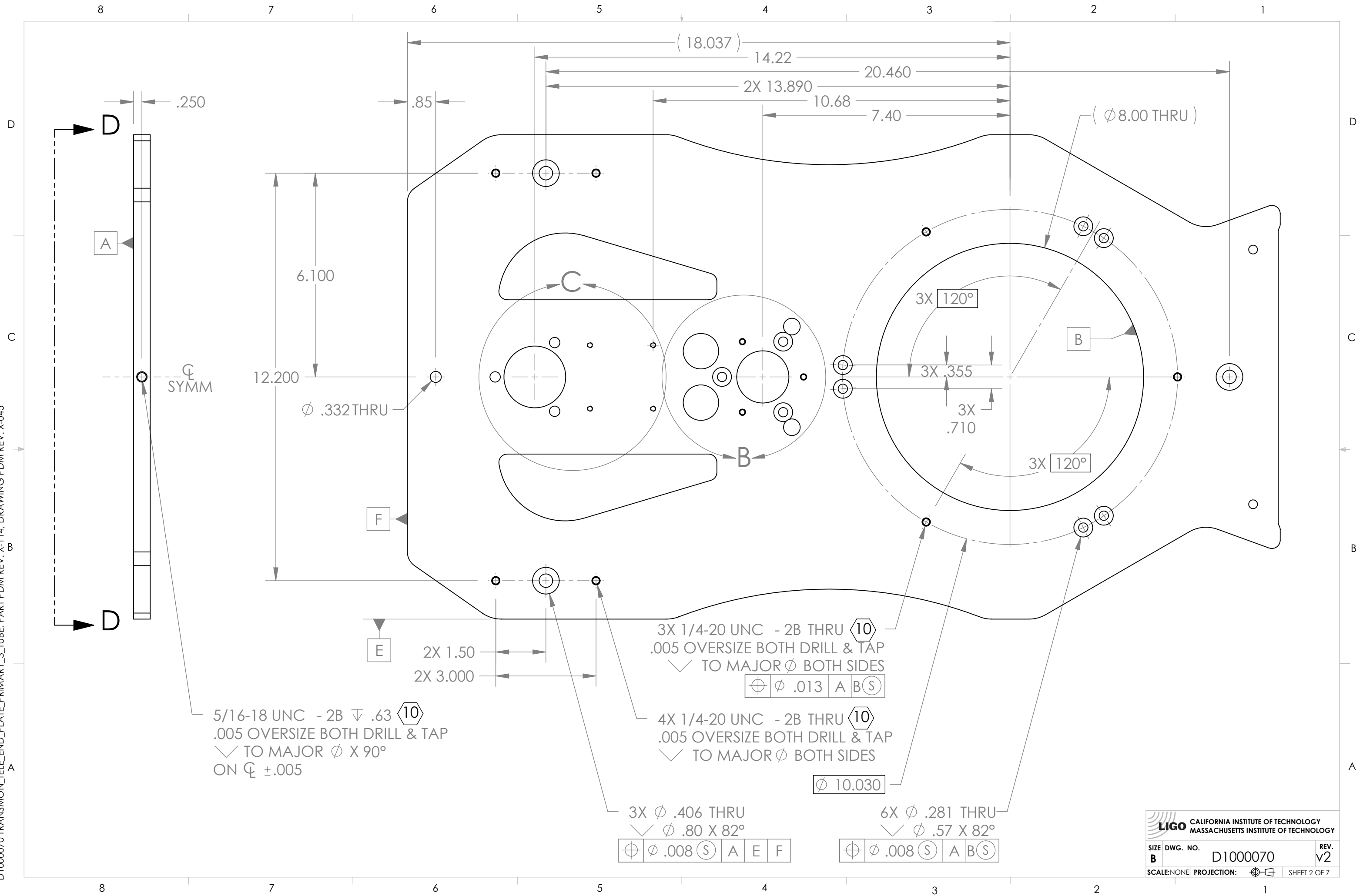


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
1. INTERPRET DRAWING PER ASME Y14.5-1994.	
2. REMOVE ALL SHARP EDGES, R.02 MIN.	
3. DO NOT SCALE FROM DRAWING.	
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
TOLERANCES: .XX ± .01 .XXX ± .005	FINISH 63 μinch Ra
DIMENSIONS ARE IN INCHES	MATERIAL 6061-T6 Al
ANGULAR ± 1.0°	

