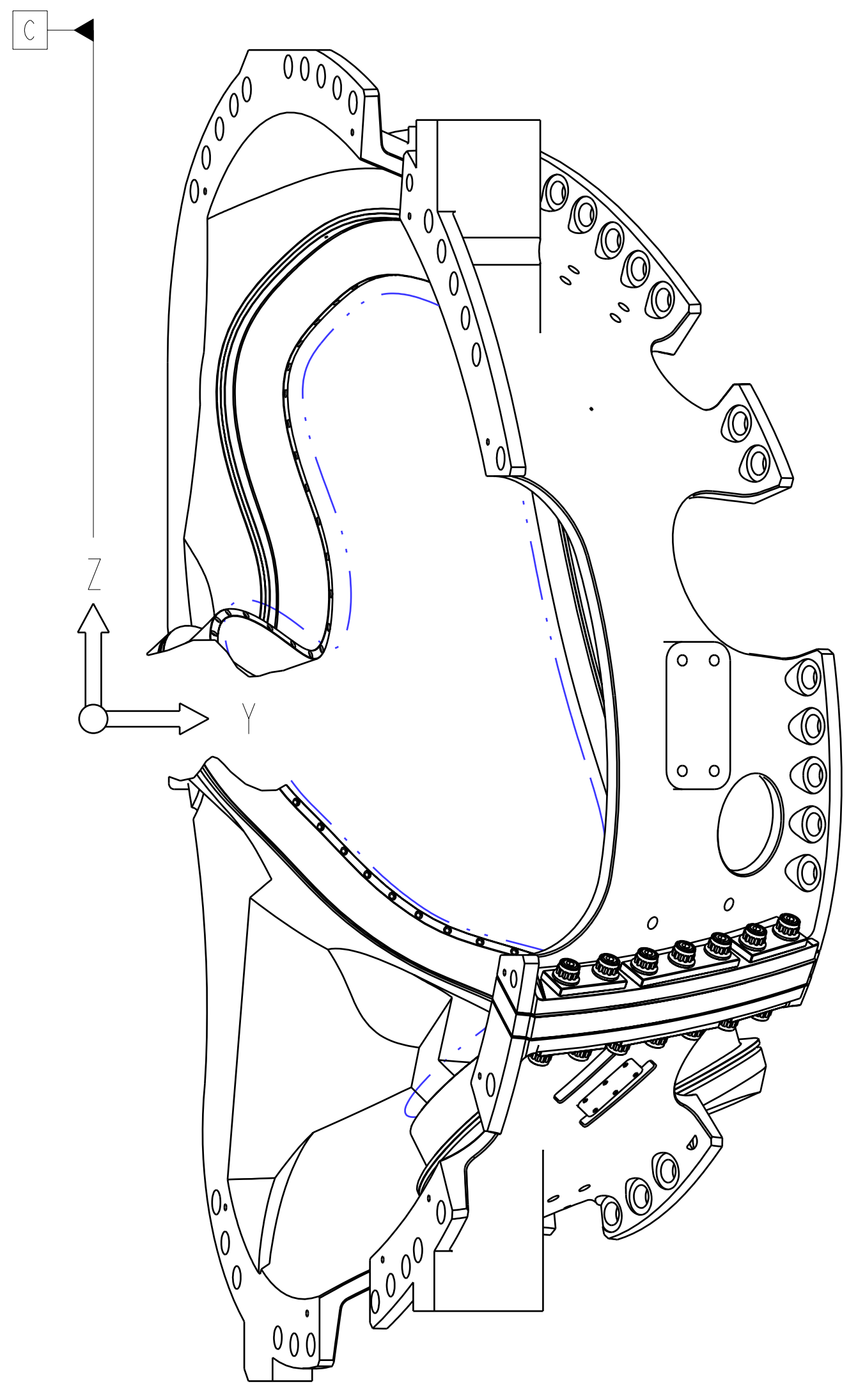
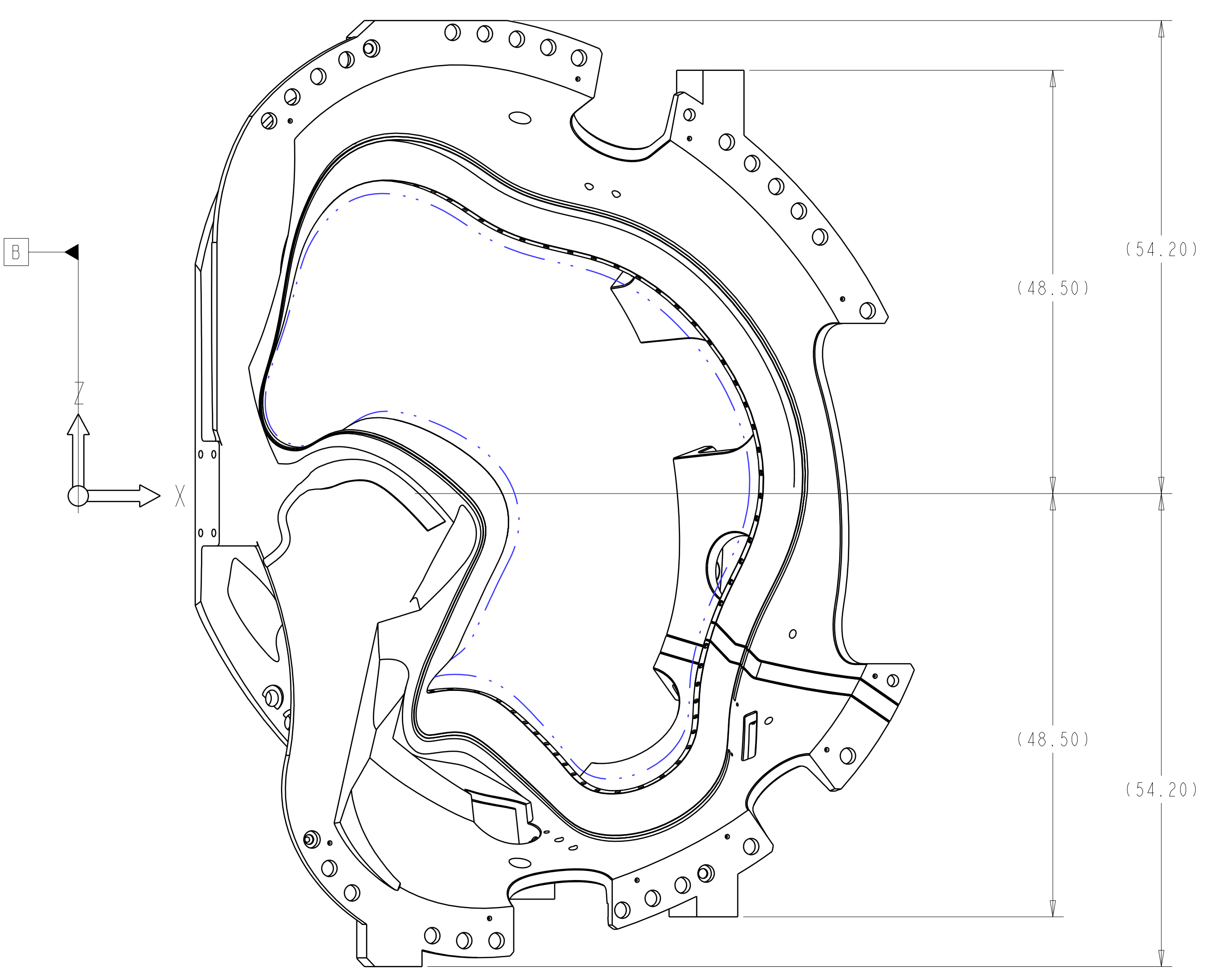


- NOTES:
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.8M-1996
  - INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994
  - DIMENSIONS ARE IN INCHES
  - DRAWING DEPICTS FINAL MACHINED STATE OF PART DEFINED BY PRO/ENGINEER FILE SE141-102.ASM
  - UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE RELATED TO DATUM A- (PRIMARY X-Y PLANE, TOP) DATUM B- (SECONDARY Y-Z PLANE, SIDE) DATUM C- (TERTIARY X-Z PLANE, FRONT)
  - DIMENSIONS APPLY AT TEMPERATURE OF 20-30°C (68-86°F)
  - DIMENSIONS AND TOLERANCES EXCLUDE PROCESS MATERIAL ALLOWANCES WHICH MAY ADD MASS
  - APPROXIMATE WEIGHT = 4950-LBS
  - MATCH DRILL OR REAM AS REQUIRED TO ACHIEVE RUNNING FIT BETWEEN PARTS AT ASSEMBLY
  - LUBRICATE THREADED SURFACES WITH THRED-GARD ANTI-SEIZE COMPOUND FROM FEDERAL PROCESS CORP, CLEVELAND, OH
  - SEE LATEST REVISION OF SPECIFICATION NCSX-CSPEC-141-03 FOR ADDITIONAL REQUIREMENTS
  - BOND INSULATING SLEEVE (F/N 5) INTO WINDING FORM (F/N 2) USING LOCTITE 411 PER MANUFACTURER'S INSTRUCTIONS.
  - ITEM NO. 4 HOLE DIAMETERS TO MATCH OD OF ITEM NO. 6 PLUS .001 TO .002 FOR CLEARANCE FIT.
  - ITEM NO. 7 MAY BE DIVIDED INTO TWO PARTS IF NECESSARY. HOLE DIAMETERS TO MATCH OUTER DIA OF ITEM NO. 5 PLUS .001 TO .002 CLEARANCE FIT.
  - TORQUE ITEM NO.8 TO 1500 +/- 30 FT-LBS.

**ECN-5197 approved and decision made to apply ECN stamp vs. updating impacted drawings. This ECN prohibits the continued use of "Thred Gard" lubricant to bolts.**  
(See ECN-5197 for Details)

**Rev 3-a: RFD-14-024 authorized trimming the bearing plate and insulating material to ensure that no interferences will result. NCR 20519 approved this change for the B1 casting and this RFD authorizes these modifications for the remaining B2 through B6 castings. This is considered a relatively minor change and a drawing change will not be required.**  
(See RFD-14-024 for details)

**RELEASED FOR FABRICATION / INSTALLATION**  
PPPL Drafting:



SCALE 0.10

REV	QTY	DESCRIPTION	MATERIAL / SPECIFICATION	FIND NO
2	1	SE141-140	BEARING PLATE, TYPE "B" LONG	10
4	1	DS141-139	BEARING PLATE, TYPE "B" SHORT	9
14	1	DS141-060	NUT, 12PT HEX 1.375-6UNC-2B	8
2	1	-7	INS SHEET, 26 X 3 X .063 THK NEMA GRADE G-11CR	7
7	1	DS141-036	STUD, 1.375-6UNC-2A X 9.5 LG	6
14	1	-5	INS BUSHING, 1.630D X 1.381D X 1.7 LG NEMA GRADE G-11CR	5
2	1	-4	INS SHEET, 15 X 32 X .063 THK NEMA GRADE G-11CR	4
1	1	SE141-058	POL BREAK SHIM ASSEMBLY TYPE-B	3
1	1	SE141-115	PRODUCTION WINDING FORM TYPE-B	2
AR	X	-1	MOD COIL WINDING FORM ASSEMBLY TYPE-B	1