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME TRANSMON TELE END PLATE PRIMARY 3 TUBE
SYSTEM ADVANCED LIGO	SUB-SYSTEM AOS
NEXT ASSY D1003120	DESIGNER K. MAILAND
	DRAFTER C. CONLEY
	CHECKER K. MAILAND
	APPROVAL K. MAILAND

DATE 21 JUN 2010	SIZE B	DWG. NO. D1000070	REV. v2
DATE 24 SEP 2010			
DATE 27 SEP 2010			
DATE 08 NOV 2010	SCALE NONE	PROJECTION FIRST ANGLE	SHEET 1 OF 7

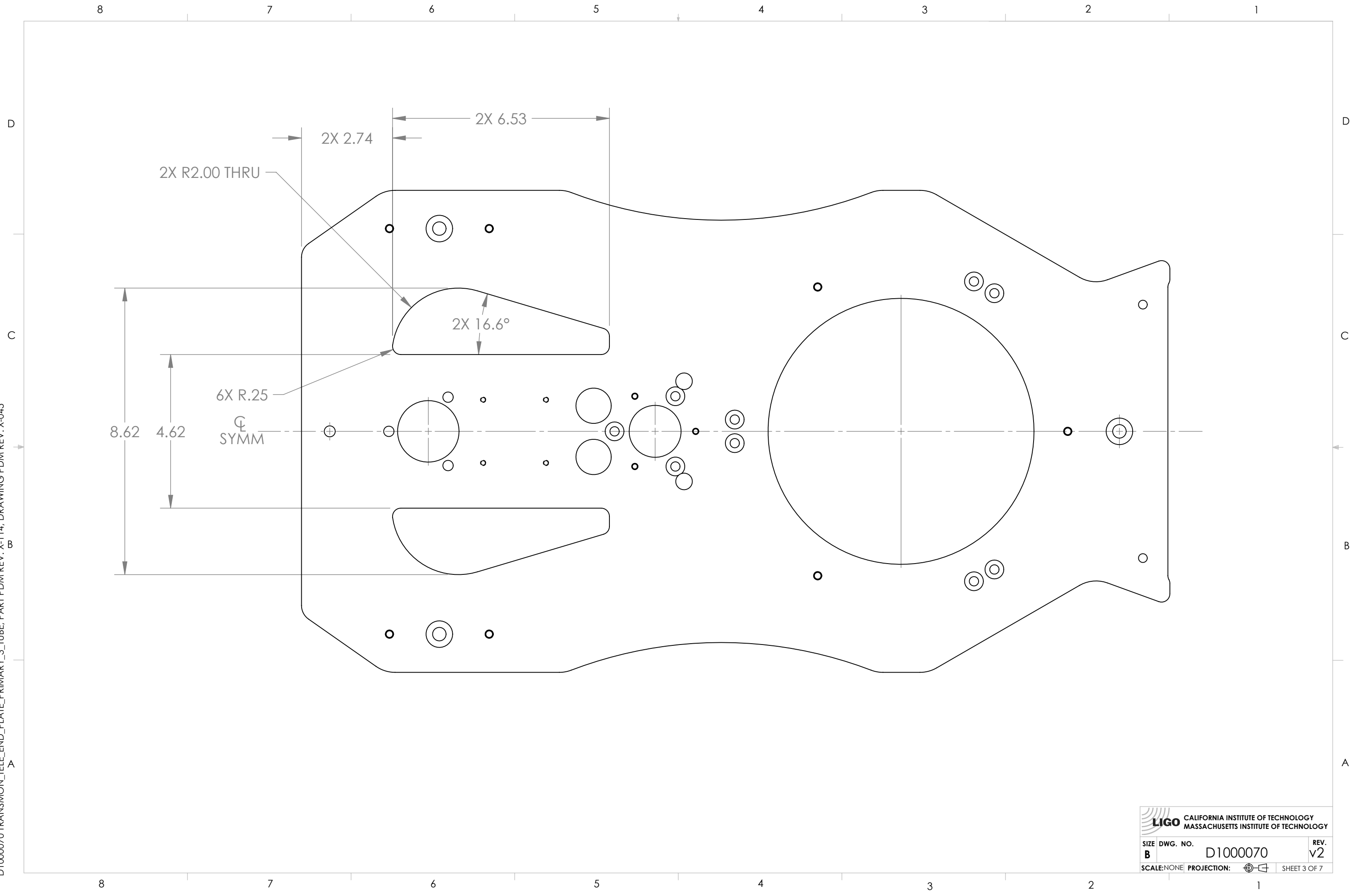
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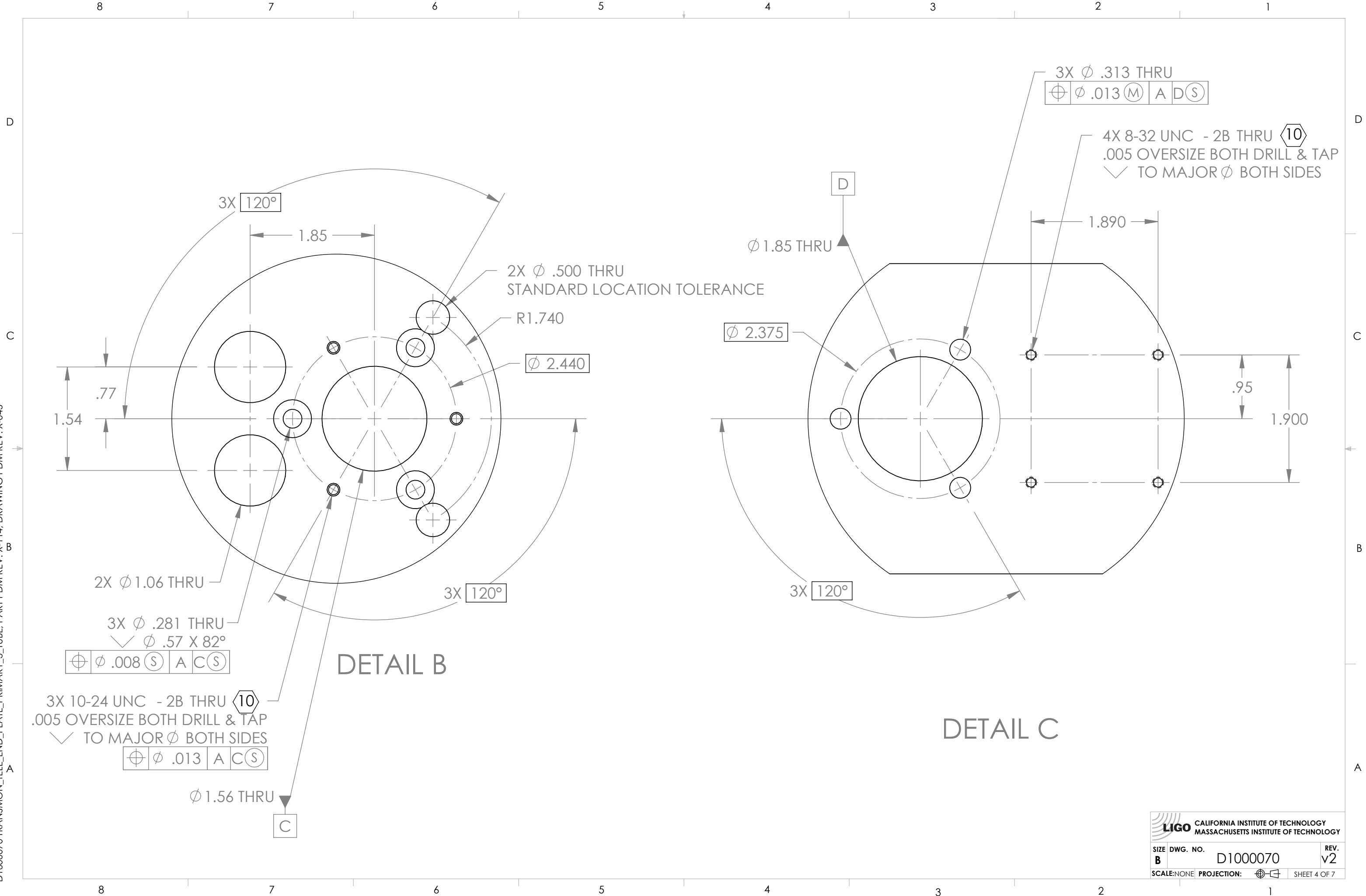
SIZE	DWG. NO.	REV.
B	D1000070	v2
SCALE: NONE	PROJECTION:	SHEET 2 OF 7