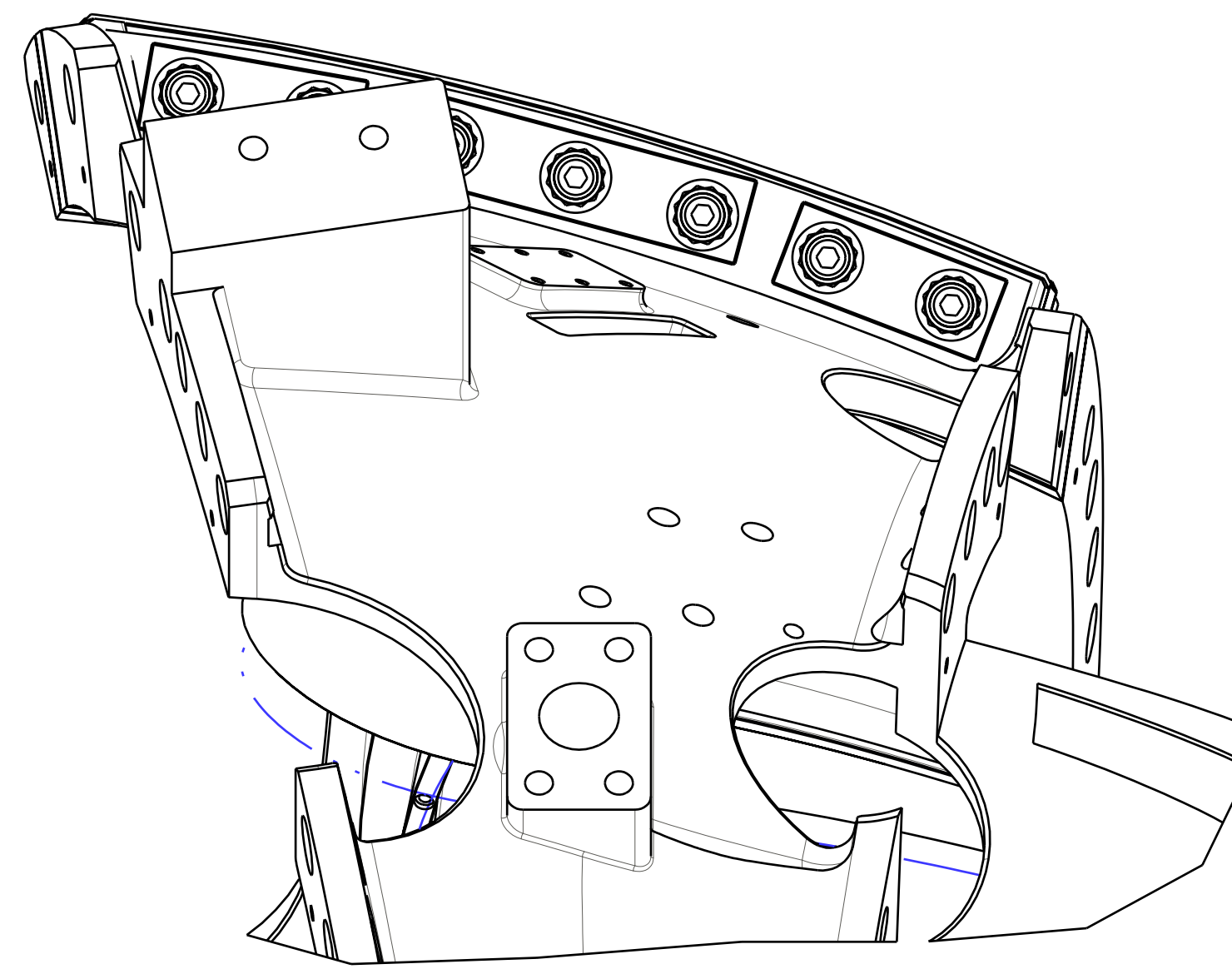
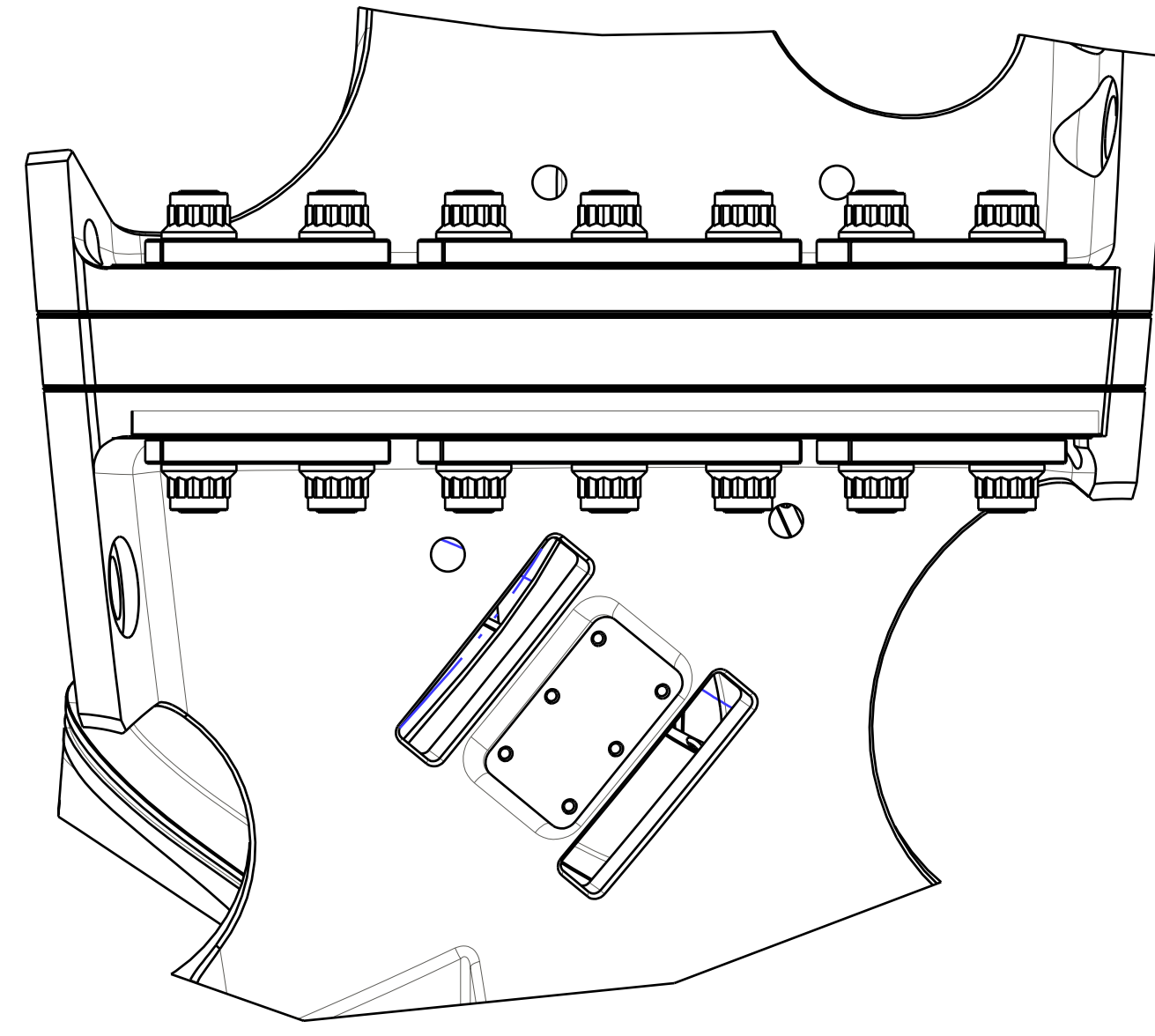
← CAGE CODE PART OR IDENTIFYING NO NEXT ASSEMBLY NOMENCLATURE OR DESCRIPTION MATERIAL / SPECIFICATION PARTS LIST FIND NO

NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO THE ACCURACY, COMPLETENESS OR USEFULNESS OF THE INFORMATION OR STATEMENTS CONTAINED IN THESE DRAWINGS, OR THAT THE USE OR DISCLOSURE OF ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS MAY NOT INFRINGE PRIVATE RIGHTS OF OTHERS. NO LIABILITY IS ASSUMED WITH RESPECT TO THE USE OF, OR FOR DAMAGES RESULTING FROM THE USE OF, ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS. DRAWINGS MADE AVAILABLE FOR INFORMATION TO BIDDER ARE NOT TO BE USED FOR OTHER PURPOSES, AND ARE TO BE RETURNED UPON REQUEST OF THE FORWARDING CONTRACTOR.

**P** THIS DRAWING PRODUCED ON PRO-ENGINEER

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
3	REVISED ASM AND DRAWING PER ECN 5059	GLL	12/08	MJC			DEW					
2	REVISED ASSEMBLY AND DRAWING PER ECN 5009	GLL	7/08	MJC			DEW					
1	REVISED F/N 2 PER ECN-4903	DW	9/04	MJC			DEW					

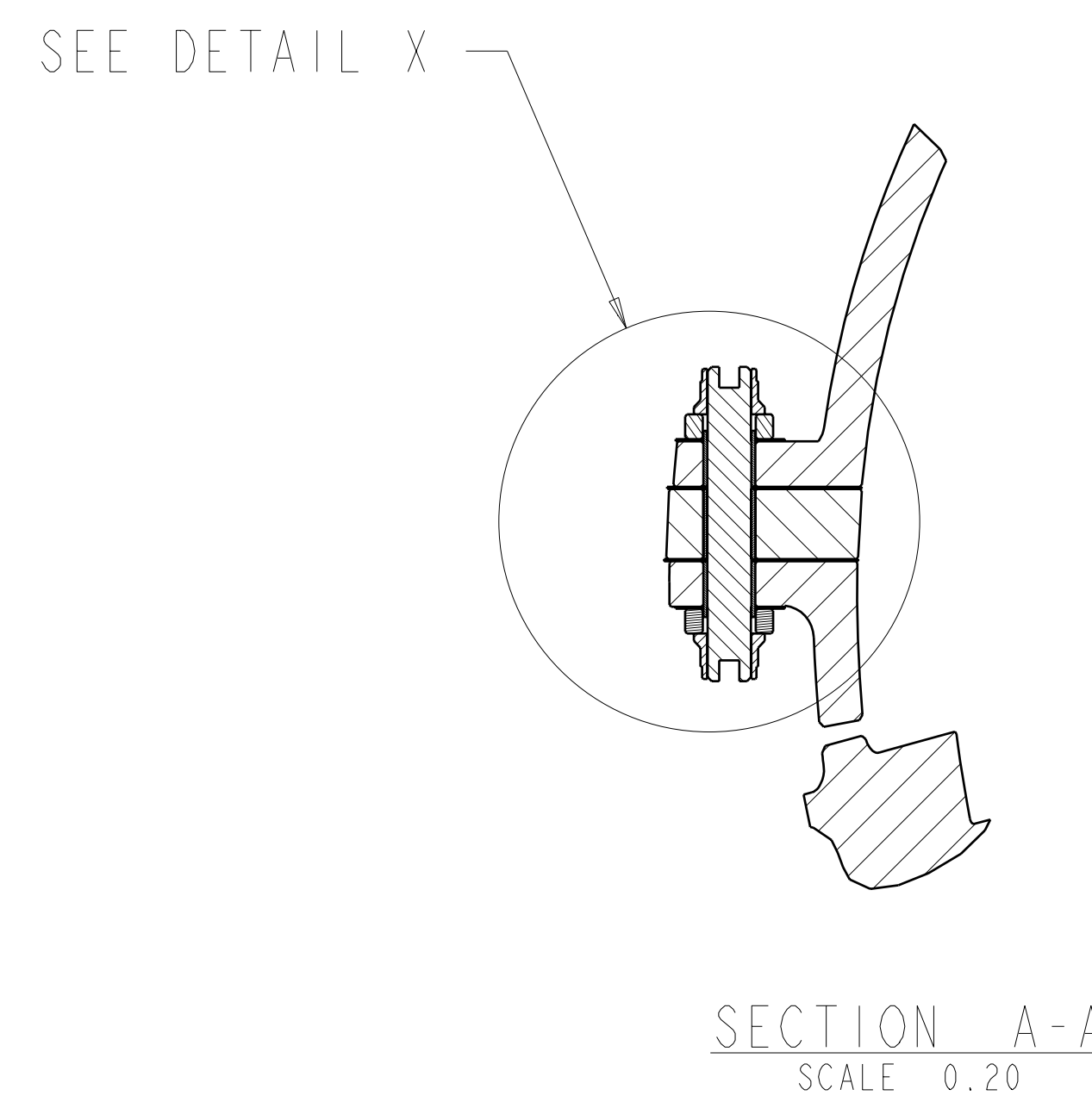
SCALE NOTED	DES T. BROWN 6-30-04	DRW PAUL MILLER 6-30-04	CHK M. COLE 6-30-04	SECT : DEPT : PE D. WILLIAMSON 6-30-04	CR : PJ : REO : PPPL DRFT J. STEGEL 6-30-04	VERSION NO. 4	PLANT X-10	BLDG 5700	FL 3	SHT OF 1	TYPE 2	CLASS S	REV U
TOLERANCES UNLESS OTHERWISE SPECIFIED	UT-BATTELLE Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee												
FRACTIONS ±.01	NATIONAL COMPACT STELLARATOR EXPERIMENT												
XX DECIMALS ±.005	MOD COIL WINDING FORM ASSEMBLY TYPE-B												
XXX DECIMALS ±0.015	RELEASE LEVEL Fabrication												
ANGLES ±0.15°	SEI41-102												
BREAK SHARP EDGES .06 MAX	3												
FINISH .125 UNLESS OTHERWISE SPECIFIED	DRAWING APPROVALS DATE												