D1000070 TRANSMON_TEL_END_PLATE_PRIMARY_3_TUBE, PART PDM REV: X-114, DRAWING PDM REV: X-045



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SIZE	DWG. NO.	REV.
B	D1000070	v2
SCALE: NONE	PROJECTION:	SHEET 3 OF 7

D1000070 TRANSMON_TELE_END_PLATE_PRIMARY_3_TUBE, PART PDM REV: X-114, DRAWING PDM REV: X-045



DETAIL B

DETAIL C

3X 120°

1.85

2X ϕ .500 THRU
STANDARD LOCATION TOLERANCE

R1.740

ϕ 2.440

1.54

.77

2X ϕ 1.06 THRU

3X ϕ .281 THRU
✓ ϕ .57 X 82°

3X 10-24 UNC - 2B THRU $\text{\textcircled{10}}$
.005 OVERSIZE BOTH DRILL & TAP
✓ TO MAJOR ϕ BOTH SIDES

ϕ 1.56 THRU

3X ϕ .313 THRU
 $\text{\textcircled{+}} \phi$.013 (M) A D (S)

4X 8-32 UNC - 2B THRU $\text{\textcircled{10}}$
.005 OVERSIZE BOTH DRILL & TAP
✓ TO MAJOR ϕ BOTH SIDES

ϕ 1.85 THRU

ϕ 2.375

1.890

.95

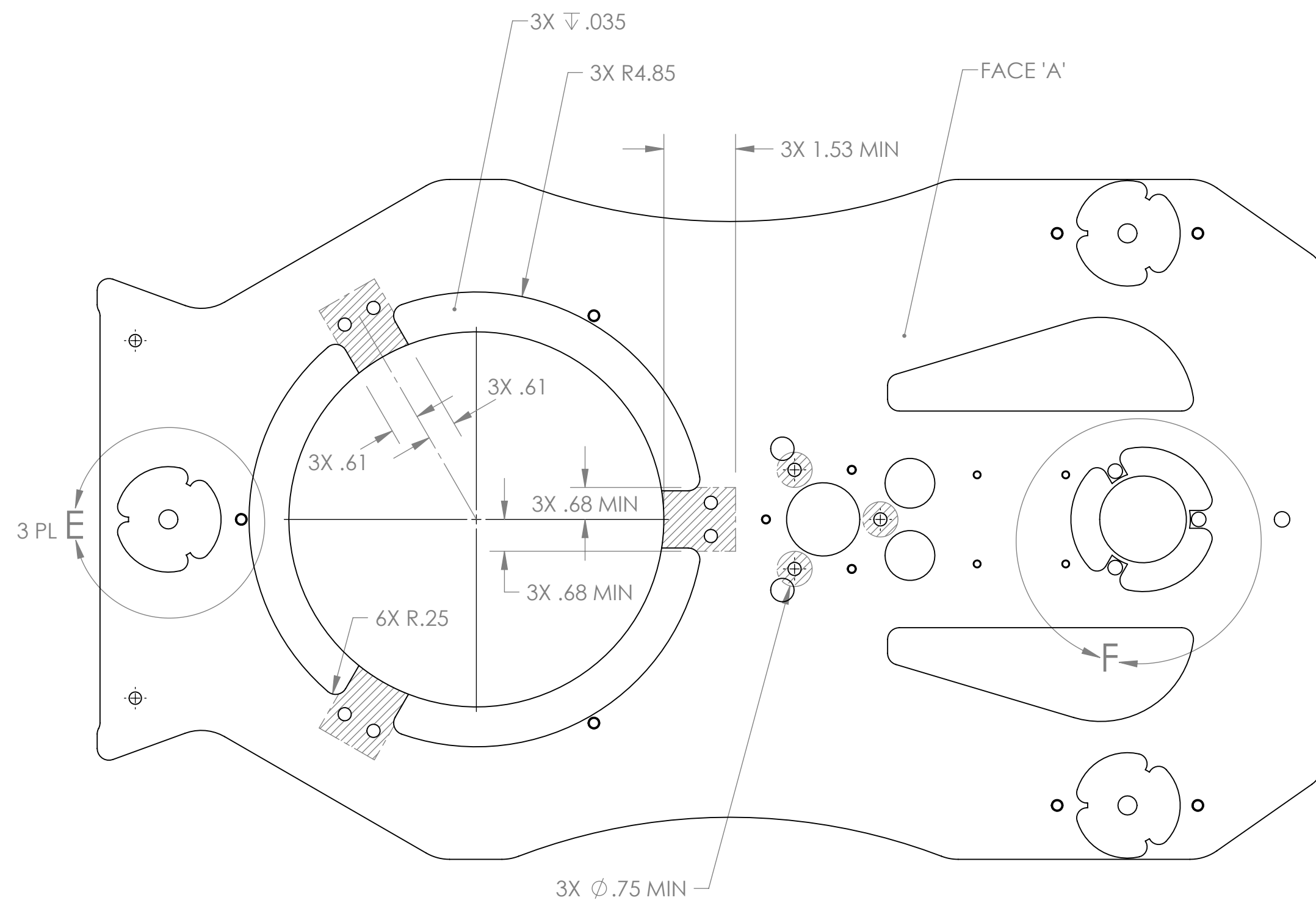
1.900

3X 120°

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SIZE	DWG. NO.	REV.
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SCALE: NONE	PROJECTION:	SHEET 4 OF 7