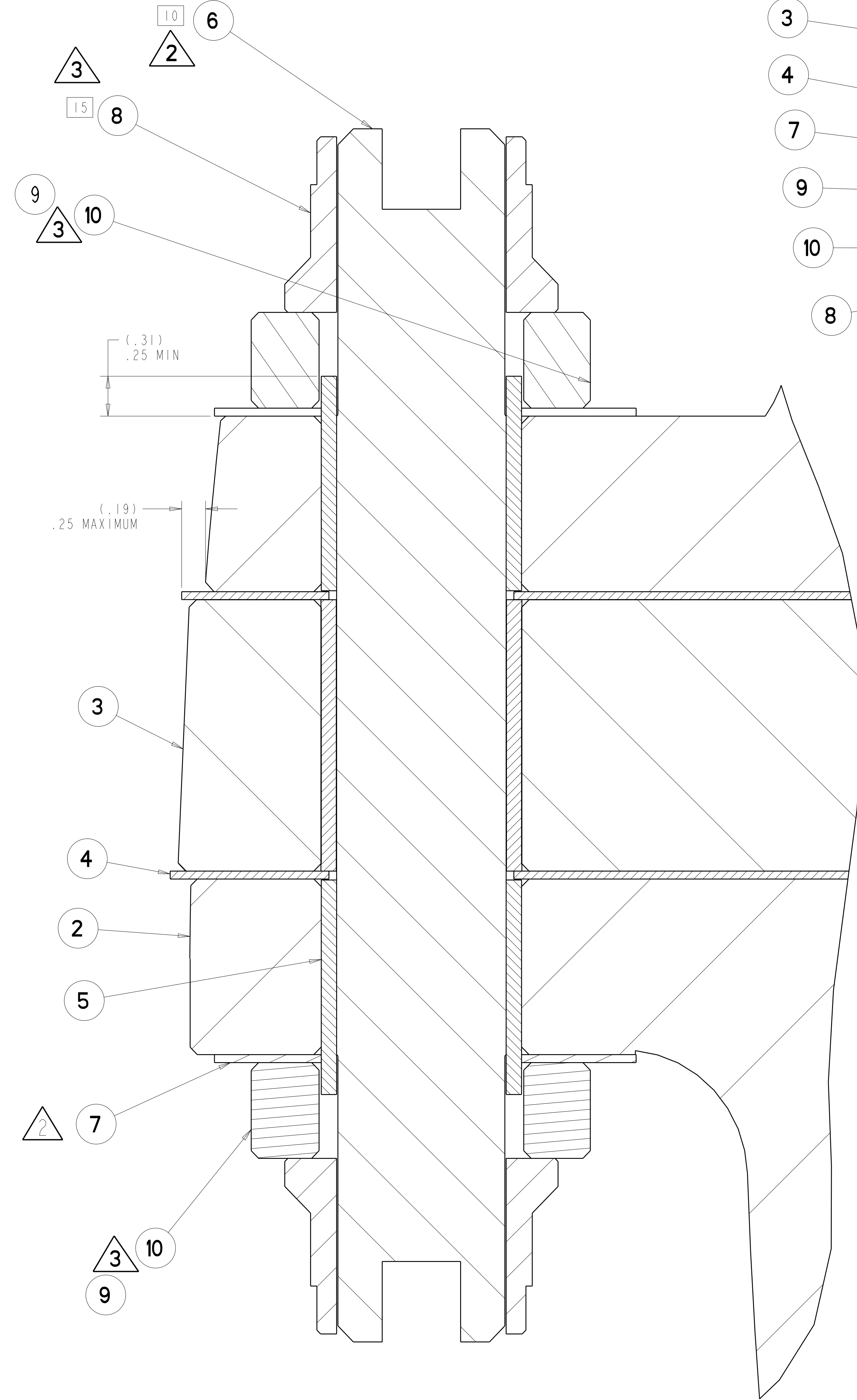
POLOIDAL BREAK DETAIL

ECN-5197 approved and decision made to apply ECN stamp vs. updating impacted