D1000070 TRANSMON_TLE_END_PLATE_PRIMARY_3_TUBE, PART PDM REV: X-114, DRAWING PDM REV: X-045

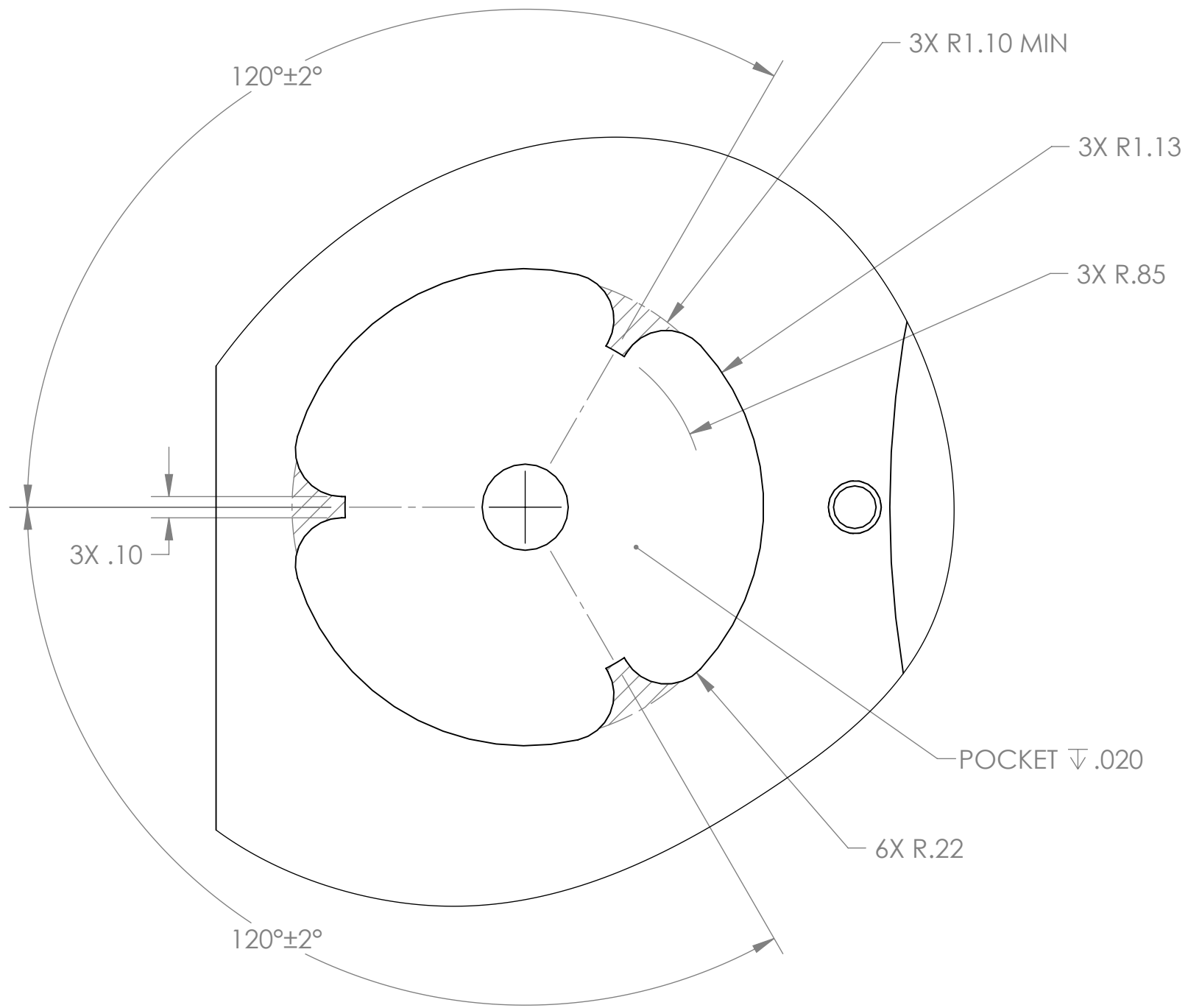


VIEW D-D

ALL HATCHED AREAS .0003 T.I.R. COPLANAR INCLUDING 12 AREAS ON FEATURES DETAIL E & DETAIL F, SEE SHEETS 6 & 7


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SIZE B	DWG. NO. D1000070	REV. v2
SCALE: NONE	PROJECTION:	SHEET 5 OF 7

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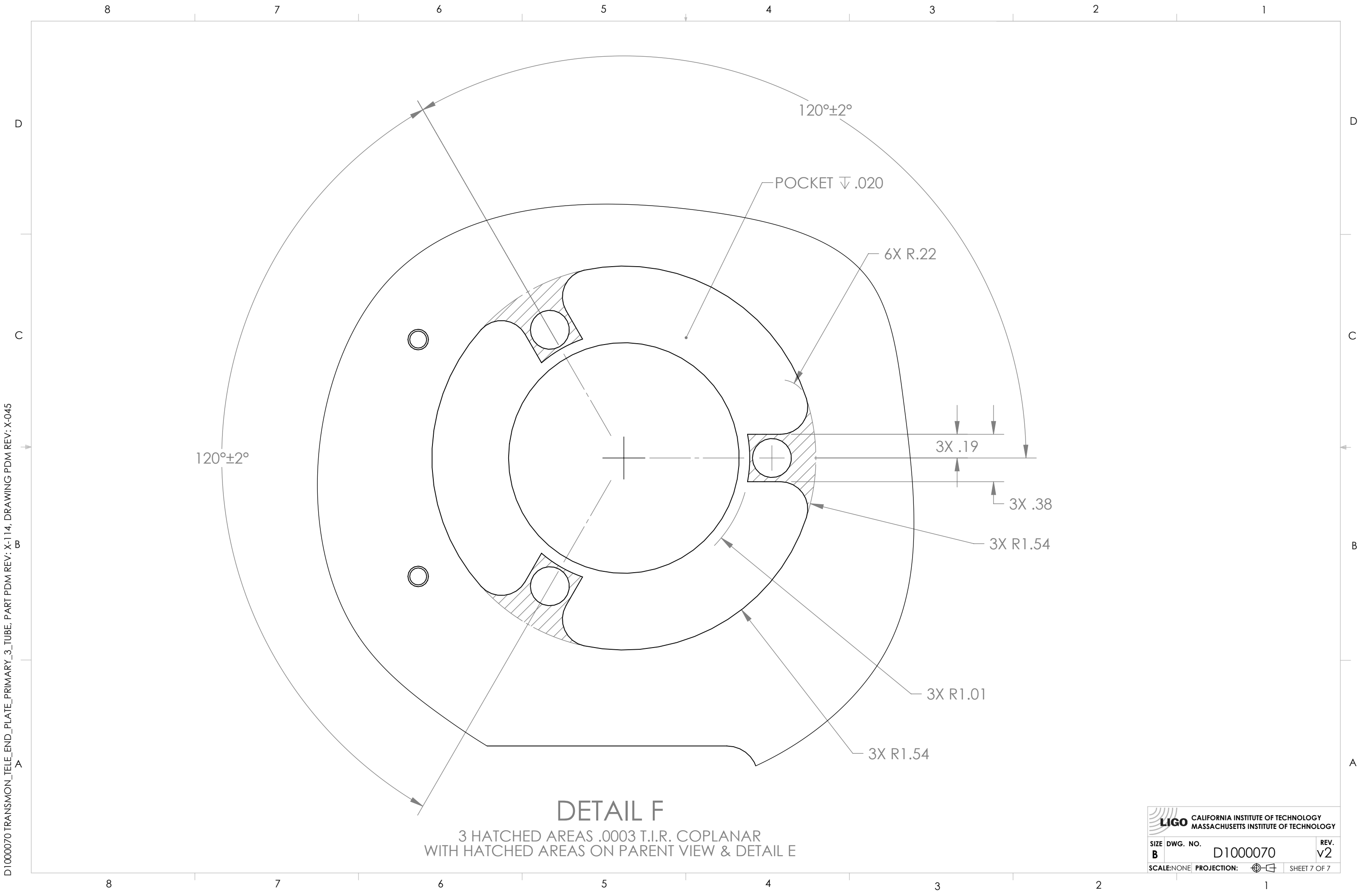


DETAIL E

3 PLACES
 9 HATCHED AREAS .0003 T.I.R. COPLANAR
 WITH HATCHED AREAS ON PARENT VIEW & DETAIL F

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SIZE	DWG. NO.	REV.
B	D1000070	v2
SCALE: NONE	PROJECTION:	SHEET 6 OF 7

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DETAIL F

3 HATCHED AREAS .0003 T.I.R. COPLANAR WITH HATCHED AREAS ON PARENT VIEW & DETAIL E

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SIZE	DWG. NO.	REV.
B	D1000070	v2
SCALE: NONE	PROJECTION:	SHEET 7 OF 7