drawings. This ECN prohibits the continued use of "Thred Gard" lubricant to bolts.

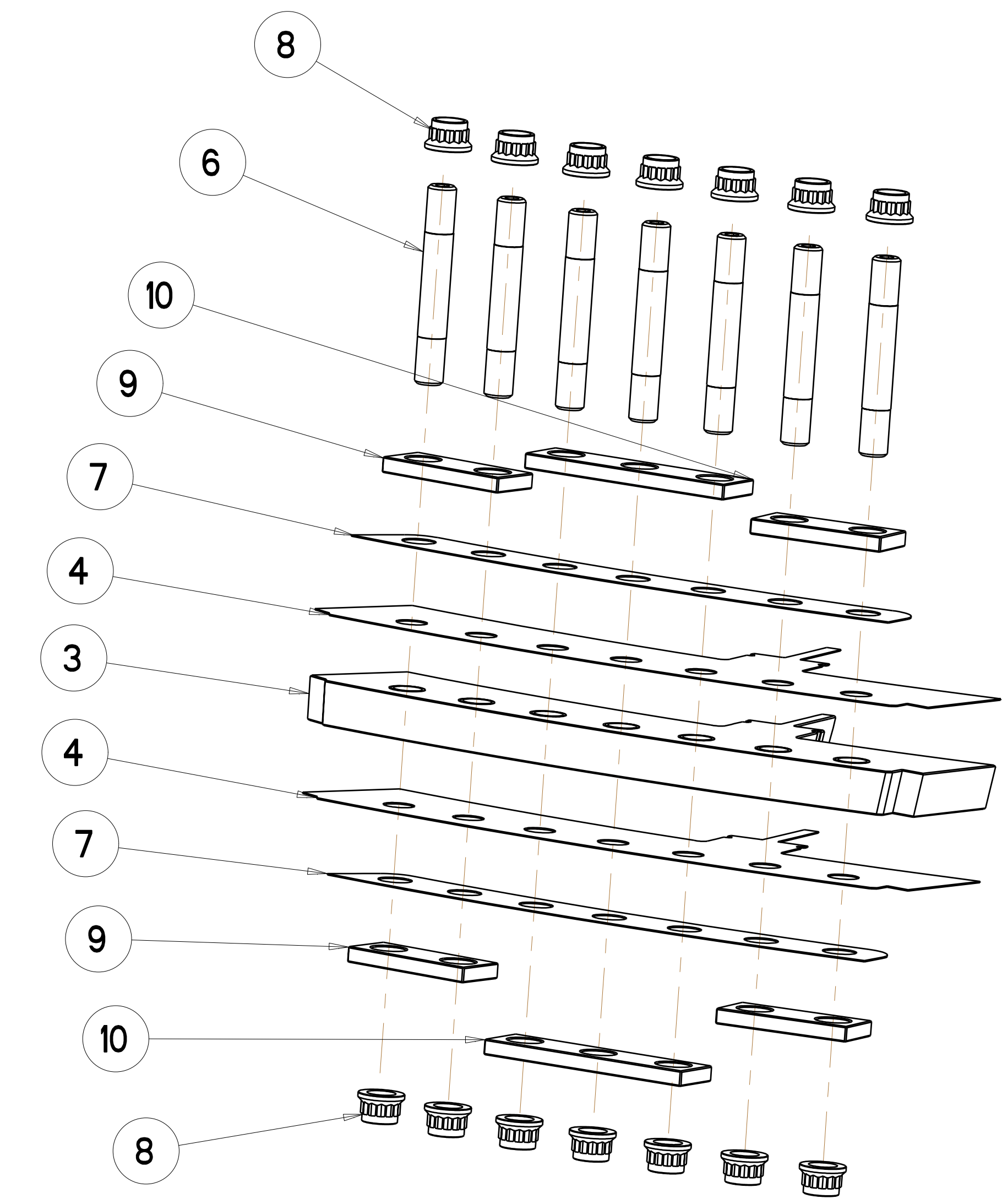
(See ECN-5197 for Details)



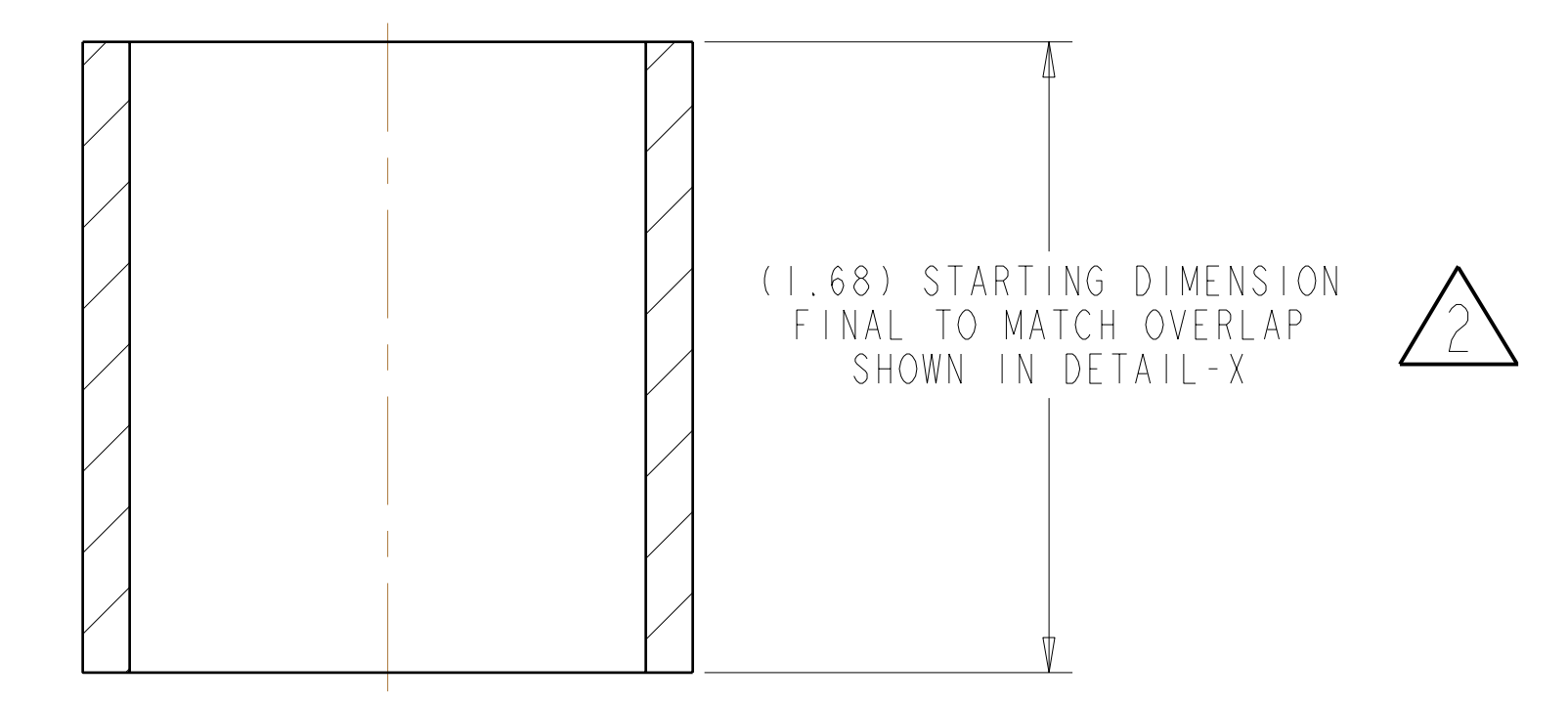
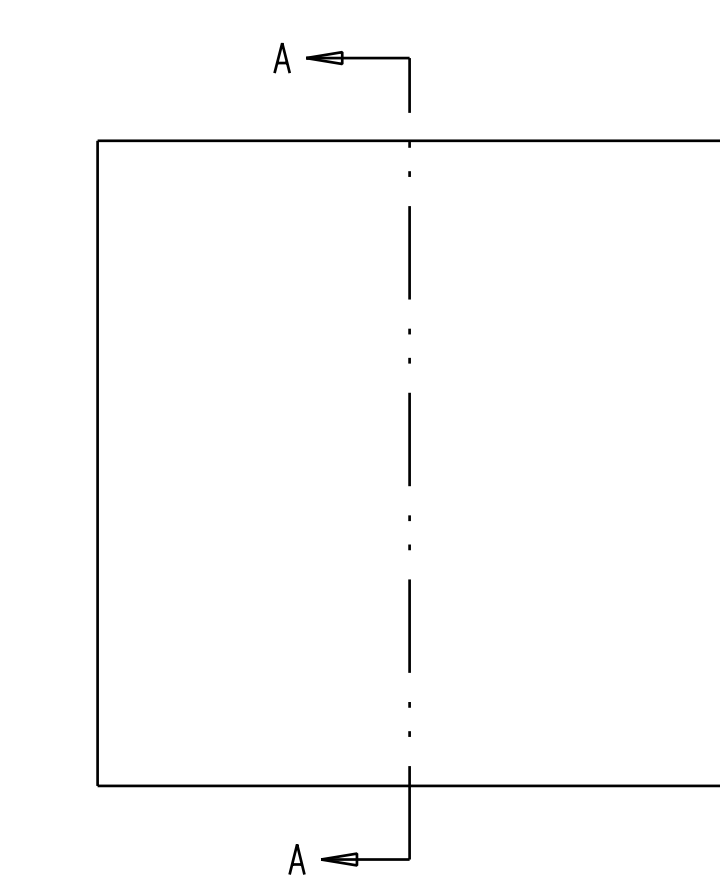
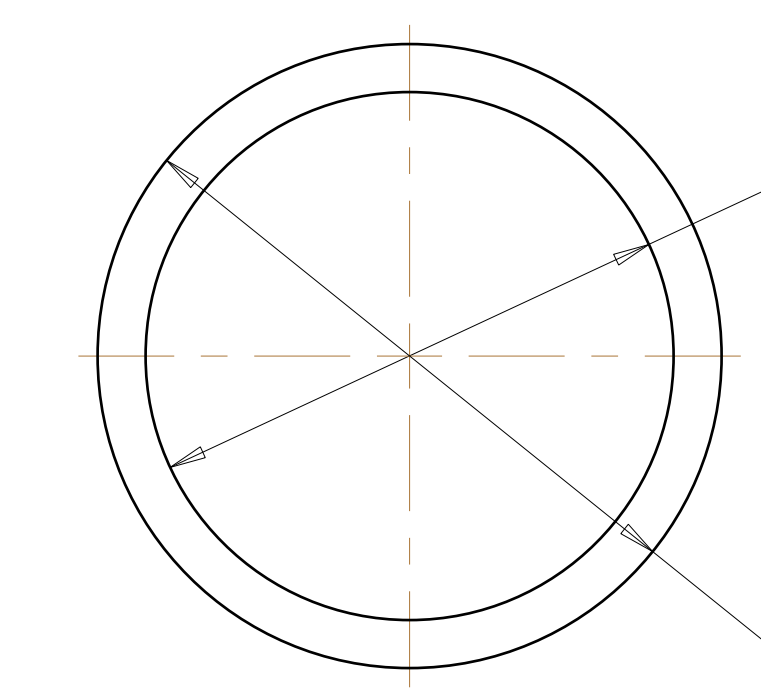
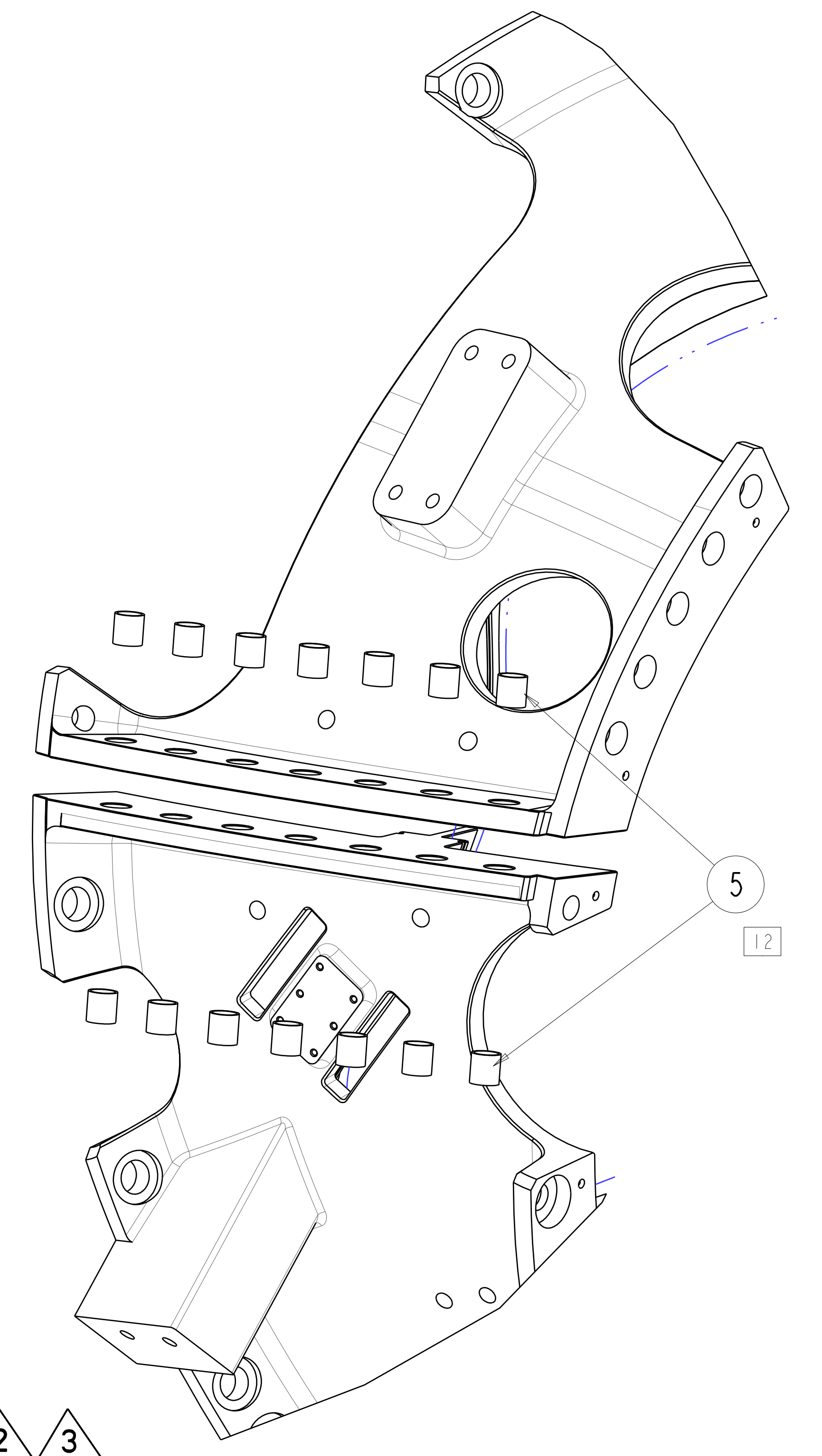
SECTION A-A  
SCALE 0.20



DETAIL X  
SCALE 2.00



EXPLODED VIEW 2 3  
SCALE 0.200



SECTION A-A  
SCALE 200

RELEASED FOR FABRICATION / INSTALLATION  
PPPL Drafting:

UT-BATTELLE								Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee							
NATIONAL COMPACT STELLARATOR EXPERIMENT															
MOD COIL WINDING FORM ASSEMBLY TYPE-B															
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS									
4	X-10	5700	3	2	2	S									
RELEASE LEVEL	SEI41-102														
Fabrication															

SEI41-102